

CHAPTER 5

Accounting for Receivables and Inventory Cost Flow

LEARNING OBJECTIVES

After you have mastered the material in this chapter, you will be able to:

- 1 Explain how the allowance method of accounting for uncollectible accounts affects financial statements.
- 2 Determine uncollectible accounts expense using the percent of revenue method.
- 3 Determine uncollectible accounts expense using the percent of receivables method.
- 4 Explain how accounting for notes receivable affects financial statements.
- 5 Explain how accounting for credit card sales affects financial statements.
- 6 Explain how different inventory cost flow methods (specific identification, FIFO, LIFO, and weighted average) affect financial statements.

CHAPTER OPENING

Many people buy on impulse. If they must wait, the desire to buy wanes. To take advantage of impulse buyers, most merchandising companies offer customers credit because it increases their sales. A disadvantage of this strategy occurs when some customers are unable or unwilling to pay their bills. Nevertheless, the widespread availability of credit suggests that the advantages of increased sales outweigh the disadvantages of some uncollectible accounts.

When a company allows a customer to “buy now and pay later,” the company’s right to collect cash in the future is called an **account receivable**. Typically, amounts due from individual accounts receivable are relatively small and the collection period is short. Most accounts receivable are collected within 30 days. When a longer credit term is needed or when a receivable is large, the seller usually requires the buyer to issue a note reflecting a credit agreement between the parties. The note specifies the maturity date, interest rate, and other credit terms. Receivables evidenced by such notes are called **notes receivable**. Accounts and notes receivable are reported as assets on the balance sheet.

The Curious Accountant

Suppose the U.S. government purchases \$10 million of fuel from **ExxonMobil**. Assume the government offers to pay for the fuel on the day it receives it from Exxon (a cash purchase) or 30 days later (a purchase on account).

Assume that Exxon is absolutely sure the government will pay its account when due. Do you think Exxon should care whether the government pays for the goods upon delivery or 30 days later? Why? (Answers on page 159.)



ALLOWANCE METHOD OF ACCOUNTING FOR UNCOLLECTIBLE ACCOUNTS

LO 1

Explain how the allowance method of accounting for uncollectible accounts affects financial statements.

Most companies do not expect to collect the full amount (face value) of their accounts receivable. Even carefully screened credit customers sometimes don't pay their bills. The **net realizable value** of accounts receivable represents the amount of receivables a company estimates it will actually collect. The net realizable value is the *face value* less an *allowance for doubtful accounts*.

The **allowance for doubtful accounts** represents a company's estimate of the amount of uncollectible receivables. To illustrate, assume a company with total accounts receivable of \$50,000 estimates that \$2,000 of its receivables will not be collected. The net realizable value of receivables is computed as follows.

Accounts receivable	\$50,000
Less: Allowance for doubtful accounts	<u>(2,000)</u>
Net realizable value of receivables	<u>\$48,000</u>

A company cannot know today, of course, the exact amount of the receivables it will not be able to collect in the future. The *allowance for doubtful accounts* and the *net realizable value* are necessarily *estimated amounts*. The net realizable value, however, more closely measures the cash that will ultimately be collected than does the face value. To avoid overstating assets, companies usually report receivables on their balance sheets at the net realizable value.

Reporting accounts receivable in the financial statements at net realizable value is commonly called the **allowance method of accounting for uncollectible accounts**. The following section illustrates using the allowance method for Allen's Tutoring Services (ATS).

Accounting Events Affecting the 2012 Period

Allen's Tutoring Services is a small company that provides tutoring services to college students. Allen's started operations on January 1, 2012. During 2012, Allen's experienced three types of accounting events. These events are discussed below.

EVENT 1 Revenue Recognition

Allen's Tutoring Services recognized \$14,000 of service revenue earned on account during 2012.

This is an asset source transaction. Allen's Tutoring Services obtained assets (accounts receivable) by providing services to customers. Both assets and stockholders' equity (retained earnings) increase. The event increases revenue and net income. Cash flow is not affected. These effects follow.

Event No.	Assets	=	Liab.	+	Equity	Rev.	-	Exp.	=	Net Inc.	Cash Flow
	Accts. Rec.				Ret. Earn.						
1	14,000	=	NA	+	14,000	14,000	-	NA	=	14,000	NA

EVENT 2 Collection of Receivables

Allen's Tutoring Services collected \$12,500 cash from accounts receivable in 2012.

This event is an asset exchange transaction. The asset cash increases; the asset accounts receivable decreases. Total assets remains unchanged. Net income is not affected

Answers to The Curious Accountant

Exxon would definitely prefer to make the sale to the government in cash rather than on account. Even though it may be certain to collect its

accounts receivable, the sooner Exxon gets its cash, the sooner the cash can be reinvested.

The interest cost related to a small account receivable of \$50 that takes 30 days to collect may seem immaterial; at 4 percent, the lost interest amounts to less than \$.20. However, when one considers that Exxon had approximately \$27.6 billion of accounts receivable, the cost of financing receivables for a real-world company becomes apparent. At 4 percent, the cost of waiting 30 days to collect \$27.6 billion of cash is \$90.7 million ($\$27.6 \text{ billion} \times .04 \times [30 \div 365]$). For one full year, the cost to Exxon would be more than \$1.1 billion ($\$27.6 \text{ billion} \times 0.04$). In 2009, it took Exxon approximately 32 days to collect its accounts receivable, and the weighted-average interest rate on its debt was approximately 4 percent.

because the revenue was recognized in the previous transaction. The cash inflow is reported in the operating activities section of the statement of cash flows.

Event No.	Assets			=	Liab.	+	Equity	Rev.	-	Exp.	=	Net Inc.	Cash Flow
	Cash	+	Accts. Rec.										
2	12,500	+	(12,500)	=	NA	+	NA	NA	-	NA	=	NA	12,500 OA

Accounting for Uncollectible Accounts Expense

EVENT 3 Recognizing Uncollectible Accounts Expense

Allen's Tutoring Services recognized uncollectible accounts expense for accounts expected to be uncollectible in the future.

The year-end balance in the accounts receivable account is \$1,500 (\$14,000 of revenue on account – \$12,500 of collections). Although Allen's Tutoring Services has the legal right to receive this \$1,500 in 2013, the company is not likely to collect the entire amount because some of its customers may not pay the amounts due. Allen's will not know the actual amount of uncollectible accounts until some future time when the customers default (fail to pay). However, the company can *estimate* the amount of receivables that will be uncollectible.

Suppose Allen's Tutoring Services estimates that \$75 of the receivables is uncollectible. To improve financial reporting, the company can recognize the estimated expense in 2012. In this way, uncollectible accounts expense and the related revenue will be recognized in the same accounting period (2012). Recognizing an estimated expense is more useful than recognizing no expense. The *matching* of revenues and expenses is improved and the statements are, therefore, more accurate.

The estimated amount of **uncollectible accounts expense** is recognized in a year-end adjusting entry. The adjusting entry reduces the book value of total assets, reduces stockholders' equity (retained earnings), and reduces the amount of reported net

income. The statement of cash flows is not affected. The effects of recognizing uncollectible accounts expense are shown here.

Event No.	Assets			=	Liab.	+	Equity	Rev.	-	Exp.	=	Net Inc.	Cash Flow
	Accts. Rec.	-	Allow.	=			Ret. Earn.						
3	NA	-	75	=	NA	+	(75)	NA	-	75	=	(75)	NA

Instead of decreasing the receivables account directly, the asset reduction is recorded in the **contra asset account**, Allowance for Doubtful Accounts. Recall that the contra account is subtracted from the accounts receivable balance to determine the net realizable value of receivables, as follows for ATS.

Accounts receivable	\$1,500
Less: Allowance for doubtful accounts	<u>(75)</u>
Net realizable value of receivables	<u>\$1,425</u>

Generally accepted accounting principles require disclosure of both the net realizable value and the amount of the allowance account. Many companies disclose these amounts directly in the balance sheet in a manner similar to that shown in the text box above. Other companies disclose this information in the footnotes to the financial statements.

Financial Statements

The financial statements for Allen’s Tutoring Services’ 2012 accounting period are shown in Exhibit 5.1. As previously indicated, estimating uncollectible accounts improves the usefulness of the 2012 financial statements in two ways. First, the balance sheet reports the amount of cash (\$1,500 – \$75 = \$1,425) the company actually expects to collect (net realizable value of accounts receivable). Second, the income statement provides a clearer picture of managerial performance because it better *matches* the uncollectible accounts expense with the revenue it helped produce. The statements in Exhibit 5.1 show that the cash flow from operating activities (\$12,500)

EXHIBIT 5.1

Financial Statements for 2012

Income Statement		Balance Sheet		Statement of Cash Flows	
Service revenue	\$14,000	Assets		Operating Activities	
Uncollectible accts. exp.	<u>(75)</u>	Cash	\$12,500	Inflow from customers	\$12,500
Net income	<u>\$13,925</u>	Accounts receivable	\$1,500	Investing Activities	0
		Less: Allowance	<u>(75)</u>	Financing Activities	<u>0</u>
		Net realizable value	<u>1,425</u>	Net change in cash	12,500
		Total assets	<u>\$13,925</u>	Plus: Beginning cash balance	<u>0</u>
		Stockholders’ equity		Ending cash balance	<u>\$12,500</u>
		Retained earnings	<u>\$13,925</u>		



CHECK YOURSELF 5.1

Pamlico Inc. began operations on January 1, 2013. During 2013, it earned \$400,000 of revenue on account. The company collected \$370,000 of accounts receivable. At the end of the year, Pamlico estimates uncollectible accounts expense will be 1 percent of sales. Based on this information alone, what is the net realizable value of accounts receivable as of December 31, 2013?

Answer Accounts receivable at year end are \$30,000 (\$400,000 sales on account – \$370,000 collection of receivables). The amount in the allowance for doubtful accounts would be \$4,000 (\$400,000 credit sales \times 0.01). The net realizable value of accounts receivable is therefore \$26,000 (\$30,000 – \$4,000).

differs from net income (\$13,925). The statement of cash flows reports only cash collections, whereas the income statement reports revenues earned on account less the estimated amount of uncollectible accounts expense.

Accounting Events Affecting the 2013 Period

To further illustrate accounting for uncollectible accounts, we discuss six accounting events affecting Allen's Tutoring Services during 2013.

Accounting for Write-Off of Uncollectible Accounts Receivable

EVENT 1 Write-Off of Uncollectible Accounts Receivable

Allen's Tutoring Services wrote off \$70 of uncollectible accounts receivable.

This is an asset exchange transaction. The amount of the uncollectible accounts is removed from the Accounts Receivable account and from the Allowance for Doubtful Accounts account. Because the balances in both the Accounts Receivable and the Allowance accounts decrease, the net realizable value of receivables—and therefore total assets—remains unchanged. The write-off does not affect the income statement. Because the uncollectible accounts expense was recognized in the previous year, the expense would be double counted if it were recognized again at the time an uncollectible account is written off. Finally, the statement of cash flows is not affected by the write-off. These effects are shown in the following statements model.

Event No.	Assets			=	Liab.	+	Equity	Rev.	–	Exp.	=	Net Inc.	Cash Flow
	Accts. Rec.	–	Allow.										
1	(70)	–	(70)	=	NA	+	NA	NA	–	NA	=	NA	NA

The computation of the *net realizable value*, before and after the write-off, is shown below.

	Before Write-Off	After Write-Off
Accounts receivable	\$1,500	\$1,430
Less: Allowance for doubtful accounts	(75)	(5)
Net realizable value	<u>\$1,425</u>	<u>\$1,425</u>

EVENT 2 Revenue Recognition

Allen's Tutoring Services provided \$10,000 of tutoring services on account during 2013.

Assets (accounts receivable) and stockholders' equity (retained earnings) increase. Recognizing revenue increases net income. Cash flow is not affected. These effects are illustrated below.

Event No.	Assets			=	Liab.	+	Equity	Rev.	-	Exp.	=	Net Inc.	Cash Flow
	Accts. Rec.						Ret. Earn.						
2	10,000			=	NA	+	10,000	10,000	-	NA	=	10,000	NA

EVENT 3 Collection of Accounts Receivable

Allen's Tutoring Services collected \$8,430 cash from accounts receivable.

The balance in the Cash account increases, and the balance in the Accounts Receivable account decreases. Total assets are unaffected. Net income is not affected because revenue was recognized previously. The cash inflow is reported in the operating activities section of the statement of cash flows.

Event No.	Assets			=	Liab.	+	Equity	Rev.	-	Exp.	=	Net Inc.	Cash Flow
	Cash	+	Accts. Rec.										
3	8,430	+	(8,430)	=	NA	+	NA	NA	-	NA	=	NA	8,430 OA

Accounting for Recovery of an Uncollectible Account Receivable

EVENT 4 Recovery of an Uncollectible Account: Reinstate Receivable

Allen's Tutoring Services recovered a receivable that it had previously written off.

Occasionally, a company receives payment from a customer whose account was previously written off. In such cases, the customer's account should be reinstated and the cash received should be recorded the same way as any other collection on account. The account receivable is reinstated because a complete record of the customer's payment history may be useful if the customer requests credit again at some future date. To illustrate, assume that Allen's Tutoring Services received a \$10 cash payment from a customer whose account had previously been written off. The first step is to **reinstate** the account receivable by reversing the previous write-off. The balances in the Accounts Receivable and the Allowance accounts increase. Since the Allowance is a contra asset account, the increase in it offsets the increase in the Accounts Receivable account, and total assets are unchanged. Net income and cash flow are unaffected. These effects are shown here.

Event No.	Assets			=	Liab.	+	Equity	Rev.	-	Exp.	=	Net Inc.	Cash Flow
	Accts. Rec.	-	Allow.										
4	10	-	10	=	NA	+	NA	NA	-	NA	=	NA	NA

EVENT 5 Recovery of an Uncollectible Account: Collection of Receivable

Allen's Tutoring Services recorded collection of the reinstated receivable.

The collection of \$10 is recorded like any other collection of a receivable account. Cash increases, and accounts receivable decreases.

Event No.	Assets			=	Liab.	+	Equity	Rev.	-	Exp.	=	Net Inc.	Cash Flow
	Cash	+	Accts. Rec.										
5	10	+	(10)	=	NA	+	NA	NA	-	NA	=	NA	10 OA

ESTIMATING UNCOLLECTIBLE ACCOUNTS EXPENSE USING THE PERCENT OF REVENUE (SALES) METHOD

Companies recognize the estimated amount of uncollectible accounts expense in a period-end adjusting entry. Since Allen's Tutoring Service began operations in 2012, it had no previous credit history upon which to base its estimate. After consulting trade publications and experienced people in the same industry, ATS made an educated guess as to the amount of expense it should recognize for its first year. In its second year of operation, however, ATS can use its first-year experience as a starting point for estimating the second year (2013) uncollectible accounts expense.

At the end of 2012 ATS estimated uncollectible accounts expense to be \$75 on service revenue of \$14,000. In 2013 ATS actually wrote off \$70 of which \$10 was later recovered. ATS therefore experienced actual uncollectible accounts of \$60 on service revenue of \$14,000 for an uncollectible accounts rate of approximately .43 percent of service revenue. ATS could apply this percentage to the 2013 service revenue to estimate the 2013 uncollectible accounts expense. In practice, many companies determine the percentage estimate of uncollectible accounts on a three- or five-year moving average.

Companies adjust the historical percentage for anticipated future circumstances. For example, they reduce it if they adopt more rigorous approval standards for new credit applicants. Alternatively, they may increase the percentage if economic forecasts signal an economic downturn that would make future defaults more likely. A company will also increase the percentage if it has specific knowledge one or more of its customers is financially distressed. Multiplying the service revenue by the percentage estimate of uncollectible accounts is commonly called the **percent of revenue method** of estimating uncollectible accounts expense.

EVENT 6 Adjustment for Recognition of Uncollectible Accounts Expense

Using the percent of revenue method, Allen's Tutoring Services recognized uncollectible accounts expense for 2013.

ATS must record this adjustment as of December 31, 2013, to update its accounting records before preparing the 2013 financial statements. After reviewing its credit history, economic forecasts, and correspondence with customers, management estimates uncollectible accounts expense to be 1.35 percent of service revenue, or \$135 ($\$10,000 \text{ service revenue} \times .0135$). Recognizing the \$135 uncollectible accounts expense decreases both assets (net realizable of receivables) and stockholders' equity (retained earnings). The expense recognition decreases net income. The statement of cash flows is not affected. The financial statements are affected as shown here.

Event No.	Assets			=	Liab.	+	Equity	Rev.	-	Exp.	=	Net Inc.	Cash Flow
	Accts. Rec.	-	Allow.	=			Ret. Earn.						
6	NA	-	135	=	NA	+	(135)	NA	-	135	=	(135)	NA

Analysis of Financial Statements

Exhibit 5.2 displays the 2013 financial statements. The amount of uncollectible accounts expense (\$135) differs from the ending balance of the Allowance account (\$150). The balance in the Allowance account was \$15 before the 2013 adjusting entry for

LO 2

Determine uncollectible accounts expense using the percent of revenue method.

EXHIBIT 5.2

Financial Statements for 2013

Income Statement		Balance Sheet		Statement of Cash Flows	
Service revenue	\$10,000	Assets		Operating Activities	
Uncollectible accts. exp.	(135)	Cash	\$20,940	Inflow from customers	\$ 8,440
Net income	<u>\$ 9,865</u>	Accounts receivable	\$3,000	Investing Activities	0
		Less: Allowance	<u>(150)</u>	Financing Activities	<u>0</u>
		Net realizable value	<u>2,850</u>	Net change in cash	8,440
		Total assets	<u>\$23,790</u>	Plus: Beginning cash balance	<u>12,500</u>
		Stockholders' equity		Ending cash balance	<u>\$20,940</u>
		Retained earnings	<u>\$23,790</u>		

uncollectible accounts expense was recorded. At the end of 2012, Allen's Tutoring Services estimated there would be \$75 of uncollectible accounts as a result of 2012 revenue earned on account. Actual write-offs, however, amounted to \$70 and \$10 of that amount was recovered, indicating the actual uncollectible accounts expense for 2012 was only \$60. Hindsight shows the expense for 2012 was overstated by \$15. However, if no estimate had been made, the amount of uncollectible accounts expense would have been understated by \$60. In some accounting periods estimated uncollectible accounts expense will likely be overstated; in others it may be understated. The allowance method cannot produce perfect results, but it does improve the accuracy of the financial statements.

Because no dividends were paid, retained earnings at the end of 2013 equals the December 31, 2012, retained earnings plus 2013 net income (that is, \$13,925 + \$9,865 = \$23,790). Again, the cash flow from operating activities (\$8,440) differs from net income (\$9,865) because the statement of cash flows does not include the effects of revenues earned on account and the recognition of uncollectible accounts expense.



CHECK YOURSELF 5.2

Maher Company had beginning balances in Accounts Receivable and Allowance for Doubtful Accounts of \$24,200 and \$2,000, respectively. During the accounting period Maher earned \$230,000 of revenue on account and collected \$232,500 of cash from receivables. The company also wrote off \$1,950 of uncollectible accounts during the period. Maher estimates uncollectible accounts expense will be 1 percent of credit sales. Based on this information, what is the net realizable value of receivables at the end of the period?

Answer The balance in the Accounts Receivable account is \$19,750 (\$24,200 + \$230,000 – \$232,500 – \$1,950). The amount of uncollectible accounts expense for the period is \$2,300 (\$230,000 × 0.01). The balance in the Allowance for Doubtful Accounts is \$2,350 (\$2,000 – \$1,950 + \$2,300). The net realizable value of receivables is therefore \$17,400 (\$19,750 – \$2,350).

ESTIMATING UNCOLLECTIBLE ACCOUNTS EXPENSE USING THE PERCENT OF RECEIVABLES METHOD

LO 3

Determine uncollectible accounts expense using the percent of receivables method.

As an alternative to the percent of revenue method, which focuses on estimating the *expense* of uncollectible accounts, companies may estimate the amount of the adjusting entry to record uncollectible accounts expense using the **percent of receivables method**. The percent of receivables method focuses on estimating the most accurate amount for the balance sheet *Allowance for Doubtful Accounts* account.

EXHIBIT 5.3

PYRAMID CORPORATION						
Accounts Receivable Aging Schedule						
December 31, 2013						
Customer Name	Total Balance	Current	Number of Days Past Due			
			0–30	31–60	61–90	Over 90
J. Davis	\$ 6,700	\$ 6,700				
B. Diamond	4,800	2,100	\$ 2,700			
K. Eppy	9,400	9,400				
B. Gilman	2,200				\$1,000	\$1,200
A. Kelly	7,300	7,300				
L. Niel	8,600	1,000	6,000	\$ 1,600		
L. Platt	4,600			4,600		
J. Turner	5,500			3,000	2,000	500
H. Zachry	6,900		3,000	3,900		
Total	<u>\$56,000</u>	<u>\$26,500</u>	<u>\$11,700</u>	<u>\$13,100</u>	<u>\$3,000</u>	<u>\$1,700</u>

The longer an account receivable remains outstanding, the less likely it is to be collected. Companies using the percent of receivables method typically determine the age of their individual accounts receivable accounts as part of estimating the allowance for doubtful accounts. An **aging of accounts receivable** schedule classifies all receivables by their due date. Exhibit 5.3 shows an aging schedule for Pyramid Corporation as of December 31, 2013.

A company estimates the required Allowance for Doubtful Accounts balance by applying different percentages to each category in the aging schedule. The percentage for each category is based on a company's previous collection experience for each of the categories. The percentages become progressively higher as the accounts become older. Exhibit 5.4 illustrates computing the allowance balance Pyramid Corporation requires.

The computations in Exhibit 5.4 mean the *ending balance* in the Allowance for Doubtful Accounts account should be \$3,760. This balance represents the amount Pyramid will subtract from total accounts receivable to determine the net realizable value of receivables. To determine the amount of the adjusting entry to recognize uncollectible accounts expense, Pyramid must take into account any existing balance in the allowance account *before* recording the adjustment. For example, if Pyramid Corporation had a \$500 balance in the Allowance account before the year-end adjustment,

EXHIBIT 5.4

Balance Required in the Allowance for Doubtful Accounts at December 31, 2013			
Number of Days Past Due	Receivables Amount	Percentage Likely to Be Uncollectible	Required Allowance Account Balance
Current	\$26,500	.01	\$ 265
0–30	11,700	.05	585
31–60	13,100	.10	1,310
61–90	3,000	.25	750
Over 90	1,700	.50	850
Total	<u>\$56,000</u>		<u>\$3,760</u>

the adjusting entry would need to add \$3,260 (\$3,760 – \$500) to the account. The effects on the financial statements are shown below.

Assets			=	Liab.	+	Equity	Rev.	-	Exp.	=	Net Inc.	Cash Flow
Accts. Rec.	-	Allow.	=		+	Ret. Earn.				=		
NA	-	3,260	=	NA	+	(3,260)	NA	-	3,260	=	3,260	NA

Matching Revenues and Expenses versus Asset Measurement

The *percent of revenue* method, with its focus on determining the uncollectible accounts expense, is often called the income statement approach. The *percent of receivables* method, focused on determining the best estimate of the allowance balance, is frequently called the balance sheet approach. Which estimating method is better? In any given year, the results will vary slightly between approaches. In the long run, however, the percentages used in either approach are based on a company’s actual history of uncollectible accounts. Accountants routinely revise their estimates as more data become available, using hindsight to determine if the percentages should be increased or decreased. Either approach provides acceptable results.

ACCOUNTING FOR NOTES RECEIVABLE (PROMISSORY NOTES)

LO 4

Explain how accounting for notes receivable affects financial statements.

Companies typically do not charge their customers interest on accounts receivable that are not past due. When a company extends credit for a long time or when the amount of credit it extends is large, however, the cost of granting free credit and the potential for disputes about payment terms both increase. To address these concerns, the parties frequently enter into a credit agreement, the terms of which are legally documented in a **promissory note**.

To illustrate, assume Allen’s Tutoring Services (ATS) loans some of its idle cash to an individual, Stanford Cummings, so Cummings can buy a car. ATS and Cummings agree that Cummings will repay the money borrowed plus interest at the end of one year. They also agree that ATS will hold the title to the car to secure the debt. Exhibit 5.5 illustrates a promissory note that outlines this credit agreement. For ATS, the credit arrangement represents a *note receivable*.

EXHIBIT 5.5

Promissory Note

Promissory Note	
<u>\$15,000</u> (3)	<u>November 1, 2012</u>
Amount	Date
For consideration received, <u>Stanford Cummings</u> hereby promises to pay to the order of:	
<u>Allen’s Tutoring Services</u> (2)	
<u>Fifteen thousand and no/100</u>	Dollars
payable on <u>October 31, 2013</u> (5)	
plus interest thereon at the rate of <u>6</u> percent per year. (4)	
Collateral Description <u>Automobile title</u> (6)	
Signature <u>Stanford Cummings</u> (1)	

Features of this note are discussed below. Each feature is cross referenced with a number that corresponds to an item on the promissory note in Exhibit 5.5. Locate each feature in Exhibit 5.5 and read the corresponding description of the feature below.

1. **Maker**—The person responsible for making payment on the due date is the **maker** of the note. The maker may also be called the *borrower* or *debtor*.
2. **Payee**—The person to whom the note is made payable is the **payee**. The payee may also be called the *creditor* or *lender*. The payee loans money to the maker and expects the return of the principal and the interest due.
3. **Principal**—The amount of money loaned by the payee to the maker of the note is the **principal**.
4. **Interest**—The economic benefit earned by the payee for loaning the principal to the maker is **interest**, which is normally expressed as an annual percentage of the principal amount. For example, a note with a 6 percent interest rate requires interest payments equal to 6 percent of the principal amount every year the loan is outstanding.
5. **Maturity Date**—The date on which the maker must repay the principal and make the final interest payment to the payee is the **maturity date**.
6. **Collateral**—Assets belonging to the maker that are assigned as security to ensure that the principal and interest will be paid when due are called **collateral**. In this example, if Cummings fails to pay ATS the amount due, ownership of the car Cummings purchased will be transferred to ATS.

How Accounting for Notes Receivable Affects Financial Statements

We illustrate accounting for notes receivable using the credit agreement evidenced by the promissory note in Exhibit 5.5. Allen's Tutoring Services engaged in many transactions during 2012; we discuss here only transactions directly related to the note receivable.

EVENT 1 Loan of Money

The note shows that ATS loaned \$15,000 to Stanford Cummings on November 1, 2012. This event is an asset exchange. The asset account Cash decreases and the asset account Notes Receivable increases. The income statement is not affected. The statement of cash flows shows a cash outflow for investing activities. The effects on the financial statements are shown below.

Date	Assets				=	Liab.	+	Equity	Rev.	-	Exp.	=	Net Inc.	Cash Flow	
	Cash	+	Notes Rec.	+											Int. Rec.
11/01/12	(15,000)	+	15,000	+	NA	=	NA	+	NA	NA	-	NA	=	NA	(15,000) IA

EVENT 2 Accrual of Interest

For ATS, loaning money to the maker of the note, Stanford Cummings, represents investing in the note receivable. Cummings will repay the principal (\$15,000) plus interest of 6 percent of the principal amount ($0.06 \times \$15,000 = \900), or a total of \$15,900, on October 31, 2013, one year from the date he borrowed the money from ATS.

Conceptually, lenders *earn* interest continually even though they do not *collect* cash payment for it every day. Each day, the amount of interest due, called **accrued interest**, is greater than the day before. Companies would find it highly impractical to attempt to record (recognize) accrued interest continually as the amount due increased.

Businesses typically solve the recordkeeping problem by only recording accrued interest when it is time to prepare financial statements or when it is due. At such times, the accounts are *adjusted* to reflect the amount of interest currently due. For example, ATS recorded the asset exchange immediately upon investing in the Note Receivable on November 1, 2012. ATS did not, however, recognize any interest earned on the note until the balance sheet date, December 31, 2012. At year-end ATS made an entry to recognize the interest it had earned during the previous two months (November 1 through December 31). This entry is an **adjusting entry** because it adjusts (updates) the account balances prior to preparing financial statements.

ATS computed the amount of accrued interest by multiplying the principal amount of the note by the annual interest rate and by the length of time for which the note has been outstanding.

$$\text{Principal} \times \text{Annual interest rate} \times \text{Time outstanding} = \text{Interest revenue}$$

$$\$15,000 \times 0.06 \times (2/12) = \$150$$

ATS recognized the \$150 of interest revenue in 2012 although ATS will not collect the cash until 2013. This practice illustrates the **matching concept**. Interest revenue is recognized in (matched with) the period in which it is earned regardless of when the related cash is collected. The adjustment is an asset source transaction. The asset account Interest Receivable increases, and the stockholders' equity account Retained Earnings increases. The income statement reflects an increase in revenue and net income. The statement of cash flows is not affected because ATS will not collect cash until the maturity date (October 31, 2013). The effects on the financial statements are shown below.

Date	Assets				=	Liab.	+	Equity	Rev.	-	Exp.	=	Net Inc.	Cash Flow	
	Cash	+	Notes Rec.	+				Int. Rec.							=
12/31/12	NA	+	NA	+	150	=	NA	+	150	150	-	NA	=	150	NA

EVENT 3 Collection of Principal and Interest on the Maturity Date

ATS collected \$15,900 cash on the maturity date. The collection included \$15,000 for the principal plus \$900 for the interest. Recall that ATS previously accrued interest in the December 31, 2012, adjusting entry for the two months in 2012 that the note was outstanding. Since year-end, ATS has earned an additional 10 months of interest revenue. ATS must recognize this interest revenue before recording the cash collection. The amount of interest earned in 2013 is computed as follows.

$$\text{Principal} \times \text{Annual interest rate} \times \text{Time outstanding} = \text{Interest revenue}$$

$$\$15,000 \times 0.06 \times (10/12) = \$750$$

The effects on the financial statements are shown below.

Date	Assets				=	Liab.	+	Equity	Rev.	-	Exp.	=	Net Inc.	Cash Flow	
	Cash	+	Notes Rec.	+				Int. Rec.							=
10/31/13	NA	+	NA	+	750	=	NA	+	750	750	-	NA	=	750	NA

The total amount of accrued interest is now \$900 (\$150 accrued in 2012 plus \$750 accrued in 2013). The \$15,900 cash collection is an asset exchange transaction. The asset account Cash increases and two asset accounts, Notes Receivable and Interest Receivable, decrease. The income statement is not affected. The statement of cash flows shows a \$15,000 inflow

from investing activities (recovery of principal) and a \$900 inflow from operating activities (interest collection). The effects on the financial statements are shown below.

Date	Assets					=	Liab.	+	Equity	Rev.	-	Exp.	=	Net Inc.	Cash Flow	
	Cash	+	Notes Rec.	+	Int. Rec.	=			Ret. Earn.							
10/31/13	15,900	+	(15,000)	+	(900)	=	NA	+	NA	NA	-	NA	=	NA	15,000	IA
															900	OA

Financial Statements

The financial statements reveal key differences between the timing of revenue recognition and the exchange of cash. These differences are highlighted below.

	2012	2013	Total
Interest revenue recognized	\$150	\$750	\$900
Cash inflow from operating activities	0	900	900

Accrual accounting calls for recognizing revenue in the period in which it is earned regardless of when cash is collected.

Income Statement

Although generally accepted accounting principles require reporting receipts of or payments for interest on the statement of cash flows as operating activities, they do not specify how to classify interest on the income statement. In fact, companies traditionally report interest on the income statement as a nonoperating item. Interest is therefore frequently reported in two different categories within the same set of financial statements.

Balance Sheet

As with other assets, companies report interest receivable and notes receivable on the balance sheet in order of their liquidity. **Liquidity** refers to how quickly assets are expected to be converted to cash during normal operations. In the preceding example, ATS expects to convert its accounts receivable to cash before it collects the interest receivable and note receivable. Companies commonly report interest and notes receivable after accounts receivable. Exhibit 5.6 shows a partial balance sheet for Southern Company to illustrate the presentation of receivables.

EXHIBIT 5.6

Typical Balance Sheet Presentation of Receivables

SOUTHERN COMPANY

Partial Balance Sheet

As of December 31, 2012

Cash		\$xxx
Accounts receivable	\$xxx	
Less: Allowance for doubtful accounts	(xxx)	
Net realizable value of accounts receivable		xxx
Interest receivable		xxx
Notes receivable		xxx

CHECK YOURSELF 5.3

On October 1, 2012, Mei Company accepted a promissory note for a loan it made to the Asia Pacific Company. The note had a \$24,000 principal amount, a four-month term, and an annual interest rate of 4 percent. Determine the amount of interest revenue and the cash inflow from operating activities Mei will report in its 2012 and 2013 financial statements.

Answer The computation of accrued interest revenue is shown below. The interest rate is stated in annual terms even though the term of the note is only four months. Interest rates are commonly expressed as an annual percentage regardless of the term of the note. The *time outstanding* in the following formulas is therefore expressed as a fraction of a year. Mei charged annual interest of 4 percent, but the note was outstanding for only 3/12 of a year in 2012 and 1/12 of a year in 2013.

$$\begin{array}{l} \text{2012} \\ \text{Principal} \times \text{Annual interest rate} \times \text{Time outstanding} = \text{Interest revenue} \\ \$24,000 \times 0.04 \times (3/12) = \$240 \end{array}$$

$$\begin{array}{l} \text{2013} \\ \text{Principal} \times \text{Annual interest rate} \times \text{Time outstanding} = \text{Interest revenue} \\ \$24,000 \times 0.04 \times (1/12) = \$80 \end{array}$$

In 2012, Mei's cash inflow from interest will be zero.

In 2013, Mei will report a \$320 (\$240 + \$80) cash inflow from operating activities for interest.

ACCOUNTING FOR CREDIT CARD SALES

LO 5

Explain how accounting for credit card sales affects financial statements.

Maintaining accounts and notes receivable is expensive. In addition to uncollectible accounts expense, companies extending credit to their customers incur considerable costs for such clerical tasks as running background checks and maintaining customer records. Many businesses find it more efficient to accept third-party credit cards instead of offering credit directly to their customers. Credit card companies service the merchant's credit sales for a fee that typically ranges between 2 and 8 percent of gross sales.

The credit card company provides customers with plastic cards that permit cardholders to charge purchases at various retail outlets. When a sale takes place, the seller records the transaction on a receipt the customer signs. The receipt is forwarded to the credit card company, which immediately pays the merchant.

The credit card company deducts its service fee from the gross amount of the sale and pays the merchant the net balance (gross amount of sale less credit card fee) in cash. The credit card company collects the gross sale amount directly from the customer. The merchant avoids the risk of uncollectible accounts as well as the cost of maintaining customer credit records. To illustrate, assume that Allen's Tutoring Service experiences the following events.

EVENT 1 Recognition of Revenue and Expense on Credit Card Sales *ATS accepts a credit card payment for \$1,000 of services rendered.*

Assume the credit card company charges a 5 percent fee for handling the transaction ($\$1,000 \times 0.05 = \50). ATS's income increases by the amount of revenue (\$1,000) and decreases by the amount of the credit card expense (\$50). Net income increases by \$950. The event increases an asset, accounts receivable, due from the credit card

company, and stockholders' equity (retained earnings) by \$950 (\$1,000 revenue – \$50 credit card expense). Cash flow is not affected. These effects are shown here.

Event No.	Assets = Liab. + Equity			Rev. – Exp. = Net Inc.			Cash Flow
	Accts. Rec.	=	Ret. Earn.				
1	950	=	NA + 950	1,000	–	50 = 950	NA

EVENT 2 Collection of Credit Card Receivable

The collection of the receivable due from the credit card company is recorded like any other receivable collection.

When ATS collects the net amount of \$950 (\$1,000 – \$50) from the credit card company, one asset account (Cash) increases and another asset account (Accounts Receivable) decreases. Total assets are not affected. The income statement is not affected. A \$950 cash inflow is reported in the operating activities section of the statement of cash flows. These effects are illustrated below.

Event No.	Assets = Liab. + Equity			Rev. – Exp. = Net Inc.			Cash Flow
	Cash + Accts. Rec.	=					
2	950 + (950)	=	NA + NA	NA	–	NA = NA	950 OA

As mentioned earlier, two costs of extending credit to customers are bad debts expense and record-keeping costs. These costs can be significant. Large companies spend literally millions of dollars to buy the equipment and pay the staff necessary to operate entire departments devoted to managing accounts receivable. Further, there is an implicit interest charge associated with extending credit. When a customer is permitted to delay payment, the creditor forgoes the opportunity to invest the amount the customer owes.

INVENTORY COST FLOW METHODS

In Chapter 3, we used the simplifying assumption that identical inventory items cost the same amount. In practice, businesses often pay different amounts for identical items. Suppose The Mountain Bike Company (TMBC) sells high-end Model 201 helmets. Even though all Model 201 helmets are identical, the price TMBC pays for each helmet frequently changes.

Assume TMBC purchases one Model 201 helmet at a cost of \$100. Two weeks later, TMBC purchases a second Model 201 helmet. Because the supplier has raised prices, the second helmet costs \$110. If TMBC sells one of its two helmets, should it record \$100 or \$110 as cost of goods sold? The following section of this chapter discusses several acceptable alternative methods for determining the amount of cost of goods sold under generally accepted accounting principles.

Recall that when goods are sold, product costs flow (are transferred) from the Inventory account to the Cost of Goods Sold account. Four acceptable methods for determining the amount of cost to transfer are (1) specific identification; (2) first-in, first-out (FIFO); (3) last-in, first-out (LIFO); and (4) weighted average.

LO 6

Explain how different inventory cost flow methods (specific identification, FIFO, LIFO, and weighted average) affect financial statements.

Specific Identification

Suppose TMBC tags inventory items so that it can identify which one is sold at the time of sale. TMBC could then charge the actual cost of the specific item sold to cost of goods sold. Recall that the first inventory item TMBC purchased cost \$100 and the second item cost \$110. Using **specific identification**, cost of goods sold would be \$100 if the first item purchased were sold or \$110 if the second item purchased were sold.

When a company's inventory consists of many low-priced, high-turnover goods, the record keeping necessary to use specific identification isn't practical. Imagine the difficulty of recording the cost of each specific food item in a grocery store. Another disadvantage of the specific identification method is the opportunity for managers to manipulate the income statement. For example, TMBC can report a lower cost of goods sold by selling the first instead of the second item. Specific identification is, however, frequently used for high-priced, low-turnover inventory items such as automobiles. For big ticket items like cars, customer demands for specific products limit management's ability to select which merchandise is sold and volume is low enough to manage the recordkeeping.

First-In, First-Out (FIFO)

The **first-in, first-out (FIFO) cost flow method** requires that the cost of the items purchased *first* be assigned to cost of goods sold. Using FIFO, TMBC's cost of goods sold is \$100.

Last-In, First-Out (LIFO)

The **last-in, first-out (LIFO) cost flow method** requires that the cost of the items purchased *last* be charged to cost of goods sold. Using LIFO, TMBC's cost of goods sold is \$110.

Weighted Average

To use the **weighted-average cost flow method**, first calculate the average cost per unit by dividing the *total cost* of the inventory available by the *total number* of units available. In the case of TMBC, the average cost per unit of the inventory is \$105 ($[\$100 + \$110] \div 2$). Cost of goods sold is then calculated by multiplying the average cost per unit by the number of units sold. Using weighted average, TMBC's cost of goods sold is \$105 ($\105×1).

Physical Flow

The preceding discussion pertains to the flow of *costs* through the accounting records, *not* the actual **physical flow of goods**. Goods usually move physically on a FIFO basis, which means that the first items of merchandise acquired by a company (first-in) are the first items sold to its customers (first-out). The inventory items on hand at the end of the accounting period are typically the last items in (the most recently acquired goods). If companies did not sell their oldest inventory items first, inventories would include dated, less marketable merchandise. *Cost flow*, however, can differ from *physical flow*. For example, a company may use LIFO or weighted average for financial reporting even if its goods flow physically on a FIFO basis.

EFFECT OF COST FLOW ON FINANCIAL STATEMENTS

Effect on Income Statement

The cost flow method a company uses can significantly affect the gross margin reported in the income statement. To demonstrate, assume that TMBC sold the inventory item

discussed previously for \$120. The amounts of gross margin using the FIFO, LIFO, and weighted-average cost flow assumptions are shown in the following table.

	FIFO	LIFO	Weighted Average
Sales	\$120	\$120	\$120
Cost of goods sold	(100)	(110)	(105)
Gross margin	<u>\$ 20</u>	<u>\$ 10</u>	<u>\$ 15</u>

Even though the physical flow is assumed to be identical for each method, the gross margin reported under FIFO is double the amount reported under LIFO. Companies experiencing identical economic events (same units of inventory purchased and sold) can report significantly different results in their financial statements. Meaningful financial analysis requires an understanding of financial reporting practices.

Effect on Balance Sheet

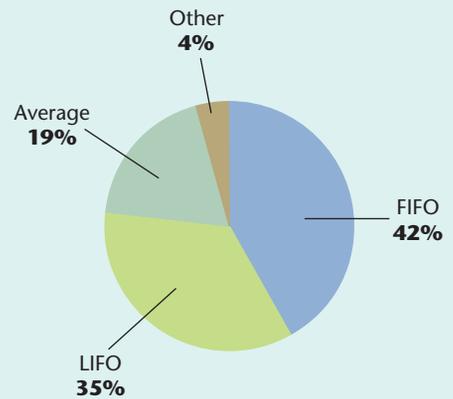
Because total product costs are allocated between costs of goods sold and ending inventory, the cost flow method a company uses affects its balance sheet as well as its income statement. Because FIFO transfers the first cost to the income statement, it leaves the last cost on the balance sheet. Similarly, by transferring the last cost to the income statement, LIFO leaves the first cost in ending inventory. The weighted-average method bases both cost of goods sold and ending inventory on the average cost per unit. To illustrate, the ending inventory TMBC would report on the balance sheet using each of the three cost flow methods is shown in the following table.

	FIFO	LIFO	Weighted Average
Ending inventory	<u>\$110</u>	<u>\$100</u>	<u>\$105</u>

The FIFO, LIFO, and weighted-average methods are all used extensively in business practice. The same company may even use one cost flow method for some of its products and different cost flow methods for other products. Exhibit 5.7 illustrates the relative use of the different cost flow methods among U.S. companies.

EXHIBIT 5.7

Use of Inventory Cost Flow Methods



Data Source: AICPA, *Accounting Trends and Techniques*.



CHECK YOURSELF 5.4

Nash Office Supply (NOS) purchased two Model 303 copiers at different times. The first copier purchased cost \$400 and the second copier purchased cost \$450. NOS sold one of the copiers for \$600. Determine the gross margin on the sale and the ending inventory balance assuming NOS accounts for inventory using (1) FIFO, (2) LIFO, and (3) weighted average.

Answer

	FIFO	LIFO	Weighted Average
Sales	\$600	\$600	\$600
Cost of goods sold	(400)	(450)	(425)
Gross margin	<u>\$200</u>	<u>\$150</u>	<u>\$175</u>
Ending inventory	<u>\$450</u>	<u>\$400</u>	<u>\$425</u>

Multiple Layers with Multiple Quantities

The previous example illustrates different **inventory cost flow methods** using only two cost layers (\$100 and \$110) with only one unit of inventory in each layer. Actual business inventories are considerably more complex. Most real-world inventories are composed of multiple cost layers with different quantities of inventory in each layer. The underlying allocation concepts, however, remain unchanged.

For example, a different inventory item The Mountain Bike Company (TMBC) carries in its stores is a bike called the Eraser. TMBC's beginning inventory and two purchases of Eraser bikes are described below.

Jan. 1	Beginning inventory	10 units @ \$200	=	\$ 2,000
Mar. 18	First purchase	20 units @ \$220	=	4,400
Aug. 21	Second purchase	25 units @ \$250	=	<u>6,250</u>
Total cost of the 55 bikes available for sale				<u>\$12,650</u>

The accounting records for the period show that TMBC paid cash for all Eraser bike purchases and that it sold 43 bikes at a cash price of \$350 each.

Allocating Cost of Goods Available for Sale

The following discussion shows how to determine the cost of goods sold and ending inventory amounts under FIFO, LIFO, and weighted average. We show all three methods to demonstrate how they affect the financial statements differently; TMBC would actually use only one of the methods.

Regardless of the cost flow method chosen, TMBC must allocate the cost of goods available for sale (\$12,650) between cost of goods sold and ending inventory. The amounts assigned to each category will differ depending on TMBC's cost flow method. Computations for each method are shown below.

FIFO Inventory Cost Flow

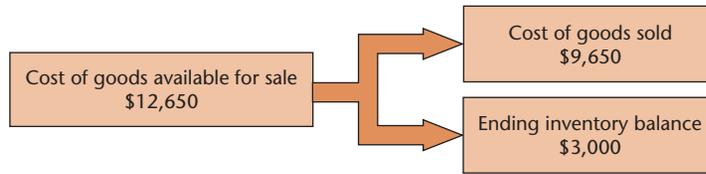
Recall that TMBC sold 43 Eraser bikes during the accounting period. The FIFO method transfers to the Cost of Goods Sold account the *cost of the first 43 bikes* TMBC had available to sell. The first 43 bikes acquired by TMBC were the 10 bikes in the beginning inventory (these were purchased in the prior period) plus the 20 bikes purchased in March and 13 of the bikes purchased in August. The expense recognized for the cost of these bikes (\$9,650) is computed as follows.

Jan. 1	Beginning inventory	10 units @ \$200	=	\$2,000
Mar. 18	First purchase	20 units @ \$220	=	4,400
Aug. 21	Second purchase	13 units @ \$250	=	<u>3,250</u>
Total cost of the 43 bikes sold				<u>\$9,650</u>

Because TMBC had 55 bikes available for sale it would have 12 bikes (55 available – 43 sold) in ending inventory. The cost assigned to these 12 bikes (the ending balance in the Inventory account) equals the cost of goods available for sale minus the cost of goods sold as shown below.

Cost of goods available for sale	\$12,650
Cost of goods sold	<u>(9,650)</u>
Ending inventory balance	<u>\$ 3,000</u>

We show the allocation of the cost of goods available for sale between cost of goods sold and ending inventory graphically below.



LIFO Inventory Cost Flow

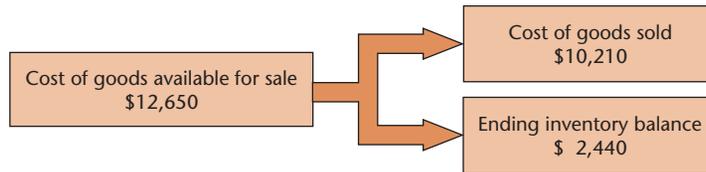
Under LIFO, the cost of goods sold is the cost of the last 43 bikes acquired by TMBC, computed as follows.

Aug. 21	Second purchase	25 units @ \$250	=	\$ 6,250
Mar. 18	First purchase	18 units @ \$220	=	<u>3,960</u>
Total cost of the 43 bikes sold				<u>\$10,210</u>

The LIFO cost of the 12 bikes in ending inventory is computed as shown below.

Cost of goods available for sale	\$12,650
Cost of goods sold	<u>(10,210)</u>
Ending inventory balance	<u>\$ 2,440</u>

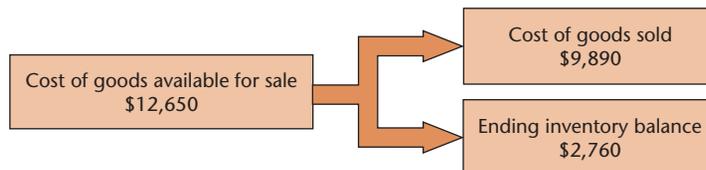
We show the allocation of the cost of goods available for sale between cost of goods sold and ending inventory graphically below.



Weighted-Average Cost Flow

The weighted-average cost per unit is determined by dividing the *total cost of goods available for sale* by the *total number of units* available for sale. For TMBC, the weighted-average cost per unit is \$230 ($\$12,650 \div 55$). The weighted-average cost of goods sold is determined by multiplying the average cost per unit by the number of units sold ($\$230 \times 43 = \$9,890$). The cost assigned to the 12 bikes in ending inventory is \$2,760 ($12 \times \230).

We show the allocation of the cost of goods available for sale between cost of goods sold and ending inventory graphically below.



Effect of Cost Flow on Financial Statements

Exhibit 5.8 displays partial financial statements for The Mountain Bike Company (TMBC). This exhibit includes only information pertaining to the Eraser bikes inventory item described above. Other financial statement data are omitted.

EXHIBIT 5.8			
TMBC COMPANY			
Comparative Financial Statements			
Partial Income Statements			
	FIFO	LIFO	Weighted Average
Sales	\$15,050	\$15,050	\$15,050
Cost of goods sold	<u>(9,650)</u>	<u>(10,210)</u>	<u>(9,890)</u>
Gross margin	5,400	4,840	5,160
Partial Balance Sheets			
	FIFO	LIFO	Weighted Average
Assets			
Cash	\$ xx	\$ xx	\$ xx
Accounts receivable	xx	xx	xx
Inventory	3,000	2,440	2,760
Partial Statements of Cash Flows			
	FIFO	LIFO	Weighted Average
Operating Activities			
Cash inflow from customers	\$15,050	\$15,050	\$15,050
Cash outflow for inventory	(10,650)	(10,650)	(10,650)

Recall that assets are reported on the balance sheet in order of liquidity (how quickly they are expected to be converted to cash). Because companies frequently sell inventory on account, inventory is less liquid than accounts receivable. As a result, companies commonly report inventory below accounts receivable on the balance sheet.

Exhibit 5.8 demonstrates that the amounts reported for gross margin on the income statement and inventory on the balance sheet differ significantly. The cash flow from operating activities on the statement of cash flows, however, is identical under all three methods. Regardless of cost flow reporting method, TMBC paid \$10,650 cash (\$4,400 first purchase + \$6,250 second purchase) to purchase inventory and received \$15,050 cash for inventory sold.

The Impact of Income Tax

Based on the financial statement information in Exhibit 5.8, which cost flow method should TMBC use? Most people initially suggest FIFO because FIFO reports the highest gross margin and the largest balance in ending inventory. However, other factors are relevant. FIFO produces the highest gross margin; it also produces the highest net income and the highest income tax expense. In contrast, LIFO results in recognizing the lowest gross margin, lowest net income, and the lowest income tax expense.

Will investors favor a company with more assets and higher net income or one with lower tax expense? Recognize that specific identification, FIFO, LIFO, and weighted average are *different methods of reporting the same information*. TMBC experienced only one set of events pertaining to Eraser bikes. Exhibit 5.8 reports those same events three different ways. However, if the FIFO reporting method causes TMBC to pay more taxes than the LIFO method, using FIFO will cause a real reduction in the value of the company. Paying more money in taxes leaves less money in the company. Knowledgeable investors would be more attracted to TMBC if it uses LIFO because the lower tax payments allow the company to keep more value in the business.

Research suggests that, as a group, investors are knowledgeable. They make investment decisions based on economic substance regardless of how information is reported in financial statements.

The Income Statement versus the Tax Return

In some instances companies may use one accounting method for financial reporting and a different method to compute income taxes (the tax return must explain any differences). With respect to LIFO, however, the Internal Revenue Service requires that companies using LIFO for income tax purposes must also use LIFO for financial reporting. A company could not, therefore, get both the lower tax benefit provided by LIFO and the financial reporting advantage offered under FIFO.

Inflation versus Deflation

Our illustration assumes an inflationary environment (rising inventory prices). In a deflationary environment, the impact of using LIFO versus FIFO is reversed. LIFO produces tax advantages in an inflationary environment, while FIFO produces tax advantages in a deflationary environment. Companies operating in the computer industry where prices are falling would obtain a tax advantage by using FIFO. In contrast, companies that sell medical supplies in an inflationary environment would obtain a tax advantage by using LIFO.

Full Disclosure and Consistency

Generally accepted accounting principles allow each company to choose the inventory cost flow method best suited to its reporting needs. Because results can vary considerably among methods, however, the GAAP principle of **full disclosure** requires that financial statements disclose the method chosen. In addition, so that a company's financial statements are comparable from year to year, the GAAP principle of **consistency** generally requires that companies use the same cost flow method each period. The limited exceptions to the consistency principle are described in more advanced accounting courses.



CHECK YOURSELF 5.5

The following information was drawn from the inventory records of Fields, Inc.

Beginning inventory	200 units @ \$20
First purchase	400 units @ \$22
Second purchase	600 units @ \$24

Assume that Fields sold 900 units of inventory.

1. Determine the amount of cost of goods sold using FIFO.
2. Would using LIFO produce a higher or lower amount of cost of goods sold? Why?

Answer

1. Cost of goods sold using FIFO

Beginning inventory	200 units @ \$20	=	\$ 4,000
First purchase	400 units @ \$22	=	8,800
Second purchase	300 units @ \$24	=	<u>7,200</u>
Total cost of goods sold			<u>\$20,000</u>

2. The inventory records reflect an inflationary environment of steadily rising prices. Since LIFO charges the latest costs (in this case the highest costs) to the income statement, using LIFO would produce a higher amount of cost of goods sold than would using FIFO.

REALITY BYTES

To avoid spoilage or obsolescence, most companies use the first-in, first-out (FIFO) approach for the flow of physical goods. The older goods (first units purchased) are sold before the newer goods are sold. For example, **Kroger's** and other food stores stack older merchandise at the front of the shelf where customers are more likely to pick it up first. As a result, merchandise is sold before it becomes dated. However, when timing is not an issue, convenience may dictate the use of the last-in, first-out (LIFO) method. Examples of products that frequently move on a LIFO basis include rock, gravel, dirt, or other non-wasting assets. Indeed, rock, gravel, and dirt are normally stored in piles that are unprotected from weather. New inventory is simply piled on top of the old. Inventory that is sold is taken from the top of the pile because it is convenient to do so. Accordingly, the last inventory purchased is the first inventory sold. For example, **Vulcan Materials Co.**, which claims to be the nation's largest producer of construction aggregates (stone and gravel), uses LIFO. Regardless of whether the flow of physical goods occurs on a LIFO or FIFO basis, costs can flow differently. The flow of inventory through the physical facility is a separate issue from the flow of costs through the accounting system.



FOCUS ON INTERNATIONAL ISSUES

LIFO IN OTHER COUNTRIES

This chapter introduced a rather strange inventory cost flow assumption called LIFO. As explained, the primary advantage of LIFO is to reduce a company's income taxes. Given the choice, companies that use LIFO to reduce their taxes would probably prefer to use another method when preparing their GAAP—based financial statements, but the IRS does not permit this. Thus, they are left with no choice but to use the seemingly counterintuitive LIFO assumption for GAAP as well tax reporting.

What happens in countries other than the United States? International Financial Reporting Standards (IFRS) do not allow the use of LIFO. Most industrialized nations are now using IFRS. You can see the impact of this disparity if you review the annual report of a U.S. company that uses LIFO *and* has significant operations in other countries. Very often it will explain that LIFO is used to calculate inventory (and cost of goods sold) for domestic operations, but another method is used for activities outside the United States.

For example, here is an excerpt from **General Electric's** 2009 Form 10-K, Note 1.

All inventories are stated at the lower of cost or realizable values. Cost for a significant portion of GE U.S. inventories is determined on a last-in, first-out (LIFO) basis. Cost of other GE inventories is determined on a first-in, first-out (FIFO) basis. LIFO was used for 39% and 40% of GE inventories at December 31, 2009 and 2008, respectively.

If the company has its headquarters in the United States, why not simply use LIFO in its foreign operations? In addition to having to prepare financial statements for the United States, the company probably has to prepare statements for its local operations using the reporting standards of the local country.

Prior to the establishment of IFRS each country was responsible for issuing its own, local GAAP. Even then, most countries did not allow for the use of LIFO.



A Look Back



We first introduced accounting for receivables in Chapter 2. This chapter presented additional complexities related to accounts receivable, such as the *allowance method of accounting for uncollectible accounts*. The allowance method improves matching of expenses with revenues. It also provides a more accurate measure of the value of accounts receivable on the balance sheet.

Under the allowance method, estimated uncollectible accounts expense is recorded in an adjusting entry at the end of the period in which a company has made credit sales. There are two methods commonly used to estimate the amount of uncollectible accounts expense: the percent of revenue method and the percent of receivables method. With the percent of revenue method, uncollectible accounts expense is measured as a percent of the period's sales. With the percent of receivables method, a company analyzes its accounts receivable at the end of the period, usually classifying them by age, to estimate the amount of the accounts receivable balance that is likely to be uncollectible. The balance in the Allowance for Doubtful Accounts account is then adjusted to equal the estimated amount of uncollectible accounts. Uncollectible accounts expense decreases the net realizable value of receivables (accounts receivable – allowance for doubtful accounts), stockholders' equity, and net income.

The allowance method of accounting for uncollectible accounts is conceptually superior to the *direct write-off method*, in which uncollectible accounts expense is recognized when an account is determined to be uncollectible. The direct write-off method fails to match revenues with expenses and overstates accounts receivable on the balance sheet. It is easier to use, however, and is permitted by generally accepted accounting principles if the amount of uncollectible accounts expense is immaterial.

The chapter also introduced notes receivable and accounting for *accrued interest*. When the term of a promissory note extends over more than one accounting period, companies must record adjusting entries to recognize interest in the appropriate accounting period, even if the cash exchange of interest occurs in a different accounting period.

We also discussed accounting for credit card sales, a vehicle that shifts uncollectible accounts expense to the credit card issuer. Many companies find the benefits of accepting major credit cards to be worth the credit card expense consequently incurred. Finally, we addressed the costs of making credit sales. In addition to uncollectible accounts expense, interest is a major cost of financing receivables.

This chapter also discussed the inventory cost flow methods of first-in, first-out (FIFO); last-in, first-out (LIFO); weighted average; and specific identification. Under FIFO, the cost of the items purchased first is reported on the income statement, and the cost of the items purchased last is reported on the balance sheet. Under the weighted-average method, the average cost of inventory is reported on both the income statement and the balance sheet. Finally, under specific identification the actual cost of goods is reported on the income statement and the balance sheet.

A Look Forward



Chapter 6 discusses accounting for long-term assets such as buildings and equipment. As with inventory cost flow, GAAP allows companies to use different accounting methods to report on similar types of business events. Life would be easier for accounting students if all companies used the same accounting methods. However, the business world is complex. For the foreseeable future, people are likely to continue to have diverse views as to the best way to account for a variety of business transactions. To function effectively in today's business environment, it is important for you to be able to recognize differences in reporting practices.



A step-by-step audio-narrated series of slides is provided on the text website at www.mhhe.com/edmondssurvey3e.



SELF-STUDY REVIEW PROBLEM 1

During 2012 Calico Company experienced the following accounting events.

1. Provided \$120,000 of services on account.
2. Collected \$85,000 cash from accounts receivable.
3. Wrote off \$1,800 of accounts receivable that were uncollectible.
4. Loaned \$3,000 to an individual, Emma Gardner, in exchange for a note receivable.
5. Paid \$90,500 cash for operating expenses.
6. Estimated that uncollectible accounts expense would be 2 percent of revenue earned on account. Recorded the year-end adjusting entry.
7. Recorded the year-end adjusting entry for accrued interest on the note receivable (see Event 4). Calico made the loan on August 1. It had a six-month term and a 6 percent rate of interest.

Calico's ledger balances on January 1, 2012, were as follows.

Event No.	Assets								=	Liab.	+	Equity			
	Cash	+	Accts. Rec.	-	Allow.	+	Notes Rec.	+				Int. Rec.	=	Com. Stk.	+
Bal.	12,000		18,000		2,200	+	NA	+	NA	=	NA	+	20,000	+	7,800

Required

- a. Record the 2012 events in ledger accounts using the horizontal format shown above.
- b. Determine net income for 2012.
- c. Determine net cash flow from operating activities for 2012.
- d. Determine the net realizable value of accounts receivable at December 31, 2012.
- e. What amount of interest revenue will Calico recognize on its note receivable in 2013?

Solution to Requirement a.

Event No.	Assets								=	Liab.	+	Equity			
	Cash	+	Accts. Rec.	-	Allow.	+	Notes Rec.	+				Int. Rec.	=	Com. Stk.	+
Bal.	12,000	+	18,000	-	2,200	+	NA	+	NA	=	NA	+	20,000	+	7,800
1	NA	+	120,000	-	NA	+	NA	+	NA	=	NA	+	NA	+	120,000
2	85,000	+	(85,000)	-	NA	+	NA	+	NA	=	NA	+	NA	+	NA
3	NA	+	(1,800)	-	(1,800)	+	NA	+	NA	=	NA	+	NA	+	NA
4	(3,000)	+	NA	-	NA	+	3,000	+	NA	=	NA	+	NA	+	NA
5	(90,500)	+	NA	-	NA	+	NA	+	NA	=	NA	+	NA	+	(90,500)
6	NA	+	NA	-	2,400	+	NA	+	NA	=	NA	+	NA	+	(2,400)
7	NA	+	NA	-	NA	+	NA	+	75*	=	NA	+	NA	+	75
Totals	3,500	+	51,200	-	2,800	+	3,000	+	75	=	NA	+	20,000	+	34,975

*\$3,000 × .06 × 5/12 = \$75.

Solution to Requirements b–e.

- b. Net income is \$27,175 (\$120,000 – \$90,500 – \$2,400 + \$75).
- c. Net cash flow from operating activities is an outflow of \$5,500 (\$85,000 – \$90,500).
- d. The net realizable value of accounts receivable is \$48,400 (\$51,200 – \$2,800).
- e. In 2013, Calico will recognize interest revenue for one month: \$3,000 × .06 × 1/12 = \$15.

A step-by-step audio-narrated series of slides is provided on the text website at www.mhhe.com/edmondssurvey3e



SELF-STUDY REVIEW PROBLEM 2



Erie Jewelers sells gold earrings. Its beginning inventory of Model 407 gold earrings consisted of 100 pairs of earrings at \$50 per pair. Erie purchased two batches of Model 407 earrings during the year. The first batch purchased consisted of 150 pairs at \$53 per pair; the second batch consisted of 200 pairs at \$56 per pair. During the year, Erie sold 375 pairs of Model 407 earrings.

Required

Determine the amount of product cost Erie would allocate to cost of goods sold and ending inventory assuming that Erie uses (a) FIFO, (b) LIFO, and (c) weighted average.

Solution to Requirements a–c

Goods Available for Sale					
Beginning inventory	100	@	\$50	=	\$ 5,000
First purchase	150	@	53	=	7,950
Second purchase	<u>200</u>	@	56	=	<u>11,200</u>
Goods available for sale	<u>450</u>				<u>\$24,150</u>

a. FIFO

Cost of Goods Sold	Pairs		Cost per Pair		Cost of Goods Sold
From beginning inventory	100	@	\$50	=	\$ 5,000
From first purchase	150	@	53	=	7,950
From second purchase	<u>125</u>	@	56	=	<u>7,000</u>
Total pairs sold	<u>375</u>				<u>\$19,950</u>

Ending inventory = Goods available for sale – Cost of goods sold

Ending inventory = \$24,150 – \$19,950 = \$4,200

b. LIFO

Cost of Goods Sold	Pairs		Cost per Pair		Cost of Goods Sold
From second purchase	200	@	\$56	=	\$11,200
From first purchase	150	@	53	=	7,950
From beginning inventory	<u>25</u>	@	50	=	<u>1,250</u>
Total pairs sold	<u>375</u>				<u>\$20,400</u>

Ending inventory = Goods available for sale – Cost of goods sold

Ending inventory = \$24,150 – \$20,400 = \$3,750

c. Weighted average

Goods available for sale ÷ Total pairs = Cost per pair
 $\$24,150 \div 450 = \53.6667

Cost of goods sold 375 units @ \$53.6667 = \$20,125

Ending inventory 75 units @ \$53.6667 = \$4,025

KEY TERMS

Account receivable 156	Full disclosure 177	Percent of revenue method 163
Accrued interest 167	Interest 167	Physical flow of goods 172
Adjusting entry 168	Inventory cost flow methods 174	Principal 167
Aging of accounts receivable 165	Last-in, first-out (LIFO) cost flow method 172	Promissory note 166
Allowance for doubtful accounts 158	Liquidity 169	Reinstate 162
Allowance method of accounting for uncollectible accounts 158	Maker 167	Specific identification 172
Collateral 167	Matching concept 168	Uncollectible accounts expense 159
Consistency 177	Maturity date 167	Weighted-average cost flow method 172
Contra asset account 160	Net realizable value 158	
First-in, first-out (FIFO) cost flow method 172	Notes receivable 156	
	Payee 167	
	Percent of receivables method 164	

QUESTIONS

1. What is the difference between accounts receivable and notes receivable?
2. What is the *net realizable value* of receivables?
3. What type of account is the Allowance for Doubtful Accounts?
4. What are two ways in which estimating uncollectible accounts improves the accuracy of the financial statements?
5. When using the allowance method, why is uncollectible accounts expense an estimated amount?
6. What is the most common format for reporting accounts receivable on the balance sheet? What information does this method provide beyond showing only the net amount?
7. Why is it necessary to reinstate a previously written off account receivable before the collection is recorded?
8. What are some factors considered in estimating the amount of uncollectible accounts receivable?
9. What is the effect on the accounting equation of recognizing uncollectible accounts expense?
10. What is the effect on the accounting equation of writing off an uncollectible account receivable when the allowance method is used?
11. How does the recovery of a previously written-off account affect the income statement when the allowance method is used? How does the recovery of a previously written-off account affect the statement of cash flows when the allowance method is used?
12. What is the advantage of using the allowance method of accounting for uncollectible accounts?
13. How do companies determine the percentage estimate of uncollectible accounts when using the percent of revenue method?
14. What is an advantage of using the percent of receivables method of estimating uncollectible accounts expense?
15. What is “aging of accounts receivable”?
16. What is a promissory note?
17. Define the following terms:
 - a. Maker
 - b. Payee
 - c. Principal
 - d. Interest
 - e. Maturity date
 - f. Collateral
18. What is the formula for computing interest revenue?
19. What is accrued interest?
20. How does the accrual of interest revenue or expense illustrate the matching concept?
21. Assets are listed on the balance sheet in the order of their liquidity. Explain this statement.
22. When is an adjusting entry for accrued interest generally recorded?
23. Assume that on July 1, 2010, Big Corp. loaned Little Corp. \$12,000 for a period of one year at 6 percent interest. What amount of interest revenue will Big report for 2010?

What amount of cash will Big receive upon maturity of the note?

24. In which section of the statement of cash flows will Big report the cash collected in question 23?
25. Why is it generally beneficial for a business to accept major credit cards as payment for goods and services even when the fee charged by the credit card company is substantial?
26. What types of costs do businesses avoid when they accept major credit cards as compared with handling credit sales themselves?
27. Name and describe the four cost flow methods discussed in this chapter.
28. What are some advantages and disadvantages of the specific identification method of accounting for inventory?
29. What are some advantages and disadvantages of using the FIFO method of inventory valuation?
30. What are some advantages and disadvantages of using the LIFO method of inventory valuation?
31. In an inflationary period, which inventory cost flow method will produce the highest net income? Explain.
32. In an inflationary period, which inventory cost flow method will produce the largest amount of total assets on the balance sheet? Explain.
33. What is the difference between the flow of costs and the physical flow of goods?
34. Does the choice of cost flow method (FIFO, LIFO, or weighted average) affect the statement of cash flows? Explain.
35. Assume that Key Co. purchased 1,000 units of merchandise in its first year of operations for \$25 per unit. The company sold 850 units for \$40. What is the amount of cost of goods sold using FIFO? LIFO? Weighted average?
36. Assume that Key Co. purchased 1,500 units of merchandise in its second year of operation for \$27 per unit. Its beginning inventory was determined in Question 35. Assuming that 1,500 units are sold, what is the amount of cost of goods sold using FIFO? LIFO? Weighted average?
37. Refer to Questions 35 and 36. Which method might be preferable for financial statements? For income tax reporting? Explain.
38. In an inflationary period, which cost flow method, FIFO or LIFO, produces the larger cash flow? Explain.
39. Which inventory cost flow method produces the highest net income in a deflationary period?



MULTIPLE-CHOICE QUESTIONS

Multiple-choice questions are provided on the text website at www.mhhe.com/edmondssurvey3e

EXERCISES

All applicable Exercises are available with McGraw-Hill's *Connect Accounting*.

Exercise 5-1 Accounting for bad debts: allowance method

Nina's Accounting Service began operation on January 1, 2012. The company experienced the following events for its first year of operations.

Events Affecting 2012:

1. Provided \$120,000 of accounting services on account.
2. Collected \$90,000 cash from accounts receivable.
3. Paid salaries of \$24,000 for the year.
4. Adjusted the accounts to reflect management's expectations that uncollectible accounts expense would be \$1,200.

Required

- a. Organize the transaction data in accounts under an accounting equation.
- b. Prepare an income statement, a balance sheet, and a statement of cash flows for 2012.



LO 1

LO 1**Exercise 5-2** *Analysis of financial statement effects of accounting for uncollectible accounts under the allowance method*

Businesses using the allowance method for the recognition of uncollectible accounts expense commonly experience four accounting events.

1. Recognition of revenue on account.
2. Collection of cash from accounts receivable.
3. Write-off of uncollectible accounts.
4. Recognition of uncollectible accounts expense through a year-end adjusting entry.

Required

Show the effect of each event on the elements of the financial statements, using a horizontal statements model like the one shown here. Use the following coding scheme to record your answers: increase is +, decrease is –, not affected is NA. In the cash flow column, indicate whether the item is an operating activity (OA), investing activity (IA), or financing activity (FA). The first transaction is entered as an example.

Event No.	Assets	=	Liab.	+	Equity	Rev.	–	Exp.	=	Net Inc.	Cash Flow
1	+		NA		+	+		NA		+	NA

LO 2**Exercise 5-3** *Effect of recognizing uncollectible accounts expense on financial statements: percent of revenue allowance method*

Big A's Auto Service was started on January 1, 2012. The company experienced the following events during its first two years of operation.

Events Affecting 2012

1. Provided \$30,000 of repair services on account.
2. Collected \$25,000 cash from accounts receivable.
3. Adjusted the accounting records to reflect the estimate that uncollectible accounts expense would be 1 percent of the service revenue on account.

Events Affecting 2013

1. Wrote off a \$280 account receivable that was determined to be uncollectible.
2. Provided \$35,000 of repair services on account.
3. Collected \$31,000 cash from accounts receivable.
4. Adjusted the accounting records to reflect the estimate that uncollectible accounts expense would be 1 percent of the service revenue on account.

Required

- a. Organize the transaction data in accounts under an accounting equation.
- b. Determine the following amounts:
 - (1) Net income for 2012.
 - (2) Net cash flow from operating activities for 2012.
 - (3) Balance of accounts receivable at the end of 2012.
 - (4) Net realizable value of accounts receivable at the end of 2012.
- c. Repeat Requirement *b* for the 2013 accounting period.

LO 2**Exercise 5-4** *Analyzing financial statement effects of accounting for uncollectible accounts using the percent of revenue allowance method*

Gray Bros. uses the allowance method to account for bad debts expense. Gray experienced the following four events in 2012.

1. Recognition of \$48,000 of service revenue on account.
2. Collection of \$42,000 cash from accounts receivable.

3. Determination that \$300 of its accounts were not collectible and wrote off these receivables.
4. Recognition of uncollectible accounts expense for the year. Gray estimates that bad debts expense will be 2 percent of its service revenue.

Required

Show the effect of each of these events on the elements of the financial statements, using a horizontal statements model like the following one. Use + for increase, – for decrease, and NA for not affected. In the cash flow column, indicate whether the item is an operating activity (OA), investing activity (IA), or financing activity (FA).

Event No.	Assets				=	Liab.	+	Equity	Rev.	–	Exp.	=	Net Inc.	Cash Flow
	Cash	+	Accts. Rec.	–	Allow.	=	Ret. Earn.							

Exercise 5-5 *Analyzing account balances for a company using the allowance method of accounting for uncollectible accounts*

LO 1

The following account balances come from the records of Teton Company.

	Beginning Balance	Ending Balance
Accounts Receivable	\$3,000	\$3,500
Allowance for Doubtful Accounts	120	200

During the accounting period, Teton recorded \$12,000 of service revenue on account. The company also wrote off a \$150 account receivable.

Required

- a. Determine the amount of cash collected from receivables.
- b. Determine the amount of uncollectible accounts expense recognized during the period.

Exercise 5-6 *Effect of recovering a receivable previously written off*

LO 1, 2



The accounts receivable balance for City Shoe Repair at December 31, 2012, was \$84,000. Also on that date, the balance in the Allowance for Doubtful Accounts was \$2,400. During 2013, \$2,100 of accounts receivable were written off as uncollectible. In addition, City Shoe Repair unexpectedly collected \$150 of receivables that had been written off in a previous accounting period. Sales on account during 2013 were \$218,000, and cash collections from receivables were \$220,000. Uncollectible accounts expense was estimated to be 1 percent of the sales on account for the period.

Required

- a. Organize the information in accounts under an accounting equation.
- b. Based on the preceding information, compute (after year-end adjustment):
 - (1) Balance of Allowance for Doubtful Accounts at December 31, 2013.
 - (2) Balance of Accounts Receivable at December 31, 2013.
 - (3) Net realizable value of Accounts Receivable at December 31, 2013.
- c. What amount of uncollectible accounts expense will City Shoe Repair report for 2013?
- d. Explain how the \$150 recovery of receivables affected the accounting equation.

Exercise 5-7 *Accounting for uncollectible accounts: percent of revenue allowance method*

LO 2

Classic Auto Parts sells new and used auto parts. Although a majority of its sales are cash sales, it makes a significant amount of credit sales. During 2012, its first year of operations, Classic Auto Parts experienced the following:

Sales on account	\$280,000
Cash sales	650,000
Collections of accounts receivable	265,000
Uncollectible accounts charged off during the year	1,200

Required

Assume that Classic Auto Parts uses the allowance method of accounting for uncollectible accounts and estimates that 1 percent of its sales on account will not be collected. Answer the following questions:

- What is the Accounts Receivable balance at December 31, 2012?
- What is the ending balance of the Allowance for Doubtful Accounts at December 31, 2012, after all entries and adjusting entries are posted?
- What is the amount of uncollectible accounts expense for 2012?
- What is the net realizable value of accounts receivable at December 31, 2012?

LO 2

Exercise 5-8 *Determining account balances: allowance method of accounting for uncollectible accounts*

During the first year of operation, 2012, Coggins Repair Co. recognized \$400,000 of service revenue on account. At the end of 2012, the accounts receivable balance was \$68,000. For this first year in business, the owner believes uncollectible accounts expense will be about 1 percent of sales on account.

Required

- What amount of cash did Coggins collect from accounts receivable during 2012?
- Assuming Coggins uses the allowance method to account for uncollectible accounts, what amount should Coggins record as uncollectible accounts expense for 2012?
- What is the net realizable value of receivables at the end of 2012?
- Show the effects of the above transactions on the financial statements by recording the appropriate amounts in a horizontal statements model like the one shown here. In the Cash Flow column, indicate whether the item is an operating activity (OA), investing activity (IA), or financing activity (FA). Use NA for not affected.

Assets				=	Liab.	+	Equity	Rev.	-	Exp.	=	Net Inc.	Cash Flow
Cash	+	Accts. Rec.	-	Allow.									

LO 3

Exercise 5-9 *Accounting for uncollectible accounts: percent of receivables allowance method*

King Service Co. experienced the following transactions for 2012, its first year of operations:

- Provided \$66,000 of services on account.
- Collected \$42,000 cash from accounts receivable.
- Paid \$26,000 of salaries expense for the year.
- King adjusted the accounts using the following information from an accounts receivable aging schedule:

Number of Days Past Due	Amount	Percent Likely to Be Uncollectible	Allowance Balance
Current	\$16,000	.01	
0-30	3,000	.05	
31-60	2,000	.10	
61-90	1,000	.30	
Over 90 days	2,000	.50	

Required

- Organize the information in accounts under an accounting equation.
- Prepare the income statement for King Service Co. for 2012.
- What is the net realizable value of the accounts receivable at December 31, 2012?

Exercise 5-10 *Effect of recognizing uncollectible accounts on the financial statements: percent of receivables allowance method*

LO 3

Bourret Inc. experienced the following events for the first two years of its operations.

2012:

1. Provided \$60,000 of services on account.
2. Provided \$25,000 of services and received cash.
3. Collected \$35,000 cash from accounts receivable.
4. Paid \$12,000 of salaries expense for the year.
5. Adjusted the accounting records to reflect uncollectible accounts expense for the year. Bourret estimates that 5 percent of the ending accounts receivable balance will be uncollectible.

2013:

1. Wrote off an uncollectible account of \$650.
2. Provided \$80,000 of services on account.
3. Provided \$15,000 of services and collected cash.
4. Collected \$62,000 cash from accounts receivable.
5. Paid \$20,000 of salaries expense for the year.
6. Adjusted the accounts to reflect uncollectible accounts expense for the year. Bourret estimates that 5 percent of the ending accounts receivable balance will be uncollectible.

Required

- a. Organize the transaction data in accounts under an accounting equation.
- b. Prepare the income statement, statement of changes in stockholders' equity, balance sheet, and statement of cash flows for 2012.
- c. What is the net realizable value of the accounts receivable at December 31, 2012?
- d. Repeat Requirements *a*, *b*, and *c* for 2013.

Exercise 5-11 *Accounting for notes receivable*

LO 4

Babb Enterprises loaned \$25,000 to Sneathen Co. on September 1, 2012, for one year at 6 percent interest.

Required

Show the effects of the following transactions in a horizontal statements model like the one shown below.

- (1) The loan to Sneathen Co.
- (2) The adjusting entry at December 31, 2012.
- (3) The adjusting entry and collection of the note on September 1, 2013.

Date	Assets			=	Liab.	+	Equity	Rev.	-	Exp.	=	Net Inc.	Cash Flow
	Cash	+	Notes Rec.				+						

Exercise 5-12 *Notes receivable—accrued interest*

LO 4

On March 1, 2012, Jason's Deli loaned \$12,000 to Mark Johnson for one year at 5 percent interest.

Required

Answer the following questions.

- a. What is Jason's interest income for 2012?
- b. What is Jason's total amount of receivables at December 31, 2012?
- c. What amounts will be reported on Jason's 2012 statement of cash flows?
- d. What is Jason's interest income for 2013?
- e. What is the total amount of cash that Jason's will collect in 2013 from Mark Johnson?

b. Answer the following questions:

- (1) What is the amount of total assets at the end of the accounting period?
- (2) What is the amount of revenue reported on the income statement?
- (3) What is the amount of cash flow from operating activities reported on the statement of cash flows?
- (4) Why would Royal Carpet Cleaning accept credit cards instead of providing credit directly to its customers? In other words, why would Royal be willing to pay 3 percent of sales to have the credit card company handle its sales on account?

Exercise 5-15 *Recording credit card sales*

LO 5

Baucom Company accepted credit cards in payment for \$6,850 of merchandise sold during March 2012. The credit card company charged Baucom a 3 percent service fee. The credit card company paid Baucom as soon as it received the invoices. Cost of goods sold amounted to \$3,800.

Required

Based on this information alone, what is the amount of net income earned during the month of March?

Exercise 5-16 *Effect of inventory cost flow assumption on financial statements*

LO 6

Required

For each of the following situations, indicate whether FIFO, LIFO, or weighted average applies.

- a. In a period of rising prices, net income would be highest.
- b. In a period of rising prices, cost of goods sold would be highest.
- c. In a period of rising prices, ending inventory would be highest.
- d. In a period of falling prices, net income would be highest.
- e. In a period of falling prices, the unit cost of goods would be the same for ending inventory and cost of goods sold.

Exercise 5-17 *Allocating product cost between cost of goods sold and ending inventory*

LO 6

Mix Co. started the year with no inventory. During the year, it purchased two identical inventory items. The inventory was purchased at different times. The first purchase cost \$1,200 and the other, \$1,500. One of the items was sold during the year.

Required

Based on this information, how much product cost would be allocated to cost of goods sold and ending inventory on the year-end financial statements, assuming use of

- a. FIFO?
- b. LIFO?
- c. Weighted average?

Exercise 5-18 *Allocating product cost between cost of goods sold and ending inventory: multiple purchases*

LO 6

Laird Company sells coffee makers used in business offices. Its beginning inventory of coffee makers was 200 units at \$45 per unit. During the year, Laird made two batch purchases of coffee makers. The first was a 300-unit purchase at \$50 per unit; the second was a 350-unit purchase at \$52 per unit. During the period, Laird sold 800 coffee makers.

Required

Determine the amount of product costs that would be allocated to cost of goods sold and ending inventory, assuming that Laird uses

- a. FIFO.
- b. LIFO.
- c. Weighted average.

LO 6
Exercise 5-19 *Effect of inventory cost flow (FIFO, LIFO, and weighted average) on gross margin*

The following information pertains to Porter Company for 2012.

Beginning inventory	70 units @ \$13
Units purchased	280 units @ \$18

Ending inventory consisted of 30 units. Porter sold 320 units at \$30 each. All purchases and sales were made with cash.

Required

- Compute the gross margin for Porter Company using the following cost flow assumptions: (1) FIFO, (2) LIFO, and (3) weighted average.
- What is the dollar amount of difference in net income between using FIFO versus LIFO? (Ignore income tax considerations.)
- Determine the cash flow from operating activities, using each of the three cost flow assumptions listed in Requirement *a*. Ignore the effect of income taxes. Explain why these cash flows have no differences.

LO 6
Exercise 5-20 *Effect of inventory cost flow on ending inventory balance and gross margin*

Bristol Sales had the following transactions for DVDs in 2012, its first year of operations.

Jan. 20	Purchased 75 units @ \$17	=	\$1,275
Apr. 21	Purchased 450 units @ \$19	=	8,550
July 25	Purchased 200 units @ \$23	=	4,600
Sept. 19	Purchased 100 units @ \$29	=	2,900

During the year, Bristol Sales sold 775 DVDs for \$60 each.

Required

- Compute the amount of ending inventory Bristol would report on the balance sheet, assuming the following cost flow assumptions: (1) FIFO, (2) LIFO, and (3) weighted average.
- Compute the difference in gross margin between the FIFO and LIFO cost flow assumptions.

LO 6
Exercise 5-21 *Income tax effect of shifting from FIFO to LIFO*

The following information pertains to the inventory of the La Bonne Company:

Jan. 1	Beginning inventory	500 units @ \$20
Apr. 1	Purchased	2,500 units @ \$25
Oct. 1	Purchased	800 units @ \$26

During the year, La Bonne sold 3,400 units of inventory at \$40 per unit and incurred \$17,000 of operating expenses. La Bonne currently uses the FIFO method but is considering a change to LIFO. All transactions are cash transactions. Assume a 30 percent income tax rate.

Required

- Prepare income statements using FIFO and LIFO.
- Determine the amount of income taxes La Bonne would save if it changed cost flow methods.
- Determine the cash flow from operating activities under FIFO and LIFO.
- Explain why cash flow from operating activities is lower under FIFO when that cost flow method produced the higher gross margin.

Exercise 5-22 *Effect of FIFO versus LIFO on income tax expense***LO 6**

Holly Hocks, Inc. had cash sales of \$225,000 for 2012, its first year of operation. On April 2, the company purchased 200 units of inventory at \$190 per unit. On September 1, an additional 150 units were purchased for \$210 per unit. The company had 50 units on hand at the end of the year. The company's income tax rate is 40 percent. All transactions are cash transactions.

Required

- a. The preceding paragraph describes five accounting events: (1) a sales transaction, (2) the first purchase of inventory, (3) the second purchase of inventory, (4) the recognition of cost of goods sold expense, and (5) the payment of income tax expense. Record the amounts of each event in horizontal statements models like the following ones, assuming first a FIFO and then a LIFO cost flow.

<i>Effect of Events on Financial Statements</i>												
Panel 1: FIFO Cost Flow												
Event No.	Balance Sheet					Income Statement				Statement of Cash Flows		
	Cash	+	Inventory	=	C. Stk.	+	Ret. Earn.	Rev.	-		Exp.	=

Panel 2: LIFO Cost Flow												
Event No.	Balance Sheet					Income Statement				Statement of Cash Flows		
	Cash	+	Inventory	=	C. Stk.	+	Ret. Earn.	Rev.	-		Exp.	=

- b. Compute net income using FIFO.
 c. Compute net income using LIFO.
 d. Explain the difference, if any, in the amount of income tax expense incurred using the two cost flow assumptions.
 e. How does the use of the FIFO versus the LIFO cost flow assumptions affect the statement of cash flows?

PROBLEMS

All applicable Problems are available with McGraw-Hill's *Connect Accounting*.

**Problem 5-23** *Accounting for uncollectible accounts—two cycles using the percent of revenue allowance method***LO 2**

The following transactions apply to Sharp Consulting for 2012, the first year of operation:

1. Recognized \$65,000 of service revenue earned on account.
2. Collected \$58,000 from accounts receivable.
3. Adjusted accounts to recognize uncollectible accounts expense. Sharp uses the allowance method of accounting for uncollectible accounts and estimates that uncollectible accounts expense will be 2 percent of sales on account.

CHECK FIGURES

- c. Ending Accounts Receivable, 2012: \$7,000
 d. Net Income, 2013: \$23,275

The following transactions apply to Sharp Consulting for 2013:

1. Recognized \$72,500 of service revenue on account.
2. Collected \$66,000 from accounts receivable.
3. Determined that \$900 of the accounts receivable were uncollectible and wrote them off.
4. Collected \$100 of an account that had been previously written off.

5. Paid \$48,500 cash for operating expenses.
6. Adjusted accounts to recognize uncollectible accounts expense for 2012. Sharp estimates that uncollectible accounts expense will be 1 percent of sales on account.

Required

Complete all the following requirements for 2012 and 2013. Complete all requirements for 2012 prior to beginning the requirements for 2013.

- a. Identify the type of each transaction (asset source, asset use, asset exchange, or claims exchange).
- b. Show the effect of each transaction on the elements of the financial statements, using a horizontal statements model like the one shown here. Use + for increase, – for decrease, and NA for not affected. Also, in the Cash Flow column, indicate whether the item is an operating activity (OA), investing activity (IA), or financing activity (FA). The first transaction is entered as an example.

Event No.	Assets	=	Liab.	+	Equity	Rev.	–	Exp.	=	Net Inc.	Cash Flow
1	+		NA		+	+		NA		+	NA

- c. Organize the transaction data in accounts under an accounting equation.
- d. Prepare the income statement, statement of changes in stockholders’ equity, balance sheet, and statement of cash flows.

LO 2



Problem 5-24 *Determining account balances: percent of revenue allowance method of accounting for uncollectible accounts*

The following information pertains to Leslie’s Floor Store sales on account and accounts receivable.

Accounts receivable balance, January 1, 2012	\$ 52,500
Allowance for doubtful accounts, January 1, 2012	4,725
Sales on account, 2012	925,000
Cost of goods sold, 2012	615,000
Collections of accounts receivable, 2012	835,000

After several collection attempts, Leslie’s wrote off \$3,100 of accounts that could not be collected. Leslie’s estimates that bad debts expense will be 0.5 percent of sales on account.

Required

- a. Compute the following amounts.
 - (1) Using the allowance method, the amount of uncollectible accounts expense for 2012.
 - (2) Net realizable value of receivables at the end of 2012.
- b. Explain why the uncollectible accounts expense amount is different from the amount that was written off as uncollectible.

LO 3

Problem 5-25 *Accounting for uncollectible accounts: percent of receivables allowance method*

Hammond Inc. experienced the following transactions for 2012, its first year of operations:

1. Issued common stock for \$80,000 cash.
2. Purchased \$225,000 of merchandise on account.
3. Sold merchandise that cost \$148,000 for \$294,000 on account.
4. Collected \$242,000 cash from accounts receivable.
5. Paid \$210,000 on accounts payable.
6. Paid \$46,000 of salaries expense for the year.

CHECK FIGURE

a. Net Realizable Value: \$133,150

CHECK FIGURES

b. Net Income: \$62,520
Total Assets: \$157,520

7. Paid other operating expenses of \$35,000.
8. Hammond adjusted the accounts using the following information from an accounts receivable aging schedule.

Number of Days Past Due	Amount	Percent Likely to Be Uncollectible	Allowance Balance
Current	\$33,000	.01	
0–30	12,000	.05	
31–60	3,000	.10	
61–90	2,500	.20	
Over 90 days	1,500	.50	

Required

- a. Organize the transaction data in accounts under an accounting equation.
- b. Prepare the income statement, statement of changes in stockholders’ equity, balance sheet, and statement of cash flows for Hammond Inc. for 2012.
- c. What is the net realizable value of the accounts receivable at December 31, 2012?

Problem 5-26 *Determination of account balances—percent of receivables allowance method of accounting for uncollectible accounts*

LO 2

During the first year of operation, 2012, Martin’s Appliance recognized \$292,000 of service revenue on account. At the end of 2012, the accounts receivable balance was \$57,400. Even though this is his first year in business, the owner believes he will collect all but about 4 percent of the ending balance.

CHECK FIGURE

c. Net Realizable Value \$55,104

Required

- a. What amount of cash was collected by Martin’s during 2012?
- b. Assuming the use of an allowance system to account for uncollectible accounts, what amount should Martin record as uncollectible accounts expense in 2012?
- c. What is the net realizable value of receivables at the end of 2012?
- d. Show the effect of the above transactions on the financial statements by recording the appropriate amounts in a horizontal statements model like the one shown here. When you record amounts in the Cash Flow column, indicate whether the item is an operating activity (OA), investing activity (IA), or financing activity (FA). The letters NA indicate that an element is not affected by the event.

Assets				=	Liab.	+	Equity	Rev.	–	Exp.	=	Net Inc.	Cash Flow
Cash	+	Accts. Rec.	–	Allow.									

Problem 5-27 *Accounting for notes receivable and uncollectible accounts using the percent of sales allowance method*

LO 2, 4

The following transactions apply to Bialis Co. for 2012, its first year of operations.

CHECK FIGURE

b. Net Income \$53,340

1. Issued \$100,000 of common stock for cash.
2. Provided \$86,000 of services on account.
3. Collected \$75,000 cash from accounts receivable.
4. Loaned \$10,000 to Horne Co. on October 1, 2012. The note had a one-year term to maturity and an 8 percent interest rate.
5. Paid \$32,000 of salaries expense for the year.
6. Paid a \$2,000 dividend to the stockholders.
7. Recorded the accrued interest on December 31, 2012 (see item 4).
8. Uncollectible accounts expense is estimated to be 1 percent of service revenue on account.

Required

- a. Show the effects of the above transactions in a horizontal statements model like the one shown below.

Event	Assets					Equity		Rev. – Exp. = Net Inc.	Cash Flows
	Cash +	Accts. Rec. – Allow. for Doubtful Accts.	+ Notes Rec.	+ Int. Rec.	=	Com. Stk.	+ Ret. Earn.		

- b. Prepare the income statement, balance sheet, and statement of cash flows for 2012.

LO 3, 5

Problem 5-28 *Accounting for credit card sales and uncollectible accounts: percent of receivables allowance method*



Bishop Supply Company had the following transactions in 2012:

CHECK FIGURES

b. Net Income: \$39,760
Total Assets: \$99,760

1. Acquired \$60,000 cash from the issue of common stock.
2. Purchased \$180,000 of merchandise for cash in 2012.
3. Sold merchandise that cost \$110,000 for \$200,000 during the year under the following terms:

\$ 50,000	Cash sales
140,000	Credit card sales (The credit card company charges a 3 percent service fee.)
10,000	Sales on account

4. Collected all of the accounts receivable from the credit card company.
5. Collected \$9,200 of accounts receivable.
6. Paid selling and administrative expenses of \$46,000.
7. Determined that 5 percent of the ending accounts receivable balance would be uncollectible.

Required

- a. Record the above events in a horizontal statements model like the following one. When you record amounts in the Cash Flow column, indicate whether the item is an operating activity (OA), an investing activity (IA), or a financing activity (FA). The letters NA indicate that an element is not affected by the event.

Event	Balance Sheet							Income Statement			Statem. of Cash Flows
	Assets				=	Equity			Rev. – Exp. = Net Inc.		
	Cash +	Accts. Rec. – Allow	+ Mdse. Inv.	=	Com. Stk.	+ Ret. Earn.					

- b. Prepare an income statement, a statement of changes in stockholders' equity, a balance sheet, and a statement of cash flows for 2012.

LO 1, 4, 5

Problem 5-29 *Effect of transactions on the elements of financial statements*

Required

Identify each of the following independent transactions as asset source (AS), asset use (AU), asset exchange (AE), or claims exchange (CE). Also explain how each event affects assets, liabilities, stockholders' equity, net income, and cash flow by placing a + for increase, – for decrease, or NA for not affected under each of the categories. The first event is recorded as an example.

Event	Type of Event	Assets	Liabilities	Common Stock	Retained Earnings	Net Income	Cash Flow
a	AE	+/-	NA	NA	NA	NA	+

- a. Collected cash from accounts receivable.
- b. Recovered an uncollectible account that was previously written off.
- c. Paid cash for land.
- d. Paid cash for other operating expenses.
- e. Sold merchandise at a price above cost. Accepted payment by credit card. The credit card company charges a service fee. The receipts have not yet been forwarded to the credit card company.
- f. Sold land for cash at its cost.
- g. Paid cash to satisfy salaries payable.
- h. Submitted receipts to the credit card company (see *e* above) and collected cash.
- i. Loaned Carl Maddox cash. The loan had a 5 percent interest rate and a one-year term to maturity.
- j. Paid cash to creditors on accounts payable.
- k. Accrued three months' interest on the note receivable (see *i* above).
 - l. Provided services for cash.
- m. Paid cash for salaries expense.
- n. Provided services on account.
- o. Wrote off an uncollectible account (use allowance method).

Problem 5-30 *Multistep income statement and balance sheet*

LO 1, 4

excel

Required

Use the following information to prepare a multistep income statement and a classified balance sheet for Usrey Equipment Co. for 2012. (*Hint:* Some of the items will *not* appear on either statement, and ending retained earnings must be calculated.)

Salaries expense	\$130,000	Interest receivable (short term)	\$ 400
Common stock	68,000	Beginning retained earnings	41,200
Notes receivable (long term)	10,000	Operating expenses	34,000
Allowance for doubtful accounts	4,000	Cash flow from investing activities	80,000
Accumulated depreciation	10,000	Prepaid rent	8,000
Notes payable (long term)	26,900	Land	60,000
Salvage value of equipment	4,000	Cash	20,000
Interest payable (short term)	1,200	Inventory	16,000
Uncollectible accounts expense	20,000	Accounts payable	1,800
Supplies	900	Interest expense	5,000
Office equipment	42,000	Salaries payable	3,400
Interest revenue	10,800	Unearned revenue	16,000
Sales revenue	400,000	Cost of goods sold	175,000
Dividends	8,000	Accounts receivable	50,000
Rent expense	4,000		

CHECK FIGURES

Total Current Assets: \$101,300
Total Current Liabilities: \$22,400

Problem 5-31 *Missing information*

LO 2, 4

The following information comes from the accounts of Kemper Company:

CHECK FIGURES

- a. Net Realizable Value: \$33,600
- b. Interest Revenue: \$4,000

Account Title	Beginning Balance	Ending Balance
Accounts Receivable	\$30,000	\$36,000
Allowance for Doubtful Accounts	1,800	2,400
Notes Receivable	50,000	50,000
Interest Receivable	1,000	5,000

Required

- a. There were \$180,000 in sales on account during the accounting period. Write offs of uncollectible accounts were \$2,100. What was the amount of cash collected from accounts receivable? What amount of uncollectible accounts expense was reported on the income statement? What was the net realizable value of receivables at the end of the accounting period?
- b. The note has an 8 percent interest rate and 24 months to maturity. What amount of interest revenue was recognized during the period? How much cash was collected for interest?

LO 2, 4, 5

Problem 5-32 *Comprehensive accounting cycle problem (uses percent of revenue allowance method)*

The following trial balance was prepared for Lakeview Sales and Service on December 31, 2012, after the closing entries were posted.

CHECK FIGURES

Net Income: \$113,150
Total Assets: \$308,650

Account Title	Debit	Credit
Cash	\$ 87,100	
Accounts Receivable	18,760	
Allowance for Doubtful Accounts		\$ 960
Inventory	94,600	
Accounts Payable		44,000
Common Stock		90,000
Retained Earnings		65,500
Totals	\$200,460	\$200,460

Lakeview had the following transactions in 2013:

1. Purchased merchandise on account for \$270,000.
2. Sold merchandise that cost \$215,000 on account for \$350,000.
3. Performed \$80,000 of services for cash.
4. Sold merchandise for \$76,000 to credit card customers. The merchandise cost \$47,500. The credit card company charges a 5 percent fee.
5. Collected \$360,000 cash from accounts receivable.
6. Paid \$274,000 cash on accounts payable.
7. Paid \$126,000 cash for selling and administrative expenses.
8. Collected cash for the full amount due from the credit card company (see item 4).
9. Loaned \$60,000 to R. Shell. The note had an 8 percent interest rate and a one-year term to maturity.
10. Wrote off \$650 of accounts as uncollectible.
11. Made the following adjusting entries:
 - (a) Recorded three months' interest on the note at December 31, 2013 (see item 9).
 - (b) Estimated uncollectible accounts expense to be .5 percent of sales on account.

Required

- a. Organize the transaction data in accounts under an accounting equation.
- b. Prepare an income statement, a statement of changes in stockholders' equity, a balance sheet, and a statement of cash flows for 2013.

LO 6



Problem 5-33 *Effect of different inventory cost flow methods on financial statements*

The accounting records of Clear Photography, Inc., reflected the following balances as of January 1, 2012:

CHECK FIGURES

- a. Cost of Goods Sold—FIFO: \$27,540
- b. Net Income—LIFO: \$6,780

Cash	\$18,000
Beginning inventory	13,500 (150 units @ \$90)
Common stock	15,000
Retained earnings	16,500

The following five transactions occurred in 2012:

1. First purchase (cash) 120 units @ \$92
2. Second purchase (cash) 200 units @ \$100
3. Sales (all cash) 300 units @ \$185
4. Paid \$15,000 cash for operating expenses.
5. Paid cash for income tax at the rate of 40 percent of income before taxes.

Required

- a. Compute the cost of goods sold and ending inventory, assuming (1) FIFO cost flow, (2) LIFO cost flow, and (3) weighted-average cost flow.
- b. Use a vertical model to prepare the 2012 income statement, balance sheet, and statement of cash flows under FIFO, LIFO, and weighted average. (*Hint: Record the events under an accounting equation before preparing the statements.*)

ANALYZE, THINK, COMMUNICATE

ATC 5-1 Business Application Case *Understanding real-world annual reports*

Use the **Target Corporation's** annual report in Appendix B to answer the following questions related to Target's 2009 fiscal year.

Required

- a. What percentage of Target's total assets was comprised of credit card receivables?
- b. Approximately what percentage of credit card receivables did the company think will not be collected in 2009 and 2008?
- c. What is Target's policy regarding when to write off credit card receivables?
- d. What percentage of Target's total assets was comprised of inventory?
- e. What cost flow method did Target use to account for its inventory?
- f. Target had arrangements with some of its vendors such that it does not purchase or pay for merchandise inventory until the merchandise is sold to outside customers. Was the cost of these goods ever included in the Inventory account?

ATC 5-2 Group Assignment *Inventory cost flow*

The accounting records of Robin Co. showed the following balances at January 1, 2012:

Cash	\$30,000
Beginning inventory (100 units @ \$50, 70 units @ \$55)	8,850
Common stock	20,000
Retained earnings	18,850



Transactions for 2012 were as follows:

Purchased 100 units @ \$54 per unit.
 Purchased 250 units @ \$58 per unit.
 Sold 220 units @ \$80 per unit.
 Sold 200 units @ \$90 per unit.
 Paid operating expenses of \$3,200.
 Paid income tax expense. The income tax rate is 30%.

Required

- a. Organize the class into three sections, and divide each section into groups of three to five students. Assign each section one of the cost flow methods, FIFO, LIFO, or weighted average. The company uses the perpetual inventory system.

Group Tasks

Determine the amount of ending inventory, cost of goods sold, gross margin, and net income after income tax for the cost flow method assigned to your section. Also prepare an income statement using that cost flow assumption.

Class Discussion

- b. Have a representative of each section put its income statement on the board. Discuss the effect that each cost flow method has on assets (ending inventory), net income, and cash flows. Which method is preferred for tax reporting? For financial reporting? What restrictions are placed on the use of LIFO for tax reporting?



ATC 5-3 Research Assignment *Analyzing two real-world companies' accounts receivable*

Using the most current annual reports or the Forms 10-K for **Pfizer**, one of the world's largest pharmaceutical manufacturers, and **Walgreens**, the drugstore chain, complete the requirements below. To obtain the Forms 10-K, use either the EDGAR system following the instructions in Appendix A or the companies' websites. The annual reports can be found on the companies' websites.

Required

- a. For each company, compute accounts receivable as a percentage of revenue. Show your computations?
- b. Which company appears to be making more of its sales on account? Explain your answer.
- c. Try to provide a logical explanation as to why one of these companies is making more of its sales on account than the other.



ATC 5-4 Writing Assignment *Cost of charge sales*

Paul Smith is opening a plumbing supply store in University City. He plans to sell plumbing parts and materials to both wholesale and retail customers. Since contractors (wholesale customers) prefer to buy parts and materials and pay at the end of the month, Paul expects he will have to offer charge accounts. He plans to offer charge sales to the wholesale customers only and to require retail customers to pay with either cash or credit cards. Paul wondered what expenses his business would incur relative to the charge sales and the credit cards.

Required

- a. What issues will Paul need to consider if he allows wholesale customers to buy plumbing supplies on account?
- b. Write a memo to Paul Smith outlining the potential cost of accepting charge customers. Discuss the difference between the allowance method for uncollectible accounts and the direct write-off method. Also discuss the cost of accepting credit cards.



ATC 5-5 Ethical Dilemma *How bad can it be?*

Alonzo Saunders owns a small training services company that is experiencing growing pains. The company has grown rapidly by offering liberal credit terms to its customers. Although his competitors require payment for services within 30 days, Saunders permits his customers to delay payment for up to 90 days. Saunders' customers thereby have time to fully evaluate the training that employees receive before they must pay for that training. Saunders guarantees satisfaction. If a customer is unhappy, the customer does not have to pay. Saunders works with reputable companies, provides top-quality training, and rarely encounters dissatisfied customers.

The long collection period, however, has created a cash flow problem. Saunders has a \$100,000 accounts receivable balance, but needs cash to pay current bills. He has recently negotiated a loan agreement with National Bank of Brighton County that should solve his cash flow problems. The loan agreement requires that Saunders pledge the accounts receivable as collateral for the loan. The bank agreed to loan Saunders 70 percent of the receivables balance, thereby giving him access to \$70,000 cash. Saunders is satisfied with this arrangement because he estimates he needs approximately \$60,000.

On the day Saunders was to execute the loan agreement, he heard a rumor that his biggest customer was experiencing financial problems and might declare bankruptcy. The customer

owed Saunders \$45,000. Saunders promptly called the customer's chief accountant and learned "off the record" that the rumor was true. The accountant told Saunders that the company's net worth was negative and most of its assets were pledged as collateral for bank loans. In his opinion, Saunders was unlikely to collect the balance due. Saunders' immediate concern was the impact the circumstances would have on his loan agreement with the bank.

Saunders uses the direct write-off method to recognize uncollectible accounts expense. Removing the \$45,000 receivable from the collateral pool would leave only \$55,000 of receivables, reducing the available credit to \$38,500 ($\$55,000 \times 0.70$). Even worse, recognizing the uncollectible accounts expense would so adversely affect his income statement that the bank might further reduce the available credit by reducing the percentage of receivables allowed under the loan agreement. Saunders will have to attest to the quality of the receivables at the date of the loan but reasons that since the information he obtained about the possible bankruptcy was "off the record" he is under no obligation to recognize the uncollectible accounts expense until the receivable is officially uncollectible.

Required

- a. How are income and assets affected by the decision not to act on the bankruptcy information?
- b. Review the AICPA's Articles of Professional Conduct (see Chapter 4) and comment on any of the standards that would be violated by the actions Saunders is contemplating.
- c. How do the elements of the fraud triangle (see Chapter 4) apply to this case?