

Chapter 8

Accounts and Notes Receivable

T Questions

1. The two parties to a receivable/payable transaction are the creditor and the debtor. The *creditor* has an *asset* called a *receivable*, and the *debtor* has a *liability* called a *payable*.
2. The two main categories of receivables are (1) accounts receivable, which are reported as current assets on the balance sheet, and (2) notes receivable, which may be current assets or long-term assets.
3. The two methods of accounting for uncollectibles are (1) the allowance method, which is consistent with generally accepted accounting principles, and (2) the direct write-off method, which is easier to apply.

4. **a. Allowance method:**

To recognize expense and set up the allowance:

Uncollectible-Account Expense	XXX	
Allowance for Uncollectible Accounts		XXX

To write off individual customer accounts deemed uncollectible:

Allowance for Uncollectible Accounts.....	XXX	
Accounts Receivable—Customer Name.....		XXX

b. Direct write-off method:

To write off individual customer account deemed uncollectible:

Uncollectible-Account Expense.....	XXX	
Accounts Receivable—Customer Name		XXX

5. Another term for Allowance for Uncollectible Accounts is Allowance for Doubtful Accounts. Two other terms for Uncollectible-Account Expense are Doubtful-Account Expense and Bad Debt Expense.
6. The ways to estimate bad-debt expense and uncollectible accounts—using the *allowance method*—are:
 - (1) Percent-of-sales—Based on past experience, the company computes uncollectible-account expense as a percentage of the period's total credit sales (or total sales).
 - (2) Aging-of-accounts—The company analyzes individual accounts receivable according to the length of time they have been outstanding. Each age category's amount is multiplied by an estimated percentage uncollectible to compute the dollar amount considered uncollectible. The sum of the estimated uncollectibles for all age categories is the amount the company expects *not* to collect. This amount is the needed ending balance of Allowance for Uncollectible Accounts.
7. The *maker* of a note signs a *promissory note*, promising to pay to the *payee* the *principal amount* of the note plus *interest* on the *maturity date*. *Note to Instructors:* Other answers that use all the required terms are acceptable.

8. Three situations in which a company might receive a note receivable, along with the accounts debited and credited to record the receipt, are:

To loan out cash:

Note Receivable	XXX	
Cash		XXX

To sell inventory on note receivable:

Note Receivable	XXX	
Sales Revenue		XXX

To receive a note on account:

Note Receivable	XXX	
Accounts Receivable		XXX

9. On a note's dishonor, the payee's basic entry is:
- | | | |
|--|-----|-----|
| Account Receivable (from maker of the note)..... | XXX | |
| Note Receivable (from maker of the note) | | XXX |

10. Notes receivable usually do not mature on the date the accounting period ends. To report the interest revenue that the note generates in the proper period, the payee must accrue interest revenue and interest receivable that will be collected later.

11. Three ways to report Accounts Receivable and Allowance for Uncollectible Accounts are:

(1) Accounts receivable, less allowance for uncollectible accounts of \$2,800.....

	<u>\$ 97,200</u>
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(2) Accounts receivable (Note X).....

Note X:

Accounts receivable.....	\$100,000
Less allowance for uncollectible accounts.....	<u>(2,800)</u>
	<u>\$ 97,200</u>

(3)

Accounts receivable.....	\$100,000
Less allowance for uncollectible accounts.....	<u>(2,800)</u>
	<u>\$ 97,200</u>

12. The acid-test ratio is more stringent than the current ratio because the acid-test ratio assumes that all current liabilities are payable immediately from the most liquid assets. The current ratio, on the other hand, measures ability to pay current liabilities out of total current assets.
13. Thirty days' sales in receivables is preferable to 40 days' sales because the company is receiving cash 10 days sooner. This money can be used for operations more quickly.

T Daily Exercises

(5 min.) **DE 8-3**

(5 min.) **DE 8-1**

1. Balance sheet:

Cash.....	\$2,000
Accounts receivable	15,000

2. Acker, Dell, and Taft are customers who owe money to the company. They are obligated to pay the business the amounts they owe.

(5 min.) **DE 8-2**

The accountant should not handle the company's cash. With cash-handling duties, the accountant can steal cash and hide the theft by writing off a customer's account as uncollectible.

The credit department must have no cash-handling duties. This means that credit department employees must not be custodians of any cash funds.

A dishonest credit department employee who also handles cash can pocket the money received from a customer and label the customer's account as uncollectible. The accounting department then writes off the customer's account, and the company stops billing the customer.

(5 min.) **DE 8-4**

Income statement:

Uncollectible-account expense \$ XX

Balance sheet:

Accounts receivable (<i>companion account</i>)	\$2,000*
Less Allowance for uncollectible accounts (<i>contra account</i>)	<u> (300)*</u>
Net accounts receivable	\$1,700

*Students can use any reasonable amounts.

(5 min.) **DE 8-5**

1. Uncollectible-Account Expense (\$600,000 × .02)....	12,000	
Allowance for Uncollectible Accounts.....		12,000
2. Balance sheet:		
Accounts receivable	\$90,000	
Less Allowance for uncollectible accounts	<u>(12,000)</u>	
Accounts receivable, net		<u>\$78,000</u>

(5-10 min.) **DE 8-6**

1. Accounts Receivable.....	800,000	
Sales Revenue		800,000
2. Cash	690,000	
Accounts Receivable.....		690,000
3. Allowance for Uncollectible Accounts	15,000	
Accounts Receivable.....		15,000
4. Uncollectible-Account Expense (\$800,000 × .018)..	14,400	
Allowance for Uncollectible Accounts.....		14,400

(10 min.) **DE 8-7**

1.

Accounts Receivable			
Beg. bal.	90,000		
Net credit sales	800,000	Collections	690,000
		Write-offs	15,000
End. bal.	185,000		

Amount customers owe the company

2.

Allowance for Uncollectible Accounts			
		Beg. bal.	12,000
Write-offs	15,000	Uncollectible-	
		account expense	14,400
		End. bal.	11,400

Amount SBC expects not to collect

2.

Accounts receivable, net		
(\$185,000 ! \$11,400).....		<u>\$173,600</u>

Amount SBC expects to collect

(5-10 min.) **DE 8-8**

- (a) Accounts Receivable 800,000
Sales Revenue 800,000
- (b) Cash 720,000
Accounts Receivable 720,000
- (c) Allowance for Uncollectible Accounts 12,000
Accounts Receivable 12,000
- (d) Uncollectible-Account Expense 10,000
Allowance for Uncollectible Accounts 10,000

Allowance for Uncollectible Accounts	
Write-offs	12,000
Beg. bal.	6,000
Uncollectible - account expense	X = 10,000
End. bal.	4,000

(10 min.) **DE 8-9**

Journal				
DATE	ACCOUNTS AND EXPLANATIONS	POST. REF.	DEBIT	CREDIT
20X1				
Dec. 31	Uncollectible-Account Expense (\$1,300 + \$3,600)		4,900	
	Allowance for Uncollectible Accounts			4,900

AGING SCHEDULE:

Amount receivable % uncollectible	Age of Accounts Receivable				Total Receivables
	0-30 Days	31-60 Days	61-90 Days	Over 90 Days	
\$104,000	\$70,000	\$20,000	\$10,000	\$4,000	\$104,000
X 1%	X 2%	X 5%	X 50%		
\$ 700 + \$ 400 + \$ 500 + \$2,000 = <u>\$3,600</u>					

Allowance for Uncollectible Accounts	
Balance before adjustment	1,300
Uncollectible-account expense	X = \$4,900
Balance needed based on aging schedule	3,600

(5-10 min.) **DE 8-10**

a. *Allowance Method:*

Uncollectible-Account Expense (\$100,000 × .03).....	3,000	
Allowance for Uncollectible Accounts.....		3,000

b. *Direct Write-Off Method:*

Uncollectible-Account Expense	4,000	
Accounts Receivable.....		4,000

The *allowance* method is better because it

- (a) sets up an allowance account and thus reports the receivables at their net realizable value, and
- (b) matches the uncollectible-account expense of each period against the revenue of the period when the sales are made.

(10 min.) **DE 8-11**

Accounts Receivable balance at June 30:

Balance, May 31	\$ 8,000
Service revenue on account during June.....	60,000
Less: Collections on account.....	(62,000)
Write-offs.....	<u>(500)</u>
Balance, June 30.....	<u>\$ 5,500</u>

Oguchi does *not* expect to collect all \$5,500 of his accounts receivable because he will probably fail to collect from some clients.

(5 min.) **DE 8-12**

Journal				
DATE	ACCOUNTS AND EXPLANATIONS	POST. REF.	DEBIT	CREDIT
	Accounts Receivable—American Express		5,760	
	Credit-Card Discount Expense (\$6,000 × .04)		240	
	Sales Revenue			6,000
	Recorded credit-card sales.			
	Cash		7,840	
	Bankcard Discount Expense (\$8,000 × .02)		160	
	Sales Revenue			8,000
	Recorded bankcard sales.			

(10 min.) **DE 8-13**

- Interest starts on September 30, 20X2.
Interest stops on September 30, 20X3.
- Lauren Holland, the maker of the note, is the *debtor*.
Continental Bank, the payee of the note, is the *creditor*.
- Continental Bank has a note receivable and interest revenue.
Lauren Holland has a note payable and interest expense.
- Holland must pay off the note no later than September 30, 20X3.
- Holland must pay at maturity:

Interest (\$1,000 × .09).....	\$ 90
Principal.....	<u>1,000</u>
Total.....	<u>\$1,090</u>

(10 min.) **DE 8-14**

- Note 1 - \$150 (or $\$10,000 \times .09 \times 60/360$)
- Note 2 - \$1,250 (or $\$50,000 \times .10 \times 3/12$)
- Note 3 - \$4,000 (or $\$100,000 \times .08 \times 6/12$)
- Note 4 - \$375 (or $\$15,000 \times .12 \times 75/360$)

(5-10 min.) **DE 8-15**

Journal				
DATE	ACCOUNTS AND EXPLANATIONS	POST. REF.	DEBIT	CREDIT
a. June 12	Note Receivable—J. Nowlin		400,000	
	Cash			400,000
b. Sept. 10	Cash		408,000	
	Note Receivable—J. Nowlin			400,000
	Interest Revenue ($\$400,000 \times .08 \times 90/360$)			

(10 min.) **DE 8-16**

Journal				
DATE	ACCOUNTS AND EXPLANATIONS	POST. REF.	DEBIT	CREDIT
20X2				
a. Sept. 30	Note Receivable—L. Holland		1,000.00	
	Cash			1,000.00
	Loaned out money.			
b. Dec. 31	Interest Receivable ($\$1,000 \times .09 \times 3/12$)		22.50	
	Interest Revenue			22.50
	Accrued interest revenue.			
20X3				
c. Sept. 30	Cash ($\$1,000 + \90)		1,090.00	
	Interest Receivable			22.50
	Interest Revenue ($\$1,000 \times .09 \times 9/12$)			67.50
	Note Receivable			1,000.00
	Collected note receivable.			

(5-10 min.) **DE 8-17**

a. **Balance sheet:**

December 31, 20X2

Current assets:

Note receivable.....	\$1,000.00
Interest receivable.....	22.50

b. **Income statement:**

Year ended December 31, 20X2

Revenues:

Interest revenue.....	\$22.50
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c. **Balance sheet:**

December 31, 20X3

Nothing to report because the note was collected on September 30, 20X3.

d. **Income statement:**

Year ended December 31, 20X3

Revenues:

Interest revenue.....	\$67.50
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(5-10 min.) **DE 8-18**

Company	<i>Millions of Dollars</i>		Net Realizable Value
	Total Current Receivables	Allowance for Uncollectibles	
Intel Corporation	\$3,767	\$(67)	\$3,700
General Electric	9,063	(320)	8,743
Oracle Corporation (1999 only)	2,455	(217)	2,238

Oracle expects to collect \$2,238 million.

(10-15 min.) **DE 8-19**

	<i>Millions</i>
1. Service revenue.....	\$14,045
Cost of services sold and other expenses.....	<u>(12,861)</u>
Net income.....	<u>\$ 1,184</u>
2. Current assets:	
Accounts receivable.....	\$2,581
Less allowance for doubtful accounts.....	<u>(117)</u>
Accounts receivable, net.....	\$2,464

Dollar amounts in millions

$$\begin{aligned}
 \text{a. Acid-test ratio} &= \frac{\text{Cash} + \text{Short-term investments} + \text{Net current Receivables}}{\text{Total current liabilities}} \\
 &= \frac{\$215 + \$165 + (\$235 + \$15)}{\$369 + \$145} \\
 &= \frac{\$600}{\$514} \\
 &= 1.17
 \end{aligned}$$

An acid-test ratio of 1.17 is strong.

$$\begin{aligned}
 \text{b. One day's sales} &= \frac{\text{Net sales revenue}}{365} = \frac{\$1,406}{365} = \$3.852 \\
 \text{Days' sales in average receivables} &= \frac{\text{Average net Accounts receivable}}{\text{One day's sales}} = \frac{(\$220^* + \$153^{**}) / 2}{\$3.852} \\
 &= 48 \text{ days}
 \end{aligned}$$

48 days' sales in average receivables is okay relative to credit terms of net 45.

*\$235 + \$15 = \$220

**\$160 + \$7 = \$153

$$\begin{aligned}
 \text{a. Current ratio} &= \frac{\text{Total current assets}}{\text{Total current liabilities}} = \frac{\$215 + \$165 + \overbrace{\$235 + \$15 + \$198 + \$93}^{\$891}}{\underbrace{\$369 + \$145}_{\$514}} = 1.73 \\
 \text{b. Debt ratio} &= \frac{\text{Total liabilities}}{\text{Total assets}} = \frac{\$514 + \$11}{\$891 + \$416} = 0.40 \\
 \text{c. Gross profit percentage} &= \frac{\text{Gross profit}}{\text{Net sales revenue}} = \frac{\$1,406 + \$575}{\$1,406} = 0.59 \\
 \text{d. Rate of inventory turnover} &= \frac{\text{Cost of goods sold}}{\text{Average inventory}} = \frac{\$575}{(\$198 + \$161) / 2} = 3.20
 \end{aligned}$$

T Exercises

(10 min.) **E 8-2**

(5-10 min.) **E 8-1**

MEMORANDUM

DATE: _____
TO: Karla Bates
FROM: Student Name
RE: Essential element of internal control over customer collections

Separation of duties is the essential element in a system to ensure that cash received by mail from customers is properly handled and accounted for. It is very important to separate cash-handling duties from accounting duties. Otherwise, an employee can steal a cash receipt from a customer and cover the theft by writing off the customer account as uncollectible.

Note: Student responses may vary.

The internal control weakness is that the credit department receives incoming cash receipts from customers. With access to cash, a credit department employee can pocket cash received from a customer and destroy the related remittance slip. The credit department can then write off the customer's account as uncollectible, and the company will stop pursuing collection from the customer.

To strengthen the controls, the company can have cash go to a lock box at the bank or to the company mail room, not to the credit department.

Note: Student responses may vary.

Req. 1

Journal				
DATE	ACCOUNTS AND EXPLANATIONS	POST. REF.	DEBIT	CREDIT
Oct.	Cash		67,000	
	Accounts Receivable		120,000	
	Sales Revenue			187,000
Oct.	Cash		91,000	
	Accounts Receivable			91,000
Oct.	Uncollectible-Account Expense			
	(\$120,000 × .02)		2,400	
	Allowance for Uncollectible Accounts			2,400
Oct.	Allowance for Uncollectible Accounts		1,070	
	Accounts Receivable			1,070

Req. 2

Accounts Receivable		Allowance for Uncollectible Accounts	
28,000	91,000	1,070	1,600
120,000	1,070		2,400
55,930			2,930

Net accounts receivable = \$53,000 (\$55,930 ! \$2,930)
 Ageless Technology expects to collect the net receivable.

Req. 3

Balance sheet:

Current assets:

Accounts receivable, net of allowance for uncollectible
 accounts of \$2,930..... \$53,000

Req. 1

Journal				
DATE	ACCOUNTS AND EXPLANATIONS	POST. REF.	DEBIT	CREDIT
Oct.	Uncollectible-Account Expense		1,070	
	Accounts Receivable			1,070

Req. 2

Ageless would report net accounts receivable \$55,930, the balance in
 Accounts Receivable, computed as follows:

Accounts Receivable			
Beg. Bal.	28,000	Collections	91,000
Cr. sales	120,000	Write-offs	1,070
End. bal.	55,930		

Ageless does *not* expect to collect the full \$55,930 because some credit
 customers are likely not to pay their accounts.

Req. 1

The credit balance at December 31, 20X4, in Allowance for Doubtful Accounts should be: $(\$140,000 \times .003) + (\$78,000 \times .012) + (\$69,000 \times .06) + (\$13,000 \times .50) = \$11,996$. The current balance is \$3,910. Thus, the adjusting entry amount is \$8,086 $(\$11,996 - \$3,910)$.

Journal				
DATE	ACCOUNTS AND EXPLANATIONS	POST. REF.	DEBIT	CREDIT
	Adjusting Entry:			
	Doubtful-Account Expense		8,086	
	Allowance for Doubtful Accounts			8,086

Allowance for Doubtful Accounts	
	3,910
Adj. entry	8,086
	11,996

Req. 2

Balance sheet:

Current assets:

Accounts receivable, net of allowance for doubtful accounts of \$11,996 \$288,004*

*Another way to report accounts receivable is

Accounts receivable \$300,000
Less allowance for doubtful accounts (11,996) \$288,004

Journal				
DATE	ACCOUNTS AND EXPLANATIONS	POST. REF.	DEBIT	CREDIT
20X2				
Dec.	31			
	a.	Year-end adjusting entry:		
		Uncollectible-Account Expense		
		$(\$450,000 \times .01 \times 1/2)$	2,250	
		Allowance for Uncollectible Accounts		2,250

Balance sheet:

Current assets:

Accounts receivable, net of allowance for uncollectible accounts of \$3,850¹ \$133,150²

¹ $\$1,600 + \$2,250 = \$3,850$

² $\$137,000 - \$3,850 = \$133,150$

	b.	Year-end adjusting entry:		
		Uncollectible-Account Expense		
		$(\$2,600 + \$1,700)$	4,300	
		Allowance for Uncollectible Accounts		4,300

Balance sheet:

Current assets:

Accounts receivable, net of allowance for uncollectible accounts of \$2,600³ \$134,400⁴

³ Allowance for Uncollectible Accounts			
Before adj:	1,700	Adj.	4,300
		Bal.	2,600

⁴ $\$137,000 - \$2,600 = \$134,400$

Req. 1

Interest for:

20X7	$(\$1,000,000 \times .09 \times 8/12)$	\$60,000
20X8	$(\$1,000,000 \times .09)$	90,000
20X9	$(\$1,000,000 \times .09 \times 4/12)$	30,000

Req. 2

First National Bank has a *note receivable* and *interest revenue*.
M. Redwine has a *note payable* and *interest expense*.

Req. 3

Payoff at November 30, 20X7:

Principal.....	\$1,000,000
Interest $(\$1,000,000 \times .09 \times 7/12)$	<u>52,500</u>
Total.....	<u>\$1,052,500</u>

Journal					
DATE		ACCOUNTS AND EXPLANATIONS	POST. REF.	DEBIT	CREDIT
Nov.	1	Note Receivable—Victor Rashad		50,000	
		Cash			50,000
Dec.	3	Note Receivable—Lendox Corp.		3,750	
		Sales Revenue			3,750
	16	Note Receivable—CFO Co.		4,000	
		Accounts Receivable—CFO Co.			4,000
	31	Interest Receivable		719*	
		Interest Revenue			719

$*(\$50,000 \times .08 \times 2/12) + (\$3,750 \times .11 \times 28/360) + (\$4,000 \times .12 \times 15/360) = \719

\$667	\$32	\$20
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Journal					
DATE		ACCOUNTS AND EXPLANATIONS	POST. REF.	DEBIT	CREDIT
20X3					
Feb.	12	Cash		53,900	
		Bankcard Discount Expense			
		(\$55,000 × .02)		1,100	
		Sales Revenue			55,000
Apr.	1	Note Receivable—Peter Liu		8,000	
		Cash			8,000
Dec.	31	Interest Receivable			
		(\$8,000 × .12 × 9/12)		720	
		Interest Revenue			720
20X4					
Apr.	1	Cash [\$8,000 + (\$8,000 × .12)]		8,960	
		Interest Receivable			720
		Interest Revenue			
		(\$8,000 × .12 × 3/12)			240
		Note Receivable—Peter Liu			8,000

Req. 1

Journal					
DATE		ACCOUNTS AND EXPLANATIONS	POST. REF.	DEBIT	CREDIT
Aug.	29	Accounts Receivable—M. Tallus		5,400	
		Sales Revenue			5,400
Nov.	1	Note Receivable—M. Tallus		5,400	
		Accounts Receivable—M. Tallus			5,400
Dec.	31	Cash		5,490	
		Note Receivable—M. Tallus			5,400
		Interest Revenue			
		(\$5,400 × .10 × 60/360)			90

(15-20 min.) **E 8-11**

Req. 1

		20X3	20X2
Acid-test ratio	$= \frac{\text{Cash + Short-term investments} + \text{Net current receivables}}{\text{Total current liabilities}}$	$= \frac{\$3,000 + \$23,000 + \$73,000}{\$124,000}$	$= \frac{\$10,000 + \$11,000 + \$68,000}{\$127,000}$
		$= 0.80$	0.70

The acid-test ratio improved in 20X3. The store's acid-test ratio in 20X3 compares favorably to the industry average of .80.

Req. 2

$$\text{One day's sales} = \frac{\$703,000}{365} = \$1,926$$
$$\text{Days' sales in average accounts receivable} = \frac{\text{Average net accounts receivable}}{\text{One day's sales}} = \frac{(\$73,000 + \$68,000) / 2}{\$1,926}$$
$$= 37 \text{ days}$$

The store's days'-sales-in-receivables measure (37) exceeds the 30-day period of the credit terms by seven days. The company is having to wait seven days too long to collect its receivables.

(10-15 min.) **E 8-12**

Req. 1

Average collection period: *Billions of dollars*

$$\text{One day's sales} = \frac{\$165}{365} = \$0.45$$
$$\text{Day's sales in average receivables (average collection period)} = \frac{(\$1 + \$1) / 2}{\$0.45} = 2 \text{ days}$$

Req. 2

Wal-Mart's receivables are so low because most of its sales are for cash or on credit and bank cards. Wal-Mart can have a \$1 billion receivable balance with no significant allowance for uncollectibles because Wal-Mart's receivables are mainly from the bankcard companies (VISA, Mastercard, and so on). These companies' credit is impeccable, and Wal-Mart expects to collect virtually all its receivables.

(10-15 min.) **E 8-13**

	Actual without Bankcards	Expected with Bankcards
Sales revenue.....	<u>\$350,000</u>	<u>\$392,000*</u>
Cost of goods sold.....	\$210,000	\$235,200**
Uncollectible-account expense.....	4,000	—
Bankcard discount expense.....		3,840***
Other expenses.....	<u>61,000</u>	<u>59,000****</u>
Total expenses.....	<u>275,000</u>	<u>298,040</u>
Net income.....	<u>\$ 75,000</u>	<u>\$ 93,960</u>

Decision: Accept bankcards because of the expected increase in net income.

* $\$350,000 \times 1.12 = \$392,000$

** $\$210,000 \times 1.12 = \$235,200$

*** $\$392,000 - \$200,000 = \$192,000 \times .02 = \$3,840$

Note: The switch to bankcards should produce bankcard discount expense only on the portion of sales made on bankcards.

**** $\$ 61,000 - \$2,000 = \$59,000$