

Introduction to Accounting: The Language of Business

Lesson 7: Operating Expenses and Internal Controls

Supplemental Textbook



A career in litigation support

What is litigation support? It does not mean working in an attorney's office. It involves assisting legal counsel in attempting to gain favorable verdicts in a court of law. Persons involved in litigation support generally work for a public accounting firm, a consulting firm, or as a sole proprietor or in partnership with others. An experienced litigation support person can expect to earn an income well into six figures.

Litigation support in a broad sense encompasses fraud auditing, valuation analysis, investigative accounting, and forensic accounting. The practice of litigation support involves assisting legal counsel in such things as product liability disputes, shareholder disputes, contract breaches, and major losses reported by entities. These investigations require the accountant to gather and evaluate evidence to assess the integrity and dollar amounts surrounding the aforementioned situations.

The accountant can be, and often is, requested to serve as an expert witness in a court of law. This experience requires knowledge of accounting and auditing in addition to possessing good communication skills, appropriate credentials, relevant experience, and critical information that could result in successful resolution of the issue.

What kind of person pursues litigation support as a career? It takes a very special individual. The person must be part accountant, part auditor, part lawyer, and part skilled businessperson. An undergraduate accounting degree, an MBA, and a law degree would be the perfect educational background needed for such a career. Many universities offer a combined MBA/JD program. Such a program fulfills the graduate needs of the litigation support person.

In addition to the degree, work experience in the business sector is essential. A career in public accounting, industry, or with a government agency would serve as valuable experience in pursuing a career in litigation support.

Much of the growth of business in recent years is due to the immense expansion of credit. Managers of companies have learned that by granting customers the privilege of charging their purchases, sales and profits increase. Using credit is not only a convenient way to make purchases but also the only way many people can own high-priced items such as automobiles.

This chapter discusses receivables and payables. For a company, a **receivable** is any sum of money due to be paid to that company from any party for any reason. Similarly, a **payable** describes any sum of money to be paid by that company to any party for any reason.

Primarily, receivables arise from the sale of goods and services. The two types of receivables are accounts receivable, which companies offer for short-term credit with no interest charge; and notes receivable, which companies sometimes extend for both short-and long-term credit with an interest charge. We pay particular attention to accounting for uncollectible accounts receivable.

Like their customers, companies use credit, which they show as accounts payable or notes payable. Accounts payable normally result from the purchase of goods or services and do not carry an interest charge. Short-term notes payable carry an interest charge and may arise from the same transactions as accounts payable, but they can also result from borrowing money from a bank or other institution. Previously we identified accounts payable and short-term notes payable as current liabilities. A company also incurs other current liabilities, including payables such as sales tax payable, estimated product warranty payable, and certain liabilities that are contingent on the occurrence of future events. Long-term notes payable usually result from borrowing money from a bank or other

institution to finance the acquisition of plant assets. As you study this chapter and learn how important credit is to our economy, you will realize that credit in some form will probably always be with us.

Accounts receivable

Previously you learned that most companies use the accrual basis of accounting since it better reflects the actual results of the operations of a business. Under the accrual basis, a merchandising company that extends credit records revenue when it makes a sale because at this time it has earned and realized the revenue. The company has earned the revenue because it has completed the seller's part of the sales contract by delivering the goods. The company has realized the revenue because it has received the customer's promise to pay in exchange for the goods. This promise to pay by the customer is an account receivable to the seller. Accounts receivable are amounts that customers owe a company for goods sold and services rendered on account. Frequently, these receivables resulting from credit sales of goods and services are called **trade receivables**.

When a company sells goods on account, customers do not sign formal, written promises to pay, but they agree to abide by the company's customary credit terms. However, customers may sign a sales invoice to acknowledge purchase of goods. Payment terms for sales on account typically run from 30 to 60 days. Companies usually do not charge interest on amounts owed, except on some past-due amounts.

Because customers do not always keep their promises to pay, companies must provide for these uncollectible accounts in their records. Companies use two methods for handling uncollectible accounts. The allowance method provides in advance for uncollectible accounts. The direct write-off method recognizes bad accounts as an expense at the point when judged to be uncollectible and is the required method for federal income tax purposes. However, since the allowance method represents the accrual basis of accounting and is the accepted method to record uncollectible accounts for financial accounting purposes, we only discuss and illustrate the allowance method in this text.

Even though companies carefully screen credit customers, they cannot eliminate all uncollectible accounts. Companies expect some of their accounts to become uncollectible, but they do not know which ones. The matching principle requires deducting expenses incurred in producing revenues from those revenues during the accounting period. The allowance method of recording uncollectible accounts adheres to this principle by recognizing the uncollectible accounts expense in advance of identifying specific accounts as being uncollectible. The required entry has some similarity to the depreciation entry because it debits an expense and credits an allowance (contra asset). The purpose of the entry is to make the income statement fairly present the proper expense and the balance sheet fairly present the asset. **Uncollectible accounts expense** (also called doubtful accounts expense or **bad debts expense**) is an operating expense that a business incurs when it sells on credit. We classify uncollectible accounts expense as a selling expense because it results from credit sales. Other accountants might classify it as an administrative expense because the credit department has an important role in setting credit terms.

To adhere to the matching principle, companies must match the uncollectible accounts expense against the revenues it generates. Thus, an uncollectible account arising from a sale made in 2010 is a 2010 expense even though this treatment requires the use of estimates. Estimates are necessary because the company sometimes cannot determine until 2008 or later which 2010 customer accounts will become uncollectible.

Recording the uncollectible accounts adjustment A company that estimates uncollectible accounts makes an adjusting entry at the end of each accounting period. It debits Uncollectible Accounts Expense, thus

recording the operating expense in the proper period. The credit is to an account called Allowance for Uncollectible Accounts.

As a contra account to the Accounts Receivable account, the **Allowance for Uncollectible Accounts** (also called Allowance for doubtful accounts or Allowance for bad debts) reduces accounts receivable to their net realizable value. **Net realizable value** is the amount the company expects to collect from accounts receivable. When the firm makes the uncollectible accounts adjusting entry, it does not know which specific accounts will become uncollectible. Thus, the company cannot enter credits in either the Accounts Receivable control account or the customers' accounts receivable subsidiary ledger accounts. If only one or the other were credited, the Accounts Receivable control account balance would not agree with the total of the balances in the accounts receivable subsidiary ledger. Without crediting the Accounts Receivable control account, the allowance account lets the company show that some of its accounts receivable are probably uncollectible.

To illustrate the adjusting entry for uncollectible accounts, assume a company has USD 100,000 of accounts receivable and estimates its uncollectible accounts expense for a given year at USD 4,000. The required year-end adjusting entry is:

Dec. 31	Uncollectible Accounts Expense (-SE)	4,000	
	Allowance for Uncollectible Accounts (-A)		4,000
	To record estimated uncollectible accounts.		

The debit to Uncollectible Accounts Expense brings about a matching of expenses and revenues on the income statement; uncollectible accounts expense is matched against the revenues of the accounting period. The credit to Allowance for Uncollectible Accounts reduces accounts receivable to their net realizable value on the balance sheet. When the books are closed, the firm closes Uncollectible Accounts Expense to Income Summary. It reports the allowance on the balance sheet as a deduction from accounts receivable as follows:

Brice Company			
Balance Sheet			
2010 December 31			
Current assets			
Cash			\$21,200
Accounts receivable	\$ 100,000		
Less: Allowance for uncollectible accounts	4,000	96,000	

Estimating uncollectible accounts Accountants use two basic methods to estimate uncollectible accounts for a period. The first method—percentage-of-sales method—focuses on the income statement and the relationship of uncollectible accounts to sales. The second method—percentage-of-receivables method—focuses on the balance sheet and the relationship of the allowance for uncollectible accounts to accounts receivable.

Percentage-of-sales method The **percentage-of-sales method** estimates uncollectible accounts from the credit sales of a given period. In theory, the method is based on a percentage of prior years' actual uncollectible accounts to prior years' credit sales. When cash sales are small or make up a fairly constant percentage of total sales, firms base the calculation on total net sales. Since at least one of these conditions is usually met, companies commonly use total net sales rather than credit sales. The formula to determine the amount of the entry is:

Amount of journal entry for uncollectible accounts – Net sales (total or credit) x Percentage estimated as uncollectible

To illustrate, assume that Rankin Company's uncollectible accounts from 2008 sales were 1.1 per cent of total net sales. A similar calculation for 2009 showed an uncollectible account percentage of 0.9 per cent. The average for the two years is 1 per cent $[(1.1 + 0.9)/2]$. Rankin does not expect 2010 to differ from the previous two years.

Total net sales for 2010 were USD 500,000; receivables at year-end were USD 100,000; and the Allowance for Uncollectible Accounts had a zero balance. Rankin would make the following adjusting entry for 2010:

Dec. 31	Uncollectible Accounts Expense (-SE)	5,000	
	Allowance for Uncollectible Accounts (-A)		5,000
	To record estimated uncollectible accounts (\$500,000 X 0.01).		

Using T-accounts, Rankin would show:

Uncollectible Accounts Expense		Allowance for Uncollectible Accounts	
Dec. 31		Bal. before	
Adjustment 5,000		adjustment	-0-
		Dec. 31	
		Adjustment	5,000
		Bal. after	
		adjustment	5,000

Rankin reports Uncollectible Accounts Expense on the income statement. It reports the accounts receivable less the allowance among current assets in the balance sheet as follows:

Accounts receivable	\$ 100,000	
Less: Allowance for uncollectible accounts	5,000	\$ 95,000
Or Rankin's balance sheet could show:		
Accounts receivable (less estimated uncollectible accounts, \$5,000)	\$95,000	

On the income statement, Rankin would match the uncollectible accounts expense against sales revenues in the period. We would classify this expense as a selling expense since it is a normal consequence of selling on credit.

The Allowance for Uncollectible Accounts account usually has either a debit or credit balance before the year-end adjustment. Under the percentage-of-sales method, the company ignores any existing balance in the allowance when calculating the amount of the year-end adjustment (except that the allowance account must have a credit balance after adjustment).

For example, assume Rankin's allowance account had a USD 300 credit balance before adjustment. The adjusting entry would still be for USD 5,000. However, the balance sheet would show USD 100,000 accounts receivable less a USD 5,300 allowance for uncollectible accounts, resulting in net receivables of USD 94,700. On the income statement, Uncollectible Accounts Expense would still be 1 per cent of total net sales, or USD 5,000.

In applying the percentage-of-sales method, companies annually review the percentage of uncollectible accounts that resulted from the previous year's sales. If the percentage rate is still valid, the company makes no change. However, if the situation has changed significantly, the company increases or decreases the percentage rate to reflect the changed condition. For example, in periods of recession and high unemployment, a firm may increase the percentage rate to reflect the customers' decreased ability to pay. However, if the company adopts a more stringent credit policy, it may have to decrease the percentage rate because the company would expect fewer uncollectible accounts.

Percentage-of-receivables method The **percentage-of-receivables method** estimates uncollectible accounts by determining the desired size of the Allowance for Uncollectible Accounts. Rankin would multiply the ending balance in Accounts Receivable by a rate (or rates) based on its uncollectible accounts experience. In the percentage-of-receivables method, the company may use either an overall rate or a different rate for each age category of receivables.

To calculate the amount of the entry for uncollectible accounts under the percentage-of-receivables method using an overall rate, Rankin would use:

Amount of entry for uncollectible accounts – (Accounts receivable ending balance x percentage estimated as uncollectible) – Existing credit balance in allowance for uncollectible accounts or existing debit balance in allowance for uncollectible accounts

Using the same information as before, Rankin makes an estimate of uncollectible accounts at the end of 2010. The balance of accounts receivable is USD 100,000, and the allowance account has no balance. If Rankin estimates that 6 per cent of the receivables will be uncollectible, the adjusting entry would be:

Dec. 31	Uncollectible Accounts Expense (-SE)	6,000	
	Allowance for Uncollectible Accounts (-A)		6,000
	To record estimated uncollectible accounts (\$100,000 X 0.06).		

Using T-accounts, Rankin would show:

Uncollectible Accounts Expense		Allowance for Uncollectible Accounts	
Dec. 31		Bal. before	
Adjustment 6,000		Adjustment	-0-
		Dec. 31	
		Adjustment	6,000
		Bal. after	
		Adjustment	6,000

If Rankin had a USD 300 credit balance in the allowance account before adjustment, the entry would be the same, except that the amount of the entry would be USD 5,700. The difference in amounts arises because management wants the allowance account to contain a credit balance equal to 6 per cent of the outstanding receivables when presenting the two accounts on the balance sheet. The calculation of the necessary adjustment is [(USD 100,000 X 0.06)-USD 300] = USD 5,700. Thus, under the percentage-of-receivables method, firms consider any existing balance in the allowance account when adjusting for uncollectible accounts. Using T-accounts, Rankin would show:

Uncollectible Accounts Expense		Allowance for Uncollectible Accounts	
Dec. 31		Bal. before	
Adjustment 5,700		Adjustment	300
		Dec. 31	
		Adjustment	5,700
		Bal. after	
		Adjustment	6,000

ALLEN COMPANY
Accounts Receivable Aging Schedule
2010 December 31

Customer	Accounts Receivable Balance	Not Yet Due	Days Past Due				Over 90
			1-30	31-60	61-90		
X	\$ 5,000					\$ 5,000	
Y	14,000		\$ 12,000	\$ 2,000			
Z	400				\$ 200	200	
All others	808,600	\$ 560,000	240,000	2,000	600	6,000	
	\$ 828,000	\$ 560,000	\$ 252,000	\$ 4,000	\$ 800	\$ 11,200	
Percentage estimated as uncollectible		1%	5%	10%	25%	50%	
Estimated amount uncollectible	\$ 24,400	\$ 5,600	\$ 12,600	\$ 400	\$ 200	\$ 5,600	

Exhibit 1: Accounts receivable aging schedule

As another example, suppose that Rankin had a USD 300 debit balance in the allowance account before adjustment. Then, a credit of USD 6,300 would be necessary to get the balance to the required USD 6,000 credit balance. The calculation of the necessary adjustment is $[(USD\ 100,000 \times 0.06) + USD\ 300] = USD\ 6,300$. Using T-accounts, Rankin would show:

Uncollectible Accounts Expense	Allowance for Uncollectible Accounts	
Dec. 31	Bal. before	Dec. 31
Adjustment 6,300	Adjustment 300	Adjustment 6,300
		Bal. after
		Adjustment 6,000

No matter what the pre-adjustment allowance account balance is, when using the percentage-of-receivables method, Rankin adjusts the Allowance for Uncollectible Accounts so that it has a credit balance of USD 6,000—equal to 6 per cent of its USD 100,000 in Accounts Receivable. The desired USD 6,000 ending credit balance in the Allowance for Uncollectible Accounts serves as a "target" in making the adjustment.

So far, we have used one uncollectibility rate for all accounts receivable, regardless of their age. However, some companies use a different percentage for each age category of accounts receivable. When accountants decide to use a different rate for each age category of receivables, they prepare an aging schedule. An **aging schedule** classifies accounts receivable according to how long they have been outstanding and uses a different uncollectibility percentage rate for each age category. Companies base these percentages on experience. In Exhibit 1, the aging schedule shows that the older the receivable, the less likely the company is to collect it.

Classifying accounts receivable according to age often gives the company a better basis for estimating the total amount of uncollectible accounts. For example, based on experience, a company can expect only 1 per cent of the accounts not yet due (sales made less than 30 days before the end of the accounting period) to be uncollectible. At the other extreme, a company can expect 50 per cent of all accounts over 90 days past due to be uncollectible. For each age category, the firm multiplies the accounts receivable by the percentage estimated as uncollectible to find the estimated amount uncollectible.

The sum of the estimated amounts for all categories yields the total estimated amount uncollectible and is the desired credit balance (the target) in the Allowance for Uncollectible Accounts.

Since the aging schedule approach is an alternative under the percentage-of-receivables method, the balance in the allowance account before adjustment affects the year-end adjusting entry amount recorded for uncollectible accounts. For example, the schedule in Exhibit 1 shows that USD 24,400 is needed as the ending credit balance in the allowance account. If the allowance account has a USD 5,000 credit balance before adjustment, the adjustment would be for USD 19,400.

The information in an aging schedule also is useful to management for other purposes. Analysis of collection patterns of accounts receivable may suggest the need for changes in credit policies or for added financing. For example, if the age of many customer balances has increased to 61-90 days past due, collection efforts may have to be strengthened. Or, the company may have to find other sources of cash to pay its debts within the discount period. Preparation of an aging schedule may also help identify certain accounts that should be written off as uncollectible.

An accounting perspective:

Business insight

According to the Fair Debt Collection Practices Act, collection agencies can call persons only between 8 am and 9 pm, and cannot use foul language. Agencies can call employers only if the employers allow such calls. And, they can threaten to sue only if they really intend to do so.

Write-off of receivables As time passes and a firm considers a specific customer's account to be uncollectible, it writes that account off. It debits the Allowance for Uncollectible Accounts. The credit is to the Accounts Receivable control account in the general ledger and to the customer's account in the accounts receivable subsidiary ledger. For example, assume Smith's USD 750 account has been determined to be uncollectible. The entry to write off this account is:

Allowance for Uncollectible Accounts (-SE)	750	
Accounts Receivable—Smith (-A)		750
To write off Smith's account as uncollectible.		

The credit balance in Allowance for Uncollectible Accounts before making this entry represented potential uncollectible accounts not yet specifically identified. Debiting the allowance account and crediting Accounts Receivable shows that the firm has identified Smith's account as uncollectible. Notice that the debit in the entry to write off an account receivable does not involve recording an expense. The company recognized the uncollectible accounts expense in the same accounting period as the sale. If Smith's USD 750 uncollectible account were recorded in Uncollectible Accounts Expense again, it would be counted as an expense twice.

A write-off does not affect the net realizable value of accounts receivable. For example, suppose that Amos Company has total accounts receivable of USD 50,000 and an allowance of USD 3,000 before the previous entry; the net realizable value of the accounts receivable is USD 47,000. After posting that entry, accounts receivable are USD 49,250, and the allowance is USD 2,250; net realizable value is still USD 47,000, as shown here:

	Before Write-Off	Entry for Write-Off	After Write-Off
Accounts receivable	\$ 50,000 Dr.	\$750 Cr.	\$ 49,250 Dr.
Allowance for uncollectible accounts	3,000 Cr.	750 Dr.	2,250 Cr.
Net realizable value	\$47,000		\$ 47,000

You might wonder how the allowance account can develop a debit balance before adjustment. To explain this, assume that Jenkins Company began business on 2009 January 1, and decided to use the allowance method and make the adjusting entry for uncollectible accounts only at year-end. Thus, the allowance account would not have any balance at the beginning of 2009. If the company wrote off any uncollectible accounts during 2009, it would debit Allowance for Uncollectible Accounts and cause a debit balance in that account. At the end of 2009, the company would debit Uncollectible Accounts Expense and credit Allowance for Uncollectible Accounts. This adjusting entry would cause the allowance account to have a credit balance. During 2010, the company would again begin debiting the allowance account for any write-offs of uncollectible accounts. Even if the adjustment at the end of 2009 was adequate to cover all accounts receivable existing at that time that would later become uncollectible, some accounts receivable from 2010 sales may be written off before the end of 2010. If so, the allowance account would again develop a debit balance before the end-of-year 2010 adjustment.

Uncollectible accounts recovered Sometimes companies collect accounts previously considered to be uncollectible after the accounts have been written off. A company usually learns that an account has been written off erroneously when it receives payment. Then the company reverses the original write-off entry and reinstates the account by debiting Accounts Receivable and crediting Allowance for Uncollectible Accounts for the amount received. It posts the debit to both the general ledger account and to the customer's accounts receivable subsidiary ledger account. The firm also records the amount received as a debit to Cash and a credit to Accounts Receivable. And it posts the credit to both the general ledger and to the customer's accounts receivable subsidiary ledger account.

To illustrate, assume that on May 17 a company received a USD 750 check from Smith in payment of the account previously written off. The two required journal entries are:

May	17	Accounts Receivable—Smith (+A)	750	
		Allowance for Uncollectible Accounts (-A)		
		To reverse original write-off of Smith account.		750
May	17	Cash (+A)	750	
		Accounts Receivable—Smith (-A)		
		To record collection of account.		750

The debit and credit to Accounts Receivable—Smith on the same date is to show in Smith's subsidiary ledger account that he did eventually pay the amount due. As a result, the company may decide to sell to him in the future.

When a company collects part of a previously written off account, the usual procedure is to reinstate only that portion actually collected, unless evidence indicates the amount will be collected in full. If a company expects full payment, it reinstates the entire amount of the account.

Because of the problems companies have with uncollectible accounts when they offer customers credit, many now allow customers to use bank or external credit cards. This policy relieves the company of the headaches of collecting overdue accounts.

A broader perspective:

GECS allowance for losses on financing receivables

Recognition of losses on financing receivables. The allowance for losses on small-balance receivables reflects management's best estimate of probable losses inherent in the portfolio determined principally on the basis of historical experience. For other receivables, principally the larger loans and leases, the allowance for losses is determined primarily on the basis of management's best estimate of probable losses, including specific allowances for known troubled accounts.

All accounts or portions thereof deemed to be uncollectible or to require an excessive collection cost are written off to the allowance for losses. Small-balance accounts generally are written off when 6 to 12 months delinquent, although any such balance judged to be uncollectible, such as an account in bankruptcy, is written down immediately to estimated realizable value. Large-balance accounts are reviewed at least quarterly, and those accounts with amounts that are judged to be uncollectible are written down to estimated realizable value.

When collateral is repossessed in satisfaction of a loan, the receivable is written down against the allowance for losses to estimated fair value of the asset less costs to sell, transferred to other assets and subsequently carried at the lower of cost or estimated fair value less costs to sell. This accounting method has been employed principally for specialized financing transactions.

(In millions)	2000	1999	1998
Balance at January 1	\$3,708	\$3,223	\$2,745
Provisions charged			
To operations	2,045	1,671	1,603
Net transfers related to companies acquired or sold	22	271	386
Amounts written off-net	(1,741)	(1,457)	(1,511)
Balance at December 31	\$4,034	\$3,708	\$3,223

Source: General Electric Company, 2000 Annual Report.

An accounting perspective:

Uses of technology

Auditors use expert systems to review a client's internal control structure and to test the reasonableness of a client's Allowance for Uncollectible Accounts balance. The expert system reaches conclusions based on rules and information programmed into the expert system software. The rules are modeled on the mental processes that a human expert would use in addressing the situation. In the medical field, for instance, the rules constituting the expert system are derived from modeling the diagnostic decision processes of the foremost experts in a given area of medicine. A physician can input information from a remote location regarding the symptoms of a certain patient, and the expert system will provide a probable diagnosis based on the expert model. In a similar fashion, an accountant can feed client information into the expert system and receive an evaluation as to the appropriateness of the account balance or internal control structure.

Credit cards are either nonbank (e.g. American Express) or bank (e.g. VISA and MasterCard) charge cards that customers use to purchase goods and services. For some businesses, uncollectible account losses and other costs of extending credit are a burden. By paying a service charge of 2 per cent to 6 per cent, businesses pass these costs on to banks and agencies issuing national credit cards. The banks and credit card agencies then absorb the uncollectible accounts and costs of extending credit and maintaining records.

Usually, banks and agencies issue credit cards to approved credit applicants for an annual fee. When a business agrees to honor these credit cards, it also agrees to pay the percentage fee charged by the bank or credit agency.

When making a credit card sale, the seller checks to see if the customer's card has been canceled and requests approval if the sale exceeds a prescribed amount, such as USD 50. This procedure allows the seller to avoid accepting lost, stolen, or canceled cards. Also, this policy protects the credit agency from sales causing customers to exceed their established credit limits.

The seller's accounting procedures for credit card sales differ depending on whether the business accepts a nonbank or a bank credit card. To illustrate the entries for the use of nonbank credit cards (such as American Express), assume that a restaurant American Express invoices amounting to USD 1,400 at the end of a day. American Express charges the restaurant a 5 per cent service charge. The restaurant uses the **Credit Card Expense account** to record the credit card agency's service charge and makes the following entry:

Accounts Receivable—American Express (+A)	1,330	
Credit Card Expense (-SE)	70	
Sales (+SE)		1,400
To record credit card sales.		

The restaurant mails the invoices to American Express. Sometime later, the restaurant receives payment from American Express and makes the following entry:

Cash (+A)	1,330	
Accounts Receivable – American Express (-A)		1,330
To record remittance from American Express.		

To illustrate the accounting entries for the use of bank credit cards (such as VISA or MasterCard), assume that a retailer has made sales of USD 1,000 for which VISA cards were accepted and the service charge is USD 30 (which is 3 per cent of sales). VISA sales are treated as cash sales because the receipt of cash is certain. The retailer deposits the credit card sales invoices in its VISA checking account at a bank just as it deposits checks in its regular checking account. The entry to record this deposit is:

Cash (+A)	970	
Credit Card Expense (-SE)	30	
Sales (+SE)		1,000
To record credit Visa card sales.		

An accounting perspective:

Business insight

Recent innovations in credit cards include picture IDs on cards to reduce theft, credits toward purchases of new automobiles (e.g. General Motors cards), credit toward free trips on airlines, and cash rebates on all purchases. Discover Card, for example, remits a percentage of all charges back to credit card holders. Also, some credit card companies have reduced interest rates on unpaid balances and have eliminated the annual fee.

Just as every company must have current assets such as cash and accounts receivable to operate, every company incurs current liabilities in conducting its operations. Corporations (IBM and General Motors), partnerships (CPA firms), and single proprietorships (corner grocery stores) all have one thing in common—they have liabilities. The next section discusses some of the current liabilities companies incur.

Current liabilities

Liabilities result from some past transaction and are obligations to pay cash, provide services, or deliver goods at some future time. This definition includes each of the liabilities discussed in previous chapters and the new liabilities presented in this chapter. The balance sheet divides liabilities into current liabilities and long-term liabilities. **Current liabilities** are obligations that (1) are payable within one year or one operating cycle, whichever is longer, or (2) will be paid out of current assets or create other current liabilities. **Long-term**

liabilities are obligations that do not qualify as current liabilities. This chapter focuses on current liabilities and in a later chapter we'll discuss long-term liabilities.

Note the definition of a current liability uses the term operating cycle. An **operating cycle** (or cash cycle) is the time it takes to begin with cash, buy necessary items to produce revenues (such as materials, supplies, labor, and/or finished goods), sell goods or services, and receive cash by collecting the resulting receivables. For most companies, this period is no longer than a few months. Service companies generally have the shortest operating cycle, since they have no cash tied up in inventory. Manufacturing companies generally have the longest cycle because their cash is tied up in inventory accounts and in accounts receivable before coming back. Even for manufacturing companies, the cycle is generally less than one year. Thus, as a practical matter, current liabilities are due in one year or less, and long-term liabilities are due after one year from the balance sheet date.

The operating cycles for various businesses follow:

Type of Business	Operating Cycle
Service company selling for cash only	Instantaneous
Service company selling on credit	Cash -> Accounts Receivable -> Cash
Merchandising company selling for cash	Cash -> Inventory -> Cash
Merchandising company selling on credit	Cash -> Inventory -> Accounts receivable -> Cash
Manufacturing company selling for cash	Cash -> Materials inventory -> Work in process inventory -> Finished goods inventory -> Accounts Receivable -> Cash

Current liabilities fall into these three groups:

- **Clearly determinable liabilities.** The existence of the liability and its amount are certain. Examples include most of the liabilities discussed previously, such as accounts payable, notes payable, interest payable, unearned delivery fees, and wages payable. Sales tax payable, federal excise tax payable, current portions of long-term debt, and payroll liabilities are other examples.
- **Estimated liabilities.** The existence of the liability is certain, but its amount only can be estimated. An example is estimated product warranty payable.
- **Contingent liabilities.** The existence of the liability is uncertain and usually the amount is uncertain because contingent liabilities depend (or are contingent) on some future event occurring or not occurring. Examples include liabilities arising from lawsuits, discounted notes receivable, income tax disputes, penalties that may be assessed because of some past action, and failure of another party to pay a debt that a company has guaranteed.

The following table summarizes the characteristics of current liabilities:

Type of Liability	Is the Existence Certain?	Is the Amount Certain?
Clearly determinable liabilities	Yes	Yes
Estimated liabilities	Yes	No
Contingent liabilities	No	No

Clearly determinable liabilities have clearly determinable amounts. In this section, we describe liabilities not previously discussed that are clearly determinable—sales tax payable, federal excise tax payable, current portions of long-term debt, and payroll liabilities. Later in this chapter, we discuss clearly determinable liabilities such as notes payable.

Sales tax payable Many states have a state sales tax on items purchased by consumers. The company selling the product is responsible for collecting the sales tax from customers. When the company collects the taxes, the

debit is to Cash and the credit is to Sales Tax Payable. Periodically, the company pays the sales taxes collected to the state. At that time, the debit is to Sales Tax Payable and the credit is to Cash.

To illustrate, assume that a company sells merchandise in a state that has a 6 per cent sales tax. If it sells goods with a sales price of USD 1,000 on credit, the company makes this entry:

Accounts Receivable (+A)	1,060	
Sales (+SE)		1,000
Sales Tax Payable (+L)		60
To record sales and sales tax payable.		

Now assume that sales for the entire period are USD 100,000 and that USD 6,000 is in the Sales Tax Payable account when the company remits the funds to the state taxing agency. The following entry shows the payment to the state:

Sales Tax Payable (-L)	6,000	
Cash (-A)		6,000

An alternative method of recording sales taxes payable is to include these taxes in the credit to Sales. For instance, the previous company could record sales as follows:

Accounts Receivable (+A)	1,060	
Sales (+SE)		1,060

When recording sales taxes in the same account as sales revenue, the firm must separate the sales tax from sales revenue at the end of the accounting period. To make this separation, it adds the sales tax rate to 100 per cent and divides this percentage into recorded sales revenue. For instance, assume that total recorded sales revenues for an accounting period are USD 10,600, and the sales tax rate is 6 per cent. To find the sales revenue, use the following formula:

$$\text{Sales} = \frac{\text{Amount recorded for sales account}}{100 \text{ per cent} + \text{sales tax rate}}$$

$$= \frac{\text{USD } 10,600}{106 \text{ per cent}} = \text{USD } 10,000$$

The sales revenue is USD 10,000 for the period. Sales tax is equal to the recorded sales revenue of USD 10,600 less actual sales revenue of USD 10,000, or USD 600.

Federal excise tax payable Consumers pay federal excise tax on some goods, such as alcoholic beverages, tobacco, gasoline, cosmetics, tires, and luxury automobiles. The entries a company makes when selling goods subject to the federal excise tax are similar to those made for sales taxes payable. For example, assume that the Dixon Jewelry Store sells a diamond ring to a young couple for USD 2,000. The sale is subject to a 6 per cent sales tax and a 10 per cent federal excise tax. The entry to record the sale is:

Accounts Receivable (+A)	2,320	
Sales (+L)		2,000
Sales Tax Payable (+L)		120
Federal Excise Tax Payable		200
To record the sale of a diamond ring.		

The company records the remittance of the taxes to the federal taxing agency by debiting Federal Excise Tax Payable and crediting Cash.

Current portions of long-term debt Accountants move any portion of long-term debt that becomes due within the next year to the current liability section of the balance sheet. For instance, assume a company signed a series of 10 individual notes payable for USD 10,000 each; beginning in the 6th year, one comes due each year through the 15th year. Beginning in the 5th year, an accountant would move a USD 10,000 note from the long-term

liability category to the current liability category on the balance sheet. The current portion would then be paid within one year.

An accounting perspective:

Uses of technology

Many companies use service bureaus to process their payrolls because these bureaus keep up to date on rates, bases, and changes in the laws affecting payroll. Companies can either send their data over the Internet or have the service bureaus pick up time sheets and other data. Managers instruct service bureaus either to print the payroll checks or to transfer data back to the company over the Internet so it can print the checks.

Payroll liabilities In most business organizations, accounting for payroll is particularly important because (1) payrolls often are the largest expense that a company incurs, (2) both federal and state governments require maintaining detailed payroll records, and (3) companies must file regular payroll reports with state and federal governments and remit amounts withheld or otherwise due. Payroll liabilities include taxes and other amounts withheld from employees' paychecks and taxes paid by employers.

Employers normally withhold amounts from employees' paychecks for federal income taxes; state income taxes; FICA (social security) taxes; and other items such as union dues, medical insurance premiums, life insurance premiums, pension plans, and pledges to charities. Assume that a company had a payroll of USD 35,000 for the month of April 2010. The company withheld the following amounts from the employees' pay: federal income taxes, USD 4,100; state income taxes, USD 360; FICA taxes, USD 2,678; and medical insurance premiums, USD 940. This entry records the payroll:

2010			
April	30	Salaries Expense (-SE)	35,000
		Employees' Federal Income Taxes Payable (+L)	4,100
		Employees' State Income Taxes Payable (+L)	360
		FICA Taxes Payable (+L)	2,678
		Employees' Medical Insurance Premiums Payable (+L)	940
		Salaries Payable (+L)	26,922
		To record the payroll for the month ending April 30.	

All accounts credited in the entry are current liabilities and will be reported on the balance sheet if not paid prior to the preparation of financial statements. When these liabilities are paid, the employer debits each one and credits Cash.

Employers normally record payroll taxes at the same time as the payroll to which they relate. Assume the payroll taxes an employer pays for April are FICA taxes, USD 2,678; state unemployment taxes, USD 1,890; and federal unemployment taxes, USD 280. The entry to record these payroll taxes would be:

2010			
April	30	Payroll Taxes Expense (-SE)	4,848
		FICA Taxes Payable (+L)	2,678
		State Unemployment Taxes Payable (+L)	1,890
		Federal Unemployment Taxes Payable (+L)	280
		To record employer's payroll taxes.	

These amounts are in addition to the amounts withheld from employees' paychecks. The credit to FICA Taxes Payable is equal to the amount withheld from the employees' paychecks. The company can credit both its own and the employees' FICA taxes to the same liability account, since both are payable at the same time to the same agency. When these liabilities are paid, the employer debits each of the liability accounts and credits Cash.

An accounting perspective:

Uses of technology

One of the basic components in accounting software packages is the payroll module. As long as companies update this module each time rates, bases, or laws change, they can calculate withholdings, print payroll checks, and complete reporting forms for taxing agencies. In addition to calculating the employer's payroll taxes, this software maintains all accounting payroll records.

Managers of companies that have estimated liabilities know these liabilities exist but can only estimate the amount. The primary accounting problem is to estimate a reasonable liability as of the balance sheet date. An example of an estimated liability is product warranty payable.

Estimated product warranty payable When companies sell products such as computers, often they must guarantee against defects by placing a warranty on their products. When defects occur, the company is obligated to reimburse the customer or repair the product. For many products, companies can predict the number of defects based on experience. To provide for a proper matching of revenues and expenses, the accountant estimates the warranty expense resulting from an accounting period's sales. The debit is to Product Warranty Expense and the credit to Estimated Product Warranty Payable.

To illustrate, assume that a company sells personal computers and warrants all parts for one year. The average price per computer is USD 1,500, and the company sells 1,000 computers in 2010. The company expects 10 per cent of the computers to develop defective parts within one year. By the end of 2010, customers have returned 40 computers sold that year for repairs, and the repairs on those 40 computers have been recorded. The estimated average cost of warranty repairs per defective computer is USD 150. To arrive at a reasonable estimate of product warranty expense, the accountant makes the following calculation:

Number of computers sold	1,000	
Percent estimated to develop defects	X 10%	
Total estimated defective computers	100	
Deduct computers returned as defective to date	40	
Estimated additional number to become defective during warranty period	60	
Estimated average warranty repair cost per compute:	X \$ 150	
Estimated product warranty payable	\$9,000	

The entry made at the end of the accounting period is:

Product Warranty Expense (-SE)	9,000	
Estimated Product Warranty Payable (+L)		9,000
To record estimated product warranty expense.		

When a customer returns one of the computers purchased in 2010 for repair work in 2008 (during the warranty period), the company debits the cost of the repairs to Estimated Product Warranty Payable. For instance, assume that Evan Holman returns his computer for repairs within the warranty period. The repair cost includes parts, USD 40, and labor, USD 160. The company makes the following entry:

Estimated Product Warranty Payable (-L)	200	
Repair Parts Inventory (-A)		40
Wages Payable (+L)		160
To record replacement of parts under warranty.		

A career in forensic accounting

This chapter emphasizes the importance of having effective internal controls in every business. Unfortunately, many smaller companies do not heed this advice. Failure to implement adequate internal controls can result in financial statement fraud (purposely misstated financial statements) or embezzlement (theft). This is when the services of a forensic accountant may be necessary. Forensic accounting is the application of accounting methodology to legal issues. It is frequently associated with the investigation of civil or criminal white-collar crime such as fraud, embezzlement, and general abuse of funds issues. Typical tools used in forensic accounting are bank records, personal financial statements, interviews, and credit reports. The forensic accountant's responsibility is to gather and analyze the evidence and deliver clear, accurate, and unbiased reports reflecting the results of the investigation. Forensic accounting is commonly performed by Certified Fraud Examiners (CFEs). CFEs have extensive training and possess special expertise in investigation and interview techniques specifically designed to detect or prevent fraud.

A well-known agency performing forensic accounting in the United States is in the Federal Bureau of Investigation (FBI). You can learn more about the FBI from their homepage at www.fbi.gov. Click on employment in the 'About Us' section and then click on special agent employment to learn more about what it takes to be an FBI special agent. Did you know that the fastest track to becoming an FBI agent is with an accounting undergraduate degree? There are four entry programs for becoming an FBI special agent: accounting, law, language, and diversified. Law requires an undergraduate degree and a law degree, language requires an undergraduate degree and proficiency in a second language, and diversified requires three years of work experience beyond an undergraduate degree. The only entry program requiring only an undergraduate degree is one with an undergraduate accounting option. Why accounting? Because an ever-increasing portion of crimes investigated by the FBI are white-collar crimes where accounting knowledge is essential.

In a small corporation the president might make all the important decisions and will usually maintain a close watch over the affairs of the business. However, as the business grows and the need arises for additional employees, officers, and managers, the president begins to lose absolute control. Realizing that precautions are necessary to protect the company's interests, the company establishes an internal control structure at this point.

The **internal control structure** of a company consists of "the policies and procedures established to provide reasonable assurance that specific entity objectives will be achieved".¹ The three elements of an internal control structure are the control environment, the accounting system, and the control procedures.

The **control environment** reflects the overall attitude, awareness, and actions of the board of directors, management, and stockholders. The **accounting system** consists of the methods and records that identify, assemble, analyze, classify, record, and report an entity's transactions to provide complete, accurate, and timely financial information. The **control procedures** of a company are additional policies and procedures that management establishes to provide reasonable assurance that the company achieves its specific objectives. These

¹ AICPA, *Statement on Auditing Standards No. 55*, "Consideration of the Internal Control Structure in a Financial Statement Audit" (New York, 1988), p. 4. The sixth and seventh editions of this text use the terminology (internal control structure) of the AICPA. Previous editions referred to the "internal control system."

control procedures may pertain to proper authorization, segregation of duties, design and use of adequate documents and records, adequate safeguards over access to assets, and independent checks on performance.

Internal control not only prevents theft and fraud but also serves many purposes:

(1) Companies must implement policies requiring compliance with federal law; (2) personnel must perform their assigned duties to promote efficiency of operations; and (3) correct accounting records must supply accurate and reliable information in the accounting reports.

This chapter discusses the internal control structure that a company establishes to protect its assets and promote the accuracy of its accounting records.

You will learn how to establish internal control through control of cash receipts and cash disbursements, proper use of the bank checking account, preparation of the bank reconciliation, and protection of petty cash funds. The internal control structure is enhanced by hiring competent and trustworthy employees, a fact you will appreciate if you become a business owner.

Internal control

An effective **internal control structure** includes a company's plan of organization and all the procedures and actions it takes to:

- Protect its assets against theft and waste.
- Ensure compliance with company policies and federal law.
- Evaluate the performance of all personnel to promote efficient operations.
- Ensure accurate and reliable operating data and accounting reports.

As you study the basic procedures and actions of an effective internal control structure, remember that even small companies can benefit from using some internal control measures. Preventing theft and waste is only a part of internal control.

In general terms, the purpose of internal control is to ensure the efficient operations of a business, thus enabling the business to effectively reach its goals. Since additional control procedures are necessary in a computer environment, a discussion of these controls concludes this section on internal control.

An accounting perspective:

Business insight

When performing an audit, one of an outside auditor's first duties is to examine the internal control structure of the corporation. To understand the internal control structure, an auditor focuses mainly on management's attitude and awareness concerning controls and the accounting system's processing of transactions. To increase understanding, the auditor inspects documents in the accounting system, discusses external influences on the company with management, reads accounting manuals, and observes the happenings in the company. This understanding of the company's control environment helps the auditor to plan the audit and to determine the nature, timing, and extent of tests.

Companies protect their assets by (1) segregating employee duties, (2) assigning specific duties to each employee, (3) rotating employee job assignments, and (4) using mechanical devices.

Segregation of employee duties **Segregation of duties** requires that someone other than the employee responsible for safeguarding an asset must maintain the accounting records for that asset. Also, employees share responsibility for related transactions so that one employee's work serves as a check on the work of other employees.

When a company segregates the duties of employees, it minimizes the probability of an employee being able to steal assets and cover up the theft. For example, an employee could not steal cash from a company and have the theft go undetected unless someone changes the cash records to cover the shortage. To change the records, the employee stealing the cash must also maintain the cash records or be in collusion with the employee who maintains the cash records.

Assignment of specific duties to each employee When the responsibility for a particular work function is assigned to one employee, that employee is accountable for specific tasks. Should a problem occur, the company can quickly identify the responsible employee.

When a company gives each employee specific duties, it can trace lost documents or determine how a particular transaction was recorded. Also, the employee responsible for a given task can provide information about that task. Being responsible for specific duties gives people a sense of pride and importance that usually makes them want to perform to the best of their ability.

Rotation of employee job assignments Some companies rotate job assignments to discourage employees from engaging in long-term schemes to steal from them. Employees realize that if they steal from the company, the next employees assigned to their positions may discover the theft.

Frequently, companies have the policy that all employees must take an annual vacation. This policy also discourages theft because many dishonest schemes collapse when the employee does not attend to the scheme on a daily basis.

Use of mechanical devices Companies use several mechanical devices to help protect their assets. Check protectors (machines that perforate the check amount into the check), cash registers, and time clocks make it difficult for employees to alter certain company documents and records.

Internal control policies are effective only when employees follow them. To ensure that they carry out its internal control policies, a company must hire competent and trustworthy employees. Thus, the execution of effective internal control begins with the time and effort a company expends in hiring employees. Once the company hires the employees, it must train those employees and clearly communicate to them company policies, such as obtaining proper authorization before making a cash disbursement. Frequently, written job descriptions establish the responsibilities and duties of employees. The initial training of employees should include a clear explanation of their duties and how to perform them.

In publicly held corporations, the company's internal control structure must satisfy the requirements of federal law. In December 1977, Congress enacted the Foreign Corrupt Practices Act (FCPA). This law requires a publicly held corporation to devise and maintain an effective internal control structure and to keep accurate accounting records. This law came about partly because company accounting records covered up bribes and kickbacks made to foreign governments or government officials. The FCPA made this specific type of bribery illegal.

To evaluate how well employees are doing their jobs, many companies use an internal auditing staff. **Internal auditing** consists of investigating and evaluating employees' compliance with the company's policies and procedures. Companies employ **internal auditors** to perform these audits. Trained in company policies and internal auditing duties, internal auditors periodically test the effectiveness of controls and procedures throughout the company.

Internal auditors encourage operating efficiency throughout the company and are alert for breakdowns in the company's internal control structure. In addition, internal auditors make recommendations for the improvement of the company's internal control structure. All companies and nonprofit organizations can benefit from internal auditing. However, internal auditing is especially necessary in large organizations because the owners (stockholders) cannot be involved personally with all aspects of the business.

Companies should maintain complete and accurate accounting records. The best method to ensure such accounting records is to hire and train competent and honest individuals. Periodically, supervisors evaluate an employee's performance to make sure the employee is following company policies. Inaccurate or inadequate accounting records serve as an invitation to theft by dishonest employees because theft can be concealed more easily.

One or more business documents support most accounting transactions. These source documents are an integral part of the internal control structure. For optimal control, source documents should be serially numbered. (Transaction documentation and related aspects of internal control are presented throughout the text.)

PURCHASE REQUISITION		No. 2416
BRYAN WHOLESALE COMPANY		
From: Automotive Supplies Department	Date: 2010 November 20	
To: Purchasing Department	Suggested supplier: Wilkes Radio Company	
Please purchase the following items;		
Description	Item Number	Quantity
	Model No. 5868-24393	200
		Estimated Price
		\$50 per unit
Reason for request:	To be filled in by purchasing department:	
Customer order	Dated ordered 2010 November 29	
Baier Company	Purchase order number N-MS	
	Approved R.S.T.	

Exhibit 2: Purchase requisition

Since source documents serve as documentation of business transactions, from time to time firms check the validity of these documents. For example, to review a purchase transaction, they check the documents used to record the transaction against the proper accounting records. When the accounting department records a purchase transaction, it should receive copies of the following four documents:

- A **purchase requisition** (Exhibit 3) is a written request from an employee inside the company to the purchasing department to purchase certain items.
- A **purchase order** (Exhibit 2) is a document sent from the purchasing department to a supplier requesting that merchandise or other items be shipped to the purchaser.
- An **invoice** (Exhibit 4) is the statement sent by the supplier to the purchaser requesting payment for the merchandise shipped.
- A **receiving report** is a document prepared by the receiving department showing the descriptions and quantities of all items received from a supplier in a particular shipment. A copy of the purchase order can serve

as a receiving report if the quantity ordered is omitted. Then, because receiving department personnel do not know what quantity to expect, they will count the quantity received more accurately.

These four documents together serve as authorization to pay for merchandise and should be checked against the accounting records. Without these documents, a company might fail to pay a legitimate invoice, pay fictitious invoices, or pay an invoice more than once. Companies can accomplish proper internal control only by periodically checking the source documents of business transactions with the accounting records of those transactions. In Exhibit 5 we show the flow of documents and goods in a merchandise transaction.

PURCHASE ORDER		No.	N-145
BRYAN WHOLESALE COMPANY			
476 Mason Street			
Detroit, Michigan 48823			
To:	Wilkes Radio Company	Date:	2010 November 21
	2515 West Peachtree Street	Ship by:	2010 December 20
	Atlanta, Georgia 30303	FOB terms requested:	Destination
Ship to:	Above		
address			
		Discount terms requested:	2/10, n/30
Please send the foil owing item;			
Description	Item Number	Quantity	Price Per Unit
True-tone stereo radios	Model No. 5868-24393	200	\$50
Ordered by:	Jane Knight		Total Amount
			\$10,000
		Please include order number on all invoice and shipments.	

Exhibit 3: Purchase order

Unfortunately, even though a company implements all of these features in its internal control structure, theft may still occur. If employees are dishonest, they can usually figure out a way to steal from a company, thus circumventing even the most effective internal control structure. Therefore, companies should carry adequate casualty insurance on assets. This insurance reimburses the company for loss of a nonmonetary asset such as specialized equipment. Companies should also have **fidelity bonds** on employees handling cash and other negotiable instruments. These bonds ensure that a company is reimbursed for losses due to theft of cash and other monetary assets. With both casualty insurance on assets and fidelity bonds on employees, a company can recover at least a portion of any loss that occurs.

According to the Committee of Sponsoring Organizations of the Treadway Commission, there are five components of an internal control structure. When these components are linked to the organization's operations, they can quickly respond to shifting conditions. The components are:

- **Control environment.** The control environment is the basis for all other elements of the internal control structure. The control environment includes many factors such as ethical values, management's philosophy, the integrity of the employees of the corporation, and the guidance provided by management or the board of directors.
- **Risk assessment.** After the entity sets objectives, the risks (such as theft and waste of assets) from external and internal sources must be assessed. Examining the risks associated with each objective allows management to develop the means to control these risks.
- **Control activities.** To address the risks associated with each objective, management establishes control activities. These activities include procedures that employees must follow. Examples include procedures to protect the assets through segregation of employee duties and the other means we discussed earlier.

- **Information and communication.** Information relevant to decision making must be collected and reported in a timely manner. The events that yield these data may come from internal or external sources. Communication throughout the entity is important to achieve management's goals. Employees must understand what is expected of them and how their responsibilities relate to the work of others. Communication with external parties such as suppliers and shareholders is also important.

- **Monitoring.** After the internal control structure is in place, the firm should monitor its effectiveness so that it can make changes before serious problems arise. In testing components of the internal control structure, companies base their thoroughness on the risk assigned to those components.

Internal control is the general responsibility of all members in an organization. However, the following three groups have specific responsibilities regarding the internal control structure.

INVOICE
 Invoice No. **1574**
 Date: **2010 Dec. 15**

WILXES RADIO COMPANY
 2515 West Peachtree Street
 Atlanta, Georgia 30303

Customer's Orders No. **N-14S**
 Sold to: **Bryan Wholesale Co.**
 Address: **475 Mason Street**
Detroit, Michigan 48223

Terms: **2/10, n/30, FOB destination** Date shipped: **2010 December 15**
 Shipped by: **Nagel Trucking Co.**

Description	Item Number	Quantity	Price Per Unit	Total Amount
	Model No. 5868-24393	200	\$50	\$10,000
	Total			\$10,000

Exhibit 4: Invoice

Management holds ultimate responsibility for establishing and maintaining an effective internal control structure. Through leadership and example, management demonstrates ethical behavior and integrity within the company.

The board of directors provides guidance to management. Because board members have a working knowledge of the functions of the company, they help shield the company from managers who try to override some control procedures for dishonest purposes. Often, an efficient board that has access to the company's internal auditors can discover such fraud.

Auditors within the organization evaluate the effectiveness of the internal control structure and determine whether company policies and procedures are being followed. All employees are part of a communications network that enables an internal control structure to work effectively.

Computerized financial records require the same internal control principles of separation of duties and control over access as a manual accounting system. The exact control steps depend on whether a company is using mainframe computers and minicomputers or microcomputers.

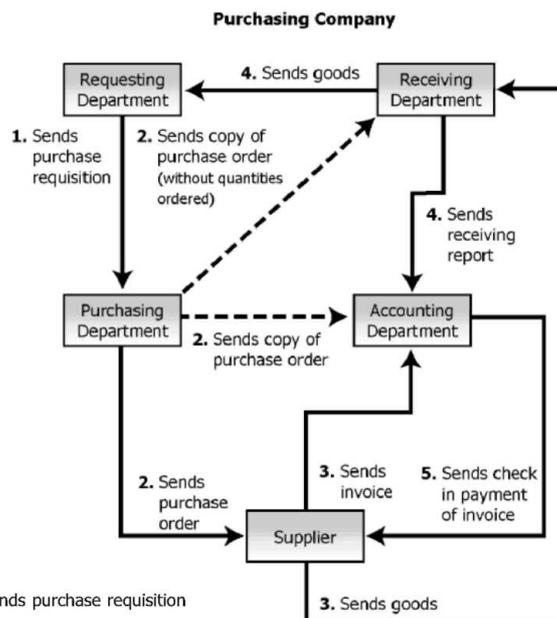
Large corporations might use all three types of computers in their accounting environments. The size and complexity of mainframe computers and minicomputers require specially trained persons to keep these systems operating. While systems specialists operate the computer system itself, programmers develop the programs that

direct the computer to perform specific tasks. In a mainframe or minicomputer environment, internal control should include the following:

- Control computer access by placing the computer in an easily secured room, and allow only persons authorized to operate the computer to enter the room.
- Restrict the access of systems specialists (who operate the computer) to software programs and the access of programmers to the computer. This policy prevents the running of unauthorized, altered programs.
- Require the use of passwords to access sensitive company data and confidential personal data. Change the passwords as necessary.

Many smaller companies use microcomputers instead of a mainframe or a minicomputer. Also, large companies might supply certain employees with personal computers. The use of personal computers changes the control environment somewhat. Small companies generally do not employ systems specialists and programmers. Instead, these companies use off-the-shelf programs such as accounting, spreadsheet, database management, and word processing packages. The data created by use of these programs are valuable (e.g. the company's accounting records) and often sensitive. Thus, controls are also important. In a personal computer environment, the following controls can be useful:

Illustration 8.4 Flow of Documents and Goods in a Merchandising Transaction



Steps

1. Requesting department sends purchase requisition to purchasing department.
2. Purchasing department sends purchase order to supplier, with copies going to the receiving department (without quantities ordered) and the accounting department.
3. Supplier sends goods to receiving department, where goods received are checked against purchase order, and sends invoice to accounting department.
4. Receiving department sends goods to requesting department and sends receiving report to accounting department.
5. Accounting department checks receiving report against purchase order and invoice and sends check in payment of invoice to the supplier.

Exhibit 5: Flow of documents and goods in a merchandising transaction

- Require computer users to have tight control over storage of programs and data. Just as one person maintains custody over a certain set of records in a manual system, in a computer system one person maintains custody over certain information (such as the accounts receivable subsidiary ledger). Make backup copies that are retained in a different secured location.

- Require passwords (kept secret) to gain entry into data files maintained on the hard disk.

- In situations where a local area network (LAN) links the personal computers into one system, permit only certain computers and persons in the network to have access to some data files (the accounting records, for example).

Computerized accounting systems do not lessen the need for internal control. In fact, access to a computer by an unauthorized person could result in significant theft in less time than with a manual system.

Controlling cash

Since cash is the most liquid of all assets, a business cannot survive and prosper if it does not have adequate control over its cash. In accounting, **cash** includes coins; currency; undeposited negotiable instruments such as checks, bank drafts, and money orders; amounts in checking and savings accounts; and demand certificates of deposit. A **certificate of deposit (CD)** is an interest-bearing deposit that can be withdrawn from a bank at will (demand CD) or at a fixed maturity date (time CD). Only demand CDs that may be withdrawn at any time without prior notice or penalty are included in cash. Cash does not include postage stamps, IOUs, time CDs, or notes receivable.

In its general ledger, a company usually maintains two cash accounts—Cash and Petty Cash. On the company's balance sheet, it combines the balances of these two accounts into one amount reported as Cash.

An accounting perspective:

Business insight

Users of financial data must look to see the real meaning behind the numbers. Reader's Digest publishes the world's most widely read magazine as well as various other books, home entertainment products, and special interest magazines. In Reader's Digest's annual report, for example, the company defines cash and cash equivalents in this footnote:

The company considers all highly liquid debt instruments with original maturities of three months or less to be cash equivalents.

Since many business transactions involve cash, it is a vital factor in the operation of a business. Of all the company's assets, cash is the most easily mishandled either through theft or carelessness. To control and manage its cash, a company should:

- Account for all cash transactions accurately so that correct information is available regarding cash flows and balances.

- Make certain that enough cash is available to pay bills as they come due.

- Avoid holding too much idle cash because excess cash could be invested to generate income, such as interest.

- Prevent loss of cash due to theft or fraud.

The need to control cash is clearly evident and has many aspects. Without the proper timing of cash flows and the protection of idle cash, a business cannot survive. This section discusses cash receipts and cash disbursements. Later in the chapter, we explain the importance of preparing a bank reconciliation for each bank checking account and controlling the petty cash fund.

When a merchandising company sells its merchandise inventory, it may receive cash immediately or several days or weeks later. A clerk receives the cash immediately over the counter, records it, and places it in a cash register. The presence of the customer as the sale is rung up usually ensures that the cashier enters the correct amount of the sale in the cash register. At the end of each day, stores reconcile the cash in each cash register with the cash register tape or computer printout for that register. Payments received later are almost always in the form of checks. Stores prepare a record of the checks received as soon as they are received. Some merchandising companies receive all their cash receipts on a delayed basis as payments on accounts receivable. (See the cash receipts cycle for merchandise transactions in Exhibit 6.)

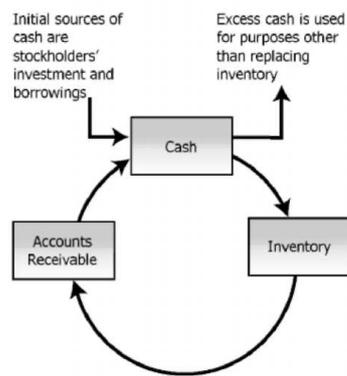
Although businesses vary their specific procedures for controlling cash receipts, they usually observe the following principles:

- Prepare a record of all cash receipts as soon as cash is received. Most thefts of cash occur before a record is made of the receipt. Once a record is made, it is easier to trace a theft.
- Deposit all cash receipts intact as soon as feasible, preferably on the day they are received or on the next business day. Undeposited cash is more susceptible to misappropriation.
- Arrange duties so that the employee who handles cash receipts does not record the receipts in the accounting records. This control feature follows the general principle of segregation of duties given earlier in the chapter, as does the next principle.
- Arrange duties so that the employee who receives the cash does not disburse the cash. This control measure is possible in all but the smallest companies.

Companies also need controls over cash disbursements. Since a company spends most of its cash by check, many of the internal controls for cash disbursements deal with checks and authorizations for cash payments. The basic principle of segregation of duties also applies in controlling cash disbursements. Following are some basic control procedures for cash disbursements:

- Make all disbursements by check or from petty cash. Obtain proper approval for all disbursements and create a permanent record of each disbursement. Many retail stores make refunds for returned merchandise from the cash register. When this practice is followed, clerks should have refund tickets approved by a supervisor before refunding cash.
- Require all checks to be serially numbered and limit access to checks to employees authorized to write checks.
- Require two signatures on each check over a material amount so that one person cannot withdraw funds from the bank account.

Illustration 8.5 Cash Receipts Cycle for Merchandise Transactions



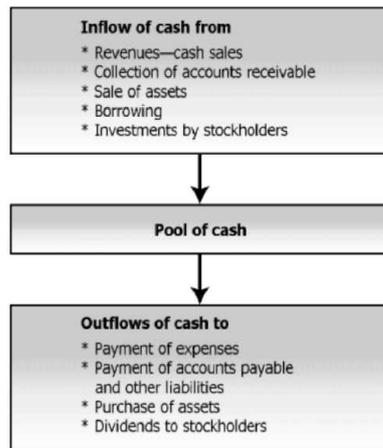
Cash initially comes into the business from stockholders' investment and borrowing. Cash is then invested in inventory and other assets. When inventory is sold, cash may be received immediately, or receipt may be delayed and involve accounts receivable. The inventory generally is sold at more than cost so the company can make a profit. Each time the cycle is completed, the amount of cash grows and may be used for purposes other than replacing inventory.

Exhibit 6: Cash receipts cycle for merchandise transactions

- Arrange duties so that the employee who authorizes payment of a bill does not sign checks. Otherwise, the checks could be written to friends in payment of fictitious invoices.
- Require approved documents to support all checks issued.
- Instruct the employee authorizing cash disbursements to make certain that payment is for a legitimate purpose and is made out for the exact amount and to the proper party.
- Stamp the supporting documents paid when liabilities are paid and indicate the date and number of the check issued. These procedures lessen the chance of paying the same debt more than once.
- Arrange duties so that those employees who sign checks neither have access to canceled checks nor prepare the bank reconciliation. This policy makes it more difficult for an employee to conceal a theft.
- Have an employee who has no other cash duties prepare the bank reconciliation each month, so that errors and shortages can be discovered quickly.
- Void all checks incorrectly prepared. Mark these checks void and retain them to prevent unauthorized use.

Exhibit 7 shows an overview of some of the internal control considerations relating to cash.

Most companies use checking accounts to handle their cash transactions. The company deposits its cash receipts in a bank checking account and writes checks to pay its bills. The bank sends the company a statement each month. The company checks this statement against its records to determine if it must make any corrections or adjustments in either the company's balance or the bank's balance. You learn how to do bank reconciliations later in this chapter. In the next section, we discuss the bank checking account. If you have a personal checking account, some of this information will be familiar to you.



Internal control considerations

1. Are all cash receipts being properly recorded and actually going into the company's pool of cash, or are individuals siphoning off some of these receipts for their own use?
2. Is the pool of cash protected from theft? Is the cash on hand managed so as to produce income for the company and yet available when needed to make legitimate disbursements?
3. Is there close control over cash disbursements to ensure that only legitimate disbursements are made in the proper amounts and on a timely basis?

Exhibit 7: Internal control considerations regarding cash

An accounting perspective:

Uses of technology

Many companies are using Electronic Data Interchange (EDI) to transmit business documents such as purchase orders, invoices, and even payments for goods and services. Instead of mailing paper copies of these documents, the entire transaction is done electronically. This procedure speeds up the transaction and eliminates the expense of sending paper copies. One concern of such procedures is the security of the transaction. Since this issue is being successfully addressed by various methods, including encrypting the data, we can expect the use of EDI to continue to increase in the future.

The bank checking account

Banks earn income by providing a variety of services to individuals, businesses, and other entities such as churches or libraries. One of these services is the checking account. A **checking account** is a money balance maintained in the bank; it is subject to withdrawal by the depositor, or owner of the money, on demand. To provide depositors with an accurate record of depositor funds received and disbursed, a bank uses the business documents discussed in this section.²

A bank requires a new depositor to complete a **signature card**, which provides the signatures of persons authorized to sign checks drawn on an account. The bank retains the card and uses it to identify signatures on checks it pays. The bank does not compare every check with this signature card. Usually, it makes a comparison

² Due to relaxed federal regulations, institutions other than banks—such as savings and loan associations and credit unions—now offer checking account services. All of these institutions function somewhat similarly; but, for simplicity's sake, we discuss only banks here.

only when the depositor disputes the validity of a check paid by the bank or when someone presents a check for an unusually large sum for payment.

When depositors make a bank deposit, they prepare a deposit ticket or slip. A **deposit ticket** is a form that shows the date and the items that make up the deposit (Exhibit 8). Often, the ticket is pre-printed to show the depositor's name, address, and account number. A depositor enters the items constituting the deposit—cash and a list of checks—on the ticket when making the deposit. The depositor receives a receipt showing the date of deposit and the amount deposited.

A **check** is a written order to a bank to pay a specific sum of money to the party designated as the payee by the party issuing the check. Thus, every check transaction involves three parties: the bank, the **payee** (party to whom the check is made payable), and the **drawer** (depositor). Most depositors use serially numbered checks pre-printed with information about the depositor, such as name, address, and telephone number. Often a business check has an attached remittance advice. A **remittance advice** informs the payee why the **drawer** (or maker) of the check is making this payment. Before cashing or depositing it, the payee detaches the remittance advice from the check (Exhibit 9).

Name <u>M. Miller Company</u> Acct. No. <u>326-587-90</u> Date <u>2007 July 7</u> <hr/> 	Currency	150	--
	Coin	45	50
	<i>Williams</i>	100	--
	<i>Sloans</i>	200	--
	Subtotal	495	50
		495	50

Exhibit 8: Deposit ticket

Illustration 8.8 Check with Attached Remittance Advice

JOSIAH C. SCOTT 1234 Dawson Road Corvallis, OR 97330		1428
PAY TO THE ORDER OF John Doe's Company		DATE July 6, 2007
Five hundred sixty and no/100-----		\$ 560.00
FOR Invoice #4501		USA BANK Josiah C. Scott
001428 123456789 04 36 3739*		
DETACH AND RETAIN THIS STATEMENT THE ATTACHED CHECK IS PAYMENT OF ITEMS DESCRIBED ABOVE IF NOT CORRECT PLEASE NOTIFY US PROMPTLY. NO RECEIPT DESIRED.		
USA BANK		
DATE	DESCRIPTION	AMOUNT
07/06/07	P.O. No. R1230 - Payment of invoice #4501	\$560.00

Exhibit 9: Check with attached remittance advice

JOHH DOE'S COMPANY
 P o BOX 216603
 CoRVALLIS OR 218803

6141337
 2010 September 1THRU 2010/09/29
 PAGE 1

ASK US ABOUT
 REAL ESTATE AND CONSTRUCTION LOANS
 BUSINESS BASIC ACCOUNT 614153

DESCRIPTION	DEBITS	CREDIT	DATE	BALANCE
BALANCE LAST STATEMENT			2010/08/31	3,594.44
CHECK # 1033	68.77		2010/09/08	3,525.67
CHECK # 1031	102.41		2010/09/08	3,423.26
DEPOSIT		7,300.00	2010/09/14	10,723.25
CHECK # 1036	38.95		2010/09/18	10,684.31
CHECK # 1037	16.08		2010/09/20	10,668.23
CHECK # 1035	114.50		2010/09/21	10,553.33
CHECK # 1038	7105.00		2010/09/21	3,448.33
CHECK # 1039	137.45		2010/09/25	3,310.88
DEPOSIT		1,000.00	2010/09/28	4,310.88
NEF CHECK	102.00		2010/09/30	4,208.88
SERVICE CHARGE	8.00		2010/09/30	4,200.88
SAFE DEPOSIT BOX RENT	15.00		2010/09/30	4,185.38
BALANCE THIS STATEMENT			2010/09/30	4,185.38
TOTAL CREDITS (2)	\$,300.00	MINIMUM BALANCE		3,195.68
TOTAL DEBITS (7)	7,708.55	AVG AVAILABLE BALANCE		5,236.31
	Average BALANCE			5,236.31

DATE	CHECK #	AMOUNT	YOUR CHECKS SEQUENCED			DATE	CHECK #	AMOUNT
			DATE	CHECK #	AMOUNT			
	1031*	102.41	09/18	1036	38.95	03/25	1039	137.45
09/08	1033*	6B. 77	09/20	1037	16.08			
09/21	1035	114.90	09/21	1033	7,105.00			

Exhibit 10: Bank statement

A **bank statement** is a statement issued (usually monthly) by a bank describing the activities in a depositor's checking account during the period. Exhibit 10 shows a bank statement that includes the following data:

- Deposits made to the checking account during the period.
- Checks paid out of the depositor's checking account by the bank during the period. These checks have cleared the bank and are canceled.
- Other deductions from the checking account for service charges, NSF (not sufficient funds) checks, safe-deposit box rent, and check printing fees. Banks assess **service charges** on the depositor to cover the cost of handling the checking account, such as check clearing charges. An **NSF (not sufficient funds)** check is Bank Statement a customer's check returned from the customer's bank to the depositor's bank because the funds in the customer's checking account balance were insufficient to cover the check. The depositor's bank deducts the amount of the returned check from the depositor's checking account. Since the customer still owes the depositor money, the depositor restores the amount of the NSF check to the account receivable for that customer in the company's books.
- Other additions to the checking account from proceeds of a note collected by the bank for the depositor and interest earned on the account.

Debit

Account Title Josiah C. ScottAccount Number 43613739Requested by RyanDATE 7/6/07Phone Number 567-1234

DESCRIPTION	AMOUNT
Safe Deposit Box Rental	\$ 15.00
TOTAL	\$ 15.00

DRAWN BY AJC APPROVED BY JIC

⌚ 123456789 ⌚

Credit

Account Title Josiah C. ScottAccount Number 43613739Requested by RyanDATE 7/6/07Phone Number 567-1234

DESCRIPTION	AMOUNT
Collection of John Doe Co. note from X Co.	\$ 1,225.00
TOTAL	\$ 1,225.00

DRAWN BY AJC APPROVED BY JIC

⌚ 123456789 ⌚

Exhibit 11: Debit memorandum (top) and credit memorandum (bottom)

In addition to the data in the bank statement in Exhibit 10, bank statements also can show non-routine deposits made to the depositor's checking account. Such deposits are made by a third party. For example, the bank may have received a wire transfer of funds for the depositor.

A **wire transfer** of funds is an interbank transfer of funds by telephone. Companies that operate in many widely scattered locations and have checking accounts with several different local banks often use interbank transfers of funds. These companies may set up special procedures to avoid accumulating too much idle cash in local bank accounts. One such procedure involves the use of special-instruction bank accounts. For example, a company may set up **transfer bank accounts** so local banks automatically transfer to a central bank (by wire or bank draft) all amounts on deposit in excess of a stated amount. In this way, transfers move funds not needed for local operations quickly to headquarters, where the company can use the funds or invest them.

Frequently, the bank returns canceled checks and original deposit tickets with the bank statement. Since it is expensive to sort, handle, and mail these items, some banks no longer return them to depositors. These banks usually store the documents on microfilm, with photocopies available if needed. Most depositors need only a detailed bank statement, as shown in Exhibit 10, and not the original documents to show what transactions occurred during a given period.

When banks debit or credit a depositor's checking account, they prepare debit and credit memoranda (memos). Banks may also return these memos with the bank statement. A **debit memo** is a form used by a bank to explain a deduction from the depositor's account; a **credit memo** explains an addition to the depositor's account. The terms debit memo and credit memo may seem reversed, but remember that the depositor's checking account is a liability—an account payable—of the bank. So, when the bank seeks to reduce a depositor's balance, it prepares a debit memo. To increase the balance, it prepares a credit memo. Exhibit 11 contains examples of debit and credit memos. Some banks no longer mail these documents to the depositor and rely instead on explanations in the bank statements.

Information that the depositor did not know before receiving the bank statement requires new journal entries on the company's books. After the entries have been made to record the new information, the balance in the Cash account is the actual cash available to the company. When the depositor has already received notice of NSF checks and other bank charges or credits, the needed journal entries may have been made earlier. In this chapter, we assume no entries have been made for these items unless stated otherwise.

When a company receives its bank statement, it must reconcile the balance shown by the bank with the cash balance in the company's books. If you have a personal checking account, you also should reconcile your bank statement with your checkbook. You can use the reconciliation form on the back of the bank statement to list your checks that have not yet been paid by the bank and your deposits not yet shown on the bank statement. Some small businesses use this form. Others prepare a separate bank reconciliation, which we discuss in the next section.

Bank reconciliation

A **bank reconciliation** is a schedule the company (depositor) prepares to reconcile, or explain, the difference between the cash balance on the bank statement and the cash balance on the company's books. The company prepares a bank reconciliation to determine its actual cash balance and prepare the entry(ies) to correct the cash balance in the ledger.

An accounting perspective:

Business insight

Within the internal control structure, segregation of duties is an important way to prevent fraud. One place to segregate duties is between the cash disbursement cycle and bank reconciliations. To prevent collusion among employees, the person who reconciles the bank account should not be involved in the cash disbursement cycle. Also, the bank should mail the statement directly to the person who reconciles the bank account each month. Sending the statement directly limits the number of employees who would have an opportunity to tamper with the statement.

Look at Exhibit 12; the bank reconciliation has two main sections. The top section begins with the balance on the bank statement. The bottom section begins with the balance on the company's books. After the company makes adjustments to both the bank and book balances, both adjusted balances should be the same. The steps in preparing a bank reconciliation are as follows:

Deposits. Compare the deposits listed on the bank statement with the deposits on the company's books. To make this comparison, place check marks in the bank statement and in the company's books by the deposits that agree. Then determine the deposits in transit. A **deposit in transit** is typically a day's cash receipts recorded in the depositor's books in one period but recorded as a deposit by the bank in the succeeding period. The most common deposit in transit is the cash receipts deposited on the last business day of the month. Normally, deposits in transit occur only near the end of the period covered by the bank statement. For example, a deposit made in a bank's night depository on May 31 would be recorded by the company on May 31 and by the bank on June 1. Thus, the deposit does not appear on a bank statement for the month ended May 31. Also check the deposits in transit listed in last month's bank reconciliation against the bank statement. Immediately investigate any deposit made during the month but missing from the bank statement (unless it involves a deposit made at the end of the period).

Paid checks. If canceled checks are returned with the bank statement, compare them to the statement to be sure both amounts agree. Then, sort the checks in numerical order. Next, determine which checks are outstanding. **Outstanding checks** are those issued by a depositor but not paid by the bank on which they are drawn. The party receiving the check may not have deposited it immediately. Once deposited, checks may take several days to clear the banking system. Determine the outstanding checks by comparing the check numbers that have cleared the bank with the check numbers issued by the company. Use check marks in the company's record of checks issued to identify those checks returned by the bank. Checks issued that have not yet been returned by the bank are the outstanding checks. If the bank does not return checks but only lists the cleared checks on the bank statement, determine the outstanding checks by comparing this list with the company's record of checks issued. Sometimes checks written long ago are still outstanding. Checks outstanding as of the beginning of the month appear on the prior month's bank reconciliation. Most of these have cleared during the current month; list those that have not cleared as still outstanding on the current month's reconciliation.

Bank debit and credit memos. Verify all debit and credit memos on the bank statement. Debit memos reflect deductions for such items as service charges, NSF checks, safe-deposit box rent, and notes paid by the bank for the depositor. Credit memos reflect additions for such items as notes collected for the depositor by the bank and wire transfers of funds from another bank in which the company sends funds to the home office bank. Check the bank debit and credit memos with the depositor's books to see if they have already been recorded. Make journal entries for any items not already recorded in the company's books.

Errors. List any errors. A common error by depositors is recording a check in the accounting records at an amount that differs from the actual amount. For example, a USD 47 check may be recorded as USD 74. Although the check clears the bank at the amount written on the check (USD 47), the depositor frequently does not catch the error until reviewing the bank statement or canceled checks.

Deposits in transit, outstanding checks, and bank service charges usually account for the difference between the company's Cash account balance and the bank balance. (These same items can cause a difference between your personal checkbook balance and the balance on your bank statement.) Remember that all items shown on the bank

reconciliation as adjustments of the book (ledger) balance require journal entries to adjust the Cash account (items 4, 5, and 6 in Exhibit 12 and in the following example). Items appearing as adjustments to the balance per bank statement do not require entries by the depositor (items 2 and 3). Of course, you should call any bank errors to the bank's attention.

R.L. LEE COMPANY
Bank Reconciliation
2010 May 31

1	Balance per bank statement, 2010 May 31		\$3,252
2	Add: Deposit in transit		452
			\$3,704
3	Less: Outstanding checks:		
	No. 9544	\$322	
	No. 9545	168	
	No. 9546	223	713
	Adjusted balance, 2010 May 31,		\$2,991
1	Balance per ledger, 2010 May 31		\$1,891
4	Add: Note collected (including interest of \$25)		1,225
			\$3,116
5	Less: NSF check (R. Johnson)	\$102	
6	Safe-deposit box rent	15	
6	Service charges	8	125
	Adjusted balance, 2010 May 31		\$2,991

Exhibit 12: Bank reconciliation

To illustrate the preparation of the bank reconciliation in Exhibit 12, assume the following (these items are keyed to numbers in that illustration):

- On May 31, R. L. Lee Company showed a balance in its Cash account of USD 1,891. On June 2, Lee received its bank statement for the month ended May 31, which showed an ending balance of USD 3,252.
- A matching of debits to the Cash account on the books with deposits on the bank statement showed that the USD 452 receipts of May 31 were included in Cash but not included as a deposit on the bank statement. This deposit was in the bank's night deposit chute on May 31.
- A comparison of checks issued with checks that had cleared the bank showed three checks outstanding:

No. 9544	\$322
No. 9545	168
No. 9546	223
Total	\$713

- Included with the bank statement was a credit memo for USD 1,225 (principal of USD 1,200 + interest of USD 25) for collection of a note owed to Lee by Shipley Company.
- Included with the bank statement was a USD 102 debit memo for an NSF check written by R. Johnson and deposited by Lee.
- Charges made to Lee's account include USD 15 for safe-deposit box rent and USD 8 for service charges.

After reconciling the book and bank balances as shown in Exhibit 12, Lee Company finds that its actual cash balance is USD 2,991. The following entries record information from the bank reconciliation:

4	Cash	1,225	
	Notes Receivable—Shipley Company (-A)		1,200
	Interest Receivable (-A)		25
	To record note collected from Shipley Company.		
5	Accounts Receivable—R. Johnson* (Contra Account)	102	
	Cash (-A)		102
	To charge NSF check back to customer, R. Johnson.		
6	Bank Service Charge Expense (-SE)	23	
	Cash (-A)		23
	To record bank service charges.		

*This debit would be posted to the Accounts Receivable contrae account in the general ledger and to R. Johnson's account in the Accounts Receivable subsidiary ledger.

The income statement would include the USD 23 bank service charge as an expense and the USD 25 interest as revenue. The May 31 balance sheet would show USD 2,991 cash, the actual cash balance. You could combine the preceding three entries into one compound entry as follows:

Cash (+A)	1,100	
Bank Service Charge Expense (-SE)	23	
Account Receivable—R. Johnson (+A)	102	
Note Receivable (-A)		1,200
Interest Revenue (+SE)		25
To correct the accounts for needed changes identified in the bank reconciliation.		

The bank routinely handles the deposit in transit and any outstanding checks already recorded in the depositor's books. Since these items appear on the bank balance side of the reconciliation, they require no entry in the company's books. The bank processes these items in the subsequent period.

When a company maintains more than one checking account, it must reconcile each account separately with the balance on the bank statement for that account. The depositor should also check carefully to see that the bank did not combine the transactions of the two accounts.

To make sure a check cannot bounce and become an NSF check, a payee may demand a certified or cashier's check from the maker. Both certified checks and cashier's checks are liabilities of the issuing bank rather than the depositor. As a result, payees usually accept these checks without question.

- A **certified check** is a check written, or drawn, by a depositor and taken to the depositor's bank for certification. The bank stamps certified across the face of the check and inserts the name of the bank and the date; a bank official signs the certification. The bank certifies a check only when the depositor's balance is large enough to cover the check. The bank deducts the amount of the check from the depositor's account at the time it certifies the check.

- A **cashier's check** is a check made out to either the depositor or a third party and written, or drawn, by a bank after deducting that amount from the depositor's account or receiving cash from the depositor.

In this section, you learned that all cash receipts should be deposited in the bank and all cash disbursements should be made by check. However, the next section explains the convenience of having small amounts of cash (petty cash) available for minor expenditures.

An accounting perspective:

Uses of technology

Most companies now offer to deposit employees' paychecks directly into their bank accounts. This process of transferring money by telephone, computer, or wire is called electronic fund transferring. Often companies prefer this method because it limits the number of employees involved in the payroll process. Manipulation and fraud can still occur whenever firms do not separate duties; however, limiting access to the payroll function may eliminate some of the risk associated with internal control weaknesses.

Petty cash funds

At times, every business finds it convenient to have small amounts of cash available for immediate payment of items such as delivery charges, postage stamps, taxi fares, supper money for employees working overtime, and other small items. To permit these cash disbursements and still maintain adequate control over cash, companies frequently establish a **petty cash fund** of a round figure such as USD 100 or USD 500.

Usually one individual, called the petty cash custodian or cashier, is responsible for the control of the petty cash fund and documenting the disbursements made from the fund. By assigning the responsibility for the fund to one individual, the company has internal control over the cash in the fund.

A business establishes a petty cash fund by writing a check for, say, USD 100. It is payable to the petty cash custodian. The petty cash fund should be large enough to make disbursements for a reasonable period, such as a month. The following entry records this transaction as follows:

Petty Cash	100	
Cash		100

To establish a petty cash fund.

After the check is cashed, the petty cash custodian normally places the money in a small box that can be locked. The fund is now ready to be disbursed as needed.

One of the conveniences of the petty cash fund is that payments from the fund require no journal entries at the time of payment. Thus, using a petty cash fund avoids the need for making many entries for small amounts. Only when the fund is reimbursed, or when the end of the accounting period arrives, does the firm make an entry in the journal.

When disbursing cash from the fund, the petty cash custodian prepares a petty cash voucher, which should be signed by the person receiving the funds. A **petty cash voucher** (Exhibit 13) is a document or form that shows the amount of and reason for a petty cash disbursement. The custodian should prepare a voucher for each disbursement and staple any invoices for expenditures to the petty cash voucher. At all times, the employee responsible for petty cash is accountable for having cash and petty cash vouchers equal to the total amount of the fund.

Companies replenish the petty cash fund at the end of the accounting period, or sooner if it becomes low. The reason for replenishing the fund at the end of the accounting period is that no record of the fund expenditures is in the accounts until the check is written and a journal entry is made. (Sometimes we refer to this fund as an imprest

fund since it is replenished when it becomes low.) The petty cash custodian presents the vouchers to the employee having authority to order that the fund be reimbursed. After the vouchers are examined, if all is in order, that employee draws a check to restore the fund to its original amount.

To determine which accounts to debit, an employee summarizes the petty cash vouchers according to the reasons for expenditure. Next, that person stamps or defaces the petty cash vouchers to prevent reuse. The journal entry to record replenishing the fund would debit the various accounts indicated by the summary and credit Cash.

PETTY CASH VOUCHERS NO. 359
 To Local Cartage, Inc. Date 2010 June 29

EXPLANATION	ACCT NO.	AMOUNT
Freight on parts	27	12 57

APPROVED B **A.E.C.** RECEIVED B **Ken Black**

Exhibit 13: Petty cash voucher

For example, assume the USD 100 petty cash fund currently has a money balance of USD 7.40. A summary of the vouchers shows payments of USD 22.75 for shipping, USD 50.80 for stamps, and USD 19.05 for an advance to an employee; these payments total USD 92.60. After the vouchers have been examined and approved, an employee draws a check for USD 92.60 which, when cashed, restores the cash in the fund to its USD 100 balance. The journal entry to record replenishment is:

Delivery Expense	22.75	
Postage Expense	50.80	
Receivable from Employees (or Advances t) Employees)	19.05	
Cash		92.60
To replenish a petty cash fund.		

Note that the entry to record replenishing the fund does not credit the Petty Cash account. We make entries to the Petty Cash account only when the fund is established, when the end of the accounting period arrives and the fund is not replenished, or when the size of the fund is changed.

At the end of an accounting period, the firm records any petty cash disbursements for which the fund has not yet been replenished. Since the fund has not been replenished, the credit would be to Petty Cash rather than Cash. Failure to make an entry at the end of an accounting period would cause errors in both the income statement and balance sheet. The easiest way to record these disbursements is to replenish the fund.

After a time, if the petty cash custodian finds that the petty cash fund is larger than needed, the excess petty cash should be deposited in the company's checking account. The required entry to record a decrease in the fund debits Cash and credits Petty Cash for the amount returned and deposited. On the other hand, a petty cash fund may be too small, requiring replenishment every few days. The entry to record an increase in the fund debits Petty Cash and credits Cash for the amount of the increase.

To illustrate, the entry to decrease the petty cash fund by USD 50 would be:

Cash	50	
Petty Cash		50
To decrease the size of the petty cash fund by \$50.		

The entry to increase the petty cash fund by USD 600 would be:

Petty Cash	600	
Cash		600
To increase the size of the petty cash fund by \$600.		

The following rules summarize how the Petty Cash account is debited and credited:

- Debited to establish
- Debited to increase
- Credited to decrease
- Credited to terminate

Sometimes, the petty cash custodian makes errors in making change from the fund. These errors cause the cash in the fund to be more or less than the amount of the fund less the total vouchers. When the fund is restored to its original amount, the credit to Cash is for the difference between the established amount and the actual cash in the

fund. We would debit all vouchered items. Any discrepancy should be debited or credited to an account called Cash Short and Over. The Cash Short and Over account is an expense or a revenue, depending on whether it has a debit or credit balance.

To illustrate, assume in the preceding example that the balance in the fund was only USD 6.10 instead of USD 7.40. Restoring the fund to USD 100 requires a check for USD 93.90. Since the petty cash vouchers total only USD 92.60, the fund is short USD 1.30. The entry for replenishment is:

Delivery Expense	22.75	
Postage Expense	50.80	
Receivable from Employees	19.05	
Cash Short and Over	1.30	
Cash		93.90
To replenish a petty cash fund.		

Entries in the Cash Short and Over account also result from other change-making activities. For example, assume that a clerk accidentally shortchanges a customer USD 1 and that total cash sales for the day are USD 740.50. At the end of the day, actual cash is USD 1 over the sum of the sales tickets or the total of the cash register tape. The journal entry to record the day's cash sales is:

Cash	741.50	
Sales		740.50
Cash Short and Over		1.00
To record cash sales for the day.		

Analyzing and using the financial results—The quick ratio

The **quick ratio** measures a company's short-term debt-paying ability. It is the ratio of quick assets (cash, marketable securities, and net receivables) to current liabilities. When computing quick assets, we do not include inventories and prepaid expenses because they might not be readily convertible into cash. A rule of thumb is that the ratio of quick assets to current liabilities should be 1:1 or higher. However, a lower quick ratio is satisfactory in companies that generate a steady flow of cash in their operations. Short-term creditors are interested in this ratio since it relates the pool of cash and immediate cash inflows to immediate cash outflows. The formula for the quick ratio is:

$$\text{Quick ratio} = \frac{\text{Quick assets}}{\text{Current liabilities}}$$

Based on the following information, we can determine that the 2010 and 2009 quick ratios are 6.85 and 6.84, respectively:

	2010	2009
Cash	\$315,064	\$283,913
Short-term investments	119,093	314,872
Net receivables	320,892	177,300
Total quick assets	\$755,049	\$776,085
Current liabilities	\$110,147	\$113,430
Total quick assets	\$755,049 = 6.85	\$776,085 = 6.84
Current liabilities	\$110,147	\$113,430

An ethical perspective: City club restaurant

The City Club Restaurant is a member-owned entity in Carson City. For 20 years, John Blue has managed the restaurant and received only minimal salary increases. He believes he is grossly underpaid in view of the significant inflation that has occurred. A few years ago he began supplementing his income by placing phony invoices in the petty cash box, writing a petty cash

voucher for the amount of each invoice, withdrawing cash equal to the amount of each invoice for his personal use, and later approving the vouchers for reimbursement. Through this mechanism, John increased his income by about USD 12,000 per year, an amount that he considered fair. No one else knows what is happening, and the manager feels fully justified in supplementing his income in this way.

Now that you have learned how to control a company's most liquid asset, cash, in an upcoming chapter you are ready to study receivables and payables. As you realize, the backbone of our economy is credit. In all probability, the next automobile you plan to buy will be financed. Companies are anxious to offer credit to worthy customers and prospective customers. The many offers of credit we receive from various businesses are evidence of the importance companies place on credit as a method of stimulating sales and expanding their business.

Understanding the learning objectives

- The internal control structure of a company includes its plan of organization and all the procedures and actions taken by the company to protect its assets against theft and waste, ensure compliance with company policies and federal law, evaluate the performance of all personnel in the company to promote efficiency of operations, and ensure accurate and reliable operating data and accounting records.
- The purpose of internal control is to ensure the efficient operation of a business.
- Cash includes coins; currency; undeposited negotiable instruments such as checks, bank drafts, and money orders; amounts in checking and saving accounts; and demand certificates of deposit.
- To protect their cash, companies should account for all cash transactions accurately, make certain enough cash is available to pay bills as they come due, avoid holding too much idle cash, and prevent loss of cash due to theft or fraud.
- Procedures for controlling cash receipts include such basic principles as recording all cash receipts as soon as cash is received; depositing all cash receipts on the day they are received or on the next business day; and preventing the employee who handles cash receipts from also recording the receipts in the accounting records or from disbursing cash.
- Procedures for controlling cash disbursements include, among others, making all disbursements by check or from petty cash, using checks that are serially numbered, requiring two signatures on each check, and having a different person authorize payment of a bill than the persons allowed to sign checks.
- A bank reconciliation is prepared to reconcile, or explain, the difference between the cash balance on the bank statement and the cash balance on the company's books and to make the required entry(ies) to correct the cash balance in the ledger.
- A bank reconciliation is shown in Exhibit 12.
- Journal entries are needed for all items that appear in the bank reconciliation as adjustments to the balance per ledger to arrive at the adjusted cash balance.
- Companies establish a petty cash fund to permit minor cash disbursements and still maintain adequate control over cash.
- When the cash in the petty cash fund becomes low, the fund should be replenished. A journal entry is necessary to record the replenishment.

- Quick ratio equals cash, marketable securities, and net receivables divided by current liabilities.
- The quick ratio measures a company's short-term debt-paying ability.

Demonstration problem

Demonstration problem A You are the manager of a restaurant that has an ice cream parlor as a separate unit. Your accountant comes in once a year to prepare financial statements and the tax return. In the current year, you have a feeling that even though business seems good, net income is going to be lower. You ask the accountant to prepare condensed statements on a monthly basis. All sales are priced to yield an estimated gross margin of 40 per cent. You, your accountant, and several of the accountant's assistants take physical inventories at the end of each of the following four months. The resulting sales, cost of goods sold, and gross margins are:

March	April		May		June		
	Ice Cream Parlor	Restaurant	Ice Cream Parlor	Restaurant	Ice Cream Parlor	Restaurant	Ice Cream Parlor
Sales \$36,300	\$53,000	\$39,050	\$42,750	\$38,100	\$39,000	\$41,250	\$35,500
Cost of goods sold 22,275	31,500	23,800	31,000	22,975	30,750	25,500	31,125
Gross Margin \$13,025	\$21,500	\$15,250	\$11,750	\$15,125	\$8,250	\$15,750	\$4,375

What would you suspect after analyzing these reports? What sales control procedures would you recommend to correct the situation? All of the points in this problem were not specifically covered in the chapter, although the principles were. Use logic, common sense, and knowledge gained elsewhere in coming up with some of the control procedures.

Demonstration problem B The following data pertains to Carr Company:

- Balance per bank statement, dated 2010 March 31, is USD 4,450.
- Balance of the Cash account on the company's books as of 2010 March 31, is USD 4,459.
- The USD 1,300 deposit of March 31 was not on the bank statement.
- Of the checks recorded as cash disbursements in March, some checks, totaling USD 1,050, have not yet cleared the bank.
- Service and collection charges for the month were USD 10.
- The bank erroneously charged the Carr Company account for the USD 200 check of another company. The check was included with the canceled checks returned with the bank statement.
- The bank credited the company's account with the USD 1,000 proceeds of a non interest-bearing note that it collected for the company.
- A customer's USD 75 check marked NSF was returned with the bank statement.
- As directed, the bank paid and charged to the company's account a USD 507.50 non interest-bearing note of Carr Company. This payment has not been recorded by the company.
- An examination of the cash receipts and the deposit tickets revealed that the bookkeeper erroneously recorded a customer's check of USD 148.50 as USD 135.00.

The bank credited the company's checking account for USD 20 interest earned.

- Prepare a bank reconciliation as of 2010 March 31.
- Prepare the necessary journal entry or entries to adjust the Cash account.

Solution to demonstration problem

Solution to demonstration problem A The gross margin percentages are as follows:

March	April	May	June
-------	-------	-----	------

Restaurant	35.88 per cent	39.05 per cent	39.70 per cent	38.18 per cent
Ice cream parlor	40.57 per cent	27.49 per cent	21.15 per cent	12.32 per cent

Either cash or inventory is being stolen or given away in the ice cream parlor. Employees or outsiders may be pocketing cash. Or the employees may be giving extra-large ice cream cones to friends, or eating the ice cream themselves. Several things could be done to improve the sales control procedures:

- The manager could hire an investigator to come in and watch the employees in action. If cash is being pocketed, the employees could be fired.
- The prices of ice cream cones could be changed to odd amounts so that employees would not be as able to make change without going to the cash register. Also, the No Sale lever could be removed from the cash register.
- The customers could be encouraged to ask for their cash register receipts by having a monthly drawing (for some prize) by cash register receipt number.
- The cash register should be placed in a prominent position so that each customer could see the amount recorded for each sale. No customer is going to be willing to pay USD 1.75 when the employee rings up USD 1.00.
- The cash register tapes should be inaccessible to the employees. The manager (and possibly assistant manager) should have the only keys to the cash registers.
- Pay the employees a competitive wage.
- Require that all sales be rung up immediately after the sale.
- The manager or assistant manager should reconcile the cash register tapes at the end of each day.

a. Solution to demonstration problem B

CARR COMPANY
Bank Reconciliation
2010 March 31

Balance per bank statement, 2010 March 31		\$4,450.00
Add: Deposit in transit	\$1,300.00	
Check charged in error	200.00	1,500.00
		\$5,950.00
Less: Outstanding checks		1,050.00
Adjusted balance, 2010 March 31		\$4,900.00
Balance per ledger, 2010 March 31		\$4,459.00
Add: Note collected	\$1,000.00	
Interest earned on checking account	20.00	
Error in recording customer's check	13.50	1,033.50
		\$5,492.50
Less: Service and collection charges	\$10.00	
NSF check	75.00	
Carr Company noted charged against account	507.50	592.50
Adjusted balance, 2010 March 31		\$4,900.00

b.

Mar. 31	Cash	441.00	
	Bank Service Charge Expense	10.00	
	Accounts Receivable	75.00	
	Notes Payable	507.50	
	Notes Receivable		1,000.00
	Interest Revenue		20.00
	Accounts Receivable		13.50
	To record adjustments to Cash account		

Alternatively:

Mar. 31	Cash	1,033.50	
	Notes Receivable		1,000.00
	Interest Revenue		20.00

Accounts Receivable		13.50
To record additions to Cash account.		
Bank Service Charge Expense	10.00	
Accounts Receivable	75.00	
Notes Payable	507.50	
Cash		592.50
To record deductions from Cash account.		

Key terms

Accounting system Methods and records established to identify, assemble, analyze, classify, record, and report an entity's transactions to provide complete, accurate, and timely financial information.

Bank reconciliation A schedule the company (depositor) prepares to reconcile, or explain, the difference between the cash balance on the bank statement and the cash balance on the company's books; often called a bank reconciliation statement or schedule.

Bank statement A statement issued (usually monthly) by a bank describing the activities in a depositor's checking account during the period.

Cash Includes coins; currency; certain undeposited negotiable instruments such as checks, bank drafts, and money orders; amounts in checking and savings accounts; and demand certificates of deposit.

Cashier's check A check made out to either the depositor or a third party and written, or drawn, by a bank after deducting the amount of the check from the depositor's account or receiving cash from the depositor.

Certificate of deposit (CD) An interest-bearing deposit that can be withdrawn from a bank at will (demand CD) or at a fixed maturity date (time CD).

Certified check A check written, or drawn, by a depositor and taken to the depositor's bank for certification. The check is deducted from the depositor's balance immediately and becomes a liability of the bank. Thus, it usually is accepted without question.

Check A written order to a bank to pay a specific sum of money to the party designated as the payee by the party issuing the check.

Checking account A money balance maintained in a bank that is subject to withdrawal by the depositor, or owner of the money, on demand.

Control environment Reflects the overall attitude, awareness, and actions of the board of directors, management, and stockholders.

Control procedures Policies and procedures in addition to the control environment and the accounting system that management has established to provide reasonable assurance that the company will achieve its specific objectives.

Credit memo A form used by a bank to explain an addition to the depositor's account.

Debit memo A form used by a bank to explain a deduction from the depositor's account.

Deposit in transit Typically, a day's cash receipts recorded in the depositor's books in one period but recorded as a deposit by the bank in the succeeding period.

Deposit ticket A form that shows the date and the items that make up the deposit.

Drawer The party (depositor) writing a check.

Fidelity bonds Ensure that a company is reimbursed for losses due to theft of cash and other monetary assets.

Internal auditing Consists of investigating and evaluating employees' compliance with the company's policies and procedures. Internal auditing is performed by company personnel.

Internal auditors Auditors employed by the company to perform internal audits. These auditors are trained in company policies and in internal auditing duties such as testing effectiveness of controls and procedures involving cash receipts and cash disbursements.

Internal control structure Policies and procedures established to provide reasonable assurance that specific entity objectives will be achieved.

Invoice Statement sent by the supplier to the purchaser requesting payment for the merchandise shipped.

NSF (not sufficient funds) check A customer's check returned from the customer's bank to the depositor's bank because the funds in the customer's checking account balance were insufficient to cover the check.

Outstanding checks Checks issued by a depositor that have not yet been paid by the bank on which they are drawn.

Payee The party to whom a check is made payable.

Petty cash fund A nominal sum of money established as a separate fund from which minor cash disbursements for valid business purposes are made. The cash in the fund plus the vouchers covering disbursements should always equal the balance at which the fund was established and at which it is carried in the Petty Cash account.

Petty cash voucher A document or form that shows the amount of, and reason for, a petty cash disbursement.

Purchase order A document sent from the purchasing department to a supplier requesting that merchandise or other items be shipped to the purchaser.

Purchase requisition A written request from an employee inside the company to the purchasing department to purchase certain items.

Quick ratio The ratio of quick assets (cash, marketable securities, and net receivables) to current liabilities. The quick ratio measures a company's short-term debt-paying ability.

Receiving report A document prepared by the receiving department showing the descriptions and quantities of all items received from a supplier in a particular shipment.

Remittance advice Informs the payee why the drawer (or maker) of the check is making this payment.

Segregation of duties Having one employee responsible for safeguarding an asset and a second employee responsible for maintaining the accounting records for that asset.

Service charges Charges assessed by the bank on the depositor to cover the cost of handling the checking account.

Signature card Provides the signatures of persons authorized to sign checks drawn on an account.

Transfer bank accounts Bank accounts set up so that local banks automatically transfer to a central bank (by wire or written bank draft) all amounts on deposit in excess of a stated amount.

Wire transfer of funds Interbank transfer of funds by telephone.

Self-test

True-false

Indicate whether each of the following statements is true or false.

Cash includes coin, currency, postdated checks, money orders, and money on deposit with banks.

To effectively manage its cash, a company should make certain that enough cash is available to pay bills as they come due.

The cash balance on the bank statement is usually equal to the cash balance in the depositor's books.

A deposit in transit requires an entry in the depositor's books after the bank reconciliation is prepared.

For control purposes, a company should issue checks for every payment, regardless of its amount.

Multiple-choice

Select the best answer for each of the following questions.

The objectives of the internal control structure of a company include all of the following except:

- Compliance with company policies and federal law.
- Protection of its assets.
- Increase in accuracy and reliability of accounting data.
- Guarantee of a certain level of profit.
- Evaluation of personnel performance to promote efficiency of operations.

Use the following information to answer the next three questions:

Balance per bank statement USD 1,951.20

Balance per ledger 1,869.60

Deposits in transit 271.20

Outstanding checks 427.80

NSF check 61.20

Service charges 13.80

The adjusted cash balance is:

- a. USD 1,794.60.
- b. USD 1,719.60.
- c. USD 1,638.00.
- d. USD 1,713.00.
- e. USD 1,876.20.

In a bank reconciliation, deposits in transit should be:

- a. Deducted from the balance per books.
- b. Deducted from the balance per bank statement.
- c. Added to the balance per ledger.
- d. Added to the balance per bank statement.
- e. Disregarded in the bank reconciliation.

After the bank reconciliation is prepared, the entry to record bank service charges would have a credit to:

- a. Bank Service Charge Expense.
- b. Cash.
- c. Petty Cash.
- d. Cash Short and Over.
- e. None of the above.

The entry to replenish the petty cash fund for disbursements made for stamps includes:

- a. A credit to Petty Cash.
- b. A credit to Postage Expense.
- c. A debit to Accounts Payable.
- d. A credit to Cash.
- e. None of the above.

Now turn to “Answers to self-test” at the end of the chapter to check your answers.

Questions

- Why should a company establish an internal control structure?
- Why are mechanical devices used in an internal control structure?
- Identify some features that could strengthen an internal control structure.
- Name several control documents used in merchandise transactions.
- What are the four objectives sought in effective cash management?
- List four essential features of internal control over cash receipts.
- The bookkeeper of a given company was stealing cash received from customers in payment of their accounts. To conceal the theft, the bookkeeper made out false credit memos indicating returns and allowances made by or granted to customers. What feature of internal control would have prevented the thefts?

- List six essential features of internal control over cash disbursements.
- What types of items cause the balance per ledger and the balance per bank statement to disagree?
- "The difference between a company's Cash account balance and the balance on its bank statement is usually a matter of timing." Do you agree or disagree? Why?
- Explain how transfer bank accounts can help bring about effective cash management.
- Describe the operation of a petty cash fund and its advantages. Indicate how control is maintained over petty cash transactions.
- When are entries made to the Petty Cash account?
- **The Limited, Inc.** Based on the financial statements of The Limited, Inc., in the Annual report appendix, what was the quick ratio for each of the two years shown?
- **The Limited, Inc.** Based on the financial statements of The Limited, Inc., in the Annual report appendix, what was the ending cash and equivalents balance? What percentage of current assets does the amount of cash and equivalents represent for each of the two years shown?

Exercises

Exercise A State whether each of the following statements about internal control is true or false:

- a. Those employees responsible for safeguarding an asset should maintain the accounting records for that asset.
- b. Complete, accurate, and up-to-date accounting records should be maintained.
- c. Whenever possible, responsibilities should be assigned and duties subdivided in such a way that only one employee is responsible for a given function.
- d. Employees should be assigned to one job and should remain in that job so that skill levels will be as high as possible.
- e. The use of check protectors, cash registers, and time clocks is recommended.
- f. An internal auditing function should not be implemented because it leads the employees to believe that management does not trust them.
- g. One of the best protections against theft is to hire honest, competent employees.
- h. A foolproof internal control structure can be devised if management puts forth the effort.

Exercise B Concerning internal control, which one of the following statements is correct? Explain.

- a. Broadly speaking, an internal control structure is only necessary in large organizations.
- b. The purposes of internal control are to check the accuracy of accounting data, safeguard assets against theft, promote efficiency of operations, and ensure that management's policies are being followed.
- c. Once an internal control structure has been established, it should be effective as long as the formal organization remains unchanged.
- d. An example of internal control is having one employee count the day's cash receipts and compare the total with the total of the cash register tapes.

Exercise C The bank statement for Yarley Company at the end of August showed a balance of USD 12,862. Checks outstanding totaled USD 3,937, and deposits in transit were USD 5,990. If these amounts are the only pertinent data available to you, what was the adjusted balance of cash at the end of August?

Exercise D From the following data, prepare a bank reconciliation and determine the correct available cash balance for Reed Company as of 2010 October 31.

Balance per bank statement, 2010 October 31	\$13,974
Ledger account balance, 2010 October 31	8,088
Proceeds of a note collected by bank not yet entered in ledger (includes \$500 of interest)	6,000
Bank service charges not yet entered by Reed Company	18
Deposit in transit	1,680
Outstanding checks:	
No. 327	654
No. 328	288
No. 329	390
No. 331	252

Exercise E The following is a bank reconciliation for Brian company as of August 31.

Balance per bank statement, August 31		\$ 7,470
Add: Deposit in transit		5,676
		\$13,146
Less: Outstanding checks		6,024
Adjusted balance, August 31		\$ 7,122
Balance per ledger, August 31		\$ 7,248
Add: Error correction*		54
		\$ 7,302
Less: NSF check	\$150	
Service and collection charges	30	180
Adjusted balance, August 31		\$ 7,122

Prepare the journal entry or entries needed to adjust or correct the Cash account.

Exercise F On March 1 of the current year, Shelbey Company had outstanding checks of USD 15,000. During March, the company issued an additional USD 57,000 of checks. As of March 31, the bank statement showed USD 48,000 of checks had cleared the bank during the month. What is the amount of outstanding checks on March 31?

Exercise G Matson Company's bank statement as of August 31, shows total deposits into the company's account of USD 15,000 and a total of 14 separate deposits. On July 31, deposits of USD 410 and USD 330 were in transit. The total cash receipts for August were USD 19,000, and the company's records show 13 deposits made in August. What is the amount of deposits in transit at August 31?

Exercise H Holder Company deposits all cash receipts intact each day and makes all payments by check. On October 31, after all posting was completed, its Cash account had a debit balance of USD 4,325. The bank statement for the month ended on October 31 showed a balance of USD 3,988. Other data are:

Outstanding checks total USD 425.

October 31 cash receipts of USD 838 were placed in the bank's night depository and do not appear on the bank statement.

Bank service charges for October are USD 14.

Check No. 772 for store supplies on hand was entered at USD 405, but paid by the bank at its actual amount of USD 315.

Prepare a bank reconciliation for Holder Company as of October 31. Also prepare any necessary journal entry or entries.

Exercise I On August 31, Brighton Company's petty cash fund contained coins and currency of USD 260, an IOU from an employee of USD 30, and vouchers showing expenditures of USD 120 for postage, USD 52 for taxi fare, and USD 138 to entertain a customer. The Petty Cash account shows a balance of USD 600. The fund is replenished on August 31 because financial statements are to be prepared. What journal entry is required on August 31?

Exercise J Use the data in the previous exercise. What entry would have been required if the amount of coin and currency had been USD 247.20? Which of the accounts debited would not appear in the income statement?

Exercise K Rock Company has a USD 450 petty cash fund. The following transactions occurred in December:

Dec. 2 The petty cash fund was increased to USD 1,350.

8 Petty Cash Voucher No. 318 for USD 14.20 delivery expense was prepared and paid. The fund was not replenished at this time.

20 The company decided that the fund was too large and reduced it to USD 1,120.

Prepare any necessary journal entries for these transactions.

Problems

The following 2010 June 30, bank reconciliation pertains to Tiffany Company:

	Cash Amount	Bank Statement
Balance , June 30	\$29,143.36	\$28,644.31
Add: Deposit not credited by bank		942.60
Total		\$29,586.91
Less: Outstanding checks:		
No. 724	\$18.45	
No. 886	15.00	
No. 896	143.55	
No. 897	187.65	
No. 898	78.90	443.55
Adjusted cash balance, June 30	\$29,143.36	\$29,143.36

Tiffany's July bank statement follows:

Balance, July 1		\$28,644.31	
Deposits during July		5,441.94	\$34,086.25
Canceled checks returned:			
No. 724	\$ 18.45		
No. 896	143.55		
No. 897	187.65		
No. 898	78.90		
No. 899	18.86		
No. 900	1,349.55		
No. 902	946.92		
No. 904	44.01	\$2,787.89	
NSF Check of Starr Company		139.98	2,927.87
Bank statement balance, July 31			\$31,158.38

The cash receipts deposited in July, including receipts of July 31, amounted to USD 5,178.30. Tiffany wrote these checks in July:

No. 899	\$ 18.86
No. 900	1,349.55
No. 901	27.75
No. 902	946.92
No. 903	59.70
No. 904	44.01
No. 905	1,093.50
No. 906	15.00

The cash balance per the ledger on 2010 July 31, was USD 30,766.37.

Prepare a bank reconciliation as of 2010 July 31, and any necessary journal entry or entries to correct the accounts.

Problem B The following information pertains to Hughes Company as of 2010 May 31:

- Balance per bank statement as of 2010 May 31, was USD 59,410.
- Balance per Hughes Company's Cash account at 2010 May 31, was USD 60,904.
- A late deposit on May 31 did not appear on the bank statement, USD 4,275.
- Outstanding checks as of May 31 totaled USD 7,614.

- During May, the bank credited Hughes Company with the proceeds, USD 6,795, of a note which it had collected for the company. Interest revenue was USD 45 of the total.
- Bank service and collection charges for May amounted to USD 18.
- Comparison of the canceled checks with the check register revealed that one check in the amount as USD 1,458 had been recorded in the books as USD 1,539. The check had been issued in payment of an account payable.
- A review of the deposit slips with the bank statement showed that a deposit for USD 2,250 of a company with a similar account number had been credited to the Hughes Company account in error.
- A USD 270 check received from a customer, R. Petty, was returned with the bank statement marked NSF.
- During May, the bank paid a USD 13,500 note of Hughes Company plus interest of USD 135 and charged it to the company's account per instructions received. Hughes Company had not recorded the payment of this note.
- An examination of the cash receipts and the deposit tickets revealed that the bookkeeper erroneously recorded a check from a customer, C. Parker, of USD 1,458 as USD 1,944.
- The bank statement showed a credit to the company's account for interest earned on the account balance in May of USD 450.

a. Prepare a bank reconciliation as of 2010 May 31.

b. Prepare the journal entry or entries necessary to adjust the accounts as of 2010 May 31.

Problem C The following transactions pertain to the petty cash fund of Carrington Company:

Nov. 2 A USD 450 check is drawn, cashed, and the cash placed in the care of the assistant office manager to be used as a petty cash fund.

Dec. 17 The fund is replenished. An analysis of the fund shows:

Coins and currency	\$147.40
Petty cash vouchers for:	
Delivery expenses	173.48
Transportation-In	111.12
Postage stamps purchased	15.00

31 The end of the accounting period falls on this date. The fund was not replenished. The fund's contents on this date consist of:

Coins and currency	\$ 352.05
Petty cash vouchers for:	
Delivery expenses	31.65
Postage stamps purchased	36.30
Employee's IOU	30.00

Present journal entries to record these transactions. Use the Cash Short and Over account for any shortage or overage in the fund.

Problem D The following transactions relate to the petty cash fund of Jarvis Wrecking Company

Apr. 1 The petty cash fund is set up with a USD 350 cash balance.

19 Because the money in the fund is down to USD 70.20, the fund is replenished.

Petty cash vouchers as follows:	
Flowers for hospitalized employee (miscellaneous expense)	\$84.38
Postage stamps	135.00
Office supplies	46.71

30 The cash in the fund is USD 193.07. The fund is replenished to include petty cash payments in this period's financial statements. The petty cash vouchers are for the following:

Transportation-in	\$64.12
Office supplies	92.81

May 1 The petty cash fund balance is increased to USD 400.

Prepare the journal entries to record these transactions.

Alternate problems

Alternate problem A The following data pertains to England Company:

Balance per the bank statement dated 2010 June 30, is USD 30,000.

Balance of the Cash in Bank account on the company books as of 2010 June 30, is USD 8,795.

Outstanding checks as of 2010 June 30, total USD 14,300.

Bank deposit of June 30 for USD 2,735 was not included in the deposits per the bank statement.

The bank had collected proceeds of a note, USD 22,612 (of which USD 112 was interest), that it credited to the England Company account. The bank charged the company a collection fee of USD 15 on the note.

The bank erroneously charged the England Company account for a USD 10,500 debit memo of another company that has a similar name.

Bank service charges for June, exclusive of the collection fee, amounted to USD 95.

Among the canceled checks was one for USD 700 given in payment of an account. The bookkeeper had recorded the check at USD 920 in the company records.

A check of Crosby, a customer, for USD 2,447, deposited on June 20, was returned by the bank marked NSF. No entry has been made to reflect the returned check on the company records.

A check for USD 1,435 of Malcolm, a customer, which had been deposited in the bank, was erroneously recorded by the bookkeeper as USD 1,570. The check had been received as a payment on the customer's account receivable.

Prepare a bank reconciliation as of 2010 June 30, and any necessary journal entry or entries to correct the accounts.

Alternate problem B The bank statement of Irish Company's checking account with the 2nd National Bank shows:

Balance, 2010 June 30		\$166,118
Deposits		245,700
		411,818
Less: Checks deducted	\$243,001	
Service charges	67	243,068
Balance, 2010 July 31		\$168,750

The following additional data are available:

Balance per ledger account as of July 31 was USD 128,209.

A credit memo included with the bank statement indicated the collection of a note by the bank for Irish Company. Proceeds were USD 13,500, of which USD 375 was interest.

An NSF check in the amount of USD 6,210 was returned by the bank and included in the total of checks deducted on the bank statement.

Deposits in transit as of July 31 totaled USD 33,750.

Checks outstanding as of July 31 were USD 55,350.

The bank added the USD 29,025 deposit of another company to Irish's account in error.

The bank deducted one of Irish's checks as USD 20,250 instead of the correct amount of USD 2,025.

Deposit of July 21 was recorded by the company as USD 4,299.75 and by the bank at the actual amount of USD 4,542.75. The receipts for the day were from collections on account.

The deposits amount shown on the bank statement includes USD 675 of interest earned by Irish on its checking account with the bank.

- a. Prepare a bank reconciliation as of 2010 July 31, for Irish Company.
- b. Prepare any journal entry or entries needed at 2010 July 31.

Alternate problem C Transactions involving the petty cash fund of Sonar Company are as follows:

Mar. 1 Established a petty cash fund of USD 750, which will be under the control of the assistant office manager.
31 Fund was replenished on this date. Prior to replenishment, the fund consisted of the following:

Coins and currency	\$ 491.50
Petty cash voucher indicating disbursements for:	
Postage stamps	\$82.00
Suppliers money for office employees working overtime	36.00
Office supplies	32.70
Window washing service	60.00
Flowers for wedding employee	15.00
Flower for hospitalized employee	15.00
Employee's IOU	15.00

Present journal entries for these transactions. Use the Cash Short and Over account for any shortage or overage in the fund.

Alternate problem D Sun Company has decided to use a petty cash fund. Transactions involving this fund follow:

June 4 Set up a petty cash fund of USD 225.

22 When the fund had a cash amount of USD 31.35, the custodian of the fund was reimbursed for expenditures made, including:

Transportation-in	\$ 82.50
Postage	27.00
Office supplies	81.75

30 The fund was reimbursed to include petty cash items in the financial statement prepared for the fiscal year ending on this date. The fund had the following cash and vouchers before reimbursement:

Coins and currency	\$174.00
Petty cash vouchers for:	
Employee's IOU	15.00
Postage	27.00
Office supplies	11.10

July 1 The petty cash fund balance is increased to USD 300.

Prepare journal entries for all of these transactions.

Beyond the numbers—Critical thinking

Business decision case A During a national emergency, a managerial accountant was called back to active duty with the US Army. An acquaintance of the accountant forged papers and assumed the identity of the accountant. He obtained a position in a small company as the only accountant. Eventually he took over from the manager the functions of approving bills for payment, preparing and signing checks, and almost all other financial duties. On one weekend, he traveled to some neighboring cities and mailed invoices made out to the company for which he worked. On Monday morning, he returned to work and began receiving, approving, and paying the invoices he had prepared. The following weekend he returned to the neighboring cities and cashed and deposited

the checks in bank accounts under his own name. After continuing this practice for several months, he withdrew all of the funds and never was heard from again.

Prepare a written list of the steps you would have taken to prevent this theft. Remember that this small company had limited financial resources.

Business decision case B John Billings was set up in business by his father, who purchased the business of an elderly acquaintance wishing to retire. One of the few changes in personnel made by Billings was to install a college classmate as the office manager-bookkeeper-cashier-sales manager. During the course of the year, Billings borrowed money from the bank with his father as cosigner. Although his business seemed profitable, there was a shortage of cash. The company's investments in inventories and receivables grew substantially. Finally, after a year had elapsed, Billings's father employed you, a certified public accountant, to audit the records of his business. You reported that the office manager-bookkeeper-cashier-sales manager had been misappropriating funds and had been using a variety of schemes to cover his actions. More specifically, he had:

- Pocketed cash receipts from sales and understated the cash register readings at the end of the day or altered the copies of the sales tickets retained.
- Stolen checks mailed to the company in payment of accounts receivable, credited the proper accounts, and then debited fictitious receivables to keep the records in balance.
- Issued checks to fictitious suppliers and deposited them in accounts bearing these names with himself as signer of checks drawn on these accounts; the books were kept in balance by debiting the Purchases account.
- Stolen petty cash funds by drawing false vouchers purporting to cover a variety of expenses incurred.
- Prepared false sales returns vouchers indicating the return of cash sales to cover further thefts of cash receipts.

For each item in the preceding list, describe in writing at least one feature of good internal control that would have prevented the losses due to dishonesty.

Business decision case C The outstanding checks of Brothers Company at 2010 November 30, were:

No. 229	\$ 1,000
No. 263	\$ 1,089
No. 3678	\$ 679
No. 3679	\$809
No. 3680	\$ 1,400

During December, Brothers issued checks numbered 3681-3720; and all of these checks cleared the bank except 3719 and 3720 for USD 963 and USD 726, respectively. Checks 3678, 3679, and 3680 also cleared the bank.

The bank statement on December 31 showed a balance of USD 23,944. Service charges amounted to USD 20, and two checks were returned by the bank, one marked NSF in the amount of USD 114 and the other marked "No account" in the amount of USD 2,000.

Brian Askew recently retired as the office manager-cashier-bookkeeper for Brothers Company and was replaced by Fred Hannah. Hannah noted the absence of an internal control structure but was momentarily deterred from embezzling for lack of a scheme of concealment. Finally, he hit upon several schemes. The USD 2,000 check marked "No account" by the bank is the product of one scheme. Hannah took cash receipts and replaced them with a check drawn on a nonexistent account to make it appear that a customer had given the company a worthless check.

The other scheme was more subtle. Hannah pocketed cash receipts in an amount equal to two unlisted outstanding checks and prepared the following bank reconciliation:

Balance per bank statement, 2010 December 31		\$23,944.00
Add: Deposit in transit		2,837.80
		\$26,781.80
Less: Outstanding checks		
No. 3719	\$ 963.00	
No. 3720	726.00	1,689.00
Adjusted balance, December 2010		\$25,092.80
Balance per ledger, 2010 December 31		\$27,226.80
Add: Worthless check	\$2,000.00	
NSF check	114.00	
Service charges	20.00	2,134.00
Adjusted balance, 2010 December 31		\$25,092.80

- State the nature of the second scheme hit on by Hannah. How much in total does it appear he has stolen by use of the two schemes together?
- Prepare a correct bank reconciliation as of 2010 December 31.
- After your analysis in (a) and (b), describe several procedures that would have defeated Fred Hannah's attempts to misappropriate funds and conceal these actions.

*Note: This challenging problem was not specifically illustrated in the chapter, but it can be worked by applying the principles discussed in the chapter.

Annual report analysis D In Reader's Digest's Annual Report, under Report of Management, the chairman and chief executive officer and the executive vice president and chief financial officer stated:

The company maintains a system of internal accounting controls designed to provide reasonable assurance, at reasonable cost, that transactions and events are recorded properly and that assets are safeguarded. The internal control system is supported by written policies and procedures and by the careful selection, training, and supervision of qualified personnel, and is monitored by an internal audit function.

What is the purpose of this statement? To which basic elements of the internal control structure does the statement refer?

Annual report analysis E Obtain an annual report for a company (your library may have some annual reports). Determine the quick ratios for the two most recent years for the company. Comment on the results.

Ethics case – Writing experience F After reading the ethics case, discuss the ethical situation at the City Club Restaurant. Describe the steps the owners could take to end John Blue's wage supplement scheme.

Group project G With a small group of students, visit a large local company to inquire about its internal control structure. Specifically, discover how it protects its assets against theft and waste, ensures compliance with company policies and federal laws, evaluates performance of its personnel, and ensures accurate and reliable operating data and accounting reports. If an internal audit staff exists, inquire about some of its activities. Write a report to your instructor summarizing your findings and be prepared to make a short presentation to the class.

Group project H With one or two other students, locate and visit two companies that maintain petty cash funds. Interview the custodians of those funds to identify the controls that are used to manage those funds. Write a report to your instructor comparing the controls used, pointing out any differences between the control systems and any deficiencies in the systems. Be prepared to make a short presentation to the class.

Group project I "Kiting" of bank accounts has been used to conceal shortages in bank accounts. With one or two other students, research this topic in the library. Write a paper to your instructor describing how this technique works and the steps that can be taken to detect it once it occurs and to prevent it in the future.

Using the Internet—A view of the real world

Visit the following site:

<http://www.vfauditmall.com/>

This is the internet site for the Vanity Fair Audit Mall. Click on the visitors center, CCA Studio, Tool Box, Job Shop, Tek Shak, Risk Depot, Contact Plaza, and Arcade. After browsing the site write a one page memo as to what you learned about internal audit.

Visit the Securities and Exchange website and find the EDGAR database at:

<http://www.sec.gov/edgar.shtml>

EDGAR stands for the Electronic Data Gathering, Analysis, and Retrieval system. What is its purpose? What kinds of information can be found at this site? Select a company of your choice and search the EDGAR database for information on that company. Write a report to your instructor summarizing your findings.

Answers to self-test

True-false

False. Postdated checks are not included as cash.

True. A company should make sure that enough cash is available to pay bills as they come due.

False. The cash balance on a bank statement is not usually the same as the cash balance in the depositor's books because of deposits in transit, outstanding checks, and bank service charges.

False. A deposit in transit is one of the items that has been correctly recorded as a debit to the Cash account of the depositor and will be recorded as a deposit by the bank after the bank employees open the night deposit chute.

False. For convenience, a company may use a petty cash fund for small amounts of cash payments such as delivery charges or postage stamps.

Multiple-choice

d. An effective internal control structure does not necessarily guarantee a certain level of profits.

a.

Balance per bank statement	\$1,951.20
Add: Deposit in transit	271.20
Less: Outstanding checks	(427.80)
Adjusted balance	\$1,794.60
Balance per ledger	\$1,869.60
Less: NSF check	(61.20)
Service charges	(13.80)
Adjusted balance	\$1,794.60

d. Deposits in transit have been recorded in the company's accounting records but have not yet been recorded in the bank's records.

b. The entry to record bank service charges on the books is:

Bank Service Charge Expense	13.80	
Cash		13.80

d. The entry to replenish the petty cash fund has a credit to Cash, not Petty Cash.

Postage Expense	xxx	
Cash		xxx

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