PART 5

Financial Reporting: Special Topics

CHAPTER

18

Income Recognition and Measurement of Net Assets

Objectives

After reading this chapter, you will be able to:

1. Understand the revenue recognition alternatives.
2. Explain revenue recognition at the time of sale, during production, and at the time of cash receipt.
3. Explain the conceptual issues regarding revenue recognition alternatives.
4. Describe the alternative revenue recognition methods.
5. Account for revenue recognition prior to the period of sale, including the percentage-of-completion and completed-contract methods.
6. Account for revenue recognition after the period of sale, including the installment and cost recovery methods.
7. Account for revenue recognition delayed until a future event occurs.
8. Understand software revenue recognition, franchises, real estate sales, retail land sales, and consignment sales (Appendix).

Cooking the Books?

Over the last several years, Securities and Exchange Commission (SEC) investigations have uncovered numerous earnings management practices that have ranged from aggressive accounting practices to outright fraud. Recently, **Bristol-Myers Squibb** has agreed to pay $150 million to settle SEC accusations of improperly inflating its sales and income by approximately $1.5 billion through a practice known as "channel stuffing"—pressuring wholesalers to accept shipments of products well ahead of anticipated demand, particularly toward the end of a quarter, to help meet revenue targets. **Nortel Networks Corp.** is investigating improper revenue recognition practices that led to the recording of approximately $3 billion in revenue over a three-year period. In particular, Nortel mentioned instances of revenue being recorded prior to title being transferred to customers and recording revenue prior to delivery of the product—a practice known as "bill and hold." As stated by Walter Schuetze, former chief accountant of the SEC, improper revenue recognition appears to be the "recipe of choice for cooking the books."

Revenue recognition is a key element in reporting financial performance. However, there currently exists no comprehensive standard on revenue recognition. While conceptual and general guidance can be found in *FASB Statement of Financial*

Credit: Associated Press, INTERNATIONAL EMPLOYEE STOCK OPT

Accounting Concepts No. 5 and the SEC's *Staff Accounting Bulletins No. 101* and *No. 104*, much of the authoritative literature concerning revenue recognition contains departures from this guidance and allows revenue to be recognized at various points in the earnings process in order to increase the usefulness of a company's financial statements. This guidance typically is concerned with specific types of revenue transactions or industry-specific revenue recognition issues. However, help is on the way. The FASB is currently working on a revenue recognition project that may dramatically change the manner in which revenue is recognized. While this project will likely not be effective for several years, the Financial Executive's Institute has already identified this project as a major reporting challenge that should be closely followed by all executives.

For Further Investigation

For a discussion of revenue recognition and earnings management, consult the Business & Company Resource Center (BCRC):

- Abusive Earnings Management and Early Warning Signs. Lorraine Magrath, Leonard G. Weld, *The CPA Journal*, 0732-8435, August 2002, v72, i8, p50-54.
- Revenue Recognition: A Project to Watch. Colleen Cunningham, *Financial Executive*, 0895-4186, December 2004, v20, i9, p.6.

Revenues and expenses are defined in terms of changes in assets and liabilities. A company typically *recognizes* revenues in the period of sale even though they are earned gradually and continuously during the company's earning process. This recognition of revenue occurs if, at the time of sale, (1) realization has taken place, and (2) the revenues have been earned. There is a difference between recognition and realization. **Recognition** is the process of formally recording and reporting an item in the financial statements, whereas **realization** means the process of converting noncash resources into cash or rights to cash.

As we discussed in Chapter 5 revenue is recognized when *earned* and *realizable*. Generally, this recognition occurs at the time of sale. At this time, the company matches its expenses against its revenues. However, a company may advance and recognize revenues (and expenses) prior to the period of sale. In other situations, a company may defer and recognize revenues (and expenses) after the period of the sale. The purpose of advancing or deferring recognition is to increase the *usefulness* of a company's financial statements. This is achieved by a more *relevant* portrayal of the nature of its operations without a significant decrease in the *reliability* of the information. Note that in this discussion, we are referring to the "sale" as the transaction in which the product is transferred or the service is performed. It is also usually, but not necessarily, the point at which legal title is transferred. It is helpful to understand that the "sale," the transfer of legal title, and the recognition of revenue are three separate but related events. In this chapter we discuss the conceptual and practical issues of revenue recognition, the matching of expenses against the revenue, and the related issue of the measurement of the net assets (assets minus liabilities).

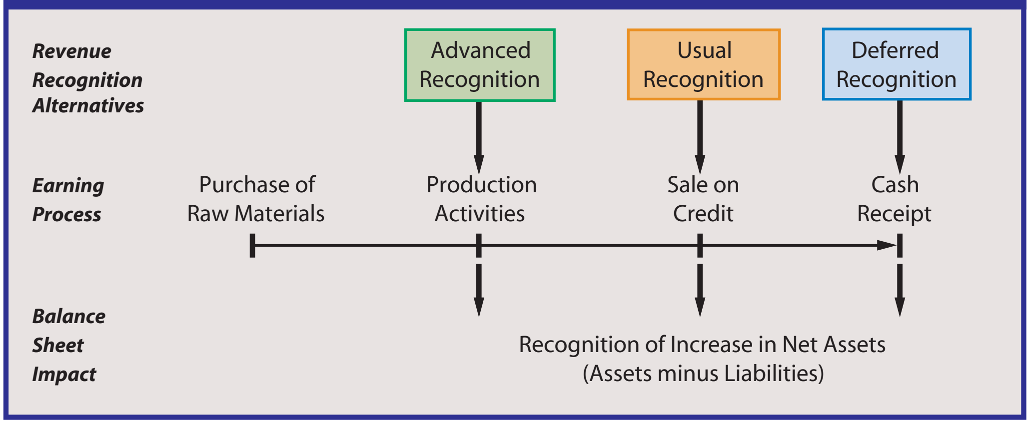
OVERVIEW OF REVENUE RECOGNITION ALTERNATIVES

1 Understand the revenue recognition alternatives.

We show the alternatives for recognizing revenue at various points in the earning process in Exhibit 18-1. In this simple example, a manufacturer purchases raw materials, converts them to finished goods in the production process, sells the finished goods on credit, and later collects the cash. The usual point of revenue recognition at the time of sale is shown in the middle, preceded by the alternative of advancing revenue recognition by recording revenue during production, and followed by the alternative of deferring revenue recognition until the receipt of cash. (Note also that the cash receipt may be spread out over several time periods.)

As we evaluate alternative revenue recognition methods, you must consider the related asset and liability recognition. The period in which a company recognizes revenue and expenses is also the period in which it recognizes an increase in the value of its net assets. We show this relationship in the next section.

EXHIBIT 18-1 Revenue Recognition Alternatives



Examples of Revenue Recognition Alternatives

The discussion of revenue recognition alternatives tends to focus on a company's income statement through the recognition of revenue and the matching of expenses. However, it is very important to understand the relationship between income (revenue and expense) recognition on a company's income statement and the measurement of the net assets (assets minus liabilities) on its balance sheet. In this section we show the effects on the financial statements of the three basic revenue recognition alternatives using the following facts for the Ringwood Company. This company is a small manufacturer of special order items in its first year of operations, and uses the perpetual inventory system:

1. The company begins the year with cash and contributed capital of $100.
2. The company contracts to produce and sell an item of inventory to a customer for $150. It costs $100 cash to manufacture the item.
3. The company sells the item on credit.
4. The company collects $60 cash from the customer in partial payment.

Example: Revenue Recognition at Time of Sale

2 Explain revenue recognition at the time of sale, during production, and at the time of cash receipt.

Assume the company recognizes the revenue, expense, and increase in net assets at the time of sale. In this case, it records the preceding events as follows:

1. The company manufactures the inventory:

Inventory	100	
Cash		100

2. The company sells the inventory, recognizes revenue of $150, the related expense of $100, and the increase in net assets of $50 ($150 − $100):

Accounts Receivable	150	
Revenue		150
Cost of Goods Sold	100	
Inventory		100

3. The company collects cash of $60:

Cash	60	
Accounts Receivable		60

Following these events, the company prepares the financial statements shown in the first section of Example 18-1. The income statement reports the revenue of $150, the cost of goods sold of $100, and the resulting gross profit of $50. The balance sheet reports the accounts receivable at $90, which is the billing of $150 less the partial payment of $60. The contributed capital is unchanged at $100, and the retained earnings is the gross profit for the period of $50. Note that the (net) assets have increased by $50 ($150 − $100) which is the amount of profit recognized. ♦

Example: Revenue Recognition During Production

Now assume the same facts for the Ringwood Company, except that the company has not yet delivered the item to its customer, but advances the recognition of revenue to the period of production. During production the company recognizes a gross profit of $50 (revenue of $150 minus the related expense of $100) and bills the customer for a partial billing of $130. The company now records the preceding events as follows:

1. The company manufactures the inventory:

Inventory	100	
Cash		100

EXAMPLE 18-1 Ringwood Company: Revenue Recognition Alternatives

Revenue Recognition at Time of Sale

Income Statement

Revenue	$150
Cost of goods sold	(100)
Gross profit	$ 50

Balance Sheet

Assets			Stockholders' Equity	
Cash		$ 60	Contributed capital	$100
Accounts receivable		90	Retained earnings	50
Total Assets		$150	Total Stockholders' Equity	$150

Revenue Recognition During Production

Income Statement

Revenue	$150
Production expense	(100)
Gross profit	$ 50

Balance Sheet

Assets			Stockholders' Equity	
Cash		$ 60	Contributed capital	$100
Accounts receivable		70	Retained earnings	50
Inventory	$150			
Less: Partial billings	(130)	20		
Total Assets		$150	Total Stockholders' Equity	$150

Revenue Recognition at Time of Cash Receipt

Income Statement

Revenue	$60
Cost of goods sold	(40)
Gross profit	$20

Balance Sheet

Assets			Stockholders' Equity	
Cash		$ 60	Contributed capital	$100
Accounts receivable	$90		Retained earnings	20
Less: Deferred gross profit	(30)	60		
Total Assets		$120	Total Stockholders' Equity	$120

2. The company recognizes revenue of $150, the related expense of $100, and the increase of $50 in the value of the inventory during production:

Production Expense	100	
Inventory	50	
Revenue		150

In this situation the company recognizes revenue of $150 and an expense of $100 during production even though it has not transferred the inventory to the customer. Since the company does not yet have a receivable (prior to the billing of $130), the value of the inventory is increased from its cost of $100 to its selling price of $150. In other words, since the company has recognized a gross profit, it must also increase the value of its net assets (inventory).

3. The company bills the customer for a partial billing of $130:

Accounts Receivable	130	
Partial Billings		130

When the company bills the customer, it credits Partial Billings, which is a contra account to the inventory. Thus, the net value of the inventory is reduced to the selling price less the amount billed, or $20 ($150 − $130). In other words, the $20 is the net investment of the Ringwood Company in the inventory.

4. The company collects cash of $60:

Cash	60	
Accounts Receivable		60

Following these events, the company prepares the financial statements in the second section of Example 18-1. The income statement reports the revenue of $150, the production expense of $100, and the resulting gross profit of $50. The balance sheet reports the accounts receivable at $70 ($130 − $60), and the inventory at its net value of $20. Again, note that the (net) assets have increased by $50, which is the amount of profit recognized.

After the company bills the remaining $20 to its customer, the inventory and partial billings accounts have equal balances (of $150). So the company would credit and debit them respectively, to eliminate their balances. Since the company recognized all the gross profit (revenue and expense) during production, it does not recognize any more income. ♦

Example: Revenue Recognition at Time of Cash Receipt

Now assume the original facts for the Ringwood Company, except that the company defers the recognition of revenue to the period when the cash is received. The company now records the preceding events as follows:

1. The company manufactures the inventory:

Inventory	100	
Cash		100

2. The company "sells" (i.e., delivers) the inventory and defers the recognition of revenue:

Accounts Receivable	150	
Inventory		100
Deferred Gross Profit		50

Since the company has transferred the item, it records the receivable of $150, removes the inventory of $100, and records the difference as Deferred Gross Profit, which is a contra account to accounts receivable. Thus, the net value of its accounts receivable is the *cost* of the item of $100 ($150 − $50).

3. The company collects cash of $60:

Cash	60	
Accounts Receivable		60

4. The company recognizes revenue based on the cash received:

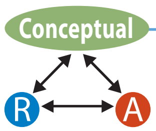
Cost of Goods Sold	40	
Deferred Gross Profit	20	
Revenue		60

Since the company collects \$60, it recognizes revenue of \$60. This collection is 40% (\$60 ÷ \$150) of the total sale price of \$150. Therefore, it recognizes 40% of the cost of the item as cost of goods sold of \$40 (40% × \$100). It reduces the deferred gross profit by \$20 (\$60 − \$40), thereby increasing the value of the net receivable.

Following these events, the company prepares the financial statements shown in the third section of Example 18-1. The income statement reports the revenue of \$60, the cost of goods sold of \$40, and the resulting gross profit of \$20. The balance sheet reports the accounts receivable at a net value of \$60, which is the remaining \$90 (\$150 − \$60) balance of the receivable, less the remaining \$30 (\$50 − \$20) balance of the deferred gross profit. In other words, the \$60 is the *cost* of the receivable (60% of the cost of \$100) to the Ringwood Company since it has not yet recognized revenue on that portion. Note that the (net) assets have increased by \$20 (\$120 − \$100), which is the amount of profit recognized.

As the company collects the remaining \$90 (60% of the total sale price of \$150), it recognizes 60% of the total revenue (60% × \$150 = \$90) and cost of goods sold (60% × \$100 = \$60). This recognition eliminates the balance of \$30 in the deferred gross profit account, thereby increasing the value of its net assets. ♦

Summary of Revenue Recognition Alternatives



As we discuss in later sections of the chapter, a company advances or defers revenue recognition in certain situations because realization and the completion of the earning process occur in periods other than the period of sale (delivery). These alternative methods increase the relevance of the financial statements. For all three examples discussed earlier, note that when the company recognizes revenue, it also recognizes expenses, and increases its net assets from cost to selling price. In the first example, the company recognizes revenue and expense at the time of sale, and records accounts receivable at the selling price and reduces inventory cost. At this point, realization has occurred, revenue and expense are recognized, and net assets are increased by the amount of the gross profit.

In the second example, the company recognizes revenue and expense during production, and increases the inventory from cost to selling price. Therefore, it records the increase in net assets when it recognizes revenue and expense. Even though the "sale" has not occurred, realization has occurred and the earning process is complete. We discuss this situation later in the chapter for the percentage-of-completion method.

Alternatively, if revenue is not recognized at the time of "sale," the net assets remain at cost. In the third example the company recognizes revenue at the time of cash receipt. Even though it records an account receivable at the selling price at the time of "sale," it reduces the receivable to cost through the subtraction of deferred gross profit. The increase to selling price only occurs as cash is received, revenue and expense are recognized, and deferred gross profit is reduced. In this situation realization occurs only as cash is received, as we discuss later in the chapter for the installment method.

Note also that the company starts the period with assets of \$100. In the first and second examples, it recognizes a gross profit of \$50 and the net assets increase to \$150. In the third example, it recognizes a gross profit of \$20 and the net assets increase to \$120.

In the last two examples, the expenses are matched against the revenues so that they are either advanced or deferred in a consistent manner. Note that this matching occurs only for certain expenses, usually those for which there is a direct "association of cause and effect" (as we discussed in Chapter 5). Other expenses are recognized on the basis of "systematic and rational allocation" or "immediate recognition." They are usually recognized in the normal manner, unless they can be directly associated with the product. For example, depreciation on a machine used by a company to make a product is included in its inventory cost, and the company advances or defers recognition of the expense consistent with its revenue recognition. A company expenses depreciation on an office building used by selling and administrative personnel in the normal manner. Therefore, the recognition of that expense is *not* related to the revenue recognition alternative the company uses.

The selection of a revenue recognition alternative depends on the particular circumstances faced by each company. We discuss the conceptual issues that influence the decision in the next section.

CONCEPTUAL ISSUES

3 Explain the conceptual issues regarding revenue recognition alternatives.

The decision as to when to recognize revenue focuses on three factors:

1. **The economic substance of the event takes precedence over the legal form of the transaction.** Usually an exchange (sale) is considered to occur at the time of the legal transaction at which title to the property is transferred. However, if economic "reality" is substantially different from the legalities of a transaction, the recognition of revenue may be advanced to a period prior to the sale or deferred to a period after the sale. That is, revenue is recognized in the period in which the revenue is *earned* and *realizable.* For example, as we discuss in Chapter 21, a lessor recognizes the gross profit on a sales-type lease even though it retains legal title. As we discuss later in this chapter, a company may recognize the gross profit on a long-term construction contract each year during the contract, instead of when the construction is completed. In each of these situations, the revenue is earned before title is transferred. Also, as we discussed in Chapter 9, a company does not recognize revenue on a product financing arrangement even though title has passed, because the exchange is, in an economic sense, a loan (borrowing) and not a sale.
2. **The risks and benefits of ownership have been transferred to the buyer.** For revenue to be *earned* (and recognized) by the seller, the risks and benefits of ownership must be substantially transferred from the seller to the buyer. The benefits are the expected net cash flows, while the risks are the likelihood of larger or smaller net cash flows actually being received. For example, as we discussed in Chapter 7, when the buyer has certain rights to return items it has purchased, several criteria must be met for the seller to recognize revenue. Also, a company may recognize revenue during a long-term construction contract because the risks and benefits are transferred to the buyer, as we discuss later in this chapter. Alternatively, if the seller of a franchise has not substantially completed its obligations related to the exchange, then it has not transferred the benefits of ownership to the buyer, and its earning process is not complete. In this case, it defers revenue recognition, as we discuss later in this chapter. Also, if the seller of receivables can reacquire the benefits under a recourse provision, the exchange of benefits may not have occurred and the seller does not recognize revenue, as we discussed in Chapter 7. If the seller of real estate has substantial exposure to risk after the sale, a "full exchange" has not taken place and it defers revenue recognition, as we discuss later in this chapter. Finally, the lessor recognizes revenue on sales-type leases because the transfer of the risks and benefits of ownership has occurred, even though a legal sale has not taken place, as we discuss in Chapter 21.
3. **The collectibility of the receivable from the sale is reasonably assured.** If the collectibility is "*not* reasonably assured,"[1] then *realization* has not taken place and the earning process is not complete. In this case, the company defers the recognition of

1. "Omnibus Opinion—1966," *APB Opinion No. 10* (New York: AICPA, 1966), par. 12. In "Recognition and Measurement in Financial Statements of Business Enterprises," *FASB Statement of Concepts No. 5* (Stamford, Conn.: FASB, 1984), par. 84(g), the term "doubtful" is used. It is assumed that these two terms have the same meaning.

revenue. This occurs when it is difficult to predict whether customers will pay their accounts or when significant collection efforts may be required, as for certain real estate situations and franchises discussed later in this chapter. Deferral of revenue recognition may also be appropriate when future refunds or returns cannot be reasonably estimated, as we discussed in Chapter 7.

In this chapter we discuss several revenue recognition methods. In some specialized situations the FASB has not issued *Statements of Standards.* In these situations generally accepted accounting principles are defined by alternative sources, such as *Statements of Position, Industry Accounting Guides,* and *Industry Audit Guides,* which cover particular industries and are issued by the AICPA, as we discussed in Chapter 1.

Alternative Revenue Recognition Methods

4 Describe the alternative revenue recognition methods.

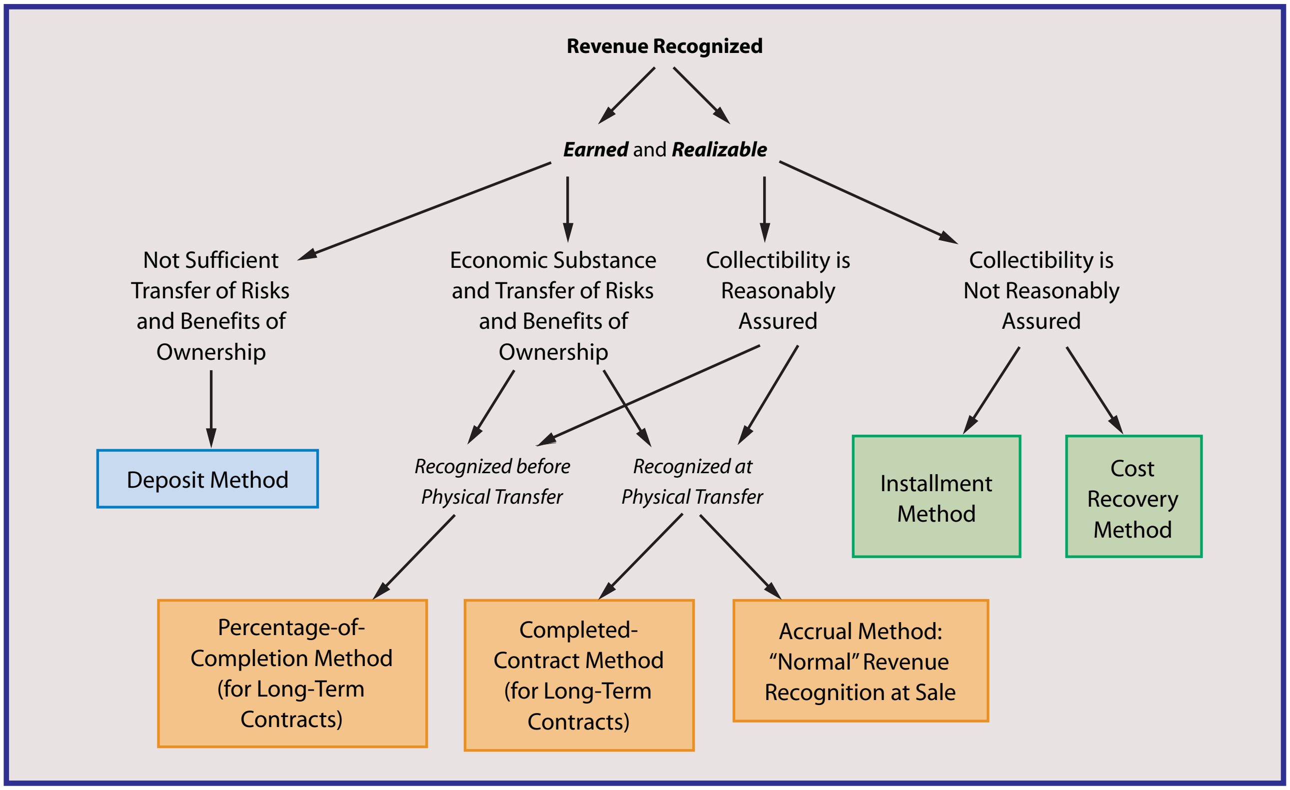
Once a company has decided when to recognize revenue (during, before, or after the period of sale), then it selects a particular accounting method. We briefly summarize the revenue recognition alternatives and the methods used as follows:

1. *Revenue Recognition in the Period of Sale*. This method is generally used because realization has occurred and revenue is earned at the time of sale. The *accrual method* of accounting is used, in which revenue (accomplishment) is recognized at the time of the sales transaction and expenses (sacrifices) are matched against the revenue in the period of sale. The inventory is recorded at cost and the resulting accounts receivable are recorded at net realizable value. The completed-contract method is used for some long-term contracts and recognizes revenue and expenses in the period of sale.
2. *Revenue Recognition Prior to the Period of Sale*. This method is used to reflect economic substance instead of legal form, so that economic reality is not distorted. The *percentage-of-completion method* is used for most long-term construction contracts (or some real estate sales). The *proportional performance method* is used for long-term service contracts to advance revenue recognition. These methods recognize revenue (and certain expenses) based on the percentage completed during the period. The inventory for a long-term construction project, for example, is recorded at cost until revenue is recognized, at which time it is raised to net realizable value.
3. *Revenue Recognition at the Completion of Production*. This method has been advocated for certain precious metals and farm products with immediate marketability at quoted prices, unit interchangeability, and an inability of the producer to determine unit acquisition costs. This method has become less appropriate over time as markets with fixed prices become less common. Also, since mining and agricultural companies generally recognize revenue in the period of the sale, we do not discuss this method in this chapter.[2] The inventory is recorded at replacement cost or net realizable value, and we presented a brief example in Chapter 9.
4. *Revenue Recognition After the Period of Sale*. This method is appropriate when the collectibility of the receivable is not reasonably assured or there is no reliable basis for estimating the collectibility. In this case, revenue recognition is deferred. In the *installment method* a portion of the total gross profit on the sale is recognized in proportion to the cash received. In the *cost recovery method* no gross profit is recognized until the cost of the product is recovered. After the cost recovery, gross profit is recognized as an amount equal to the subsequent cash receipts. The account receivable, less the deferred gross profit, is recorded at cost until the revenue is recognized.

2. H. J. Jaenicke, "Survey of Present Practices in Recognizing Revenues, Expenses, Gains, and Losses," *Research Report* (Stamford, Conn.: FASB, 1981), p. 75.

5. *Revenue Recognition Delayed Until a Future Event Occurs*. This method is appropriate when there has been an insignificant transfer of the risks and benefits of ownership. In this case, revenue is not recognized either at the time of the sale or as cash is received. The *deposit method* is used and all cash receipts are recorded as deposits until an event occurs that transfers sufficient risks and benefits to the buyer. Then revenue is recognized. Related assets are recorded at their cost or book value until the revenue recognition occurs.

The following diagram summarizes many of the revenue recognition issues we have discussed:



We discuss the accounting issues involved in the recognition of revenue (and expenses) in the period of sale in several places throughout this book and we will not discuss them further in this chapter. In the next section, we discuss revenue recognition prior to sale as it applies to construction contracts and service contracts. Following this section, we discuss revenue recognition after the period of sale.

SECURE YOUR KNOWLEDGE 18-1

- Revenues are recognized when earned and realized (or realizable). Generally, this involves recording revenue, the related expense, and the increase in net assets (for the amount of gross profit recognized) at the time of sale.

(continued)

- When the completion of the earning process and realization occur in periods other than the period of sale, companies may accelerate (advance) or delay (defer) the recognition of revenue to increase the usefulness of its financial statements:
  - If a company recognizes revenue and expense during production, it recognizes gross profit (revenues less expenses) during production and it increases inventory (net assets) from its cost to its selling price.
  - If a company is uncertain as to the ultimate collection of cash, it may defer the recognition of revenue until cash is received by crediting a contra-account to accounts receivable (Deferred Gross Profit). When cash is ultimately received, the deferred gross profit account is reduced (net assets increase), and revenues and expenses are recognized.
- In deciding when to recognize revenue, a company should consider:
  - The economic substance of the event instead of the legal form of the transaction,
  - Whether the risks and benefits of ownership have been transferred to the buyer, and
  - If the collectibility of the receivable from the sale is reasonably assured.
- Accounting methods associated with the various revenue recognition alternatives are the:
  - Accrual method for revenue recognized in the period of sale;
  - Percentage of completion or proportional performance methods for revenue recognized prior to the period of sale;
  - Installment or cost recovery methods for revenue recognized after the period of sale; and
  - Deposit method for revenue which will be delayed until a future event occurs.

REVENUE RECOGNITION PRIOR TO THE PERIOD OF SALE

5 Account for revenue recognition prior to the period of sale, including the percentage-of-completion and completed-contract methods.

We discuss three methods of revenue recognition in this section. Each applies to long-term contracts where the production of a product or the provision of a service extends over several accounting periods. The percentage-of-completion method is widely used by construction companies for long-term contracts and we discuss it in detail. The completed-contract method also may be used by construction companies for long-term contracts. Even though this method does *not* advance the recognition of revenue, we show it here for contrast with the percentage-of-completion method. We also discuss the proportional performance method that is used by companies for long-term service contracts.

Long-Term Construction Contracts

Some companies engage in long-term construction contracts in which they agree to construct an asset for another entity (e.g., company or governmental agency) over an extended period. Long-term construction contracts involve projects such as buildings, ships, roads, bridges, and dams, which can take several years to complete. Such a contract may involve advance payments by the buyer to help the seller finance the construction and to show the buyer's ownership interest in the asset under construction. The contract also may include specific responsibilities of the seller, such as the use of certain materials and the completion of production on a specific timetable. At completion, the buyer typically inspects and approves the finished asset before the legal "sale" takes place.

Because the construction process usually extends over more than one period, the question arises as to how the construction company should recognize revenue. The **percentage-of-completion method** is generally used. Under this method the company recognizes profit each period during the life of the contract in proportion to the amount of the contract completed during the period. As it recognizes the profit, it also increases the value of the inventory, so that it values the inventory at the costs incurred plus the profit recognized to date (less any partial billings). In certain situations, the **completed-contract method** is used. Under this method the company does *not* recognize profit during the life of the contract, but recognizes it only when the contract is completed. During the life of the contract, therefore, it records the inventory at cost (less any partial billings).

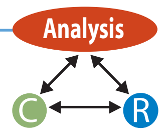
Most long-term contracts are accounted for by the percentage-of-completion method, because it produces a *more relevant* measure of periodic income. When a company uses this method, **economic substance takes precedence over legal form.** That is, the legal sale occurs at the completion of the contract, but revenue recognition is advanced to better depict economic reality.

The earning process is virtually complete because a "continuous sale" takes place. The arguments to support a continuous sale are that (1) the buyer and the seller obtain enforceable rights, including the right of the buyer to enforce specific performance, (2) the buyer usually makes progress payments to support its ownership investment and therefore realization is actually occurring, and (3) the buyer has the right to take over the work in progress.[3]

Thus, in accordance with the continuous sale concept, revenue is recognized continuously using the percentage-of-completion method. The method also has the following advantages:

- It achieves the goal of accrual accounting to report the effects of transactions and other events in the periods in which they occur.
- It is consistent with the argument that revenue is earned continuously over the entire earning process.
- It results in a more relevant measure of periodic income because income includes the results of the activities that occurred during the period.

Generally accepted accounting principles support the use of the percentage-of-completion method. **Accounting Research Bulletin No. 45** recommended its use when the total gross profit on the contract could be estimated with reasonable accuracy and ultimate realization is reasonably assured.[4] However *ARB No. 45* allowed the use of both the percentage-of-completion and completed-contract methods in all circumstances and did not specify the situations under which each method would be preferable. To clarify the use of the two methods, **AICPA Statement of Position No. 81-1** requires that a construction company use the percentage-of-completion method for long-term contracts when *all* the following conditions are met:



1. The company can make reasonably dependable estimates of the extent of progress toward the completion, contract revenues, and contract costs.
2. The contract clearly specifies the enforceable rights regarding goods or services to be provided and received by both the company and the buyer, the consideration to be exchanged, and the manner and terms of settlement.
3. The buyer can be expected to satisfy its obligations under the contract.
4. The company expects to perform its contractual obligations.[5]

The *Statement* also requires that a company use the completed-contract method only when at least one of the preceding conditions is *not* met or for short-term contracts. *SOP No. 81-1* narrowed the generally accepted accounting principles for long-term contracts. Instead of the two methods being allowed in all circumstances, each is acceptable only under specific and separate circumstances.

Percentage-of-Completion Method

When a company uses the percentage-of-completion method, it may determine the percentage completed by using either "input" or "output" measures.

3. "Accounting for Performance of Construction-Type and Certain Production-Type Contracts," *AICPA Statement of Position No. 81–1* (New York: AICPA, 1981), par. 22.
4. "Long-Term Construction-Type Contracts," *Accounting Research Bulletin No. 45* (New York: AICPA, 1955), par. 4.
5. "Accounting for Performance of Construction-Type and Certain Production-Type Contracts," *op. cit.*, par. 23.

Input Measures

An input to the production activity may be used to measure the percentage of completion if a relationship exists between the input and the production activity. Two input measures are the cost-to-cost method and the efforts-expended method. In the **cost-to-cost** method, the company measures the percentage of completion by comparing the costs incurred to date with the expected total costs for the contract. This percentage is multiplied by the total revenue on the contract to compute the total revenue recognized to date. This revenue to date, minus the revenue recognized in previous years, is the revenue recognized in the current year. The expense recognized is the costs incurred in the current year (except when the company incurs a loss, as we discuss later).

In the **efforts-expended** method, the company measures the percentage of completion by the work performed to date, such as labor hours, labor dollars, machine hours, or material quantities compared to the expected total work to be performed in the contract. The revenue recognized in the current year is computed by following the same procedures as for the cost-to-cost method. The expense recognized is computed using the same procedures as for the revenue.

Output Measures

Output measures use the results achieved to date compared to the total expected results of the contract to measure the percentage of completion. Theoretically, output measures are preferable to input measures, since they measure the results achieved (that is, the actual production completed). However, output measures often cannot be reliably measured. For example, it is difficult to measure output for a contract that involves research, engineering, and physical construction. Examples of output measures are units produced, units delivered, contract milestones, value added, or units of work completed (such as cubic yards of pavement laid on a highway contract). Once a company has determined the output percentage of completion, the revenue and expense recognized each period are computed in the same way as for the efforts-expended method.

Accounting Procedures

In accounting for a long-term contract under the percentage-of-completion method, a company uses an inventory account, Construction in Progress, to record all costs incurred on the project. In addition, it adds the gross profit that it recognizes on the project to the account, so that at the end of the period the account is valued at cost plus gross profit recognized (i.e., net realizable value). Most long-term projects are financed by receipts from partial billings paid by the buyer, which are usually less than the amount of revenue recognized. When these partial billings are made, the company debits a receivable account and credits a Partial Billings account. The company reports the balance in the Partial Billings account on its balance sheet as an offset (contra account) to the Construction in Progress account. Therefore the net balance sheet amount is an asset if Construction in Progress (which includes incurred costs plus gross profit recognized) exceeds Partial Billings, or a liability if Partial Billings exceeds Construction in Progress.

If the project's total estimated cost exceeds the contract price, then the company expects a loss on the project. The conservatism convention requires that the company recognize the total expected loss in the current year and reduce the carrying value of the inventory. We discuss the recognition of losses later in this chapter.

Completed-Contract Method

Under the completed-contract method, no revenue is recognized until the project is completed or substantially so (although anticipated losses are recognized immediately). In effect, this method is just like the production and sale of any unit of inventory. The recording and reporting of inventory costs and partial billings are handled in the same way as for the percentage-of-completion method. The principal advantage of the completed-contract method is that the revenue recognized is *more reliable* because it is based on final results rather than on estimates. The principal disadvantage is that it is *less relevant* because a company's net income does not reflect its current performance, but rather is a function of the date the contract is completed. Indeed, a company's net income may be negative if it completes no contracts in a period and expenses its selling and administrative costs.

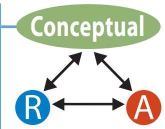


Illustration of the Two Methods

To illustrate the two methods, assume that the Calder Company contracted to construct a dam that takes three years to complete. We show the contract price, costs incurred, estimated costs to complete, partial billings, and collections in Example 18-2. The company estimates the percentage completed by the cost-to-cost method.

EXAMPLE 18-2 Calder Company: Dam Construction Contract Amounts

	2007	2008	2009
Construction costs incurred during the year	$100,000	$186,000	$314,000
Estimated costs to complete the contract	400,000	264,000	—
Partial billings to customer	80,000	350,000	270,000
Collections from customer	50,000	330,000	320,000
Total contract price: $700,000			

Example: Computations for the Percentage-of-Completion Method

We show the gross profit recognized each year under the percentage-of-completion method in Example 18-3.

EXAMPLE 18-3 Gross Profit Recognition: Percentage-of-Completion Method

	2007	2008	2009
Construction costs incurred to date	$100,000	$286,000	$600,000
Estimated costs to complete	400,000	264,000	—
Total estimated costs	$500,000	$550,000	$600,000
Percent complete (construction cost incurred to date ÷ total estimated costs)	20%	52%	100%
Revenue to date (% complete × $700,000 contract price)	$140,000	$364,000	$700,000
Revenue recognized for the year (revenue to date − revenue previously recognized)	$140,000	$224,000	$336,000
Construction cost (expense) incurred for the year	(100,000)	(186,000)	(314,000)
Gross profit recognized	$ 40,000	$ 38,000	$ 22,000

2007: In 2007 the Calder Company incurred $100,000 of construction costs and estimates that it will incur another $400,000 to complete the contract. Therefore, the company expects that the total cost of the contract will be $500,000. Since the contract price is $700,000, the company projects a gross profit of $200,000. The contract is 20% complete ($100,000 ÷ $500,000), and therefore the company recognizes 20% of the total revenue on the contract. This amounts to $140,000 (20% × $700,000). Since total estimated construction costs are $500,000, the construction expense recognized for 2007 is

\$100,000 (20% × \$500,000)[6] and the gross profit is \$40,000. Note that the contract is 20% complete, and the company recognizes 20% of the \$200,000 projected gross profit.

2008: In 2008 the company follows the same procedure. The total costs incurred *to date* are \$286,000 (the sum of the costs incurred in 2007 and 2008). Since estimated costs to complete the project are \$264,000, the contract is 52% complete. Therefore, the company's total revenue *to date* is \$364,000 (52% × \$700,000), and the revenue it recognizes for *the year* is \$224,000 (the revenue to date of \$364,000 less the revenue previously recognized of \$140,000). Since total estimated construction costs are \$550,000, the construction expense recognized for 2008 is \$186,000 [(52% × \$550,000)− \$100,000], and there is a gross profit of \$38,000. Note that the contract is 52% complete, the total profit expected on the contract is now \$150,000 (\$700,000 − \$550,000). Therefore, the total profit recognized to date is \$78,000 (52% × \$150,000). This amount is consistent with the \$40,000 and \$38,000 gross profit recognized in the two years.

2009: In 2009 the company completes the contract at a total cost of \$600,000. The revenue for *the year* is \$336,000, which is the total revenue of \$700,000 less the revenue *to date* of \$364,000. Since construction costs for *the year* are \$314,000, the gross profit for the year is \$22,000. Note that the total gross profit for the three years is \$100,000 (\$40,000 + \$38,000 + \$22,000), which is consistent with the total revenue less the total actual costs (\$700,000 − \$600,000). ♦

Example: Computations for the Completed-Contract Method

Under the completed-contract method, the company does not recognize a gross profit until the contract is complete. The Calder Company recognizes the entire gross profit on the contract at the end of 2009. The total construction costs incurred over the three years (and recorded in Construction in Progress) are \$600,000 (\$100,000 + \$186,000 + \$314,000). The revenue recognized is the total contract price of \$700,000, and therefore the company recognizes a gross profit of \$100,000 (\$700,000 − \$600,000) in 2009. ♦

Journal Entries for the Two Methods

Example 18-4 show the journal entries to record the activities of the Calder Company for both the percentage-of-completion and the completed-contract methods. Under both methods, in 2007 through 2009 the company debits the construction costs (from Example 18-2) to the inventory account Construction in Progress. The accompanying credits are to various accounts such as Accounts Payable, Raw Materials Inventory, Cash, Prepaid Expenses, Accumulated Depreciation, etc. It debits the billings to the customer to Accounts Receivable and credits the Partial Billings, which is a contra account to Construction in Progress. It records the collection of cash from the customer in the normal manner. Under the percentage-of-completion method, the company recognizes the gross profit (calculated in Example 18-3) each year by a journal entry to a revenue and an expense account. It debits the difference between these two amounts, the gross profit, to Construction in Progress. This raises the asset value from cost to net realizable value and eventually to the contract selling price. The increase in stockholders' equity (the gross profit) is accompanied by a corresponding increase in an asset value. Under the completed-contract method the company does not recognize a profit in 2007 or 2008, so no journal entry is required.

In 2009, when the contract is completed, closing entries for the contract are required. Under the percentage-of-completion method, the company closes Partial Billings against Construction in Progress. Note that both accounts include the selling price. Under the completed-contract method, the company recognizes the total gross profit on the contract

6. Under the cost-to-cost method, construction expenses recognized for the year are equal to the construction costs incurred during the year (unless a loss is expected on the contract, as we discuss later). Therefore, the construction expense computations are simplified, as we show in Example 18-3. If this method is not used, construction expenses recognized in a given year may differ from the actual yearly construction costs incurred.

at the completion date. It does this by closing Partial Billings against Construction Revenue because both accounts include the selling price. It also closes Construction in

EXAMPLE 18-4 Journal Entries to Record Dam Construction

	Percentage-of-Completion Method		Completed-Contract Method	
2007				
1. *To record construction costs*:				
Construction in Progress	100,000		100,000	
Accounts Payable, Raw Materials Inventory, Cash, etc.		100,000		100,000
2. *To record partial billings*:				
Accounts Receivable	80,000		80,000	
Partial Billings		80,000		80,000
3. *To record collections*:				
Cash	50,000		50,000	
Accounts Receivable		50,000		50,000
4. *To record gross profit*:				
Construction Expense	100,000		No Entry	
Construction in Progress	40,000			
Construction Revenue		140,000		
2008				
1. *To record construction costs*:				
Construction in Progress	186,000		186,000	
Accounts Payable, Raw Materials Inventory, Cash, etc.		186,000		186,000
2. *To record partial billings*:				
Accounts Receivable	350,000		350,000	
Partial Billings		350,000		350,000
3. *To record collections*:				
Cash	330,000		330,000	
Accounts Receivable		330,000		330,000
4. *To record gross profit*:				
Construction Expense	186,000		No Entry	
Construction in Progress	38,000			
Construction Revenue		224,000		
2009				
1. *To record construction costs*:				
Construction in Progress	314,000		314,000	
Accounts Payable, Raw Materials Inventory, Cash, etc.		314,000		314,000
2. *To record partial billings*:				
Accounts Receivable	270,000		270,000	
Partial Billings		270,000		270,000
3. *To record collections*:				
Cash	320,000		320,000	
Accounts Receivable		320,000		320,000
4. *To record gross profit and to close out Construction in Progress and Partial Billings*:				
Construction Expense	314,000		No Entry	
Construction in Progress	22,000			
Construction Revenue		336,000		
Partial Billings	700,000		No Entry	
Construction in Progress		700,000		
Partial Billings	No Entry		700,000	
Construction Revenue				700,000
Construction Expense	No Entry		600,000	
Construction in Progress				600,000

Progress against Construction Expense because both accounts include the cost. At the end of the period, it closes the revenue and expense accounts to Income Summary.

We show how the Calder Company reports its activities for this contract under each method in Example 18-5. To complete the income statement under each method, the company deducts its operating expenses from the gross profit to determine its income. On the balance sheet under each method, it offsets Partial Billings against Construction in Progress. At the end of 2007, Construction in Progress exceeds Partial Billings, so the company reports the net amount as inventory in the current asset section of its balance

EXAMPLE 18-5 Financial Statement Reporting

1. Percentage-of-Completion Method	2007	2008	2009
Income Statement (partial):			
Construction revenue	$140,000	$224,000	$336,000
Construction expense	(100,000)	(186,000)	(314,000)
Gross profit	$ 40,000	$ 38,000	$ 22,000
Balance Sheet (partial; end of year):			
Current Assets			
Accounts receivable	$ 30,000	$ 50,000	
Inventories			
Construction in progress	140,000		
Less: Partial billings	(80,000)		
Costs and recognized profit not yet billed	$ 60,000		
Current Liabilities			
Partial billings		$430,000	
Less: Construction in progress		(364,000)	
Billings in excess of costs and recognized profit		$ 66,000	

Notes to Financial Statements: Summary of Significant Accounting Policies (in part): The company reports profits from long-term construction contracts in progress using the percentage-of-completion method of accounting. Profits are accrued based on the ratio of cost incurred to total estimated costs. Costs include direct material, direct labor, and job-related overhead. General and administrative expenses are charged to operations as incurred and are not allocated to contract costs.

2. Completed-Contract Method	2007	2008	2009
Income Statement (partial):			
Construction revenue	—	—	$700,000
Construction expense	—	—	(600,000)
Gross profit			$100,000
Balance Sheet (partial; end of year):			
Current Assets			
Accounts receivable	$ 30,000	$ 50,000	
Inventories			
Construction in progress	100,000		
Less: Partial billings	(80,000)		
Excess of costs over related billings	$ 20,000		
Current Liabilities			
Partial billings		$430,000	
Less: Construction in progress		(286,000)	
Excess of billings over related costs		$144,000	

Notes to Financial Statements: Summary of Significant Accounting Policies (in part): The company reports profit from long-term construction contracts using the completed-contract method of accounting. Under this method, billings and costs are accumulated during the period of construction, but no profits are recorded before the contract is either completed or substantially completed. A contract is considered substantially completed if the costs to complete are not significant in amount. Costs include direct labor, direct materials, and job-related overhead. General and administrative expenses are charged to operations as incurred and are not allocated to contract costs.

sheet. At the end of 2008, Partial Billings exceeds Construction in Progress, so the company reports the net amount as a current liability in its balance sheet. Note that the difference in the book values under the two methods is equal to the gross profit to date on the contract. Thus, at December 31, 2007, the book value under the percentage-of-completion method is $60,000 and under the completed-contract method it is $20,000. The difference of $40,000 is the gross profit for 2007 (which the company recognizes under the percentage-of-completion but not under the completed-contract method).

Link to Ethical Dilemma

Titanic Inc. is a construction company that specializes in the construction of commercial cruise ships. Because the construction period for a ship may last as long as three years, Titanic recognizes revenue from its construction contracts based on the percentage-of-completion method where the percentage of completion is determined by the cost-to-cost method. (Sales and gross profit are recognized as work is performed based on the ratio of actual costs incurred to the estimated total costs of the contract.) As the accountant for Titanic, you recently informed the CEO that labor difficulties, which caused the company to halt construction earlier in the year, would cause Titanic to fall short of its revenue projections. The CEO calmly replied that he still had "a few tricks up his sleeve," and the company would meet these projections.

Later in the month, as you were completing your quarterly physical inspection of the various construction projects, you noticed large amounts of material on hand and waiting to be used in the various projects. Several of the workers commented that most of this material had been delivered over the last two weeks, and if any more were to arrive, they wouldn't have any place to store it. In fact, most of this material was not even going to be needed in the construction process for several more weeks! Returning to the corporate offices, you discovered that the CEO had personally placed the order for this material. The CEO explained to you that he had managed to negotiate a fantastic deal with some of the suppliers if Titanic would take possession of the materials immediately. (A later review of the invoices revealed that the purchase price for this material was equal to the average market price during the month.) Furthermore, the CEO noted that he really wanted the company to complete the projects ahead of schedule to take advantage of the large cash incentives being offered for early completion of the contract, and he didn't want the projects to be delayed because of lack of the necessary materials. Remembering the CEO's earlier comment about meeting earnings projections, you wonder if this purchase of materials was one of the tricks the CEO had up his sleeve. What are the potential effects of this purchase of materials on the company's financial statements, and is this action ethical?

Losses on Long-Term Construction Contracts

A loss on a construction contract can be of two types. First, the estimate of future costs may indicate that there is a **loss in the current period,** but that there will still be a profit on the total contract. Second, the estimate may indicate that an **overall loss on the contract** is expected. In this case, *SOP 81-1* requires that a company recognize the total estimated loss on the entire contract under both the percentage-of-completion and the completed-contract methods. This procedure is consistent with the *conservatism* convention of anticipating all foreseeable losses.

Example: Loss in Current Period

To show the computation of a loss for a period under the percentage-of-completion method, suppose that in 2008 the Calder Company estimates that the costs to complete are $364,000 *instead of* $264,000. Assuming that the data for 2007 are the same as in Example 18-2, it recognizes an $18,000 loss in 2008, which it calculates as follows:

	2008
Construction costs incurred to date	$ 286,000
Estimated costs to complete	364,000
Total estimated costs	$ 650,000
Percent complete ($286,000 ÷ $650,000)	44%
Revenue to date (44% × $700,000)	$ 308,000
Revenue recognized for year ($308,000 − $140,000)	$ 168,000
Construction costs incurred for year	(186,000)
Loss recognized	$ (18,000)

If the costs in 2009 are $364,000 as expected, the Calder Company recognizes the remaining 56% of the revenue, or $392,000. Therefore, the company reports a gross profit of $28,000 in 2009, with a total profit over the three years of the contract of $50,000 ($40,000 − $18,000 + $28,000). This is equal to the total revenue of $700,000 less the total cost of $650,000. Under the completed-contract method, no adjustment is needed in 2008 because the company expects an overall profit on the contract. ♦

Example: Overall Loss on Contract

A more complicated situation arises if the estimated total costs exceed the contract price, so that an overall loss on the contract is anticipated.

Percentage-of-Completion Method Assume that at the end of 2008 the Calder Company estimates that its costs to complete are $429,000. Therefore, it expects that its total costs will be $715,000 ($286,000 + $429,000), indicating an overall loss of $15,000 by the end of the contract. Therefore, it has to remove the gross profit to date and recognize the loss of $15,000 in 2008. It recognizes the revenue for 2008 in the normal way, as we show in Example 18-6. Because the project is 40% complete ($286,000 ÷ $715,000), the revenue to date is $280,000 (40% × $700,000). The revenue recognized in 2008 is $140,000 ($280,000 − $140,000). The total expense recognized includes two components: (1) the amount needed to create a cumulative profit of zero, and (2) the amount of the overall loss recognized.

Since the revenue to date is $280,000 and the expense recognized in 2007 was $100,000, the company recognizes an expense of $180,000 in 2008 to make the cumulative profit equal to zero.[7] In addition, it recognizes the overall loss of $15,000, so the total expense for 2008 is $195,000. The company records the revenue and expense as follows:

Construction Expense	195,000	
Construction in Progress		40,000
Construction Revenue		140,000
Provision for Loss on Contract		15,000

The credit to the Construction in Progress account removes the increase in value resulting from the gross profit recognized in 2007. Therefore, the account includes only the project costs incurred to date. The Provision for Loss on Contract is reported as a contra account to Construction in Progress (less Partial Billings), or it may be reported as a liability. Note that the negative gross profit of $55,000 ($140,000 − $195,000) is equal to the gross profit of $40,000 in 2007 that is reversed plus the anticipated loss of $15,000.

7. "Accounting for Performance of Construction-Type and Certain Production-Type Contracts," *op. cit.*, par. 88, requires that the amount of the loss is added to the contract cost. However, if the amount is material, unusual, or infrequent, the amount is reported separately.

If costs in 2009 are $429,000 as projected, the company recognizes a zero gross profit in 2009. The revenue recognized is the remaining amount of $420,000 ($700,000 − $140,000 − $140,000) left to be recognized on the contract. The expense is also $420,000. Thus the company recognizes the total loss incurred on the contract in the year in which it was first estimated (2008).

The company debits the costs incurred on the contract in 2009 to the Construction in Progress account in the normal way up to a total of $700,000 ($414,000 in 2009). The balance in the account should not exceed the contract price, since the asset value cannot be greater than the total proceeds to be received on the contract. The company debits any additional costs incurred over $700,000 to the Provision for Loss on Contract account. Since the total costs incurred are $715,000, the excess of $15,000 eliminates the balance established in the account at the end of 2008.

Example 18-6 summarizes the calculations we just discussed. The company records the construction costs and the revenue and expense in 2009 as follows:

Construction in Progress	414,000	
Provision for Loss on Contract	15,000	
Cash, Accounts Payable, etc.		429,000
Construction Expense	420,000	
Construction Revenue		420,000

Note that the amounts ($429,000 and $420,000) in these two journal entries are not equal. This difference occurs because each year the percent completed is computed based on the different expected total costs. In 2007 the percent completed of 20% is based on the expected total costs of $500,000. In 2008 the 40% completion is based on the expected total cost of $715,000.

EXAMPLE 18-6 Calculation of Revenues and Expenses When a Loss Is Expected on the Contract

	Current Year	Total to Date
2007		
Construction revenue	$140,000[a]	$140,000
Construction expense	(100,000)[b]	(100,000)
Gross profit	$ 40,000	$ 40,000
2008		
Construction revenue	$140,000	$280,000
Construction expense	(195,000)[d]	(295,000)[c]
Gross profit	$ (55,000)	$ (15,000)
2009		
Construction revenue	$420,000	$700,000
Construction expense	(420,000)	(715,000)
Gross profit	$ 0	$ (15,000)

a. (20% × $700,000)
b. (20% × $500,000)

c.	Contract price	$700,000
	Percent complete	40%
	Cost of earned revenue before loss provision	$280,000
	Estimated total loss	15,000
	Construction expense to date	$295,000
d.	Cumulative construction expense	$295,000
	Less: Construction expense in previous year	(100,000)
	Current construction expense	$195,000

Completed-Contract Method Under this method, the company recognizes the loss in 2008 because there is an overall loss on the contract. It records this loss as follows:

Construction Expense	15,000	
Provision for Loss on Contract		15,000

The company debits an expense account to recognize the "loss" because the construction activity is *not* an incidental or peripheral activity. Note that there is no credit to the Construction in Progress account because under the completed-contract method the company did not add the gross profit to the account in previous years.

The company would recognize a gross profit or loss if the actual costs incurred in 2009 were less, or greater, than its estimated amount. This procedure is consistent with accounting for a change in estimate under *FASB Statement No. 154*, as we discuss in Chapter 23. ♦

Additional Considerations in Accounting for Long-Term Construction Contracts

We discuss several additional factors that affect the accounting for long-term construction contracts in this section.

Overhead Costs

Contract costs include all direct costs, such as materials and direct labor, and indirect costs (overhead) identifiable with or allocable to the contract. This is consistent with generally accepted accounting principles for inventory and production costs. Therefore a company usually expenses general and administrative costs as incurred when it uses the percentage-of-completion method. However, it may account for these costs as contract costs under the completed-contract method. Accounting for these costs theoretically provides a better matching of costs as expenses against revenues than would result from treating such costs as period expenses. This is particularly true in years when no contracts are completed, and it is less likely to be misleading to users of financial statements.

Operating Cycle

Accounting Research Bulletin No. 45 requires that the net amounts of Construction in Progress and Partial Billings be included as current assets or current liabilities. The operating-cycle concept is used to justify this classification.

Offsetting Amounts

It is a basic principle of accounting that the offsetting, or netting, of assets and liabilities is not acceptable, except when a right of offset exists. However, *Accounting Research Bulletin No. 45* does allow offsetting when contracts are closely related—for example, when separate contracts are parts of the same project. Therefore, in these circumstances a contract that has a net liability (Partial Billings exceeds Construction in Progress) may be offset against one that has a net asset balance. A company should base its decision as to whether offsetting is appropriate in any situation on economic substance rather than legal form. For example, if separate legal contracts are economically one contract, then the right to offset exists in spite of the legal form of the separate contracts.

Capitalized Interest

When a company constructs an asset, it includes in the cost of the asset the interest cost associated with the funds used in the construction, as we discussed in Chapter 10. Thus, if it incurs interest costs that are related to a long-term construction contract, it includes these costs in the Construction in Progress account rather than as interest expense.

Disclosure

Example 18-5 shows how a company discloses the method it used to account for long-term construction contracts. Note that simply disclosing the use of an "accrual basis" is not sufficient, because both the percentage-of-completion and the completed contract methods are accrual methods. The SEC requires additional long-term contract disclosures for financial statements filed with it. The overall effect is to require more detailed disclosure of accounts receivable and inventory components, as well as the accounting policies and assumptions on which the amounts are based.

REPORTING AND DISCLOSING LONG-TERM CONSTRUCTION CONTRACTS

Real Report 18-1 shows how **Johnson Controls** reports and discloses its long-term construction contracts under the percentage-of-completion method.

Real Report 18-1 Percentage-of-Completion Method

JOHNSON CONTROLS

(in millions)

Consolidated Statement of Financial Position (in part)

Assets	**2004**	**2003**
Costs and earnings in excess of billings on uncompleted contracts	$328.6	$323.0
Liabilities		
Billings in excess of costs and earnings on uncompleted contracts	197.2	186.2

Notes to Consolidated Financial Statements (in part)

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Revenue Recognition. The Company recognizes revenue from long-term systems installation contracts of the Controls Group over the contractual period under the percentage-of-completion method of accounting (see "Long-Term Contracts"). In all other cases, the Company recognizes revenue at the time products are shipped and title passes to the customer or as services are performed.

Long-Term Contracts. Under the percentage-of-completion method of accounting used for long-term contracts, sales and gross profit are recognized as work is performed based on the relationship between actual costs incurred and total estimated costs at completion. Sales and gross profit are adjusted prospectively for revisions in estimated total contract costs and contract values. Estimated losses are recorded when identified. Claims against customers are recognized as revenue upon settlement. The amount of accounts receivable due after one year is not significant.

Questions:

1. **What method does Johnson Controls use to estimate the percentage of the project that has been completed?**
2. **How much does Johnson Controls report as an asset from construction activities? As a liability? Is the asset or liability larger?**
3. **Why does the company not net the asset and liability in its balance sheet?**
4. **How does Johnson Controls' treatment of claims against customers affect the gross profit recognized on the projects?**

Long-Term Service Contracts

A company uses the percentage-of-completion method when it has a long-term contract for the construction and sale of a *product.* Other companies are in the business of providing a *service* instead of a product. **APB Statement No. 4** indicated that a company should recognize revenues from services rendered when these services have been performed and are billable.[8] Many service transactions involve a single service "act." In these cases a company recognizes revenues (and expenses) under the accrual method of accounting in the period when it performs the service. Some companies, however, have long-term contracts in which they agree to provide a service over an extended period. Generally, at the inception of the agreement, a service contract is signed at an agreed-on price and the seller agrees to perform certain service "acts" at a later date. The service contract may require performance of:

- a specified number of similar acts,
- a specified number of defined but not similar acts, or
- an unspecified number of similar acts.

In these cases revenue should be based on performance, but when has the "performance" been completed and how should revenue be recognized? This is a difficult question to answer because long-term service contracts can be complex. Sometimes service contracts are sold in conjunction with products, and the performance activities can vary depending on the industry involved.

There are many companies in service industries such as advertising agencies, cable television companies, computer service firms, and companies engaged in research and development for the government. The accounting principles in some of these industries are underdeveloped; in others they are very specialized. The FASB issued an *Invitation to Comment* titled "Accounting for Certain Service Transactions" as a prelude to its deliberations on setting general accounting standards of revenue (and expense) recognition for service transactions. The FASB deferred these deliberations because it decided to focus first on more conceptual revenue and expense recognition issues. However, the content of this *Invitation to Comment* does provide a good overview of revenue and expense recognition for long-term service contracts and forms the basis for the following general discussion.[9]

Proportional Performance Method

A company recognizes revenue for service transactions based on performance because performance determines the extent to which its earnings process is complete. **When a long-term service contract requires services to be performed in more than one act, revenue is recognized by the proportional performance method—that is, based on the proportionate performance of each act.** A company recognizes revenue depending on the type and number of service acts as follows:

1. *Specified Number of Similar Acts*. Recognize an equal amount of revenue for each act.
2. *Specified Number of Defined but Not Similar Acts*. Recognize revenue for each act based on the ratio of the direct costs (defined next) incurred to perform each act to the total estimated direct costs for the long-term contract.
3. *Unspecified Number of Similar Acts*. Recognize revenue on a straight-line method over the performance period.

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8. "Basic Concepts and Accounting Principles Underlying Financial Statements of Business Enterprises," *APB Statement No. 4* (New York: AICPA, 1970), par. 151.
9. The following discussion summarizes par. 10–19 of "Accounting for Certain Service Transactions," *FASB Invitation to Comment* (Stamford, Conn.: FASB, 1978), par. 5.

Several types of service costs are involved in a long-term service contract. These include:

- **Initial direct costs**—those costs that are directly associated with negotiating and signing a service contract (e.g., legal fees)
- **Direct costs**—those costs that have a clear causal relationship to the services performed (e.g., labor costs)
- **Indirect costs**—those costs other than initial direct costs and direct costs (e.g., advertising and depreciation)

Under the proportional performance method, a company recognizes these costs as expenses as follows:

1. *Initial Direct Costs*. Defer and allocate over the performance period in proportion to the recognition of service revenues, because initial direct costs are expensed when revenue is recognized.
2. *Direct Costs*. Expense as incurred, because there is a close relationship between the direct costs incurred and the extent of performance achieved.
3. *Indirect Costs*. Expense as incurred, because indirect costs provide no discernible future benefits.

Example: Proportional Performance Method To illustrate revenue recognition under the proportional performance method, assume the Health Spa Company sells memberships to use its facilities. For $500 in advance, a person signs a two-year contract that allows use of area X (exercise room) 50 times and area Y (whirlpool and sauna) 100 times during the two-year period. At the beginning of 2007, 120 people sign the service contract and the company collects $60,000 (120 × $500). Thus, the company is obligated to perform a total of 6,000 (120 × 50) and 12,000 (120 × 100) service acts in 2007 and 2008 involving areas X and Y, respectively. This service contract involves a specified number of defined but not similar acts, so the company recognizes revenue based on a ratio of direct costs per act to total estimated direct costs.

During 2007 members used area X 3,600 times and area Y 4,800 times. In 2008 members used area X 2,400 times and area Y 7,200 times.[10] The following is a summary of the relevant cost information regarding the 120 membership contracts:

Initial direct costs	$ 1,000
Annual indirect costs	2,000
Estimated (and actual) total direct costs (for two-year period)	24,000
Direct cost per service act:	
Area X	$1.00
Area Y	1.50

Example 18-7 shows the condensed income statements of the Health Spa Company for 2007 and 2008. The direct costs incurred in 2007 and 2008 are $10,800 and $13,200, or 45% and 55% of the total estimated (and actual) direct costs. Thus, the company recognizes revenues of $27,000 (45% × $60,000) and $33,000 (55% × $60,000) in each year. It allocates $450 of the $1,000 initial direct costs to 2007 and $550 to 2008 based on the 45% and 55% recognition of revenues. Use of the proportional performance method is appropriate in this case because the company recognizes revenues neither too early (at the time of the signing), before the earning process is complete, nor too late (at the completion of the contract). Therefore, the method helps to ensure that economic reality is not distorted. ♦

10. In this example all members used the health spa facilities their entire permissible number of times. In reality this usage would probably not occur. In such a situation the company would have to make estimates of the expected usage, and make adjustments for the differences between actual and estimated usage. This topic is beyond the scope of this chapter. Also, in this example we assumed for simplicity that the company sold no new memberships in 2008.

EXAMPLE 18-7 Condensed Income Statements (Proportional Performance Method)

	For Year Ended December 31			
	2007		2008	
Revenues		\$27,000[b]		\$33,000[e]
Expenses:				
Initial direct costs	\$ 450[c]		\$ 550[f]	
Direct costs	10,800[a]		13,200[d]	
Indirect costs	2,000		2,000	
Total expenses		(13,250)		(15,750)
Net Income		\$13,750		\$17,250

a. $(\$1 \times 3{,}600) + (\$1.50 \times 4{,}800) = \$10{,}800$

b. $\dfrac{(\$1 \times 3{,}600) + (\$1.50 \times 4{,}800)}{\$24{,}000 \text{ total direct costs}} = 45\%$; $\$60{,}000 \text{ receipts} \times 45\% = \$27{,}000$

c. $45\% \times \$1{,}000 = \$450$

d. $(\$1 \times 2{,}400) + (\$1.50 \times 7{,}200) = \$13{,}200$

e. $\dfrac{(\$1 \times 2{,}400) + (\$1.50 \times 7{,}200)}{\$24{,}000} = 55\%$; $\$60{,}000 \text{ receipts} \times 55\% = \$33{,}000$

f. $55\% \times \$1{,}000 = \$550$

SECURE YOUR KNOWLEDGE 18-2

- The two methods of accounting for long-term construction contracts are the:
  - Percentage-of-completion method—revenues and expenses are allocated to, and inventory is increased, each period during the life of the contract based on the progress made toward completion, and
  - Completed contract method—no profit is recognized until the project is completed.
- For the percentage-of-completion method, a company can determine the percentage of the project completed by using either:
  - Input measures that use the percentage of the costs incurred to date divided by the total estimated costs for the contract (cost-to-cost method) or the percentage of work performed to date (e.g., measured as labor hours, machine hours) divided by the estimated total work to be performed (efforts-expended method), or
  - Output measures that use the results achieved to date (e.g., units delivered, tons produced) divided by the total estimated results of the contract.
- Under the percentage-of-completion method:
  - The total revenue recognized to date is computed by multiplying the percentage of the project completed by the estimated total revenue.
  - The total revenue to be recognized in the current period is computed by subtracting the total revenue recognized to date from the total revenue recognized in prior periods.
  - The Construction in Progress account is increased by the amount of gross profit (revenues less expenses).
  - Any partial billings are recorded in a contra-account to Construction in Progress. If the net amount is a debit, it is reported as an asset, and if the net amount is a credit, it is reported as a liability.
- A loss on long-term construction contracts may be either a(n):
  - Loss in the current period, which is recorded in the current period as an adjustment to the Construction in Progress account under the percentage-of-completion method (no adjustment is necessary under the completed contract method); or

(continued)

- Overall loss on the contract—under both the percentage-of-completion and completed-contract methods, the total estimated loss is recognized in the current period.

- Revenue from long-term service contracts is recognized based on the proportionate performance of each act (proportionate performance method).

REVENUE RECOGNITION AFTER THE PERIOD OF SALE

6 Account for revenue recognition after the period of sale, including the installment and cost recovery methods.

As we discussed earlier in the chapter, the installment and cost recovery methods are the two principal ways of recognizing revenue after the sale. We discuss each method in this section.

Installment Method

Installment *sales* involve a financing agreement whereby the customer signs a contract, makes a small down payment, and agrees to make periodic payments over an extended period, often several years. The customer accepts possession of the item when the contract is signed (thereby enjoying its use during the payment period), while the seller retains legal title until the payments are complete. Companies may use installment sales contracts for merchandise because of a customer's lower credit rating, and in certain real estate transactions. **APB Opinion No. 10** found the installment *method* of recognizing revenue for installment *sales* generally to be unacceptable. The Board, however, did agree that there are *exceptional* cases where receivables are collected over an extended period and the probability of collection is not reasonably assured. In these exceptional cases, the installment method is used.[11] In addition, the installment method is still acceptable for income tax purposes under certain circumstances.

It is important to distinguish between an "installment sale" as a legal contract involving a buyer and a seller, and the "installment method" of revenue recognition. For example, for an installment *sale*, a company may recognize revenue in full at the time of the sale if collectibility is reasonably assured. In such a case the company must estimate the costs to be incurred in the future, such as costs of collection and bad debts, so that appropriate matching occurs. Alternatively, a company may use the installment *method* of revenue recognition for a sales transaction that is *not* an installment *sale*. In summary, a company selects the installment method of revenue recognition because the collectibility of the receivable from the sale is not reasonably assured. This decision is independent of the legal form of the contract. Therefore, we discuss the installment method of revenue recognition in this chapter irrespective of the legal form of the contract.

A company completes the following steps when it uses the installment method:

1. It records total sales, cost of goods sold, and collections in the normal manner during the year.
2. At the end of the year, it identifies sales for which the installment method is used. It reverses the revenue and the related cost of goods sold that were recorded during the year, and it recognizes the deferred gross profit.
3. At the end of the year, it computes the gross profit rate on the sales recognized under the installment method for that year. It calculates the rate by dividing the deferred gross profit recognized in step 2 by the related installment sales for the year.
4. It recognizes a portion of the deferred gross profit as gross profit for the year by multiplying the cash collected on the sales recognized under the installment method during the year times the gross profit rate calculated in step 3.
5. In future years it reduces the remaining deferred gross profit and recognizes the gross profit. It calculates the amount of gross profit to recognize by mulitplying the cash collected each year from the previous sales recognized under the installment method times the gross profit rate for the year in which those sales were made.

11. "Omnibus Opinion—1966," *op. cit.*, par. 12 and fn. 8.

Example: Installment Method

To illustrate the installment method, consider the following information for the Lee Company in the first two years of its operations:

	2007	2008
Total credit sales	$500,000	$600,000
Total cost of goods sold	390,000	430,000
Installment method sales*	100,000	150,000
Installment method cost of goods sold*	75,000	105,000
Gross profit rate on installment method sales	25%	30%
Cash receipts on installment method sales		
2007 sales	20,000	30,000
2008 sales		40,000
Cash receipts on other credit sales	300,000	480,000

* Included in total credit sales and total cost of goods sold, respectively.

Assume that the company uses the perpetual inventory method and that, for simplicity, interest on the installment receivables is ignored. The Lee Company records the preceding events as follows:

During 2007

Accounts Receivable	500,000	
Sales		500,000
Cost of Goods Sold	390,000	
Inventory		390,000

The company records the total sales and cost of goods sold for the year in the normal manner. It does not separate the sales recognized under the installment method.

During 2007

Cash	320,000	
Accounts Receivable		320,000

The company recognizes cash collections in the normal manner. Of these collections, $20,000 is for installment sales and $300,000 for other credit sales.

December 31, 2007

Sales	100,000	
Cost of Goods Sold		75,000
Deferred Gross Profit, 2007 ($100,000 × 25%)		25,000

The company identifies the sales recognized under the installment method and the related cost of goods sold from the accounting records and "reverses" them. It also recognizes the deferred gross profit. It computes a 25% gross profit rate for 2007 (deferred gross profit of $25,000 divided by the sales of $100,000).

December 31, 2007

Deferred Gross Profit, 2007	5,000	
Gross Profit Realized on Installment Method Sales		5,000

The company uses the gross profit rate of 25% to recognize the gross profit on the cash collected. Since the company collected $20,000 on these sales for 2007, it reduces the deferred gross profit and recognizes a gross profit of $5,000 ($20,000 × 25%). It closes the gross profit account to Income Summary along with the other sales, cost of goods sold, and expense accounts (not illustrated). The company reports the preceding events in its financial statements as we show in Example 18-8.

EXAMPLE 18-8 Lee Company: Partial Financial Statements

Partial Income Statement
For Year Ended December 31, 2007

Sales	$ 400,000[a]	
Cost of goods sold	(315,000)[b]	
Gross profit	$ 85,000	
Gross profit realized on installment method sales	5,000	
Total gross profit	$ 90,000	

Partial Balance Sheet
December 31, 2007

Current Assets		
Accounts receivable		$100,000[c]
Installment accounts receivable	$ 80,000[d]	
Less: Deferred gross profit	(20,000)[e]	60,000

a. $500,000 — $100,000
b. $390,000 — $75,000
c. $500,000 — $320,000 — $80,000 (from footnote *d*)
d. $100,000 — $20,000
e. $25,000 — $5,000

You should understand three aspects of the financial statements. First, in the income statement a company should report the gross profit on the sales recognized under the installment method separately from the gross profit on the other sales. In Example 18-8, Lee Company reported the $5,000 of gross profit on its installment sales separately from the $85,000 of gross profit on its "regular" sales. Some companies, however, might combine the two amounts and disclose the gross profit on these sales in the notes to the financial statements. Second, a company usually includes installment accounts receivable in current assets on the balance sheet under the operating cycle concept. Finally, a company usually deducts the deferred gross profit from the installment accounts receivable on the balance sheet, as we show in the lower part of Example 18-8. Some companies, however, include the deferred gross profit as a current liability rather than as a contra asset. Such reporting is inconsistent with the concept of a liability, because no future cash outflow will occur. We support reporting the deferred gross profit as a contra asset because, as we discussed earlier in the chapter, accounts receivable is reduced from selling price to cost.

In 2008 the Lee Company records the following:

<u>During 2008</u>

Accounts Receivable	600,000	
Sales		600,000
Cost of Goods Sold	430,000	
Inventory		430,000
Cash	550,000	
Accounts Receivable		550,000

Of these $550,000 collections, $70,000 is for installment sales and $480,000 for other credit sales. Note that the cash collections on the installment sales in 2008 include amounts from sales made in 2007 ($30,000) and 2008 ($40,000).

December 31, 2008

Sales	150,000	
Cost of Goods Sold		105,000
Deferred Gross Profit, 2008 ($150,000 × 30%)		45,000

The company "reverses" the sales recognized under the installment method and the related cost of goods sold for 2008, and recognizes the deferred gross profit for 2008. The gross profit rate in 2008 is 30% ($45,000 ÷ $150,000).

December 31, 2008

Deferred Gross Profit, 2007	7,500	
Deferred Gross Profit, 2008	12,000	
Gross Profit Realized on Installment Method Sales		19,500

During 2008 the company collected $30,000 on its 2007 installment method sales, for which its gross profit is 25%. As we show, the company reduces the deferred gross profit from 2007 and recognizes a gross profit of $7,500 ($30,000 × 25%). The company also collected $40,000 on its 2008 installment method sales, for which its gross profit is 30%. In the entry the company reduces the deferred gross profit for 2008 and recognizes a gross profit of $12,000 ($40,000 × 30%) on those collections. The combined gross profit for 2008 is $19,500, which the company closes to Income Summary.

Reporting

The Lee Company includes the realized gross profit of $19,500 in its 2008 income statement, in addition to the sales and the cost of goods sold from those sales on which it recognized revenue at the time of sale. The company includes the installment accounts receivable of $160,000 ($100,000 − $20,000 + $150,000 − $30,000 − $40,000) and a deferred gross profit of $45,500 ($25,000 − $5,000 + $45,000 − $7,500 − $12,000) on its December 31, 2008 balance sheet. Note that the balance in the deferred gross profit account is the balance of the installment receivables multiplied by the gross profit percentage. ♦

Additional Considerations for the Installment Method

We discuss several additional factors that affect the accounting under the installment method in this section.

Alternative Accounting and Reporting

Reporting

In the preceding example we assumed that it is acceptable to report only the gross profit amount in the income statement because the installment sales revenue is not material. If a company considered the installment sales to be material, then it should report separately both the installment sales and the cost of goods sold (a procedure that we used in the discussion of long-term construction contracts earlier in the chapter). In this situation the Lee Company would record an alternative journal entry as follows (using the amounts for 2007):

Deferred Gross Profit, 2007	5,000	
Installment Cost of Goods Sold	15,000	
Installment Sales		20,000

Under this alternative, when the company receives cash, it reduces the deferred gross profit as before. However, it records sales revenue at an amount equal to the cash collected. It also recognizes an appropriate amount of cost of goods sold; in this case, 75% of the sales amount. Then the company would report the installment sales of $20,000 and deduct the installment cost of goods sold of $15,000 to show its gross profit of $5,000 for 2007.

Operating Expenses

As we have seen, a company matches the cost of goods sold against the installment sales in the same period as the sales. It does *not* defer operating expenses. Instead, it recognizes them in the normal way on an accrual basis. That is, the company recognizes them either in the period incurred, such as general and administrative salaries, or by systematic and rational allocation, such as depreciation on an office building.

Interest Charges

A company making an installment sale typically charges the buyer interest because of the extended collection period. The company usually includes the interest charge as a component of the periodic payment specified in the sales contract. The normal practice is to make the installment payment an equal amount each period, so that each succeeding payment includes a smaller interest component and a larger principal payment. In other words, the interest is treated in the same way as a loan.

When a company includes interest in an installment sale, it accounts for the interest revenue separately. It separates each installment payment received into two components, interest revenue and a reduction in the installment accounts receivable. It records the interest revenue on an accrual basis in the normal manner (in the period earned), and recognizes the gross profit as it receives cash, as we discussed earlier.

Uncollectible Accounts

Installment sales contracts usually allow a company to repossess the item if the buyer defaults. If the experience of the company indicates that the price at which the repossessed item can be sold will be greater than the remaining payments on the original installment sale, then a provision for bad debts is not necessary. However, if past experience indicates that the expected resale price will be less than the payments, the company should recognize bad debt expense and an allowance for doubtful installment accounts receivable.

Defaults and Repossessions

When a company repossesses an item, it records the inventory and writes off the related receivable and deferred gross profit. For example, assume that the Lee Company repossesses an item it sold in 2007 with a gross profit of 25%, and that the fair value of the repossessed item is $600. If $1,000 remained unpaid, it records the repossession as follows:

Repossessed Inventory	600	
Deferred Gross Profit	250	
Allowance for Doubtful Installment Accounts Receivable	150	
Accounts Receivable		1,000

The company eliminates the deferred gross profit ($1,000 × 25%) related to the remaining cash payments and debits the $150 "lost" on the recovery to Allowance for Doubtful Installment Accounts Receivable, which it established when it recognized the bad debt expense.

Incidental Sales

As we mentioned earlier, a company is most likely to use the installment method in special situations. In these cases, it is likely that the company recognizes a gain rather than a revenue and expense, because the transaction is incidental or peripheral to its normal operations. For example, suppose a company sold for $100,000 land that had originally cost $40,000. The company uses the installment method and collects $30,000 the first year. It make the following journal entries:

To Record the Sale		
Accounts Receivable	100,000	
Land		40,000
Deferred Gain		60,000
To Record the Cash Collection and the Gain for the Year		
Cash	30,000	
Accounts Receivable		30,000
Deferred Gain	18,000	
Gain on Sale of Land		18,000*

*$30,000 × ($60,000 ÷ $100,000)

In later years, the company eliminates a proportion of the deferred gain and recognizes a gain when it collects each remaining cash receipt.

Cost Recovery Method

If a company makes a sale in which there is a very high degree of uncertainty about the collectibility of the sales price, it defers recognition of any profit until the company has recovered the cost of the entire sale. As with the installment method, **APB Opinion No. 10** found the **cost recovery method** of recognizing revenue generally to be unacceptable. The Board, however, did agree that there are exceptional cases where receivables are collected over an extended period and where the terms of the transaction provide no reasonable basis for estimating the degree of collectibility. In these exceptional situations, the cost recovery method may be used. For example, a company may sell an unprofitable division, thereby transferring the risks and benefits of ownership, but agree that the purchaser will pay with the net operating cash inflows generated by the division.

Under the cost recovery method a company records sales, cost of goods sold, and collections during the year in the usual manner (as with the installment method). In contrast to the installment method, however, it does *not* recognize a gross profit under the cost recovery method until it has recovered *all* the cost of the item sold. Once it has recovered the cost, it records gross profit at an amount equal to the cash it receives in the period.

Example: Cost Recovery Method Consider the following information for the Patken Company:

Sale of property under cost recovery method	$20,000
Cost of property sold (net)	12,000
Cash collections	
2007	5,000
2008	9,000
2009	6,000

The company records the preceding events using the cost recovery method as follows:

During 2007

Accounts Receivable	20,000	
Deferred Gross Profit		8,000
Property (net)		12,000
Cash	5,000	
Accounts Receivable		5,000

The company records the transaction and defers the profit. It does not recognize a gross profit when it collects the cash because it has not yet recovered the $12,000 cost of the property sold.

During 2008

Cash	9,000	
Accounts Receivable		9,000

December 31, 2008

Deferred Gross Profit	2,000	
Gross Profit Realized on Cost Recovery Transactions		2,000

In 2007, the company recovered $5,000 of the $12,000 cost of the property sold. Therefore, of the $9000 cash collected in 2008, the first $7,000 collected completes the recovery of the cost, and the remaining $2,000 collected results in the recognition of a gross profit of $2,000.

<u>During 2009</u>		
Cash	6,000	
Accounts Receivable		6,000
<u>December 31, 2009</u>		
Deferred Gross Profit	6,000	
Gross Profit Realized on Cost Recovery Transactions		6,000

Since the company recovered the total cost in 2008, the $6,000 cash collected in 2009 results in the recognition of an equal amount of gross profit. The Patken Company includes the gross profit in its income statement each year, and includes the Accounts Receivable, less the balance in the Deferred Gross Profit account, on its ending balance sheet. ♦

Comparison of the Installment and Cost Recovery Methods

As we discussed earlier, *APB Opinion No. 10* allows the use of either the installment or cost recovery methods in certain exceptional circumstances and makes no distinction between the situations in which each should be applied. If collectibility is not reasonably assured, revenue should *not* be recognized at the time of sale. Instead, the installment method should be used. (Also, income tax rules allow the installment method to be used in certain situations for computing taxable income.) Since the cost recovery method is a more conservative revenue recognition method, it should be used only when such conservatism is appropriate. For example, **if the collectibility is *extremely* uncertain or there is *no* reliable basis for estimating the collectibility, then the cost recovery method is appropriate.** The method may also be used if there is significant uncertainty about the profitability of a new venture or product and for certain real estate transactions, as we discuss later in the chapter.

Revenue Recognition Delayed Until a Future Event Occurs

7 Account for revenue recognition delayed until a future event occurs.

In certain situations **there may not be a sufficient transfer of the risks and benefits of ownership for a company to recognize revenue.** For example, a company may "sell" a subsidiary and accept a long-term interest-bearing note receivable. However, it may still be involved in the subsidiary's management through representation on the board of directors, perhaps because the buyer made a very small down payment. In such situations, the company should not recognize either the receivable or the deferred gross profit. Instead, the company uses the deposit method.

Example: Deposit Method

Assume that the Oscar Company sells a subsidiary to the Pet Company and accepts a $500,000 down payment and a 10% note for the balance of the sale price of $7 million. The net assets (i.e., book value) of the subsidiary are $5 million and the Pet Company uses the deposit method because it has the right to cancel the agreement for the next year. **The deposit method postpones the recognition of revenue until a company can determine whether it has made a sale for accounting purposes.** Until Oscar Company recognizes revenue (by any of the revenue recognition methods), it does not record a note receivable, and continues to report the property and any related debt (even if assumed by the Pet Company) on its balance sheet. However, it separately classifies the assets and liabilities under such headings as "assets of business transferred under contract" and "liabilities of business transferred." Also, for depreciable assets the Oscar Company continues to record depreciation expense on the property. It records the down payment and all payments of principal and interest received from Pet Company as a deposit. It reports them as a liability on its balance sheet if the interest will be returned because the terms of the contract are not fulfilled. For example, the Oscar Company records the receipt of the down payment as follows:

Cash	500,000	
Deposit from Purchaser		500,000

When the company eliminates the liability for the deposit because the circumstances have changed, it recognizes the revenue. For example, suppose that the Oscar Company recognizes revenue (gain) one year after the original transaction. It records the note receivable and a gain, eliminates the net assets of the subsidiary and the deposit, and recognizes the interest revenue as follows:

Interest Receivable (10% × $6,500,000)	650,000	
Note Receivable	6,500,000	
Deposit from Purchaser	500,000	
Interest Revenue		650,000
Gain ($7,000,000 – $5,000,000)		2,000,000
Net Assets of Subsidiary		5,000,000

Alternatively, the company recognizes any interest that is *not* subject to refund as earned in the normal manner, and records only the principal portion of any payments as a deposit. If, instead, the contract is canceled without a refund, Oscar recognizes the deposits forfeited by Pet Company as income.

SECURE YOUR KNOWLEDGE 18-3

- In extreme cases where the ultimate collection of cash is uncertain, a company may delay the recognition of revenue using either the installment method or the cost recovery method.
  - Under the installment method, the company defers any gross profit (revenues less cost of goods sold) on installment sales in the period of the sale. It then recognizes gross profit each period by multiplying the gross profit percentage (deferred gross profit for the year divided by installment sales for the year) by the cash actually collected.
  - Under the cost recovery method, the company defers any gross profit on the sale in the period of the sale. Once the cost of the item sold has been recovered, the company will recognize gross profit at an amount equal to the cash it receives each period.
- If there was not a sufficient transfer of the risks and benefits of ownership, a company may use the deposit method and defer revenue recognition until a future event occurs.
  - Under the deposit method, any cash received is recorded as a deposit (a liability). Once circumstances change so that there has been a sufficient transfer of the risks and benefits of ownership, revenue is recognized.

ADDITIONAL ISSUES

We dicuss the special revenue recognition guidance of the SEC and international issues in this section.

SAB No. 104

In 1999, the Securities and Exchange Commission issued *Staff Accounting Bulletin No. 101*. The SEC updated it with *SAB No. 104* in 2004. These *Bulletins* provided guidance on revenue recognition issues. Although they did not change accounting principles, they did have some significant effects on the practice of revenue recognition, with many companies changing their policies. The *Bulletins* also give many examples of applying revenue recognition to specific factual situations. They also require that all companies disclose their revenue recognition policies.

LINK TO INTERNATIONAL DIFFERENCES

The basic international accounting standards for revenue recognition are generally very similar to those of the United States. However, there are some terminology differences. For example, international standards say that revenue is recognized when it is probable that future economic benefits will flow to the company and these benefits can be measured reliably. Some of the specific criteria are that the significant risks and rewards of ownership are transferred, the company retains neither continuing managerial involvement nor effective control, and can measure the costs reliably.

For construction contracts, international accounting standards also require the use of the percentage-of-completion method if the outcome can be estimated reliably, although they do not give as much guidance as U.S. principles on how to measure the estimated cost to complete. Otherwise, international standards require the use of the zero-profit method, which is a cost recovery method, in contrast to the completed contract method required by U.S. principles.

SUMMARY OF ALTERNATIVE REVENUE RECOGNITION METHODS

Exhibit 18-2 summarizes the various alternative revenue recognition methods. It includes the reasons for the use of each method and the primary impacts on the financial statements.

APPENDIX: ADDITIONAL REVENUE RECOGNITION ISSUES

8 Understand software revenue recognition, franchises, real estate sales, retail land sales, and consignment sales.

The specific accounting principles used for software revenue recognition, sales of franchises, real estate sales, and retail land sales are important. These are significant industries and their rules should help you understand revenue recognition. In certain industries, consignment sales also are used frequently and the recognition of revenue on such sales is an important issue.

SOFTWARE REVENUE RECOGNITION

The recognition of revenue by a company selling software can be complicated. *AICPA Statement of Position No. 97-2* provides the following guidance[12]:

1. If a company has an agreement to deliver software that requires significant production, modification, or customization of software, it uses contract accounting (e.g., percentage of completion) for the agreement.
2. If a company has an agreement to deliver software that does *not* require significant production, modification, or customization of software, it recognizes revenue

12. "Software Revenue Recognition," *AICPA Statement of Position No. 97–2* (New York: AICPA, 1997).

EXHIBIT 18-2 Summary of Alternative Revenue Recognition Methods

Method	Reasons for Use	Impact on Financial Statements
Accrual	Revenue is earned and realized or realizable in the period of sale.	Revenue and expenses are recognized in the period of sale, and net assets are increased.
Percentage-of-completion	Revenue is recognized during production because all four criteria are met (see p. 895).	Revenue and expenses are recognized in the period of production and inventory (net assets) is increased.
Completed-contract	Revenue is recognized at the completion of the contract because at least one of the four criteria is not met.	Revenue and expenses are recognized at the completion of production (sale) and net assets are increased.
Proportional performance	Same principles as percentage-of-completion, but applied to service contracts.	
Completion-of-production	Revenue is recognized at the completion of production because it is earned and the selling price is realizable due to the immediate marketability at quoted prices and unit interchangeability.	Revenue and expenses are recognized at the completion of production and inventory (net assets) is increased.
Installment	Revenue is recognized as cash is received because it is earned in the period of sale but is not realizable until the period of collection.	Gross profit is deferred in the period of sale and recognized as cash is received, at which time net assets are increased (deferred gross profit is reduced).
Cost recovery	Revenue is recognized after the cost has been recovered because it is earned in the period of sale but is not realizable due to the extreme uncertainty of collection.	Gross profit is deferred in the period of sale and recognized after the cost has been recovered, at which time net assets are increased (deferred gross profit is reduced).
Deposit	Revenue is not recognized until a future event occurs since it has not been earned because the risks and benefits of ownership have not been transferred.	All cash receipts are recorded as liabilities until a future event occurs, at which time revenue is recognized using one of the alternative methods.

when (a) evidence of an agreement exists, (b) delivery has occurred, (c) its fee is fixed or determinable, and (d) collectibility is probable.

3. A company separately accounts for a service element if (a) the services are not essential to any other element of the transaction, and (b) the services are stated separately in the contract so that the total price would vary as the result of including the services.
4. Software arrangements may include multiple elements such as additional software products, upgrades and/or enhancements, rights to exchange or return software, and customer support. If contract accounting does not apply, a company must allocate its fee to the various elements based on fair values. Fair value is determined by either the price charged when the element is sold separately, or by a price set by management for each element when the element is not sold separately. If fair values do not exist, the company defers all revenue until it can determine the fair value, or until it has delivered all the elements.
5. A company must allocate any discounts proportionately to all the elements, except that none can be allocated to upgrade rights.

FRANCHISES

A **franchise agreement** involves the granting of business rights by the **franchisor** to a **franchisee** who will operate the franchised business. Franchises are common in several industries, such as fast foods (**McDonald's**), motels (**Holiday Inn**), and auto rentals (**Hertz**). Franchise agreements vary but usually involve an initial payment (called an **initial franchise fee**) by the franchisee and ongoing payments of **continuing franchise fees.** For the initial franchise fee, the franchisor may provide assistance in site selection and construction, equipment acquisitions, projections of franchisee's revenues and expenses, and other matters. For the continuing franchise fees, the franchisor may provide advertising, quality control, training of personnel, and budgeting and other accounting services.

Sometimes the franchisor collects the initial franchise fee far in advance of performing its services. At other times collection of part of the initial franchise fee is deferred until the franchise is operating successfully. Occasionally, the continuing franchise fee is not large enough to cover the franchisor's cost of the ongoing services provided. However, the initial franchise fee is unusually large (so, in effect, it involves a prepayment by the franchisee for the continuing services). Or the franchise agreement may involve the potential refund of the initial franchise fee if certain conditions or obligations are not met by the franchisor.

All these revenue recognition issues of the franchisor are addressed by **FASB Statement No. 45.**[13] The franchisor recognizes the initial franchise fee as revenue when it has substantially performed all material services. **Substantial performance** means that (1) the franchisor has no obligation to refund any cash received or forgive any unpaid notes receivable, and (2) the franchisor has performed substantially all the initial services required by the franchise agreement. The start of operations by the franchisee is the earliest point at which substantial performance has occurred, unless the franchisor can demonstrate earlier performance. At this point it recognizes revenue under the accrual method. A franchisor uses installment or cost recovery methods for revenue recognition only in those exceptional cases when revenue is collectible over an extended period and no reasonable basis exists for estimating collectibility.

The franchisor recognizes continuing franchise fees as revenue as it earns the fees and they are receivable from the franchisee. The continuing fee may not cover the cost of continuing services provided by the franchisor because there is a large initial fee that is, in effect, a prepayment for continuing services. In such cases, the franchisor records a portion of the initial fee as a liability and amortizes the amount to franchise revenue over the life of the franchise.

Example: Accounting for Initial Franchise Fees

Assume that the Castle Company sells a franchise that requires an initial franchise fee of $70,000. A down payment of $20,000 cash is required, with the balance covered by the issuance of a $50,000, 10% note, payable by the franchisee in five equal annual installments. The following are alternatives to account for this fee by the Castle Company (the franchisor):

1. Castle has substantially performed all material services, the refund period has expired, and the collectibility of the note is reasonably assured. Castle recognizes revenue as follows:

Cash	20,000	
Notes Receivable	50,000	
Franchise Revenue		70,000

13. "Accounting for Franchise Fee Revenue," *FASB Statement of Financial Accounting Standards No. 45* (Stamford, Conn.: FASB, 1981), par. 3–7.

2. The refund period has expired and the collectibility of the note is reasonably assured, but Castle has not substantially performed all material services. Castle does not recognize revenue, but instead recognizes a liability as follows:

Cash	20,000	
Notes Receivable	50,000	
Unearned Franchise Fees		70,000

   Castle will recognize the unearned franchise fees as revenue when it has performed all material services.

3. Castle has substantially performed all services and the collectibility of the note is reasonably assured, but the refund period has not expired. Castle does not recognize revenue, but instead recognizes a liability as follows:

Cash	20,000	
Notes Receivable	50,000	
Unearned Franchise Fees		70,000

   Castle will recognize the unearned franchise fees as revenue when the refund period expires.

4. Castle has substantially performed all services and the refund period has expired, but the collectibility of the note is not reasonably assured. Castle recognizes revenue by the installment or cost recovery method. If we assume that Castle uses the installment method, it recognizes revenue of $20,000 as follows:

Cash	20,000	
Notes Receivable	50,000	
Unearned Franchise Fees		50,000
Franchise Revenue		20,000

   Since Castle is using the installment method, it recognizes the unearned franchise fees as revenue in the amount of $10,000 each year as it receives cash.

5. The refund period has expired, but Castle has not substantially performed all services and there is no basis for estimating the collectibility of the note. Castle does *not* recognize the note as an asset. Instead, it uses a form of the deposit method. For example, suppose Castle has developed an entirely new product whose success is uncertain and the franchisee will pay the note from the cash flows from the sale of the product, if any. Castle records the initial transaction as follows:

Cash	20,000	
Unearned Franchise Fees		20,000

   Castle may recognize the unearned franchise fees as revenue under the accrual method in the normal manner at the completion of the services to be performed (if collectibility is reasonably assured). Alternatively, it may recognize revenue under the installment method if it has no basis for estimating the collectibility of the note. Alternatively, if Castle has earned the franchise fees through the substantial performance of all services, it would recognize franchise revenue of $20,000 instead of the liability.

6. Now assume that Castle has earned only $30,000 from providing initial services, with the balance being a down payment for continuing services. If the refund period has expired and the collectibility of the note is reasonably assured, Castle recognizes revenue of $30,000 as follows:

Cash	20,000	
Notes Receivable	50,000	
Franchise Revenue		30,000
Unearned Franchise Fees		40,000

Castle recognizes the unearned franchise fees of $40,000 as revenue when it performs the continuing services.

In all these cases except the fifth, Castle accounts for the collection of interest and principal on the note receivable in the usual manner. In the fifth situation, it does not recognize the note and revenue until a future event occurs. In addition, Castle accounts for its costs in the same way as its revenue recognition. That is, if it defers revenue, then it defers the related cost of goods sold. Then, when it recognizes revenue, it matches the cost of goods sold against the revenues. The *franchisee* accounts for its payments as an intangible asset. ♦

Example: Accounting for Continuing Franchise Fees

Assume that the Castle Company also charges the franchisee a continuing franchise fee of $9,000 per year. The following are alternatives to account for this fee by the Castle Company (the franchisor):

1. The fee is earned for providing continuing services:

Cash	9,000	
Continuing Franchise Fee Revenue		9,000

2. $1,000 of the fee is for national advertising:

Cash	9,000	
Continuing Franchise Fee Revenue		8,000
Unearned Franchise Fees		1,000

Castle recognizes the unearned franchise fees as revenue when it performs the advertising services and also records the costs as expenses.

In addition to providing services as part of the continuing franchise fee, a franchisor often sells supplies to the franchisee. These sales occur because the franchisor may be able to obtain quantity discounts from manufacturers or wholesalers, or to ensure the quality of the supplies. The franchisor records these sales and related expenses in the normal manner. ♦

Option to Purchase

In some franchise situations, the franchise agreement will include a provision allowing the franchisor an option to purchase the franchisee's business. If, at the time the franchise agreement is signed and the option is granted, an understanding exists that the option will be exercised (or it is probable that the franchisor ultimately will acquire the franchise), the franchisor does not recognize the initial franchise fee as revenue. Instead it records the initial franchise fee as a liability. When the franchisor exercises its option and acquires the franchise, it records the liability as a reduction in its investment.

REAL ESTATE SALES

In real estate sales, a company may sell land or a building or both. The land may be developed or undeveloped and the seller may be responsible for making improvements. The building may be completed or in the process of construction and may be for commercial use, such as a factory or office building, or residential use, such as a house or apartment building. Accounting for real estate sales is defined by **FASB Statement No. 66.** We discuss only the basic rules here because of their relevance to an understanding of revenue recognition alternatives.[14]

14. "Accounting for Sales of Real Estate," *FASB Statement of Financial Accounting Standards No. 66* (Stamford, Conn.: FASB, 1982), par. 5–43.

For real estate sales, **a selling company recognizes revenue and related expenses on the accrual basis in the normal manner in the period of the sale if *all* of the following conditions are met:**

1. A sale occurs.
2. The buyer's initial and continuing investments show a commitment to pay for the property.
3. The seller's receivable is not subject to having its liquidation rights reduced.
4. The seller has transferred to the buyer the usual risks and rewards of ownership, and does not have a continuing involvement with the property.

It is important to understand that these criteria address the conceptual issues we discussed earlier in the chapter, namely the economic substance of the transaction, the transfer of the risks and benefits of ownership, and the collectibility (realizability) of the receivable. **When any of the criteria are *not* met, the selling company recognizes revenue under an alternative method as follows:**

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- If the sale does not occur, the *deposit method* is used.
- If the buyer's initial and continuing investment is not adequate, the *installment method* is used if the recovery of the cost of the property is reasonably assured. The *cost recovery method* is used if recovery of the cost is not reasonably assured.
- If the seller's receivable is subject to having its liquidation rights reduced, the *cost recovery method* is used.
- If the seller has continuing involvement with the property and does not transfer substantially all the risks and benefits of ownership, generally revenue and related expenses are recognized at the time of sale with an adjustment to recognize its maximum possible loss.

Thus, various revenue recognition methods are appropriate depending on the circumstances. When a company has earned revenue and the related receivable is realized or realizable, the company recognizes revenue in full using the accrual method. When the earning process is not complete or realization has not occurred, the company uses an alternative method.

Retail Land Sales

In retail land sales, a company may acquire a large tract of unimproved land that it divides into lots. It then "sells" these lots to widely dispersed retail customers (individuals) through intensive marketing programs. Generally, part of the marketing program involves an agreement by the company to improve the lots by installing roads, utilities, and related amenities such as golf courses, lakes, and recreational centers. These improvements will require large future capital outlays by the company. The company may agree to be continually involved in the operations of the recreational centers and to provide ongoing maintenance. The "sales contract" often has a low down payment, no (or limited) credit investigation of the buyer, periodic payments by the buyer that extend over several years, and the ability of the buyer to cancel the contract and obtain a refund within a specified period.

Several factors involved in retail land sales may affect the timing of revenue recognition by the company. These include the collectibility of the receivables, the financial ability of the company to fulfill its obligations, the length of the refund period, the accumulation of collections, and the ongoing completion of the project. For retail land sales, **the selling company recognizes revenue and the related expenses in the period of the sale on the accrual basis if *all* of the following conditions are met:**

1. The buyer has made the down payment and each required subsequent payment until the period of cancellation with refund has expired.
2. The cumulative payments of principal and interest equal or exceed 10% of the contract sales price.
3. Collection experience for the project indicates that at least 90% of the contracts will be collected in full (a down payment of 20% is an acceptable indication of collectibility).
4. The receivable from the sale is not subject to subordination to new loans on the property.
5. The seller is not obligated to complete improvements of lots sold or to construct amenities or other facilities applicable to lots sold.

As with real estate sales, the intent of these rules is to be consistent with the conceptual issues related to revenue recognition. **When at least one of the preceding criteria is *not* met, the selling company recognizes revenue under an alternative method as follows:**

- The *percentage-of-completion method* is used if the first four criteria are met, there has been progress on the improvements, the work is likely to be completed according to plan, significant delays are not likely, and development is practical.
- The *installment method* of accounting is used if only the first two criteria are met and the seller is financially capable of meeting its obligations.
- The *deposit method* is used if the first two criteria are not met.

Again, the selling company recognizes revenue in full using the accrual method if it is earned and the receivable is realized or realizable. It uses an alternative method if either criterion is not met.[15]

Consignment Sales

A manufacturer or wholesaler may transfer goods to a dealer to sell but retain the risks and benefits of ownership (as well as legal title). In these situations the dealer is acting as an *agent* for the manufacturer or wholesaler in the sale of the goods to a third party. The transfer of goods is a **consignment,** the manufacturer or wholesaler is the **consignor,** and the dealer is the **consignee.** The consignor is usually responsible for all costs associated with the goods and the consignee must exercise due care in storing and selling the goods. When the sale to the third party takes place, legal title passes directly to the third party from the consignor.

Accounting for consignments may be summarized as follows:

1. Since title remains with the consignor, when the goods are transferred from the consignor to the consignee, the consignor does *not* record the sale of inventory, and the consignee does *not* record the acquisition of inventory.
2. The consignor recognizes revenue only when the sale to the third party occurs, because that is when it earns the revenue. The consignee must notify the consignor of the sale and must maintain detailed records of items held on consignment and various costs incurred.
3. The consignee uses a **Consignment-in** account. It credits the account for the proceeds received from the sale of the consigned goods and debits the same account

15. *Ibid*., par. 45–49.

for costs that will be reimbursed by the consignor and for commissions it earns. At the end of the period, if the account has a debit balance, the consignor has an obligation for that amount to the consignee. That is, it represents a receivable of the consignee. Alternatively, if the account has a credit balance, the consignee has an obligation to the consignor. That is, it represents a liability of the consignee. The consignee reports the Commissions Earned account as operating revenue on its income statement.

4. The consignor uses a **Consignment-out** account, which is a special inventory account. When it ships goods on consignment, it debits the account for the cost of the inventory shipped (and credits the normal inventory account). In addition, the consignor debits any consignment costs (e.g., transportation charges) it incurs to the account. When notified by the consignee, the consignor credits the account for the costs incurred for the sale of consigned goods and debits these costs to the respective expense accounts. The consignor reports any balance in the Consignment-out account as consignment inventory on its ending balance sheet.

SUMMARY

At the beginning of the chapter, we identified several objectives you would accomplish after reading the chapter. The objectives are listed below, each followed by a brief summary of the key points in the chapter discussion.

1. **Understand the revenue recognition alternatives.** The usual point of revenue recognition is the time of sale (delivery). Revenue recognition may also be advanced by recording revenue during production, or deferred until cash receipt.
2. **Explain revenue recognition at the time of sale, during production, and at the time of cash receipt.** If a company recognizes revenue at the time of sale, it recognizes revenue, the related expense, and the increase in net assets at the same time. If a company recognizes revenue during production, it recognizes the gross profit (revenue less the related expense) during production even though the inventory has not been transferred to the customer. It increases the value of the inventory from its cost to its selling price, and the increase in the value of the net assets occurs at the same time. If a company recognizes revenue as it receives cash, it records the receivable, removes the inventory, and records the deferred gross profit as a contra account to Accounts Receivable. It recognizes the gross profit (revenue less the related expense) as it collects the cash.
3. **Explain the conceptual issues regarding revenue recognition.** The decision to recognize revenue focuses on three factors: (1) the economic substance of the event takes precedence over the legal form of the transaction; (2) the risks and benefits of ownership have been transferred to the buyer; and (3) the collectibility of the receivable from the sale is reasonably assured.
4. **Describe the alternative revenue recognition methods.** Revenue generally is recognized in the period of the sale. Revenue may also be recognized prior to the period of the sale under the percentage-of-completion method or the proportional performance method. Revenue may also be recognized at the completion of production. Revenue may also be recognized after the period of the sale under the installment method or the cost recovery method. Finally, revenue recognition may be delayed until a future event occurs, in which case the deposit method is used.
5. **Account for revenue recognition prior to the period of sale, including the percentage-of-completion and completed contract methods.** Under the percentage-of-completion method, the company recognizes profit each period during the life of the contract in proportion to the amount of the contract completed during the period. As it recognizes the profit, it also increases the value of the inventory, so that it values the inventory at the costs incurred plus the profit recognized to date, less any partial billings. Under the completed contract method, the company does not recognize profit during the life of the contract, but it recognizes the profit only when the contract is completed. During the life of the contract, the company records the inventory at cost, less any partial billings.
6. **Account for revenue recognition after the period of sale, including the installment and cost recovery methods.** Under the installment method, a company recognizes gross profit each period by multiplying the amount of cash it receives by the gross profit rate. Under the cost recovery method, a company does not recognize gross profit until it has recovered the cost of the item sold. Then it recognizes gross profit in an amount equal to the additional cash received during the period.
7. **Account for revenue recognition delayed until a future event occurs.** In certain situations, there may not be a sufficient transfer of the risks and benefits of ownership for a company to recognize revenue. In these situations, the company uses the deposit method and records all cash receipts as a liability, until it may recognize revenue.

8. **Understand software revenue recognition, franchises, real estate sales, retail land sales, and consignment sales.** (Appendix) If a company selling software has an agreement to deliver software that requires significant production, modifications, or customization, it uses "contract accounting". If contract accounting does not apply, a company must allocate its fee to the various elements based on fair values. If sufficiently objective evidence of fair values does not exist, the company defers all revenue until it has sufficient evidence, or until it has delivered all the elements.

   A franchisor recognizes the initial franchise fee as revenue when it has substantially performed all material services. It recognizes continuing franchise fees as revenue as it earns the fees. For real estate sales, a company recognizes revenue in the period of sale if all of four conditions are met. For retail land sales, a company recognizes revenue in the period of sale if all of five conditions are met. In a consignment, the consignor transfers goods to the consignee for sale to a third party. The consignor recognizes revenue when the goods are transferred to the third party. The specific accounting rules for these industries are explained in the Appendix.

Answers to Real Report Questions

Real Report 18-1 Answers

1. Johnson Controls uses the cost-to-cost method to determine the percentage complete. Under this method, the percentage of completion is measured by the ratio of actual costs incurred to date to expected total costs of the contract. This ratio is then multiplied by the total revenue on the contract to compute total revenue recognized to date. The expense recognized is the costs incurred during the current year.
2. In 2004, Johnson Controls reports an asset for the excess of construction in progress over partial billings of $328.6 million and a liability for partial billing in excess of construction in progress of $197.2 million. Combining these figures, Johnson Controls reports construction-in-progress in excess of partial billings (an asset) of $131.4 million.
3. By reporting a separate asset and liability on its balance sheet (as required by GAAP), Johnson Controls provides a more informative disclosure relating to its construction contracts than would be provided by netting these two amounts. Such a method provides more information to help financial statement users assess the risk of contract losses and the possibility of inaccurate estimates of the completion percentage.
4. By delaying the recognition of revenue until settlement, Johnson Controls is taking a conservative approach to revenue recognition. A more aggressive approach (allowable under generally accepted accounting principles) would be to estimate the amount of claims against customers in which collection is considered probable and include this estimated settlement amount in calculating profit on the contract. By including these probable settlements, the amount of gross profit recognized would be larger than if these claims were not included until the claim is settled.

Questions

Q18-1 Why is revenue sometimes recognized at a time other than the sale?

Q18-2 Distinguish between the terms *recognition* and *realization*.

Q18-3 Describe the effects on a company's financial statements of recognizing revenue at the time of sale, during production, and at the time of cash receipt.

Q18-4 What three factors affect the decision as to when to recognize revenue?

Q18-5 What are the five revenue recognition alternatives?

Q18-6 Under what circumstances does a company recognize revenue prior to the period of sale? What two methods may it use?

Q18-7 What are the differences between the two methods of accounting for long-term construction contracts?

Q18-8 Under what circumstances does a company use the percentage-of-completion method for long-term contracts?

Q18-9 How may the departure from the principle of recognizing revenue only at the time of the sale be justified when a company uses the percentage-of-completion method?

Q18-10 Describe input and output measures used in the percentage-of-completion method. Give an example of each.

Q18-11 How does a company account for losses under the two methods of accounting for long-term construction contracts?

Q18-12 How does a company classify the following accounts in its financial statements: Construction in Progress, Partial Billings, Construction Revenue, and Construction Expense?

Q18-13 How does a company recognize initial direct costs, direct costs, and indirect costs as expenses under the proportional performance method? Explain the reason for each method.

Q18-14 Under what circumstances does a company recognize revenue after the period of the sale? What two methods are used?

Q18-15 Describe the steps involved in the installment method.

Q18-16 Describe the differences between the cost recovery method and the installment method.

Q18-17 Describe the basic characteristics of the deposit method.

Q18-18 (Appendix) Distinguish between the initial franchise fee and continuing franchise fee. When is each recognized as revenue?

Q18-19 (Appendix) How is revenue recognized for real estate sales?

Q18-20 (Appendix) How is revenue recognized for retail land sales?

Q18-21 (Appendix) In a consignment, does the consignee or consignor retain title to the property? When is revenue recognized by the consignor? The consignee?

MULTIPLE CHOICE (AICPA Adapted)

Select the best answer for each of the following.

M18-1 Real estate sales are recognized by the accrual method if all of the conditions defined by *FASB Statement No. 66* are met. Which of the following is *not* one of the conditions defined by the *Statement?*

a. The seller has transferred to the buyer the usual risks and rewards of ownership in a transaction that is in substance a sale and does not have a continuing involvement with property.
b. A sale is consummated.
c. The buyer's initial and continuing investments are adequate to demonstrate a commitment to pay for the property.
d. The seller's receivable is subject to future subordination.

M18-2 Green Company, which began operations on January 1, 2007, appropriately uses the installment method of accounting. The following information is available for 2007:

Gross profit on sales	40%
Deferred gross profit at 12/31/07	$240,000
Cash collected on installment sales	450,000

What is the total amount of Green's installment sales for 2007?

a. $600,000 c. $850,000
b. $690,000 d. $1,050,000

M18-3 When should an indicated loss on a long-term contract be recognized under the completed-contract method and the percentage-of-completion method, respectively?

	Completed-Contract	Percentage-of-Completion
a.	Immediately	Over life of project
b.	Immediately	Immediately
c.	Contract complete	Over life of project
d.	Contract complete	Immediately

M18-4 In accounting for a long-term construction contract for which there is a projected profit, the balance in the construction-in-progress asset account at the end of the first year of work using the completed-contract method would be

a. Zero
b. The same as the percentage-of-completion method
c. Lower than the percentage-of-completion method
d. Higher than the percentage-of-completion method

M18-5 Warren Construction Company has consistently used the percentage-of-completion method of recognizing income. In 2007 Warren started work on a $6,000,000 construction contract, which was completed in 2008. The accounting records disclosed the following data:

	2007	2008
Progress billings	$2,200,000	$3,800,000
Costs incurred	1,800,000	3,600,000
Collections	1,400,000	4,600,000
Estimated cost to complete	3,600,000	—

How much income should Warren have recognized in 2007?

a. $200,000 c. $300,000
b. $220,000 d. $400,000

M18-6 Kramer Manufacturing Company ships goods to Sikes Company on consignment. When the consigned goods are delivered to Sikes, Kramer should record

	Sale of Inventory	Revenue
a.	No	Yes
b.	No	No
c.	Yes	No
d.	Yes	Yes

M18-7 During 2007 Morgan Company recognized $30,000 of sales under the cost recovery method. This is the first time the Morgan Company has used the cost recovery method in recognizing sales. The cost of goods sold related to these sales was $21,000. Cash collections in 2007 were $15,000, in 2008 were $10,000, and in 2009 were $5,000. What amount of gross profit should be recognized in 2007, 2008, and 2009?

	2007	2008	2009
a.	$9,000	$ 0	$ 0
b.	$4,500	$3,000	$1,500
c.	$ 0	$ 0	$9,000
d.	$ 0	$4,000	$5,000

M18-8 On January 1, 2006, Bartell Company sold its idle plant facility to Cooper, Inc., for $1,050,000. On this date, the plant had a depreciated cost of $735,000. Cooper paid $150,000 cash on January 1, 2006, and signed a $900,000 note bearing interest at 10%. The note was payable in three annual installments of $300,000 beginning January 1, 2007. Bartell appropriately accounted for the sale under the installment method. Cooper made a timely payment of the first installment on January 1, 2007 of $390,000, which included interest of $90,000 to date of payment. At December 31, 2007, Bartell has deferred gross profit of

a. $153,000
b. $180,000
c. $225,000
d. $270,000

M18-9 The Schmidt Company sells a franchise that requires an initial franchise fee of $50,000. A $10,000 down payment is required, with the balance covered by the issuance of a 12% note, payable in four equal installments. All material services have been substantially performed by the Schmidt Company, the refund period has expired, and the collectibility of the note is reasonably assured. The journal entry recorded by Schmidt Company should be

a.	Cash	10,000	
	Notes Receivable	40,000	
	Franchise Revenue		10,000
	Unearned Franchise Fees		40,000
b.	Cash	10,000	
	Notes Receivable	40,000	
	Franchise Revenue		50,000
c.	Cash	10,000	
	Notes Receivable	40,000	
	Unearned Franchise Fees		50,000
d.	Cash	10,000	
	Franchise Revenue		10,000

M18-10 On April 1, 2006, Pine Construction Company entered into a fixed-price contract to construct an apartment building for $6,000,000. Pine appropriately accounts for this contract under the percentage-of-completion method. Information relating to the contract is as follows:

	At December 31, 2006	At December 31, 2007
Percentage of completion	20%	60%
Estimated costs at completion	$4,500,000	$4,800,000
Income recognized (cumulative)	$ 300,000	$ 720,000

What is the amount of contract costs incurred during the year ended December 31, 2007?

a. $1,200,000
b. $1,920,000
c. $1,980,000
d. $2,880,000

EXERCISES

E18-1 ***Revenue Recognition Alternatives*** The Smith Construction Company received a contract on September 30, 2007 to build a warehouse over a period of 18 months. The contract price was $600,000 and the estimated cost to build was $400,000. The actual (and estimated) costs incurred and the payments made by the purchaser are as follows:

	Costs	Payments
September 30–December 31, 2007	$120,000	$ 90,000
January 1–December 31, 2008	240,000	210,000
January 1–March 31, 2009	40,000	300,000

Required

1. Compute the amount of revenue, expense, and gross profit each year for each of the following methods:
   a. Revenue recognition at the time of sale (completion)
   b. Revenue recognition during production
   c. Revenue recognition at the time of cash receipt
   d. Cost recovery (compute only the gross profit)
2. Which method provides the most useful information to users? Under what circumstances would the other methods provide more useful information?

E18-2 ***Percentage-of-Completion Method*** In 2007 Tarlo Company agrees to construct a highway for Brice County over a three-year period (2007 through 2009). The contract price is $1,200,000 and the construction costs (both actual and estimated) total $705,000 for the three years. The percentage completed at the end of each year is as follows: 2007, 20%; 2008, 75%; 2009, 100%.

Required
1. Prepare a schedule showing the amount of gross profit that Tarlo Company recognizes each year using the percentage-of-completion method.
2. Prepare a schedule showing the amount of gross profit that Tarlo Company recognizes each year using the completed-contract method.

E18-3 ***Percentage of Completion*** The King Construction Company began work on a contract in 2007. The contract price is $4,000,000, and the company uses the percentage-of-completion method. Other information relating to the contract is as follows:

	2007
Costs incurred during the year	$ 800,000
Estimated costs to complete, December 31	2,400,000
Billings during the year	600,000
Collections during the year	400,000

Required
1. How much gross profit or loss does King recognize in 2007?
2. Prepare the appropriate sections of the 2007 income statement and ending balance sheet.

E18-4 ***Percentage of Completion*** The Koolman Construction Company began work on a contract in 2007. The contract price is $3,000,000, and the company uses the percentage-of-completion method. Other information relating to the contract is as follows:

	2007	2008
Costs incurred during the year	$ 600,000	$ 700,000
Estimated costs to complete, December 31	1,400,000	1,200,000
Billings during the year	500,000	850,000
Collections during the year	400,000	800,000

Required
1. Compute the gross profit or loss recognized in 2007 and 2008.
2. Prepare the appropriate sections of the income statement and ending balance sheet for each year.

E18-5 **AICPA Adapted** ***Percentage of Completion*** Newberg Construction Corporation contracted to construct a building for $400,000. Construction began in 2007 and was completed in 2008. Data relating to the contract are as follows:

	Year Ended December 31,	
	2007	2008
Costs incurred	$200,000	$110,000
Estimated costs to complete	100,000	—

Required
Newberg uses the percentage-of-completion method as the basis for income recognition. For the years ended December 31, 2007 and 2008, respectively, how much income should Newberg report?

E18-6 **AICPA Adapted** ***Long-Term Construction Contract*** The Osborn Construction Company began operations January 2, 2007. During the year, Osborn entered into a contract with Redbeard Razor Corporation to construct a manufacturing facility. At that time, Osborn estimated that it would take five years to complete the facility at a total cost of $4,800,000. The total contract price for construction of the facility is $6,000,000. During the year, Osborn incurred $1,250,000 in construction costs related to the construction project. The estimated cost to complete the contract is $3,750,000. Redbeard was billed and paid 30% of the contract price.

Required
Prepare schedules to compute the amount of gross profit to be recognized for the year ended December 31, 2007 and the amount to be shown as "cost of uncompleted contract in excess of related billings" or "billings on uncompleted contract in excess of related costs" on December 31, 2007, under each of the following methods:
1. Completed-contract method
2. Percentage-of-completion method

Show supporting computations in good form.

E18-7 ***Proportional Performance Method*** The New Recreational Company sells two-year memberships to its recreational facilities. For $2,200 in advance, each member receives the right to 30 nights at the company's campgrounds, 20 rounds on its golf courses, and 50 hours on its bowling lanes. In 2007 the company sold 400 memberships. Members used the campgrounds for 4,100 nights, played 3,000 rounds of golf, and bowled for 10,000 hours. The relevant cost information for the 400 contracts is as follows:

Initial direct costs	$ 40,000
Annual indirect costs	100,000
Estimated (and actual) total direct costs for two-year period	340,000
Direct cost per	
Night at campground	10
Round of golf	15
Hour of bowling	5

Required
Prepare the income statement for 2007.

E18-8 ***Revenue Recognition at Completion of Production*** In 2007 the Sterling Farm Company produced 100,000 bushels of wheat at a cost of $2.00 per bushel. The company has a contract to deliver 80,000 bushels at $2.15 per bushel in 2008. Delivery costs are estimated to be $0.02 per bushel. For guaranteed price contracts, the company recognizes revenue at the completion of production; otherwise, it recognizes revenue at the time of delivery.

Required
1. Prepare summary journal entries for 2007 and 2008.
2. At what value is the inventory of the company carried after the delivery of the 80,000 bushels? Why?

E18-9 ***Sales Under the Installment Method*** Anibonita Company began operations in 2007. It sells goods on installment sales contracts; these transactions are considered to be exceptional, so it uses the installment method to recognize gross profit. The following is a summary of the installment sales, costs of installment sales, operating expenses, and collections for 2007 and 2008:

	2007	2008
Installment method sales	$80,000	$90,000
Costs of installment method sales	52,000	59,400
Operating expenses	13,000	15,000
Cash collections from		
2007 installment method sales	42,000	21,000
2008 installment method sales		41,000

Required
Using the installment method to recognize gross profits, prepare 2007 and 2008 condensed income statements for the Anibonita Company.

E18-10 ***Sales Under the Installment Method*** The following information is available for the Butler Company in 2007, its first year of operations:

Total credit sales (including installment method sales)	$205,000
Total cost of goods sold (including installment method cost of goods sold)	130,000
Installment method sales	65,000
Installment method cost of goods sold	39,000
Cash receipts on credit sales (including installment method sales of $20,000)	120,000

Required
1. Prepare the journal entries for 2007.
2. If the company collected $45,000 in 2008 on its 2007 installment method sales, prepare the appropriate journal entries in 2008.

E18-11 ***Sales Under the Installment Method*** The following information is available for the Butler Company, which began operations in 2007:

	2007	2008
Total credit sales (including installment method sales)	$100,000	$160,000
Total cost of goods sold (including installment method cost of goods sold)	72,000	105,000
Installment method sales	60,000	80,000
Installment method cost of goods sold	42,000	52,000
Cash receipts on installment method sales		
2007 sales	25,000	26,000
2008 sales		30,000
Cash receipts on other credit sales	28,000	85,000

Required

1. Prepare the journal entries for 2007 and 2008.
2. Prepare a partial income statement and a partial balance sheet for 2007.

E18-12 ***Analysis of Installment Sales*** The following partial information is available for the Cupp Company:

Installment method sales	$120,000	(3)
Installment method cost of goods sold	(1)	$63,000
Gross profit percentage	(2)	30%
Cash receipts on installment method sales		
2007 sales	25,000	(4)
2008 sales		(5)
Realized gross profit on installment method sales		
2007 sales	5,000	7,000
2008 sales		9,000

Required

Compute the unknown amounts. (Note: It is not necessary to compute the amounts in the numerical sequence.)

E18-13 ***Adjusting Entries for Installment Sales*** The Smookler Company uses the installment method for certain sales and experiences a constant gross profit rate of 20%. The following are the account balances at December 31, 2007 and 2008:

	Installment Receivables	Deferred Gross Profit	Installment Method Sales
2007	$50,000	$10,000	$100,000
2008	80,000	16,000	130,000

Required

Prepare the journal entries for 2008.

E18-14 ***Cost Recovery*** In 2007 the Huxley Company, a real estate company, purchased some raw land for $60,000 and resold it on credit for $90,000. Because of the speculative nature of the usefulness of the land, the company used the cost recovery method for the sale of the land. The cash collections in 2007, 2008, and 2009 were $25,000, $45,000, and $20,000, respectively.

Required

Prepare the journal entries for each year.

E18-15 ***Deposit Method*** On January 1, 2007, the Fritz Company sold a building in a depressed area for $200,000. The building had originally cost $500,000 and had a book value of $100,000. The sale agreement required the purchaser to pay $5,000 down and sign an 8% note for the balance. Interest on the note is payable at the end of each year; the interest is refundable if the following contingency is not met. The sale agreement is contingent on the commitment by the city government to support redevelopment of the area in which the building is located. Therefore, the company used the deposit method to record the sale.

Required

1. Prepare the journal entries for 2007.
2. On January 1, 2008 the city government made the necessary commitments. Prepare the appropriate journal entry.

E18-16 ***Franchise (Appendix)*** The Chocomalt Company sells franchises. For each franchise, the company charges an initial franchise fee of $28,000. The franchise agreement requires a down payment of $8,000, with the balance covered by the issuance of a $20,000, 12% note, payable by the franchisee in two equal annual installments.

Required

Prepare the journal entry required by the Chocomalt Company to record each initial franchise fee under each of the following independent situations:

1. All material services have been substantially performed, the refund period has expired, and the collectibility of the note is reasonably assured.
2. All material services have been substantially performed, the refund period has expired, and the collectibility of the note is not reasonably assured.
3. All material services have been substantially performed, the refund period has not expired, and the collectibility of the note is reasonably assured.

4. All material services have not been substantially performed, the refund period has expired, and there is no basis for estimating the collectibility of the note.
5. The refund period has expired and the collectibility of the note is reasonably assured, but all material services have not been substantially performed.

E18-17 ***Consignee (Appendix)*** On April 16, 2007 the Winger Company shipped 10 tractors to the Yuma Farm Supply Company on consignment. Each tractor cost $30,000 and the Winger Company incurred cash shipment costs of $100 per tractor. The consignment agreement required payment to Winger at year-end. On December 31, 2007 the consignee reported that it had sold six tractors for $36,000 each. The consignee paid the Winger Company the amount required under the agreement, after deducting the commission of 5% and advertising costs of $2,000 incurred by the consignee.

Required
Prepare the 2007 journal entries for the Yuma Farm Supply Company.

E18-18 ***Consignor (Appendix)*** Refer to the information in E18-17.

Required
1. Prepare the 2007 journal entries for the Winger Company.
2. What amount related to the consignment activities, and in what category, would the company report on its balance sheet on December 31, 2007?

PROBLEMS

P18-1 ***Revenue Recognition Alternatives*** Each of the following independent situations relates to the recognition of revenue:
a. Interest on loans made by a bank
b. Interest on loans made by a bank when the loans are in default
c. Collection of fares by an airline when the passengers make the reservations
d. Shipment of freight and mail by an airline before it receives payment
e. Imposition of a penalty (service charge) by a retailer on overdue accounts
f. Building a submarine for a foreign government
g. Growing and harvesting soybeans
h. Selling lots for vacation homes on long-term contracts with small down payments
i. Building houses in a subdivision
j. Growing timber over a 10-year period
k. Payments received by a producer for films that are licensed to movie theaters for two years, after which the rights are licensed to television networks for one year, and finally the rights revert to the producer
l. Rental of a building to another company for five years, with no payment of rent in the first year
m. "One cent" sale in which the first item is sold at full price and the second identical item is sold for $0.01
n. Sale of a season pass by a ski resort

Required
For each situation indicate when a company should recognize revenue.

P18-2 ***Revenue Recognition Alternatives*** The Slattery Company was formed on January 1, 2007 to build a single product. The company issued no-par common stock on that date for $300,000 cash. The product costs $20 to make, all of which is paid in cash at the time of production. The company sells each unit of the product for $35 on credit and incurs sales commissions per unit of $5 cash. In 2007 the company produced 10,000 units, shipped 9,000 units, and received payment for 8,000 units.

Required
1. Prepare the 2007 income statement and ending balance sheet under each of the following methods:
   a. Revenue recognition at the time of sale (shipment)
   b. Revenue recognition during production
   c. Revenue recognition at the time of cash receipt

2. Which method provides the most useful information to users? Under what circumstances would the other methods provide more useful information?
3. In 2008 the company produced 15,000 units, shipped 16,000 units, and received payment for 17,000 units. What conclusion can you make about the balance in Retained Earnings on December 31, 2008 for each method of revenue recognition?

P18-3 **AICPA Adapted** ***Percentage of Completion*** In 2007 Dreyer Corporation began construction work under a three-year contract. The contract price is $800,000. Dreyer uses the percentage-of-completion method. The financial statement presentations relating to this contract on December 31, 2007 follow:

	Balance Sheet	
Accounts receivable		$15,000
Construction in progress	$50,000	
Less contract billings	(47,000)	
Cost of uncompleted contract in excess of billings		3,000
	Income Statement	
Gross profit (before tax) on the contract		$10,000

Required
1. How much cash did Dreyer collect during 2007?
2. What was the initial estimated total income before tax on this contract?

P18-4 ***Long-Term Construction Contracts*** The Fender Construction Company receives a contract to build a building over a period of three years for a price of $700,000. Information relating to the performance of the contract is summarized as follows:

	2007	2008	2009
Construction costs incurred during the year	$150,000	$242,000	$168,000
Estimated costs to complete	350,000	168,000	—
Billings during the year	120,000	250,000	330,000
Collections during the year	100,000	260,000	340,000

Required
Prepare journal entries for all three years under (1) the percentage-of-completion method, and (2) the completed-contract method.

P18-5 ***Long-Term Construction Contracts*** The Forman Company has contracted to build a dam over a period of four years for $3,000,000. Information relating to the performance of the contract is summarized as follows:

	2007	2008	2009	2010
Construction costs incurred during the year	$ 300,000	$1,100,000	$ 863,000	$837,000
Estimated costs to complete	2,200,000	1,400,000	837,000	—
Billings during the year	280,000	870,000	1,030,000	820,000
Collections during the year	270,000	875,000	1,010,000	845,000

Required
1. Compute the profit or loss for each year of the contract under (a) the percentage-of-completion method, and (b) the completed-contract method.
2. Prepare the relevant sections of the income statement and ending balance sheet for each year under (a) the percentage-of-completion method, and (b) the completed-contract method.

P18-6 ***Long-Term Construction Contracts*** The Rice Company signed a contract to build a dam over a period of three years for a price of $10,000,000. Information relating to the performance of the contract is summarized as follows:

	2007	2008	2009
Construction costs incurred during the year	$2,000,000	$4,000,000	$6,000,000
Estimated costs to complete	6,000,000	6,000,000	—
Billings during the year	1,500,000	3,500,000	5,000,000
Collections during the year	1,300,000	3,600,000	5,100,000

Required
Prepare journal entries for all three years under (1) the percentage-of-completion method, and (2) the completed-contract method.

P18-7 ***Proportional Performance Method*** The Hilt Company, a public relations company, signs two-year contracts with its clients. For $80,000 in advance, the company agrees to ensure that the client's name is mentioned five times on a network national news program, 10 times in a national news magazine, and 15 times on a local news program. In 2007 the company signed eight contracts; no additional contracts were signed in 2008.

In 2007 the company's clients were mentioned 10 times on network national news programs, 40 times in national news magazines, and 22 times on local news programs. In 2008 the company's clients were mentioned 30 times on national news programs, 40 times in national news magazines, and 98 times on local news programs. The relevant cost information for the eight contracts is as follows:

Initial direct costs	$ 20,000
Annual indirect costs	80,000
Estimated (and actual) total direct costs for two-year period	260,000
Direct cost per	
National news program	2,000
National news magazine	1,500
Local news program	500

Required

1. Prepare the income statements for 2007 and 2008.
2. From a theoretical viewpoint, how should the company compute the depreciation of its office building and office equipment that would be included in the preceding costs? Why?

P18-8 ***Sales Under the Installment Method*** The following information is available for the Dassler Company, which began its operations in 2007:

1. Installment method sales
   2007 $520,000
   2008 600,000
2. Gross profit percentage
   2007 20%
   2008 24%
3. Cash collections on installment method sales
   2007 25% of 2007 sales
   2008 55% of 2007 sales
   30% of 2008 sales
4. Bad debt policy
   The company estimates its bad debts to be 2% of installment method sales.
5. Defaults and repossessions
   2007 $10,000 of 2007 installment method sales, of which $1,000 had been collected
   2008 $20,000 of 2007 installment method sales, of which $4,000 had been collected
   $15,000 of 2008 installment method sales, of which $2,000 had been collected

The policy of the company is to value repossessed items at 40% of their original selling price.

Required

Prepare the journal entries for 2007 and 2008.

P18-9 ***Sales Under the Installment Method*** The Dyson Company sells computer games to teenagers. Selected accounts included in the trial balance at December 31, 2007 and 2008 are as follows:

	2006	2007
Installment accounts receivable, 2006	$80,000	$ 20,000
Installment accounts receivable, 2007		112,500
Allowance for doubtful installment accounts receivable, 2006	(5,000)	(3,700)
Allowance for doubtful installment accounts receivable, 2007		(7,000)
Deferred gross profit, 2006	(16,000)	(3,500)
Deferred gross profit, 2007		(22,500)

During 2007 installment method sales and cost of goods sold were $200,000 and $160,000, respectively. In 2007 the company repossessed games that had been sold in 2006 for $6,000 and on which $2,500 had been collected. The games were believed to be worth $1,000. No repossessions occurred on 2007 sales.

Required
Prepare summary journal entries for 2007.

P18-10 **AICPA Adapted** ***Cost Recovery Method*** After a two-year search for a buyer, Hobson, Inc. sold its idle plant facility to Jackson Company for $700,000 on January 1, 2005. On this date the plant had a depreciated cost on Hobson's books of $500,000. Under the agreement Jackson paid $100,000 cash on January 1, 2005, and signed a $600,000 note bearing interest at 10%. The note was payable in installments of $100,000, $200,000, and $300,000 on January 1, 2006, 2007, and 2008, respectively. The note was secured by a mortgage on the property sold. Hobson appropriately accounted for the sale under the cost recovery method since there was no reasonable basis for estimating the degree of collectibility of the note receivable. Jackson repaid the note with three late installment payments, which were accepted by Hobson, as follows:

Date of Payment	Principal	Interest
July 1, 2006	$100,000	$90,000
December 31, 2007	200,000	75,000
February 1, 2009	300,000	32,500

Required
Prepare a schedule (using the following format) to record the initial transaction for the sale of the idle plant facility, the application of subsequent cash collections on the note, and the necessary journal entry on the date the transaction is complete.

Date	Cash Received Debit	Note Receivable Dr. (Cr.)	Idle Plant (Net) (Credit)	Deferred Income Dr. (Cr.)	Income Recognized (Credit)
Jan. 1, 2005	$100,000				
July 1, 2006	190,000				
Dec. 31, 2007	275,000				
Feb. 1, 2009	332,500				
Feb. 1, 2009					

P18-11 ***Revenue Recognition Alternatives*** The following are the operating activities of three different companies:

Company A: Engages in long-term construction contracts. Uses the percentage-of-completion method to recognize gross profits. Started contract X in 2006, contract Y in 2007, and contract Z in 2008. The total gross profit (estimated and actual) and the percentage completed for each contract during 2007 through 2009 are:

	Contract X	Contract Y	Contract Z
Gross profit	$600,000	$400,000	$500,000
% completed during			
2007	60%	40%	—
2008	25%	35%	30%
2009	—	25%	50%

Company B: Engages in long-term service contracts involving a specific number of defined but not similar service acts. Uses proportional performance method to recognize revenues. Sells two-year service contracts for $400 in advance. Each service contract requires Company B to perform service act 1 a total of 50 times and service act 2 a total of 20 times during the two-year period. At the beginning of 2007, 100 service contracts were sold. The following is a summary of the related cost information for the 100 service contracts:

Initial direct costs	$ 3,500
Annual indirect costs	4,500
Estimated (and actual) total direct costs (for two-year period)	10,000
Direct cost per service act	
Service act 1	$ 1.20
Service act 2	2.00

During 2007, service act 1 was performed 2,700 times and service act 2 was performed 800 times. During 2008, service acts 1 and 2 were performed 2,300 and 1,200 times, respectively.

Company C: Sells goods on the installment basis. Uses the installment method (because these are exceptional cases) to recognize gross profits. The following is a summary of the installment sales, costs of installment sales, operating expenses, and collections for 2007 and 2008:

	2007	2008
Installment method sales	$80,000	$100,000
Costs of installment method sales	48,000	62,000
Operating expenses	17,000	20,000
Cash collections from		
2006 installment method sales (2006 gross profit is 39%)	58,000	—
2007 installment method sales	56,000	24,000
2008 installment method sales	—	68,000

Required

1. Prepare a schedule that shows Company A's gross profit for 2007, 2008, and 2009.
2. Prepare 2007 and 2008 condensed income statements for Company B.
3. Prepare 2007 and 2008 condensed income statements for Company C.

P18-12 ***Revenue Recognition Alternatives*** The following are the operating activities of three different companies.

Company X: Engages in long-term service contracts involving a specific number of defined but not similar service acts. Uses proportional performance method to recognize revenues. Sells two-year service contracts for $600 in advance. Each service contract requires Company X to perform service act 1 a total of 30 times and service act 2 a total of 50 times during the two-year period. At the beginning of 2007, 200 service contracts were sold. The following is a summary of the related cost information for the 200 service contracts:

Initial direct costs	$ 8,500
Annual indirect costs	9,300
Estimated (and actual) total direct costs (for two-year period)	20,000
Direct cost per service act	
Service act 1	$ 1.60
Service act 2	1.04

During 2007, service act 1 was performed 5,000 times and service act 2 was performed 4,000 times. During 2008, service acts 1 and 2 were performed 1,000 and 6,000 times, respectively.

Company Y: Sells goods on the installment basis. Uses the installment method (because these are exceptional cases) to recognize gross profits. The following is a summary of the installment sales, gross profit, operating expenses, and collections for 2007 and 2008:

	2007	2008
Installment method sales	$90,000	$110,000
Gross profit	35,100	45,100
Operating expenses	18,000	21,000
Cash collections from:		
2006 installment method sales (2006 gross profit is 40%)	35,000	—
2007 installment method sales	67,000	23,000
2008 installment method sales	—	80,000

Company Z: Engages in long-term construction contracts. Uses the percentage-of-completion method to recognize gross profits. Started contract 1 in 2006, contract 2 in 2007, and contract 3 in 2008. The total gross profit (estimated and actual) and the percentage complete for each contract at the end of 2007 through 2009 are:

	Contract 1*	Contract 2	Contract 3
Gross profit	$800,000	$350,000	$600,000
% complete at the end of			
2007	75%	40%	—
2008	100%	70%	35%
2009	—	100%	80%

*30% was complete at the end of 2006.

Required

1. Prepare 2007 and 2008 condensed income statements for Company X.
2. Prepare 2007 and 2008 condensed income statements for Company Y.
3. Prepare a schedule that shows Company Z's gross profit for 2007, 2008, and 2009.

P18-13 ***Franchise (Appendix)*** Year-Round Golf sells franchises for indoor golf driving ranges and putting greens. For each franchise, the company charges a nonrefundable initial franchise fee of $45,000. The franchise agreement requires a down payment of $10,000, with the balance covered by the issuance of a $35,000, 10% note, payable by the franchisee at the end of five years. Interest does not begin to accrue until the franchise opens, and the first interest payment is required 12 months after the franchise opens. The company sells only to qualified buyers so the collectibility of the note is always reasonably assured. The services required for the initial franchise fee are completed six months after the agreement is signed.

The franchisee is also required to pay a continuing fee of $6,000 per year, plus 10% of its gross sales. Half the $6,000 is applied against purchases of supplies from the franchisor, which are paid for in cash at the time of purchase. The franchisor charges a sales price of 50% above its cost on these supplies.

In the first six months of 2007, the company sold four franchises which began operating at the end of December. These franchisees had sales of $160,000 in 2008, and purchased the allowable amount of supplies. In the second six months of 2007, the company sold one franchise which began operating on April 1, 2008. The franchisee had sales of $25,000 in 2008 and purchased $1,500 of supplies.

Required

Prepare the journal entries required by Year-Round Golf in 2007 and 2008 to record the preceding events.

P18-14 ***Real Estate (Appendix)*** On January 1, 2007 the Hogback Company sold the Red Rocks Ranch, which constituted 20,000 acres of undeveloped land, to a limited partnership for $50 million. The land had originally cost Hogback $5 million. The terms of the sale included a cash payment of $9 million and a 10% note for $41 million to be paid in equal annual installments for 30 years. The note is secured by the land. Hogback paid a commission to a real estate company of 5% on the selling price.

Required

1. Should Hogback record the transaction as a sale? If so, prepare all the journal entries for 2007.
2. Assume, instead, that the company uses the installment method. Prepare all the journal entries for 2007.
3. Assume, instead, that the payments made to the Hogback Company were returnable at the option of the purchaser until June 30, 2008. Prepare all the journal entries for 2007. Ignore the sales commission.
4. Assume, instead, that the Hogback Company is obligated to make improvements costing $4 million over the next three years. In 2007 it made improvements costing $1 million. Prepare all the journal entries for 2007.
5. If the Hogback Company were the general partner of the limited partnership, would your answer to Requirement 1 change? If it were a limited partner?

P18-15 ***Consignments (Appendix)*** On January 1, 2007 the Hadad Company entered into a consignment agreement with the Trinidad Company. The agreement specifies that the consignee (Trinidad) is to sell the merchandise at a price of 30% above cost. Trinidad is required to pay Hadad the net sales price within 15 days of each sale to a third party. The net sales price is defined as the sales price, less any advertising costs incurred by Trinidad, and less a commission of 10% deducted from the sales price less the advertising costs. Hadad pays any costs incurred in shipping the merchandise to Trinidad.

In 2007 Hadad shipped merchandise costing $300,000 to Trinidad and incurred delivery costs of $8,000. During the year (through December 15), Trinidad made sales of $195,000 and incurred advertising costs of $15,000, and paid the required amount to Hadad. On December 31, 2007, Hadad phoned Trinidad and was told that since December 15 additional sales of $39,000 had been made and advertising costs of $3,000 incurred. (Record this information in separate journal entries.)

Required

1. Prepare the journal entries for the Hadad Company.
2. What amount, and in what category, would Hadad Company report on its balance sheet on December 31, 2007?
3. Prepare the journal entries for the Trinidad Company.
4. What amount related to the consignment activities, and in what category, would the Trinidad Company report on its balance sheet on December 31, 2007?

CASES

COMMUNICATION

C18-1 Criteria for Revenue Recognition

AICPA Adapted The earning of revenue by a company is recognized for accounting purposes when the transaction is recorded. In some situations, revenue is recognized approximately as it is earned in the economic sense; in others, accountants have developed guidelines for recognizing revenue by other criteria, for example, at the point of sale.

Required *(ignore income taxes)*

1. Explain and justify why revenue is often recognized as earned at the time of sale.
2. Explain in what situations it would be appropriate to recognize revenue as the productive activity takes place.
3. Explain at what times it may be appropriate to recognize revenue other than those included in items (1) and (2).

C18-2 Revenue Recognition Methods

In special cases, revenue is recognized by the use of several methods, including (a) percentage-of-completion method, (b) proportional performance method, and (c) installment method.

Required

Briefly explain each of the methods and indicate the situations in which each is used.

C18-3 Construction Contracts

AICPA Adapted Village Company is accounting for a long-term construction contract using the percentage-of-completion method. It is a three-year, fixed-fee contract that is presently in its first year. The latest reasonable estimates of total contract costs indicate that the contract will be completed at a profit. Village will submit progress billings to the customer and has reasonable assurance that collections on these billings will be received in each year of the contract.

Required

1. a. What is the justification for the percentage-of-completion method for long-term construction contracts?
   b. What facts in the preceding situation indicate that Village should account for this long-term construction contract using the percentage-of-completion method?
2. How would the income recognized in each year of this long-term construction contract be determined using the cost-to-cost method of determining percentage of completion?
3. What is the effect on income, if any, of the progress billings and the collections on these billings?

C18-4 Long-Term Contracts

AICPA Adapted In accounting for long-term contracts (those taking longer than one year to complete), the two methods commonly followed are the percentage-of-completion method and the completed-contract method.

Required

1. Explain how earnings on long-term contracts are recognized and computed under these two methods.
2. Under what circumstances is it preferable to use one method over the other?
3. Why is earnings recognition as measured by interim billings not generally accepted for long-term contracts?
4. How are job costs and interim billings reflected on the balance sheet under the percentage-of-completion method and the completed-contract method?

C18-5 Installment Method Sales

AICPA Adapted Installment sales usually are accounted for by one of the following methods: (1) the profit may be recognized as earned in the period of sale; (2) the profit may be recognized on a proportionate basis in the periods of collection (commonly called the "installment method").

Required

1. Discuss the propriety of the two methods, including in your discussion a list of the circumstances under which recognition of profit in the period of sale would be preferable to recognition of profit on the installment method.
2. The collection period of an installment sale contract is frequently 24 months or longer. Discuss, in terms of both methods, the presentation of the installment contracts receivable on the balance sheet.
3. Deferred gross profit arising from installment sales has been reported on the balance sheet variously as a contra or valuation account to installments receivable, an estimated liability, a part of stockholders' equity, or a deferred credit. Discuss the nature and, hence, the appropriate balance sheet classification(s) of "deferred gross profit" for an accrual-basis business that uses the installment sales method for financial reporting and income tax purposes.

CREATIVE AND CRITICAL THINKING

C18-6 Revenue Recognition Methods

The following situations are independent.

1. Carlson Company is an international consulting firm that has received a two-year engagement from a client for a fee of $2 million. The company will assign differing numbers of personnel to the project depending on the needs of the project and the availability of personnel. The company requires a down payment of 10% and makes periodic billings based on the hours worked by the personnel, plus 20% profit. At the end of the engagement, the company and the client will negotiate whether an adjustment to the fee is appropriate.
2. The Fast Loss Health Club has three types of memberships: 1-year, 3-year, and 10-year. Each type of membership requires an initial fee as well as monthly fees. To encourage memberships, the company offers numerous incentives, such as free dues for the first two months and drawings for free vacation trips. In addition, the company advertises heavily at certain times of the year, such as during the Christmas period. The company also offers special programs to its members for a fee and allows nonmembers to participate for a higher fee.
3. The New Encyclopedia Company ships five complete sets of its 12-volume encyclopedia to each of its new

distributors. Each distributor has six months to sell all the encyclopedias and pay the company the selling price, less a 40% commission, within five days of each sale. During this period, the distributor may return the encyclopedias without obligation and at the company's expense. At the end of six months, the distributor must pay the selling price of the unsold encyclopedias, less a 60% commission.

Required
Discuss the revenue recognition issues that exist in each independent situation. Discuss any issues that exist in matching the expenses against the revenues.

C18-7 Revenue Recognition

AICPA Adapted Bonanza Trading Stamps, Inc. was formed early this year to sell trading stamps throughout the Southwest to retailers who distribute them free to their customers. Books for accumulating the stamps and catalogs illustrating the merchandise for which the stamps may be exchanged are given free to retailers for distribution to stamp recipients. Centers with inventories of merchandise premiums have been established for redemption of the stamps. Retailers may not return unused stamps to Bonanza.

The following schedule expresses Bonanza's expectations of the percentages of a normal month's activity that will be attained. For this purpose, a normal month's activity is defined as the level of operations expected when expansion of activities ceases or tapers off to a stable rate. The company expects that this level will be attained in the third year, and that sales of stamps will average $2,000,000 per month throughout the third year.

Month	Actual Stamp Sales Percentage	Merchandise Premium Purchases Percentage	Stamp Redemptions Percentage
6	30%	40%	10%
12	60	60	45
18	80	80	70
24	90	90	80
30	100	100	95

Required
1. Explain the factors to be considered in determining when revenue should be recognized in measuring the income of a business enterprise.
2. Explain the accounting alternatives that Bonanza Trading Stamps, Inc. should consider for the recognition of its revenues and related expenses.
3. For each accounting alternative discussed in (2), give balance sheet accounts that Bonanza should use and indicate how it should classify each.

C18-8 Exchanges and Revenue Recognition Issues

Certain business "exchanges" are very complex and may qualify as exceptional cases in which the related revenues and expenses are advanced or deferred. The following are four such cases:

1. Franchisor grants a franchise to a franchisee; it collects part of the initial franchise fee and agrees to perform related initial services over an extended period.
2. Land development company acquires land for future development into a "sports retirement community," subdivides the land into lots, and sells the lots on "credit" with payment to be made on a long-term basis.
3. Lessor leases equipment to a lessee on a long-term noncancelable lease; the fair value of the leased item is greater than the cost, and the ownership of the leased item is transferred to the lessee by the end of the lease life.
4. A construction company builds bridges; it enters into a contract to construct a bridge for Rice County over a two-year period.

Required
For each of the preceding exchanges, (a) explain the revenue recognition issues involved, and (b) discuss when the revenue is recognized and by what method.

C18-9 Construction Contracts

AICPA Adapted At December 31, 2007, Roko Co. has two fixed price construction contracts in progress. Both contracts have monthly billings supported by certified surveys of work completed. The contracts are:
a. The Ski Park contract, begun in 2006, is 80% complete, is progressing according to bid estimates, and is expected to be profitable.
b. The Nassu Village contract, a project to construct 100 condominium units, was begun in 2007. Thirty-five units have been completed. Work on the remaining units is delayed by conflicting recommendations on how to overcome unexpected subsoil problems. While the total cost of the project is uncertain, a loss is not anticipated.

Required
1. Identify the alternatives available to account for long-term construction contracts, and specify the criteria used to determine which method is applicable to a given contract.
2. Identify the appropriate accounting method for each of Roko's two contracts, and describe each contract's effect on net income for 2007.
3. Indicate how the accounts related to the Ski Park contract should be reported on the balance sheet at December 31, 2007.

C18-10 Franchise and Revenue Recognition

AICPA Adapted Southern Fried Shrimp sells franchises to independent operators throughout the southeastern part of the United States. The contract with the franchisee includes the following provisions:

1. The franchisee is charged an initial fee of $25,000. Of this amount, $5,000 is payable when the agreement is signed and a $4,000 non-interest-bearing note is payable at the end of each of the five subsequent years.

2. All of the initial franchise fee collected by Southern Fried Shrimp is to be refunded and the remaining obligation canceled if, for any reason, the franchisee fails to open the franchise.
3. In return for the initial franchise fee, Southern Fried Shrimp agrees to (1) assist the franchisee in selecting the location for the business, (2) negotiate the lease for the land, (3) obtain financing and assist with building design, (4) supervise construction, (5) establish accounting and tax records, and (6) provide expert advice over a five-year period relating to such matters as employee and management training, quality control, and promotion.
4. In addition to the initial franchise fee, the franchisee is required to pay to Southern Fried Shrimp a monthly fee of 2% of sales for menu planning, recipe innovations, and the privilege of purchasing ingredients from Southern Fried Shrimp at or below prevailing market prices.

Management of Southern Fried Shrimp estimates that the value of the services rendered to the franchisee at the time the contract is signed amounts to at least $5,000. All franchisees to date have opened their locations at the scheduled time and none has defaulted on any of the notes receivable.

The credit ratings of all franchisees would entitle them to borrow at the current interest rate of 10%. The present value of an ordinary annuity of five annual receipts of $4,000 each, discounted at 10%, is $15,163.

Required

1. Explain the alternatives that Southern Fried Shrimp might use to account for the initial franchise fee, evaluate each by applying generally accepted accounting principles to this situation, and give illustrative entries for each alternative.
2. Given the nature of Southern Fried Shrimp's agreement with its franchisees, when should it recognize revenue? Discuss the question of revenue recognition for both the initial franchise fee and the additional monthly fee of 2% of sales and give illustrative entries for both types of revenue.
3. Assume that (a) Southern Fried Shrimp sells some franchises for $35,000 (which includes a charge of $10,000 for the rental of equipment for its useful life of 10 years); (b) $15,000 of the fee is payable immediately and the balance on non-interest-bearing notes at $4,000 per year; (c) no portion of the $10,000 rental payment is refundable in case the franchisee goes out of business; and (d) title to the equipment remains with the franchisor. What would be the preferable method of accounting for the rental portion of the initial franchise fee? Explain.

C18-11 Publishing and Revenue Recognition

AICPA Adapted After the presentation of your report on the examination of the financial statements to the board of directors of the Savage Publishing Company, one of the new directors says he is surprised the income statement assumes that an equal proportion of the revenue is earned with the publication of every issue of the company's magazine. He feels that the "crucial event" in the process of earning revenue in the magazine business is the cash sale of the subscription. He says that he does not understand why—other than for the smoothing of income—most of the revenue cannot be "recognized" in the period of the sale.

Required

Explain the propriety of timing the recognition of revenue in the Savage Publishing Company's accounts with

1. The cash sale of the magazine subscription.
2. The publication of the magazine every month.
3. Both events, by recognizing a portion of the revenue with the cash sale of the magazine subscription and a portion of the revenue with the publication of the magazine every month.

C18-12 Recognition of Revenues and Expenses

AICPA Adapted On May 6, 2006, Sterling Corporation signed a contract with Stony Associates under which Stony agreed (1) to construct an office building on land owned by Sterling, (2) to accept responsibility for procuring financing for the project and finding tenants, and (3) to manage the property for 50 years. The annual profit from the project, after debt service, is to be divided equally between Sterling Corporation and Stony Associates. Stony is to accept its share of future profits as full payment for its services in construction, obtaining finances and tenants, and management of the project.

By April 30, 2007, the project was nearly completed and tenants had signed leases to occupy 90% of the available space at annual rentals aggregating $2,600,000. It is estimated that, after operating expenses and debt service, the annual profit will amount to $850,000. The management of Stony Associates believed that the economic benefit derived from the contract with Sterling should be reflected on its financial statements for the fiscal year ended April 30, 2007 and directed that revenue be accrued in an amount equal to the commercial value of the services Stony had rendered during the year, that this amount be carried in contracts receivable, and that all related expenditures be charged against the revenue.

Required

Is the belief of Stony's management in accord with generally accepted accounting principles for the measurement of revenue and expense for the year ended April 30, 2007? Support your opinion by discussing the application to this case of the factors to be considered for asset measurement and revenue and expense recognition.

C18-13 Recognition of Expenses

AICPA Adapted Kwik-Bild Corporation sells and erects shell houses. These are frame structures that are completely finished on the outside but are unfinished on the inside except for flooring, partition studding and ceiling joists. Shell houses are sold chiefly to customers who are handy with tools and who have time to do the interior wiring, plumbing, wall completion and finishing, and other work necessary to make the shell houses livable dwellings.

Kwik-Bild buys shell houses from a manufacturer in unassembled packages consisting of all lumber, roofing, doors, windows and similar materials necessary to complete a shell house. Upon commencing operations in a new area, Kwik-Bild buys or leases land as a site for its local warehouse, field office and display houses. Sample display houses are erected at a total cost of from $10,000 to $30,000, including the cost of the unassembled packages. The chief element of cost of the display houses is the unassembled packages, since erection is a short, low-cost operation. Old sample models are torn down or altered into new models every three to seven years. Sample display houses have little salvage value because dismantling and moving costs amount to nearly as much as the cost of an unassembled package.

Required

1. A choice must be made between (a) expensing the costs of sample display houses in the period in which the expenditure is made, and (b) spreading the costs over more than one period. Discuss the advantages of each method.
2. Is it preferable to amortize the cost of display houses on the basis of (a) the passage of time, or (b) the number of shell houses sold? Explain.

C18-14 Installment Method Sales

AICPA Adapted On October 2, 2007 the Television Company sold a set costing $400 to Jones for $600. Jones made a down payment of $150 and agreed to pay $25 the first of each month for 18 months thereafter.

Jones paid the first two installments due on November 1 and December 1, 2007. In 2008 Jones made five payments, but then defaulted on the balance of the payments. The set was repossessed on November 1, 2008. The company closes its books as of December 31.

Required

1. Give three different amounts that might be shown as realized income for 2007 and indicate the circumstances under which each of these amounts would be acceptable.
2. Assuming that the repossessed television set has a wholesale value of $50 and a retail value of $75, prepare a journal entry to record the repossession under the "installment method" of accounting. Explain fully the reasoning applicable to your entry.

C18-15 Analyzing Coca-Cola's Revenue Recognition and Advertising Costs Disclosures

Refer to the financial statements and related notes of The Coca-Cola Company in Appendix A of this book.

Required

1. What does the company disclose about its revenue recognition policies? Why?
2. When does the company expense the production cost of its advertisements? Does this result in appropriate matching?

C18-16 Ethics and Revenue and Expense Recognition

You are employed by a local CPA firm, and one of your clients is Tiger Manufacturing Company. Tiger has been very successful in recent years, averaging approximately 10% increase in earnings each year. The company is planning a public stock offering early next year, which would bring significant fees to your firm. It would also allow the company to finance a much needed expansion that would allow the company to hire additional employees.

The audit is nearing completion, and it appears that the company will again report a significant increase in earnings. However, two issues have arisen. First, the company has a large order from a purchaser to be shipped FOB shipping point in early January. The inventory was completed and warehoused late in December, but it was not segregated. Management has included the selling price (less the related expense) in the current year's net income. Second, the company has added capitalized interest to the cost of two large special orders that are nearing completion. If both these issues are resolved in a way that decreases net income, the company's net income will be lower than the amount reported last year.

Required

From financial reporting and ethical perspectives, discuss the issues raised by this situation.

RESEARCH SIMULATIONS

R18-1 Researching GAAP

Situation

When asked about a $518 million "prepaid expense and deferred charge" on its balance sheet for 1990, Sears says that about $100 million of the figure—mainly for the catalog—consists of advertising costs whose impact on profit has been deferred. "These costs are paid but aren't charged against profits" yet, says a spokesman.

Procter and Gamble generally allocates advertising costs based on the number of cases of products it ships.

A spokesman for McDonald's says that a "small portion" of the $108 million in prepaid expenses and other current assets on its balance sheet for 1990 is deferred production costs for certain commercials and creative development.

Nike says that it deducts all advertising costs immediately, and calls advertising-cost deferral "a bogus exercise."

Philip Morris accrued $1.4 billion in marketing costs on the liability side of its balance sheet for 1990. This means that Philip Morris is deducting advertising costs it has not yet paid to help smooth out profits from year to year. An analyst says, "I call such amounts 'hidden earnings' for future years when financial results aren't as good as Philip Morris would like. Then, it could lower its advertising-cost deductions with this accrual." (*Adapted from* The Wall Street Journal, 1/8/92).

Directions

1. Research the generally accepted accounting principles and prepare a short memo that summarizes how to report advertising costs. Cite your reference(s) and applicable paragraph numbers.
2. Are each of the companies complying with the policy? Assume that all the companies recognize revenue at the time of sale.

R18-2 Researching GAAP

Situation

Amre Inc. capitalized its marketing costs, such as the cost of purchasing mailing lists, instead of treating the costs as expenses.

Inspeech capitalized estimated selling, general, and administrative costs of various acquired companies' accounting and billing activities for a period of three months following the acquisition. Similarly, the company capitalized search costs to hire new management employees, salaries of individuals involved with the integration of newly acquired companies, and fees for studies by outside consultants. Management justified capitalizing these expenses because they were required to implement the company's expansion strategy and would benefit future periods.

Among the costs Chambers deferred were portions of executives' salaries for time spent on developing projects such as new landfills. In addition, the company delayed recognizing some public relations and legal costs, as well as executive travel expenses.

Directions

Research the generally accepted accounting principles and prepare a short memo that summarizes how to report advertising costs. Cite your reference(s) and applicable paragraph numbers.