Revenue Recognition: Rules and Standards

Revenue Recognition: Rules and Standards

The author is not engaged by this text or any accompanying lecture or electronic media in the rendering of legal, tax, accounting, or similar professional services. While the legal, tax, and accounting issues discussed in this material have been reviewed with sources believed to be reliable, concepts discussed can be affected by changes in the law or in the interpretation of such laws since this text was printed. For that reason, the accuracy and completeness of this information and the author's opinions based thereon cannot be guaranteed. In addition, state or local tax laws and procedural rules may have a material impact on the general discussion. As a result, the strategies suggested may not be suitable for every individual. Before taking any action, all references and citations should be checked and updated accordingly.

This publication is designed to provide accurate and authoritative information in regard to the subject matter covered. It is sold with the understanding that the publisher is not engaged in rendering legal, accounting, or other professional service. If legal advice or other expert advice is required, the services of a competent professional person should be sought.

—-From a Declaration of Principles jointly adopted by a committee of the American Bar Association and a Committee of Publishers and Associations.

All numerical values in this course are examples subject to change. The current values may vary and may not be valid in the present economic environment.

Course Description

An ever-increasing number of financial restatements were filed during each of the period 2000-2006, reaching a record 1,801 in 2006. Interestingly, however, the number of financial restatements in the United States started to drop in 2007 for the first time since the passage of the SOX. By 2012, the number of restatements had fallen to 768. One of the most frequent causes of financial restatements is revenue recognition. This course covers the accounting, reporting, and disclosures associated with revenue recognition for the sale of products or rendering of services. Revenue involves a gross increase in assets or decrease in liabilities. Revenue may be recognized at the time of sale or service, during production, at the completion of production, and at the time of cash receipt. Long-term construction contracts may be accounted for under the percentage-of-completion method or the completed contract method. When a right of return exists, revenue may or may not be recognized, depending on the circumstances. The accounting treatment of warranty and maintenance contracts, contributions, and computer software is also discussed.

Field of Study	Accounting
Level of Knowledge	Basic to Intermediate
Prerequisite	None
Advanced Preparation	None

Table of Contents

Revenue Recognition:

Rules and Standards

Learning Objectives:

After completing this course, you should be able to:

- Identify some of the reasons for financial restatements.
- Identify and apply the revenue recognition principles.
- Recognize the principles for the collection method for revenue recognition.
- Recognize how to apply the completed performance method for long-term contracts.
- Identify when to apply the installment-sales and cost-recovery methods of accounting.
- Apply AICPA SOP:97-2 to software revenue recognition.

Points of Controversy— A Historical Perspective

During the past decade, the role of financial executives—primarily CFOs—has changed from that of primarily an accountant and controller to that of a “business partner” and “strategist.” Due to the pressures on them in their emerging role as strategic partners, the CFO and finance team can also lose their objectivity and independence. This shift might have prompted the CFOs to use aggressive accounting and reporting practices.

A series of corporate accounting scandals on the heels of the Enron debacle that have led to new sweeping accounting guidelines, proposals, and legislation—most notably, the Sarbanes-Oxley (SOX) Act. Many of the issues surrounding the SOX Act—especially Section 402, Internal Control over Financial Reporting and Sections 302 and 906, Management Certifications. Several years after passage, the accounting world continues to be preoccupied with the Sarbanes-Oxley Act of 2002 (SOX). Unfortunately, SOX did not solve one of the classic accounting issues—how to properly account for revenue. In fact, revenue recognition practices are the most prevalent reasons for accounting restatements. A number of the revenue recognition issues relate to possible fraudulent behavior by company executives and employees.

A few cases of accounting irregularities and scandals are summarized below.

Revenue Accounting

Basic accounting practices must be the bedrock of every finance department and one of the most basic issues is revenue recognition — when to recognize revenue, at what amount and the degree of provision for future reversals. Many of the recent failures came from this issue. Enron, acting as a broker between sellers and buyers of energy, took sales credits for the total size of the transaction rather than only the fee involved, which made the company's size and growth rate look much stronger than it really was. Global Crossing and Qwest Communications, among other companies, bought and sold capacity from each other and took sales credit at both ends, overstating both companies' revenues.

Channel Stuffing

Another gray area involves "inventory management." Old tricks include "channel stuffing"—or shifting surplus finished goods to distributors' shelves. Nothing will destroy a company's ability to meet analysts' earnings expectations more than having a warehouse full of unsold goods. Rather than come clean and tell shareholders they have not met sales expectations, some companies are tempted to move their merchandise to the market knowing that much of it is going to come back unsold or will have to be sold at a massive discount. Investors looking for evidence of channel stuffing should look for large changes to stated inventory levels, or an increase in the contingencies set aside for bad accounts.

The most powerful example of the practice was the fall from grace of Al Dunlap, the former head of Sunbeam Corp. He allegedly moved millions of dollars in merchandise onto the hands of distributors and retailers offering discounts and then recording revenue when the good left the loading dock. That, along with the use of cash reserves to pump up the company's operating earnings, resulted in a record-breaking $189 million in reported earnings in fiscal 1992. But when the scheme was uncovered, Sunbeam was forced to restate its earnings from the fourth quarter of 1996 to the first quarter of 1998; the SEC alleges that $60 million of that record-breaking profit was the result of accounting fraud. CFO magazine stated that "Chainsaw" Al Dunlap agreed to pay $15 million to settle a shareholder lawsuit alleging inflated stock prices. Sunbeam's auditor at the time was Anderson.

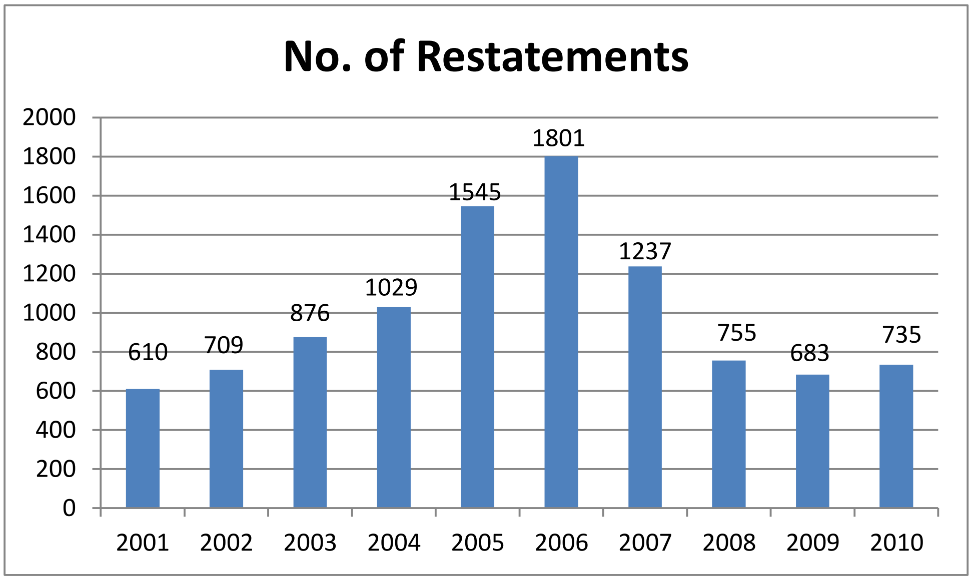
Financial Restatements

An ever-increasing number of financial restatements were filed during each of the past six years, reaching a record 1,801 in 2006. Interestingly, Exhibit 1 indicates that the number of financial restatements in the United States dropped in 2007 for the first time since the passage of the SOX, although over 1,200 restatements were still filed.

Exhibit 1

Number of restatements in the United States 2001–2011

Source: *Audit Analytics*, 2011)



Audit Analytics (www.auditanalytics.com) reports that the number of financial restatements rose in 2010 to 735, up 7.6 percent the year before. The increase in restatements broke a string of three straight years of decline, as more companies seemed improve their financial reporting processes. Restatement peaked in 2006 with 1,801, and declined steadily to just 683 revisions in 2009. According to a new report by GAO (www.gao.gov), one of the most frequent causes of financial restatements was *revenue recognition*, which accounted for about 20 percent of all restatements since 2007. According to Huron Consulting Group (www.huronconsultinggroup.com), five categories of accounting issues caused nearly 55 percent of the problems in financial restatements. The three leading causes were: revenue recognition; equity accounting; and reserves, accruals and contingencies.

This course covers the accounting, reporting, and disclosures associated with revenue recognition for the sale of products or rendering of services. Revenue involves a gross increase in assets or decrease in liabilities. Revenue may be recognized at the time of sale or service, during production, at the completion of production, and at the time of cash receipt. Long-term construction contracts may be accounted for under the percentage-of-completion method or the completed contract method. When a right of return exists, revenue may or may not be recognized, depending on the circumstances. The recording of revenue in the case of warranty and maintenance contracts is also included. The accounting treatment of contributions is also discussed. Software revenue recognition is outlined.

According to Accounting Standards Update (ASU) No. 2010-04 (January 2010) (ASC 855, *Subsequent Events*), Accounting for Various Topics, when financial statements are presented to the SEC they cannot be misleading; subsequent events must be disclosed. An earnings release does not represent financial statements being issued (ASC 855-10-S99-2).

When there is a business combination accounted for as a purchase, pushdown accounting should be used. (ASC 805, *Business Combinations*) (ASC 805-50-S99-2).

Rules, Concepts, and Illustrations

Service Sales Revenue

Frequently, a transaction involves the sale of both a product and a service. It is therefore necessary to determine whether the transaction should be classified as primarily a service transaction, primarily a product transaction, or a transaction that is both a service transaction and a product transaction.

For transactions that have a product and service component, the following applies:

- A transaction should be classified as primarily a service transaction if the inclusion or exclusion of the product would not change the total price of the transaction.
- If the inclusion or exclusion of the service would not change the total transaction price, the transaction should be classified as primarily a product transaction.
- If the inclusion or exclusion of the service or product would change the total transaction price, that transaction should be split and the product component should be accounted for separately from the service component.

According to FASB Statement of Financial Accounting Concept No. 5, *Recognition and Measurement in Financial Statements of Business Enterprises* (ASC 605-10-25-1), revenue is generally recognized when:

- It is realized or realizable, and
- It has been earned.

Note:

1. When goods or services are exchanged for cash or claims to cash (receivables), revenues are *realized*.
2. When the entity has substantially accomplished what it must do to be entitled to the benefits represented by the revenues, revenues are *earned*.

Revenue from service transactions is recognized based on performance—performance over a period of time or as it applies to a single action or a series of actions. The following four methods should be used to recognize revenue from service transactions:

1. *The specific performance method* should be used if performance involves a single action and revenue is recognized when that action is completed. For example, a CPA is retained to prepare a tax return. Revenue is recognized when the single action of preparing the tax return is completed.
2. The *proportional performance method* is used when performance involves a series of actions. If the transaction involves an unspecified number of actions over a given period of time, an equal amount of revenue should be recognized at fixed intervals. The use of the straight-line method is recommended unless another method is deemed to be more appropriate. If the transaction involves a specified number of similar or essentially similar actions, an equal amount of revenue should be recognized when each action is performed. If the transaction involves a specified number of dissimilar or unique actions, revenue should be recognized based on the following calculation:

$$\frac{\text{Direct costs involved in a single action}}{\text{Total estimated direct costs of the transaction}} \times \text{Total revenues from the entire transaction}$$

3. The *completed performance method* should be used to recognize revenue upon completing the final (critical) action, without which the entire transaction would be considered incomplete.
4. The *collection method* is used to recognize revenue when there is significant uncertainty regarding the collection of revenue. Revenue should not be recognized until cash is collected.

The matching principle requires that expenses be matched to revenues. In other words, revenues should be recognized in the same period as their associated expenses. If expenses are expected to be recovered from future revenues, those expenses should be deferred. Three major categories of costs result from service transactions:

1. *Initial direct costs* are incurred to negotiate and obtain a service agreement. They include commissions' costs, credit investigation costs, processing fees, and legal fees. They do not include indirect costs, such as rent and other administrative costs.

2. *Direct costs* result from performing the service. A strong correlation exists between performing the service and incurring direct costs.

3. *Indirect costs* are necessary to performing the service but cannot be classified as either initial direct costs or direct costs. Indirect costs include selling and administrative expenses, rent, depreciation, allowance for bad debts, and costs associated with negotiating transactions that are not consummated.

Indirect costs should always be expensed in the period in which they are incurred. No attempt should be made to match these costs with service revenue. The accounting treatment for initial direct costs and direct costs depends upon the method used for revenue recognition.

Initial direct costs and direct costs should be expensed at the time related revenue is recognized when using the specific performance or completed performance methods. In other words, initial direct costs and direct costs should be recorded as prepaid assets and expensed once the service has been performed. The same accounting treatment is used to expense initial direct costs under the proportional performance method. In contrast, direct costs should be expensed as incurred when using the proportional performance method.

This is done because a strong relationship exists between the direct costs incurred and the completion of service. When the collection method is used to recognize revenue, both initial direct costs and direct costs should be expensed as incurred.

Sometimes, a loss is incurred in a service transaction. A loss should be recognized when initial direct costs and estimated total direct costs are greater than estimated revenues. This loss should first be used to reduce any prepaid assets (deferred costs); any remaining loss is then charged to an estimated liability account. Frequently, service transactions involve nonrefundable initiation fees and installation fees. If it is possible to determine objectively the value of the right or privilege granted by the initiation fees, the fees should be recognized as revenue and the related direct costs expensed on the initiation day. On the other hand, if the value cannot be objectively determined, the fees should initially be considered unearned revenue and recorded as a liability. Revenue should be recognized from such initiation fees using one of the service revenue recognition methods.

The accounting treatment for equipment installation fees depends on whether the customer can purchase the equipment independent of installation. If so, the transaction should be considered a product transaction and installation fees accounted for as part of a product transaction. On the other hand, if both the equipment and its installation are essential for service and the customer cannot purchase the equipment separately, the installation fees should be considered unearned revenue. Unearned revenue should be recognized, and the cost of installation and equipment should be amortized over the estimated service period.

Revenue Recognition Methods

The major methods of revenue recognition are:

- At realization.
- At the completion of production.
- During production.
- On a cash basis.

Realization

Revenue is recognized at the time goods are sold or services are performed. This method is used in most cases. When a sale is made, the earnings process is complete, and there is an exchange that can be objectively measured. Revenue is being recognized as accrued (earned). Realization is appropriate when:

- The selling price is ascertainable.
- Future costs are estimable.

Example

In the year 2010, Nolan Corporation sold a magazine to Magazines Weekly Inc. The contract between the parties specified that Nolan would receive royalties of 30% of all future revenues derived from the magazine. At December 31, 2006, Nolan reported royalties' receivable of $100,000. During 2012, Nolan received royalty payments of $250,000. Magazines Weekly reported revenues of $2,500,000 in 2012 from the magazine. What amount should Nolan report as royalty revenue from the magazine in its 2012 income statement?

In this problem it is assumed that an accrual basis is being used because an alternative basis is not specified (e.g., cash; see subsequent discussion). Therefore, Nolan Corporation should make the following accrual in 2012 for royalty revenue expected to be collected from Magazines Weekly:

30% x $2,500,000 =	$750,000

The other three methods of revenue recognition are used when special circumstances exist. They are discussed next.

Completion of Production

Revenue is recognized at the completion of production (before sale or exchange) only if all of the following exist:

- A stable selling price,
- Interchangeable units, and
- An absence of significant marketing costs that prevents consummating the final transfer.

This method might be appropriate in the following cases:

- When accounting for construction contracts using the completed contract method. (Construction contracts are discussed in a separate section.)
- For agricultural products, byproducts, and precious metals.

During Production

Revenue may be recognized during production when:

- There exists an assured price for the product, such as arising from a written contract.
- The degree of completion can be accurately determined with each stage of the manufacturing process.

An example of the use of this approach is the percentage-of-completion method for long-term construction contracts. This is discussed in a later section.

Cash Basis

Under the cash basis method, revenue is recognized when cash is received. A service business does not have inventory and therefore may recognize revenue on either an accrual or a cash basis. A company selling merchandise must use accrual accounting unless:

- The collection period is uncertain or extended.
- Expenses were not estimated accurately at the time of sale.
- There is a risk of non-collection.
- The selling price cannot be determined reliably at time of sale.

If any of these exceptions exist, revenue is recorded only as cash is received under the installment sales method or the cost recovery method, discussed next. There exists uncertainty of cash collection, forcing revenue recognition to be deferred until the actual receipt of money.

Installment Sales Method

An installment transaction takes place when a seller sells a product or conducts a service and the purchaser is to remit periodic payments over an extended time period. Installment sales should be segregated from regular sales. A seller will typically protect itself when making installment sales by keeping title to the product such as through a conditional sales agreement or mortgage.

If the installment method is appropriate, income recognition is deferred (delayed) until the period of cash collection. The seller recognizes both revenues and cost of goods sold at the time of sale, but the related unrealized gross profit is deferred to later years based on cash collection. Selling and administrative costs are immediately expensed.

Each payment received consists of both a recovery of cost and gross profit based on the same proportion as those components in the original sale. The gross profit rate equals installment sales revenue less cost of installment sales divided by installment sales revenue. Because gross profit ratios differ by product and department as well as by year, the company must maintain separate records of sales by year, product line, and department. Therefore, care must be taken to identify the year in which the receivable arose when accounting for cash collections.

Revenue recognition equals the cash received multiplied by the gross profit percentage. When collections are received, deferred gross profit is debited and revenue is credited. Any gross profit not collected is deferred in the balance sheet. Deferred gross profit equals the installment accounts receivable balance at year-end multiplied by the gross profit rate.

The interest charged to customers on installment sales is credited to interest income when cash is received. This is in addition to the gross profit recognized.

The current asset section of the balance sheet shows the following:

Installment accounts receivable (cost + profit)
Less: deferred gross profit (profit)
Net accounts receivable (cost)

Note: Deferred gross profit is a contra asset account.

The accounts receivable is a current asset because it is based on the normal operating cycle of the business (which may, of course, be more than one year in the case of installment sales).

Example

Shelby Corporation began its business operations in the year 2012. It accounts for revenue recognition using the installment method. Shelby's sales and collections for the year were $160,000 and $135,000, respectively. In addition, uncollectible accounts receivable of $15,000 were written off during 2012. Shelby's gross profit rate is 40%. What amount should Shelby report as deferred revenue in its December 31, 2012 balance sheet?

The installment method is primarily utilized when there is a high degree of uncertainty regarding cash collections. Under this method, revenue is recognized by determining the product of cash collected times the gross profit percentage for the period in which the sale was made. Any gross profit not collected is "deferred" on the balance sheet pending collection. When collections are subsequently made, realized gross profit is increased by debiting the deferred gross profit account:

Installment Sales		$160,000
Less: Collections	$135,000	
Uncollectible Accounts Written Off	15,000	150,000
Installment Receivables, Dec 31, 2012		$ 10,000
Deferred Revenue, Dec 31, 2012: $10,000 x 40% =		$4,000

Example

A company sells a product for $500 that costs $350. The gross profit percentage is 30%. Therefore, the company recognizes each collection as 70% recovery of cost and 30% as realized gross profit:

$$\frac{(500 - 350)}{500} = 30\%$$

$$\underline{350} = 70\%$$

500

The journal entry for the sale follows:

Accounts receivable	500	
Installment Sales		500
Cost of installment sales	350	
Inventory		350

At the end of the first year, the closing journal entry follows:

Installment sales	500	
Cost of installment sales		350
Unrealized gross profit		150

Assuming a collection of $200 is received, the journal entries are:

Cash	200	
Accounts receivable		200
Unrealized gross profit	60	
Realized gross profit		60
($200 x 30% = $60)		

The balance owed ($300) was defaulted upon and the merchandise was repossessed, having an inventory value of $180. The journal entry is:

Unrealized gross profit (30% x $300)	90	
Loss	30	
Inventory	180	
Accounts receivable		300

Example

On January 2, 2X12, a company sold a product for $3,000,000. The cost of the product was $2,000,000. Collections received in 2X12 were $1,200,000. The installment method of revenue recognition is used. The amount of realized gross profit to be reported is:

Installment sales	$3,000,000
Less: Cost of installment sales	2,000,000
Gross profit	$1,000,000
Gross profit percentage	33.3%
$1,000,000/$3,000,000	

2X12 collections	$1,200,000
Realized gross profit, 12/31/2X12 $1,200,000 x 33.3% =	$ 400,000

Example

Murray Company uses the installment sales method. The following information applies for 2X12:

Installment accounts receivable, 12/31/2X12	$450,000
Deferred gross profit, 12/31/2X12 (prior to recognizing realized gross profit for 2X12)	280,000
Gross profit on sales	35%

For 2X12, cash collections is computed as follows:

Installment sales for 2X12 $280,000/35%	$800,000
Installment accounts receivable, 12/31/2X12	450,000
Cash collections	$350,000

For 2X12, realized gross profit equals:

$350,000 x 35%	$122,500

Example

On January 3, 2X12, a company sold equipment for $2,700,000, resulting in a gain of $1,900,000. Collections received during the year were $700,000. Deferred gross profit at year-end 2X12 is computed as follows:

Installment sales	$2,700,000
Cost of installment sales ($2,700,000 – $1,900,000)	800,000
Gross profit	$1,900,000

$$\text{Gross profit percent} = \frac{\text{Gross profit}}{\text{Sales}} = \frac{\$1,900,000}{\$2,700,000} = 70.4\%$$

Installment receivables $2,700,000 - $700,000	$2,000,000
Deferred gross profit, 12/31/2X12	

$2,000,000 x 70.4%	$1,408,000

Example

Allen Company uses the installment sales method to recognize revenue. The following information applies to installment sales for year-end 2X11 and 2X12:

	2X11	2X12
Installment receivables at year-end on 2X11 sales	$300,000	$150,000
Installment receivables at year-end on 2X12 sales	—	350,000
Installment sales	400,000	450,000
Cost of sales	200,000	300,000

The deferred gross profit on the December 31, 2X12 balance sheet is computed as follows:

Installment receivables at 12/31/2X12 on 2X11 sales	$150,000
2X11 gross profit rate [($400,000 - $200,000)/$400,00]	x 50%
	$75,000
Installment receivables at 12/31/2X12 on 2X12 sales	$350,000
2X12 gross profit rate[($450,000 - $300,000)/$450,000]	x 33.3%
	$116,667
Total deferred gross profit, 12/31/2X12	$191,667

Disclosure should be made of amounts to be collected within the next year by type of installment receivable.

With the installment sales method, bad debts are accounted for using the *direct write-off method*. Bad debts are recognized when the account becomes uncollectible. Because of the default on an installment sales contract, the merchandise will likely be repossessed. There must be a write-off of the accounts receivable and unrealized gross profit. The repossession loss or gain on the default of the contract is calculated as follows:

Loss (gain) =	accounts receivable balance less unrealized gross profit less carrying value of repossessed goods

Any reconditioning costs for repossessed merchandise increase the loss or decrease the gain.

The value of the repossessed merchandise is based on its net realizable value and is presented in the inventory section of the balance sheet.

Cost Recovery Method

The cost recovery method should be used when extreme uncertainty exists as to cash collections from installment sales. With the cost recovery method, both sales and cost of sales are recorded at the time of sale. However, the related gross profit is not recognized until all costs have first been recovered—only then are the additional cash receipts included as profit. Profit is recognized when the cash received from the sale of the product is greater than the cost of the product. The only remaining expenses are those applicable to the collection process. Obviously, the cost recovery method is much more conservative than the installment sales method.

The installment sales method is commonly used for tax purposes.

Long-Term Construction Contracts

The accounting, reporting, and disclosures for long-term construction contracts are provided in Accounting Research Bulletin No. 45, *Long-Term Construction-Type* Contracts (ASC 605-35-15); the AICPA Industry Audit and Accounting Guide entitled *Construction Contractors;* and AICPA Statement of Position (SOP) No. 81–1, *Accounting for Performance of Construction-Type and Certain Production-Type Contracts* (ASC 605-35). If there are any revisions in revenue, cost, and profit estimates on contracts or in measuring the progress toward completion, they are considered changes in accounting estimates.

Note: IFRS prohibits the use of the completed-contract method of accounting for long-term construction contracts (ISA 18). Companies must use the percentage-of-completion method. If revenues and costs are difficult to estimate, then companies recognize revenue only to the extent of the cost incurred—a zero-profit approach.

Contract Costs

The accounting for contract costs is similar to the reporting for inventory. As costs are incurred, they are charged to the construction-in-progress (CIP) account, which is an inventory account for a construction company presented under current assets. The CIP account is presented under current assets because the construction period represents the operating cycle of the business. CIP is charged for both direct and indirect construction costs on specific contracts. However, general and administrative expenses as well as selling expenses are expensed as incurred because they are not attributable to specific construction contracts. *Exception:* General and administrative costs may be included in CIP under the completed contract method, at the option of the company, if costs are being allocated, particularly in years when no contracts have been finished.

Contract costs include subcontractor charges billed to the contractor for work performed. The CIP account is charged for costs directly attributable to projects.

Costs incurred to date include precontract costs and costs incurred after the contract date. Precontract costs include design fees, learning costs for a new process, and any other expenditures likely to be recouped after the contract is signed. After the contract, the precontract costs are considered contract costs to date.

Some precontract costs, such as for materials and supplies, may be deferred to an asset called Deferred Contract Costs in expectation of a specific contract as long as recoverability is probable. If recoverability is not probable, the precontract costs must be immediately expensed. When excess goods are manufactured in expectation of future orders, related costs may be deferred to inventory if the costs are deemed recoverable.

After the status of a contract bid has been determined (accepted or rejected), all associated precontract costs should be reviewed. If the contract has been approved, the deferred precontract costs become included in contract costs. If the contract has been rejected, the precontract costs are immediately expensed unless there are other related contracts pending that might recoup these costs.

Back charges are billable costs for work conducted by one party that should have been done by the party billed. Such an arrangement is typically provided for in the contract between the parties. Back charges are accounted for by the contractor as a receivable from the subcontractor with a corresponding reduction in contract costs. The subcontractor accounts for the back charge as contract costs and as a payable.

In the event the back charge is disputed by the subcontractor, the contractor treats the cost as a claim. The claim is the amount exceeding the agreed upon price. The contractor records a receivable and the subcontractor records a payable for the likely amount to be paid under the dispute.

A change order is an amendment to the initial contract that alters its terms. As per SOP 81–1 (ASC 605-35-05), if the price change is mutually agreed on by the contractor and customer, the contractor appropriately adjusts the applicable costs and revenue. However, under the completed contract method, costs applicable to unpriced change orders are deferred if it is probable that the total contract costs (including those subject to the charge order) will be recovered from contract revenues. Under the percentage-of-completion method, if it is probable that the unpriced change order costs will be recoverable, such costs are either deferred until the changed price has been agreed upon or immediately expensed, at the option of the company. However, if it is not probable that the unpriced change order costs will be recoverable, such costs are immediately expensed.

Contract Types

There are various types of construction contracts, including time and materials, unit price, fixed price, and cost type. A contract may also have a provision awarding a bonus for excellent performance or early completion.

- Time-and-materials contracts reimburse the contractor for direct labor and direct material costs.
- Unit-price contracts provide payment to the contractor based on the amount of units worked.
- Fixed-price contracts usually have a constant price associated with them. They are not typically subject to adjustment such as because of increasing construction costs.
- Cost-type contracts may be either: cost without fee or cost plus fee. In the first type, the contractor recoups its costs. In the second type, the contractor receives payment for its costs plus a fixed fee. The fee is usually based on a profit margin, but it also may be based on such variables as total expected costs, uncertainty in estimating costs, risk of the project, or economic conditions. The costs of a contract should never exceed its net realizable value, because in that case the contract is not financially feasible. If accumulated costs exceed net realizable value during the term of the contract, a loss should be recognized immediately.

Aggregating and Segmenting Contracts

Highly similar contracts may be combined for accounting purposes. As specified in SOP 81–1 (ASC 605-35-25-10), similarity in contracts may be indicated by a single customer or similar project management and be performed sequentially or concurrently, interrelated, or negotiated as a package deal.

The segmenting of a contract involves breaking the larger unit into smaller ones for accounting purposes so that revenues can be associated with different components or phases. As a result, different profitability margins may apply to each unit or phase. As per SOP 81–1 (ASC 605-35-25-10), segmenting a project may be indicated when all of the following conditions are met: (1) The entire project can be explained by all of the components added together, (2) a contract bid price is made for the whole project and for its major elements, and (3) customer approval is received. Even though all of these criteria are not satisfied, the project may still be segmented if all of the following exist: (1) similarity in services and prices, (2) cost savings, (3) stability, (4) contractor with a track record, (5) explainable risk differences, (6) negotiation of each segment, and (7) logical and consistent segregation.

Contract Options

An addition or modification made to an existing contract arising from an option clause is accounted for as a separate contract if any of the following conditions exists: (1) the product or service contracted for is substantially different from that stipulated in the initial agreement, (2) the product or service to be provided for is similar to that in the original contract but explainable differences exist in contract price and costing, or (3) the price of the new product or service is distinct.

Claims

A claim is an amount exceeding the contract price that a contractor wants customers to pay because of customer delays, customer mistakes in specifications, sudden changes requested by the customer, or other unexpected causes resulting in higher costs to the contractor. The contractor may recognize additional revenue arising from these claims if justification exists and the amount can be reliably estimated. The revenue is recorded only to the degree that contract costs applicable to the claim have been incurred. SOP 81–1 (ASC 605-35-25-30),provides the following guidelines to establish the ability to record the additional revenue: (1) the claim is objective and verifiable, (2) costs are identifiable or determinable, (3) additional costs incurred were not initially anticipated at the time of contract, and (4) the claim is legally justifiable. If these criteria are not satisfied, a contingent asset should be disclosed.

Review Questions

1. For $50 a month, Abel Co. visits its customers' premises and performs insect control services. If customers experience problems between regularly scheduled visits, Abel makes service calls at no additional charge. Instead of paying monthly, customers may pay an annual fee of $540 in advance. For a customer who pays the annual fee in advance, Abel should recognize the related revenue

A. When the cash is collected.
B. At the end of the fiscal year.
C. At the end of the contract year after all of the services have been performed.
D. Evenly over the contract year as the services are performed.

2. A company that sprays chemicals in residences to eliminate or prevent infestation of insects requires that customers prepay for 3 months' service at the beginning of each new quarter. Select the term that appropriately describes this situation from the viewpoint of the exterminating company.

A. Deferred revenue.
B. Earned revenue.
C. Accrued revenue.
D. Prepaid expense.

3. On October 1, 2X12, Acme Fuel Co. sold 100,000 gallons of heating oil to Karn Co. at $3 per gallon. Fifty thousand gallons were delivered on December 15, 2X11, and the remaining 50,000 gallons were delivered on January 15, 2X12. Payment terms were: 50% due on October 1, 2X11, 25% due on first delivery, and the remaining 25% due on second delivery. What amount of revenue should Acme recognize from this sale during 2X12?

A. $75,000
B. $150,000
C. $225,000
D. $300,000

4. For financial statement purposes, the installment method of accounting may be used if

A. The collection period extends over more than 12 months.
B. The selling price is available at time of sale.
C. There is a risk of non-collection.

D. The percentage-of-completion method is inappropriate.

5. According to the installment method of accounting, gross profit on an installment sale is recognized in income

A. On the date of sale.
B. On the date the final cash collection is received.
C. In proportion to the cash collection.
D. After cash collections equal to the cost of sales have been received.

6. Dunne Co. sells equipment service contracts that cover a 2-year period. The sales price of each contract is $600. Dunne's past experience is that, of the total dollars spent for repairs on service contracts, 40% is incurred evenly during the first contract year and 60% evenly during the second contract year. Dunne sold 1,000 contracts evenly throughout 2012. In its December 31, 2012 balance sheet, what amount should Dunne report as deferred service contract revenue?

A. $540,000
B. $480,000
C. $360,000
D. $300,000

7. Ward, a consultant, keeps her accounting records on a cash basis. During 2012, Ward collected $200,000 in fees from clients. At December 31, 2011, Ward had accounts receivable of $40,000. At December 31, 2012, Ward had accounts receivable of $60,000, and unearned fees of $5,000. On an accrual basis, what was Ward's service revenue for 2012?

A. $175,000
B. $180,000
C. $215,000
D. $225,000

8. Wren Co. sells equipment on installment contracts. Which of the following statements best justifies Wren's use of the cost-recovery method of revenue recognition to account for these installment sales?

A. The sales contract provides that title to the equipment only passes to the purchaser when all payments have been made.
B. No cash payments are due until one year from the date of sale.
C. Sales are subject to a high rate of return.

D. There is no reasonable basis for estimating collectibility.

9. Aena Co., which began operations on January 1, 2X11, appropriately uses the installment method of accounting to record revenues. The following end-of-year information is available: 2X11 INFORMATION: Sales = $1,000,000; Gross Profit realized on sales made in 2X11 = $150, 000 and on sales made in 2X12 = $0; Gross profit percentage = 30%. 2X12 INFORMATION: Sales = $2,000,000; Gross Profit realized on sales made in 2X11 = $90, 000 and on sales made in 2X12 = $200,000; Gross profit percentage = 40%. What amount of installment accounts receivable should Aena report in its December 31, 2X12, balance sheet?

A. $1,700,000
B. $1,100,000
C. $1,300,000
D. $1,900,000

10. Gao Co., which began operations on January 1, 2X12, appropriately uses the installment sales method of accounting. The following information is available for December 31, 2X12: Installment accounts receivable = $400,000; Deferred gross profit, (before recognition of realized gross profit for 2X12) = $280,000; Gross profit on sales = 40%. For the year ended December 31, 2X12, cash collections and realized gross profit on installment sales should be:

A. Cash Collections = $300,000 and Realized Gross Profit = $160,000
B. Cash Collections = $700,000 and Realized Gross Profit = $120,000
C. Cash Collections = $300,000 and Realized Gross Profit = $120,000
D. Cash Collections = $700,000 and Realized Gross Profit = $160,000

11. Given no reasonable basis for estimating the degree of collectibility, Lynda Co. uses the installment method of revenue recognition for the following sales: 2X11 INFORMATION: Sales = $600,000, Collections from 2X11 sales = $200,000; Collections from 2X12 Sales = $0; Accounts written off from 2X11 sales = $50,000; Accounts written off from 2X12 sales = $0; Gross Profit = 30%. 2X12 INFORMATION: Sales = $900,000, Collections from 2X11 sales = $100,000; Collections from 2X12 Sales = $300,000; Accounts written off from 2X11 sales = $150,000; Accounts written off from 2X12 sales = $50,000; Gross Profit = 40%. What amount should Lynda report as deferred gross profit in its December 31, 2X12 balance sheet for the 2X11 and 2X12 sales?

A. $150,000
B. $250,000
C. $210,000

D. $220,000

12. Sandra Co. uses the installment method of revenue recognition. The following data pertain to Sandra's installment sales for the years ended December 31, 2X11 and 2X12: Installment receivables at year-end on 2X11 sales for 2X11 = $60,000, for 2X12 = $30,000; Installment receivables at year-end on 2X12 sales for 2X11 = $0, for 2X12 = $69,000; Installment sales for 2X11 = $80,000, for 2X12 = $90,000; Cost of sales for 2X11 = $40,000, for 2X12 = $60,000. What amount should Sandra report as deferred gross profit in its December 31, 2X12 balance sheet?

A. $23,000
B. $33,000
C. $43,000
D. $38,000

13. Bruin Co., which began operations on January 2, 2X12, appropriately uses the installment sales method of accounting. The following information is available for 2X12: Installment sales = $1,400,000; Realized gross profit on installment sales = $240,000; Gross profit percentage on sales =40%; For the year ended December 31, 2X12, what amounts should Bruin report as accounts receivable and deferred gross profit?

A. Accounts Receivable = $600,000 and Deferred Gross Profit = $320,000
B. Accounts Receivable = $800,000 and Deferred Gross Profit = $320,000
C. Accounts Receivable = $600,000 and Deferred Gross Profit = $360,000
D. Accounts Receivable = $800,000 and Deferred Gross Profit = $560,000

Common Construction Contract Methods

The two popular methods to account for construction contracts are the percentage-of-completion method and the completed contract method. In selecting an accounting method for a newly contracted long-term construction project, the principal factor to be considered should be the degree to which a reliable estimate of the costs to complete and extent of progress toward completion is practicable.

Percentage-of-Completion Method

When the percentage-of-completion method is used, a construction company records revenue as production activity takes place. The progress toward a construction project's completion may be based on costs, efforts expended, units of work, units of delivery, or some other reasonable measure of activity (e.g., engineering estimates). (However, the degree of completion should never be based on cash received or interim billings.) The gradual recognition of revenue acts to level out earnings over the years and is more realistic because revenue is occurring as performance occurs. It results in matching of expenses against revenue each period. The major disadvantage of this method is the reliance on estimates. According to SOP 81–1(ASC 605-35-05-7), the percentage-of-completion method should be used when the following conditions exist: (1) Reliable estimates of the degree of completion are possible, (2) the contractor is capable of meeting its contractual responsibilities, (3) the customer is expected to meet his or her contractual obligations, and (4) contractual terms are clear regarding the rights of the parties and the terms of payment. If these criteria are not satisfied, the completed contract method should be used (this method is discussed in the next section).

Revenue is recognized under the percentage-of-completion method based on the following cost-to-cost approach:

$$\frac{\text{Actual costs to date}}{\text{Total estimated costs}} \times \frac{\text{Contract}}{\text{price}} = \text{Cumulative revenue}$$

Estimates of costs to complete should be analyzed periodically in light of current data. Such estimates may need revision because of increasing raw material costs, new union labor agreements, and political strife with foreign suppliers, and delays.

Revenue recognized in previous years is subtracted from cumulative revenue to compute the revenue for the current year as follows:

Cumulative Revenue (1–3 years)
Less: Revenue Recognized (1–2 years)
Revenue (Year 3 – current year)

The expenses for the current year are subtracted from the revenue for the current year to determine the current year's profit as follows: Revenue - Expenses = Profit

Example

In year 3 of a contract, the actual costs to date were \$100,000. Total estimated costs are \$400,000. The contract price is \$2,000,000. Revenues recognized in previous years (years 1 and 2) are \$300,000.

$$\text{Cumulative Revenue} = \frac{\$100{,}000}{\$400{,}000} \times \$2{,}000{,}000 = \$500{,}000$$

Cumulative Revenue	\$500,000
Prior Years' Revenue	\$300,000
Current Year Revenue	\$200,000

In the early years of a contract, costs may occur that distort the degree of completion. An example is materials bought shortly after the contract was signed but not to be used until later years. In this case, these types of costs may be excluded in calculating the percentage of completion based on the cost-to-cost approach.

Under the percentage-of-completion method, realized gross profit recognized each year is determined as follows:

Realized gross profit = (percentage of completion - total anticipated gross profit) - gross profit recognized to date

Journal entries under the percentage-of-completion method using hypothetical figures follow:

Construction in Progress	60,000	
Cash		60,000
For construction costs incurred		
Progress Billings Receivable	90,000	
Progress Billings on Construction in Progress		90,000
For periodic billings		
Cash	20,000	
Progress Billings Receivable		20,000
For collections		
Construction in Progress	15,000	
Profit		15,000
Annual profit recognition based on percentage of completion during the year		

In the final year of the project, the following additional entry is required to record the profit in the last year:

Progress Billings on Construction in Progress (for total billings)
  Construction in Progress (for total cost plus profit)
  Profit (for incremental profit for last year only)

If a loss on a construction contract is evident, it must be recognized immediately based on the conservatism principle. A loss account is charged and a current liability is credited for such expected loss. *Note*: Under the percentage-of-completion method, any gross profit (loss) reported in previous years must be added (deducted) from the total estimated loss. If a loss is expected on a contract that is part of a group of contracts, the group is treated as the accounting unit to determine the need, if any, of a loss provision. For example, a loss on one contract in the group may be offset by profits on other contracts in the group so that a loss need not be accrued.

If CIP minus progress billings on CIP is a debit, it is presented as a current asset, as previously stated, because the balance represents an inventory account for a construction company. In this case, costs exceed billings. If the net balance is a credit, the credit balance is reported as a current liability because billings exceed costs.

Assets cannot be offset against liabilities unless a right of offset is present. Hence, the net debit balances on construction contracts should not offset any net credit balances on other contracts.

Example

The Amber Company is a construction entity with the following data relating to two particular jobs, which began during 2012:

	Job X	*Job Y*
Contract Price	$210,000	$150,000
Cost Incurred During 2012	120,000	140,000
Estimated Cost to Complete	60,000	20,000
Billed to Customers		
During 2012	75,000	135,000
Received from Customers		
During 2012	45,000	125,000

Assuming Amber uses the percentage-of-completion method of accounting for long-term contracts, what amount of gross profit (loss) should Amber report in its 2012 income statement?

As was previously noted, under the percentage-of-completion method of accounting for long-term contracts, the amount of revenue that would be recognized in a given period during construction equals:

$$\frac{\text{Actual costs to date}}{\text{Total estimated costs}} \times \text{Contract price} = \text{Cumulative revenue}$$

With respect to job X, because the total actual costs incurred during 2012 are $120,000 and estimated costs to complete are $60,000, the total estimated costs to complete the project at this time are $180,000. Therefore, the amount of revenue that would be recognized on this project would be:

$$\frac{\$120{,}000}{180{,}000} \times \$210{,}000 = \$140{,}000$$

Therefore, the amount of gross profit that would be recognized for project X would be:

Project X	
Revenue	$140,000
Less: Construction Costs Actually Incurred in 2012	120,000
Gross Profit for 2012 for Project X	$ 20,000

With respect to job Y, because the total actual costs incurred during 2012 are $140,000 and estimated costs to complete are $20,000, the total estimated costs to complete the project at this time are $160,000. Given a contract price of $150,000, it appears, based on current data, that a loss will be recognized on the project overall. Therefore, the loss must be recognized immediately, regardless of whether the contract is completed or not. The loss that would be recognized would be:

Project Y		
Revenue — Contract Price		$150,000
Less: Construction Costs Actually		
Incurred in 2012	$140,000	
Estimated Costs to Complete	20,000	160,000
Loss for Project Y in 2012		$(10,000)

In total, assuming that Amber Company utilizes the percentage-of-completion method of recognizing revenue, gross profit of $10,000 [Project X: $20,000 + Project Y: $(10,000)] would be recognized from both jobs in year 2012.

Completed Contract Method

Under the completed contract method for construction contracts, a construction company does not recognize revenue until the completion of the job. A contract is deemed substantially complete when remaining completion costs are insignificant. The completed contract method should be used only when it is inappropriate to use the percentage-of-completion method. Neither the recording nor the collection of progress billings affects this recognition.

The major benefit of this method is its basis on final results instead of on estimates. The major drawback is its failure to reflect current activity on a multiyear contract.

Under this method, construction costs (including direct costs and overhead) are charged to construction in progress. In the year the contract is completed, gross profit (loss) is recognized equal to the difference between the contract price and total costs.

If a loss on a construction contract is evident, it must be recognized immediately. Under the completed contract method, the total expected loss on the contract equals the total estimated contract costs less the total estimated contract revenue.

Example

Arnold Construction Company has a debit balance in its CIP account of $400,000 for the costs incurred on this project. Although the company originally expected to make a profit on the contract, it is now apparent that there will be an estimated loss of $100,000 on the project at its completion. The appropriate journal entry for this loss is:

Estimated Loss on Construction Project	100,000	
Construction in Progress		100,000

This entry reduces the CIP (inventory) account by $100,000. The loss is recognized in full immediately in the current year. If the estimated loss is accurate, future costs will be charged to the CIP account as incurred and the balance in that account will equal contract revenue.

Journal entries under the completed contract method using assumed figures follow:

Construction in Progress	60,000	
Cash		60,000
For construction costs		
Progress Billings Receivable	90,000	
Progress Billings on Construction in Progress		90,000
For periodic billings		
Cash	20,000	
Progress Billings Receivable for collections		20,000

In the final year of the project, the following additional entry is required to record the profit in the last (completion) year:

Progress Billings on Construction in Progress (for total billings)
Construction in Progress (for total costs)
Profit (profit for all the years)

Example

In this example, data from the previous Amber Company example is used; however, the long-term construction jobs will be accounted for using the completed contract method. The following data relates to the two different construction jobs for Amber Construction during 2012:

	Job X	*Job Y*
Contract Price	$210,000	$150,000
Cost Incurred During 2012	120,000	140,000
Estimated Cost to Complete	60,000	20,000
Billed to Customers		
During 2012	75,000	135,000
Received from Customers		
During 2012	45,000	125,000

Assuming Amber now uses the completed contract method of accounting for long-term contracts, what amount of gross profit (loss) should Amber report in its 2012 income statement?

The completed contract method strictly follows the revenue recognition principle, requiring that revenue should not be recognized until the earning process is fully completed. Therefore, the following computations for each project must be made.

Job X

For job X, costs of $120,000 were incurred in 2012, with an estimated $60,000 in additional costs needed to complete the project in the future. Assuming that the contract price is $210,000, it appears that the gross profit should be recognized as $30,000 [210,000 - (120,000 + $60,000)]. However, because revenue is accounted for under the completed contract method, no gross profit is recognized at all. Zero gross profit is recognized because the contract was not completed this period.

Job Y

In job Y, actual costs of $140,000 were incurred, with an estimate of $20,000 needed to complete the project in the future. Thus, at this point, it is estimated that $160,000 of costs will be required to complete the job in total. On the basis of this current data, it appears that Amber will generate a loss of $10,000 on the overall contract. As was previously noted, if a loss on a construction contract is evident, it must be recognized immediately. Therefore, this loss must be disclosed and recognized in the company's income statement for 2012 even though construction has not been completed. The disclosure that should be made is the same as the disclosure for the completed contract previously shown under the same circumstances. It is replicated here for the reader's convenience:

Job Y

Revenue — Contract Price		$150,000
Less: Construction Costs Actually		
Incurred in 2012	$140,000	
Estimated Costs to Complete	20,000	160,000
Loss for Project Y in 2012		$(10,000)

Therefore, overall, the amount of gross profit that should be recognized in the Amber's income statement based on both jobs is a loss of $10,000 [Job X: $0 + Job Y: $(10,000)].

Long-term construction contracts require certain disclosures in the financial statements, including:

- Accounting method used and any change therein.
- Nature of claims and associated amounts.
- Significant commitments made.
- Changes in estimates and their impact on the financial statements.
- Approach in determining the percentage of completion when the percentage-of-completion method is used.
- Criteria used to ascertain when substantial completion has occurred.

Government Contract Accounting

The percentage method to account for contracts should be used when the buyer is financially sound enough to pay its obligations and the contractor is expected to complete all of its work. As per SOP 81-1 (ASC 605-35), a company should apply earnings rates to all contract costs, including general and administrative expenses, to determine sales and operating earnings. A company should review earnings rates periodically to assess adjustments in contract values and estimated costs at completion. Any adjustment in earnings rates should be made over current and future years.

On cost-plus-fixed-fee government contracts, fees should usually be accrued as billable. If an advance payment is received from the government, it should not offset receivables unless the payment is for work in process. If any amounts are offset, proper disclosure is required.

If a government contract is subject to renegotiation, a renegotiation claim to which the contractor is responsible should be debited to sales and credited to a current liability account. Disclosure should be made of the basis to compute the expected refund.

If the government terminates a contract, contract costs included in inventory should be transferred to receivables. The claim against the government should be presented under current assets unless a long delay in receipt of payment is expected. A termination claim should be treated as a sale. A subcontractor's claim resulting from the termination should be included in the contractor's claim against the government. For example, a contractor has a termination claim receivable of $500,000, of which $100,000 arises from the contractor's obligation to the subcontractor. In this case, a liability of $100,000 should be accrued. The termination claim is reduced by any inventory related to the contract that the contractor is retaining. Disclosure should be made of the particulars of terminated contracts.

All direct costs are included in contract costs, such as material, labor, and subcontracting. Indirect costs should be allocated to contracts on a rational basis. Allocable costs include contract supervision, tools, quality control, inspection, insurance, and repairs and maintenance. Training and startup costs should be charged to existing contracts. The way to enter an expected loss on a contract is to debit a loss provision and credit a liability account.

Revenue Recognition When a Right of Return Exists

FASB 48 (ASC 605-15-15), deals with the accounting and disclosures when there is a right of return. However, the pronouncement is not applicable to real estate transactions, dealer leases, or service industries. Returns do not include exchanges for similar items in type, quality, and price. In some cases, the return privilege expires shortly after sale, such as with perishable food. In other situations, the return privilege has a longer time period, such as in textbook publishing.

If a buyer has the right to return a product, the seller cannot recognize revenue when sold unless all of the following exist:

- The buyer is obligated to pay for the product even if he or she loses it or the item becomes damaged.
- The acquisition of the product makes economic sense to the buyer.
- The seller is not obligated to provide future services in order for the buyer to resell the item.
- Selling price is known or determinable.
- The buyer must pay for merchandise even if he or she is not able to resell it. For example, a wholesaler buying goods from a manufacturer does not have the right to return the goods if he or she cannot find a retailer.
- There is a reasonable basis to estimate returns.

If all of these conditions are satisfied, the seller must make an appropriate provision (accrual) for expenses and losses related to possible returns of products by buyers. Further, sales and cost of sales should be reduced for estimated returns.

The provisions for estimated returns and cost of receiving these returns are contra accounts to accounts receivable. The deferred cost of sales is the inventory cost of items expected to be returned. The deferred cost of reacquiring returns may increase either deferred charges or inventory.

If any one of the foregoing is not satisfied, revenue must be deferred along with related costs until either all the criteria are met or the right of return stipulation has expired or changed from agreement. An alternative treatment to the deferral of revenue is just to have a memo entry of the sale. Another acceptable alternative treatment is to consider the transaction as a consignment.

Example

On January 1, 2X11, a sale of $100,000 is made with a right of return. The related costs associated with this sale are $60,000. On May 4, 2X12 the right of return no longer applied. The journal entries are:

1/1/2X11		
Cash	100,000	
Deferred Revenue		100,000
Deferred Expenses	60,000	
Cash		60,000

Alternatively, instead of a journal entry, a memo entry may have been made:

5/4/2X12		
Deferred Revenue	100,000	
Revenue		100,000
Expenses	60,000	
Deferred Expenses		60,000

Example

Fullerton Corporation expects that sales of $400,000 will be returned and the related cost of goods sold will be $250,000. It is anticipated that costs of $16,000 will be incurred to process the returns. The journal entry required to accrue sales returns follows:

Sales returns	400,000	
Inventory	250,000	
Processing expense for sales returns	16,000	
Allowance for expected returns		400,000
Cost of goods sold		250,000
Accrued expense to process sales returns		16,000

In predicting returns, the following must be considered:

- Time period awarded to return merchandise.
- Experience with the product in estimating returns.
- Obsolescence risk of goods.
- Transaction volume.
- Type of customer and relationship.
- Type of product.
- Product demand.
- Marketing policies.

A reasonable estimate of returned merchandise may be impaired if (1) the products are not homogeneous, (2) there is a lack of prior experience in estimating returns because the product is relatively new or circumstances have changed, (3) a lengthy time period exists for returns, or (4) the product has a high degree of obsolescence.

Example

On February 6, 2X12, product sales of $500,000 were made. The cost of goods is $300,000. A 60-day return privilege exists. The expected return rate of merchandise is 10%. On March 17, 2X12, a customer returns goods having a selling price of $40,000. No other returns pertaining to the original product sales were received. The criteria for recognizing revenue when the right of return exists have been met. The journal entries follow:

2/6/2X12		
Accounts Receivable	500,000	
Sales		500,000
Cost of Sales	300,000	
Inventory		300,000
Sales Returns	50,000	
Allowance for Sales Returns		50,000
$500,000 x 10% = $50,000		
Inventory	30,000	
Cost of Sales		30,000
$50,000 x 60%		
(1 – gross profit rate) = $30,000		
3/17/2X12		
Allowance for Sales Returns	40,000	
Accounts Receivable		40,000
4/7/2X12		
Cost of Sales	6,000	
Inventory		6,000*
Allowance for Sales Returns	10,000	
Sales Returns		10,000
*Inventory Assumed Returned		
($50,000 x 60%)		$30,000
Less: Amount Returned ($40,000 x 60%)		24,000
Adjustment to Inventory		$ 6,000

Vendor Consideration to Customer

EITF Issue No. 01-9, *Accounting for Consideration Given by a Vendor to a Customer or a Reseller of the Vendor's Products* (ASC 605-50-05), provides that when the vendor gives a customer something for buying the vendor's product, such consideration should reduce the vendor's revenue associated with that sale. *Exception:* The vendor's consideration represents a cost if the vendor receives a benefit and both of the following criteria are met:

1. The fair value of the benefit is determinable.
2. The vendor receives goods or services from the customer associated with the arrangement constituting an identifiable benefit. For example, the vendor would have bought the good or service from a third party if not provided by the customer.

As per EITF Issue No. 00-14, *Accounting for Certain Sales Incentives* (ASC 605-50-25), a company may offer to customers certain sales incentives, such as rebates, free products or services, coupons, and discounts. When the sales incentive does not result in a loss on the sale of a product or service, the vendor recognizes the cost of the sales incentive at the later of the date the vendor recognized the related revenue or the date the sales incentive was offered. In the case of mail-in rebates and certain manufacturer coupons, the vendor should record a liability (deferred revenue) for those sales incentives.

In the event that a sales incentive will result in a loss on the sale of the product or service, the vendor should not recognize a liability for the sales incentive before the date the related revenue is recognized. The loss is computed by deducting cost of sales and the cost of the rebate from the selling price.

If a sales incentive is a reduction in, or refund of, the selling price of the product or service, it is classified as a reduction of revenue. If, however, the sales incentive is free merchandise or service delivered at the time of sale of another product, such as a gift certificate, the cost of the free product of service should be expensed.

As per EITF Issue No. 01-14, *Income Statement Characterization of Reimbursements Received for "Out-of-Pocket" Expenses Incurred* (ASC 605-45-45-22), service revenue includes reimbursable expenses billed to customers (e.g., travel expenses). Further, EITF Issue No 01-9 (ASC 605-50-05), as mentioned above, requires that consideration, including warrants, issued to a customer be classified by the vendor as an offset to the amount of cumulative revenues recognized from that customer. If merchandise or service is delivered at the time of sale of another product, such as a gift certificate, the cost of the free product or service should be expensed.

Consideration from a vendor to a retailer reduces the vendor's selling prices of its products or services and thus reduces the vendor's revenue. Exception: The consideration is expensed by the vendor if both of the following conditions exist:

1. The vendor receives in turn an identifiable benefit in the form of goods or services from the retailer.

2. The fair value of the benefit can reasonably be estimated.

Multiple Deliverables

ASC 605-25-25, *Revenue Recognition: Multiple-Element Arrangements*, provides guidance on when and how to separate elements of an arrangement for the delivery or performance of multiple products, services, and rights where performance may occur at different points or over different time periods.

Accounting Standards Update (ASU) No. 2009-13 (October 2009) (ASC 605, *Revenue Recognition*), *Multiple-Deliverable Revenue Arrangements*, discusses revenue recognition policy. This ASU provides amendments to Subtopic 605-25 for separating consideration in multiple-deliverable arrangements. A selling price hierarchy is established to determine the selling price of a deliverable. The selling price used for each deliverable is based on vendor-specific evidence if available, third-party evidence if vendor-specific objective evidence is not available, or estimated selling price if neither of the two aforementioned evidence is not available.

Arrangement consideration should be allocated at the inception of the arrangement to all deliverables using the relative selling price method. This method allocates any discount in the arrangement proportionally to each deliverable on the basis of each deliverable's selling price.

A vendor must determine its best estimate of selling price consistent with that used to determine the price to sell the deliverable on a standalone basis.

The following should be disclosed by similar types of arrangements:

- Timing of revenue recognition for separate units of accounting.
- Description of multiple-deliverable arrangements, including nature and terms.
- Factors and estimates used to determine vendor-specific objective evidence, third-party evidence, or estimated selling price.
- Significant deliverables within its arrangements.
- General timing of delivery or performance.

(ASC 605-25)

Reimbursement Received

EITF Issue No. 01-14, *Income Statement Characterization of Reimbursements Received for "Out-of-Pocket" Expenses Incurred* (ASC 605-45-45-22), requires businesses to record the recovery of reimbursable expenses (e.g., travel costs on services contracts) as revenue. **Note:** These costs are *not* to be netted as a reduction of cost.

Miscellaneous Revenue Concerns

EITF Issue No. 99-17, *Accounting for Advertising Barter Transactions* (ASC 605-20-25-14)*,,* requires barter transactions to be recorded at the fair value of the advertising surrendered. Staff Accounting Bulletin No. 101, *Revenue Recognition in Financial Statements* (ASC 605),, provides guidance on the recognition, presentation, and disclosure of revenue.

EITF Issue No. 00-10, *Accounting for Shipping and Handling Fees and Costs* (ASC 605-45-45-19),, requires that all shipping and handling costs billed to customers be recorded as sales.

Software Revenue Recognition

According to AICPA Statement of Position (SOP) No. 97–2, Software Revenue Recognition, revenue should be recognized when the contract for software does not involve major production, alteration, or customization, provided all of the following conditions are satisfied:

- Receipt of payment is probable.
- The selling price is fixed or known.
- The software has been delivered.
- The contract is enforceable.

Separate accounting is required for the service aspect of a software transaction if the following conditions exist:

- A separate provision exists in the contract covering services so a price for such services is stipulated.
- The services are not mandatory for the software transactions.

A software contract may include more than one component, such as add-on software, upgrades, customer support after sale, and exchange or return privileges. The total selling price of the software transaction should be allocated to the contractual components, based on fair value. If fair value is not determinable, revenue should be deferred until it is determinable or until all components of the transaction have been delivered. Note: The four preceding revenue criteria must be satisfied before any allocation of the fee to the contractual elements may be made. Further, the fee for a contractual component is determinable if the element is sold separately.

Statement of Position No. 98-9, *Software Revenue Recognition* (ASC 985- 605), which modifies SOP 97-2, requires revenue to be recognized under the residual method if (1) fair market values are determinable for undelivered items in a multiple-element agreement that is not recorded using long-term contract accounting, (2) objective evidence of fair value does not exist for one or more of the delivered elements in the arrangement, and (3) all other revenue recognition criteria are met. Using the residual method, the arrangement fee is recorded as follows:

- Deferral is made of the total fair value of undelivered elements.

- The difference between the total arrangement fee and the deferred amount for the undelivered items is recognized as revenue applicable to the delivered elements.

Contributions

FASB 116, *Accounting for Contributions Received and Contributions Made* (ASC 958- 605-05-3; 605-10-15-3; 720-25-25-1) is the primary authoritative sources for accounting for contributions.

Contributions are a voluntary and unconditional conveyance of assets or cancellation of liabilities by one entity to another entity, in a nonreciprocal relationship, where one entity does not have an ownership interest in the other entity. These entities may be either for profit or not for profit. Cash as well as other monetary and non-monetary assets, services, or unconditional promises to give those assets or services qualify as contributions.

FASB 116 (ASC 958-605-05-3; 605-10-15-3; 720-25-25-1) distinguishes between donor-imposed restrictions and donor-imposed conditions. If a donor limits the way a contribution is to be used (such as to build a hospital building), it is considered a *restriction*, and the revenue from such a contribution and any related expenses should be recognized immediately. In contrast, if the donor imposes a condition, such as that the donee-entity must raise matching funds, that *condition* must be satisfied before revenue may be recorded.

A promise by a donor may be either unconditional or conditional. A promise is considered unconditional if the donor has no right to take back the donated asset and the contribution would be available after some time or on demand. Unconditional promises to give contributions should be recognized immediately. A conditional promise is contingent upon the occurrence of a future event. If that event does not occur, the donor is not bound by the promise. A vague promise is deemed conditional. Conditional promises should be recorded only when their conditions have been fulfilled. A conditional promise may be treated as an unconditional promise only if the possibility that the condition will not be met is remote.

A promise to give may be either written or oral. Of course, evidence of the promise must exist before any amount is recorded. Such evidence may consist of information about the donor, such as the donor's name and address, the amount that the donor promised to give, when the amount will be given (e.g., payment schedule), when the promise was made, and to whom was the promise to give made. A public announcement by the donor may be made. The donor may make partial payments. The donee may have taken actions relying on the promise. If a promise to give is recorded, it should be recorded at fair value. If the promised amount is not expected to be collected within a year, the use of discounted cash flow may be appropriate. If discounted cash flow is used, the interest should be treated as contribution income rather than as interest income.

Contributions received should be recorded at fair value by debiting the asset and crediting revenue. Quoted market prices or market prices for similar assets, appraisal by an independent expert, or valuation techniques such as discounted cash flows should be used to determine fair value. The value of contributed services should also be based on quoted market prices for those services. An increase in the fair value of non-monetary assets resulting from the performance services may alternatively be used to measure the fair value of services.

Both skilled and unskilled contributed services should be recognized if non-monetary assets are created or enhanced. Contributed services should also be recognized if specialized skills are provided by the donor and those skills would have to be purchased by the donee if they were not donated.

FASB 116 (ASC 958- 605-50) requires certain disclosures in the financial statements of recipients of contributions. For unconditional promises to give, the amount of receivables due within one year, in one to five years, and in more than five years should be disclosed along with the amount for allowance for uncollectible unconditional promises receivable. For conditional promises to give, disclosure is required of the promised amounts and a description of the promise. Promises with similar characteristics may be grouped together. Disclosure should also be made in the financial statements that describe the nature and extent of contributed services, restrictions or conditions set, and the programs or activities that utilized contributed services. Entities are encouraged to disclose the fair value of services received but not recorded as revenues.

When donations are made of works of art, historical items, and other such valuable assets, the recording of such assets is optional if the following conditions are satisfied:

- The assets added to collections are held for public exhibition, education, or research.
- The assets are protected, preserved, and kept unencumbered.
- The proceeds from the sale of such assets are used to obtain other items for the collection.

Contributed collection items should be recorded as revenues or gains and as assets if collections are capitalized. Certain disclosures are required if collections are not capitalized, including the cost of collection items purchased, the proceeds from the sale of collection items, and the proceeds from insurance recoveries of lost or destroyed collection items.

The donor should recognize an expense and a corresponding decrease in assets, or an increase in liabilities, at fair value, in the period in which the contribution is made. If the fair value differs from the book value, a gain or loss on disposition should be recognized, as appropriate.

Research and Development Revenues

As per Securities and Exchange Commission (SEC) Staff Accounting Bulletin (SAB) No. 101, *Revenue Recognition in Financial Statements* (ASC 605) when a company is providing continuing services for product development, nonrefundable upfront technology license fees are deferred. Such fees are recorded as revenue over the product development periods, based on expected total development costs. If a company is not furnishing continuing services, revenue is recognized when the payment is due.

Accounting Standards Update (ASU) No. 2010-17 (April 2010) (ASC 605, *Revenue Recognition*), *Milestone Method*, applies to recognizing revenue for research and development efforts based on the achievement of a milestone or event happening. The milestone method is when a company records a milestone payment as revenue. A payment may be contingent on the happening of a future event.

A company can record as revenue a substantive contingent consideration when a milestone is achieved if it satisfies the following conditions (ASC 605-28-25-2A):

- The vendor has accomplished the milestone.
- The earned consideration applies to prior performance.
- The consideration is reasonable. (ASC 605-28-25-1 and 25-2)

A milestone should be deemed substantive in full. There may be multiple milestones involved, and if so, each milestone should be appraised separately to ascertain whether it is substantive. It is possible that a situation can exist when there are substantive and nonsubstantive milestones (ASC 605-28-25-3).

Disclosure should be made of the arrangement, each contingent milestone, whether the milestone is substantive, and the amount of revenue recorded for the milestone (ASC 605-28-50-2).

Equity Instruments Received for Licensing Fees

EITF Issue No. 00-8, *Accounting by a Grantee for Equity Instruments to Be Received in Conjunction with Providing Goods or Services* (ASC 505-50-05), stipulates that a company should record the fair value of equity instruments as revenue when received for providing merchandise or services.

Warranty and Maintenance Contracts

Extended warranty and product maintenance contracts are frequently offered by retailers as separately priced items in addition to their products. Accounting for *separately priced* extended warranty and maintenance contracts is given by FASB Technical Bulletin 90–1 (ASC 605-20-25-1). Warranty and maintenance contracts that are *not* separately priced should be accounted for as *contingencies*.

Extended warranty contracts provide protection beyond the scope of the manufacturer's warranty or beyond the period of the original warranty. Product maintenance contracts provide services to maintain a product for a specified duration. Service may be provided at fixed intervals, or a specified number of times, or as required to keep the product operational.

Revenue and incremental direct costs from separately priced extended warranty and product maintenance contracts should be initially deferred. Revenue should be recognized on a straight-line basis over the contract period. Related incremental direct costs should be expensed in proportion to revenue recognized. Incremental direct costs result from obtaining the contract; these costs would not otherwise have been incurred. Other costs, such as the cost of services performed, general and administrative expenses, and costs of contracts not consummated, should be expensed when incurred.

Losses from such contracts should be recognized when the estimated costs of providing the service plus the unamortized portion of acquisition costs exceed corresponding unearned revenue. To determine loss, contracts should be grouped in a consistent manner, similar to the pool-of-risk concept in FASB 60, *Accounting and Reporting by Insurance Enterprises* (ASC 944-20); that is, losses are not recognized on individual contracts but rather on a group of similar contracts. Loss is recognized by first reducing unamortized acquisition costs; if this is not adequate, a liability should be recorded.

Barter Transactions

Barter transactions are generally recorded at the fair market value of the assets surrendered. A company can record advertising barter revenue only up to the amount of similar previous cash transactions and can use only cash based advertising with like features (e.g., time length, web page, positioning). In the case of Internet barter transactions, each transaction should be treated individually.

Exhibit 1 summarizes the most common points at which the criteria are most clearly met and indicates the corresponding revenue recognition method.

Exhibit 1
Summary of revenue recognition methods

Point in Earnings Cycle	Example	Recognition Criteria	Accounting Method
During production	Construction of buildings	Ability to estimate current and future receipts and construction costs	Percentage of completion (can estimate future receipts and costs) or completed contract (cannot estimate future receipts and costs)
At the end of production	Certain agricultural and mining products	Crop is harvested or mineral is mined and price is established by market	Completed production
At the point of sale	Most retail and wholesale sales transactions	Earnings process is complete and amount and timing of revenue are reasonably determined	Sale
As cash is collected	Sales of land involving long-term collections	Gross profit is recognized as cash is collected on the installment basis	Installment sales
After all cash is collected	Sales of land when collection of cash is not assured	Revenue is not recognized until enough cash has been received to cover the asset's cost	Cost recovery

Revenue Recognition: IFRS vs. U.S. GAAP

Revenue recognition is an area where it is particularly difficult to compare IFRS and U.S. Under IFRS (IAS 18, *Revenue*), revenues are measured at the fair value of the consideration received or receivable, and are recognized when all of a series of criteria are met. Clearly these criteria are principle-based and do not include bright lines, like numerical thresholds. IAS 18 thus is commonly considered to be a bit underdeveloped, and therefore when applying IFRS revenue recognition principles, it is often helpful to refer to U.S. GAAP for further guidance, particularly in cases where no significant industry guidance is available. U.S. GAAP revenue recognition literature is built on principles that are similar to those in IFRS. However, U.S. GAAP has industry-specific revenue recognition literature, such as that for the software industry, which is very limited under IFRS. U.S. GAAP also includes more detailed implementation guidance. For example:

- U.S. GAAP focuses on the "persuasive evidence that an arrangement exists", which could, in certain circumstances, lead to the recognition of revenue only when written sales agreements customarily are signed by customers. IFRS does not include similar prescriptive guidance.

- Emerging Issues Task Force (EITF) Issue No. 00-10, *Accounting for Shipping and Handling Fees and Costs* (ASC 45-45-19), states that all amounts billed to a customer in a sales transaction related to shipping and handling should be classified as revenue. IAS 18 does not have a similar prescriptive requirement. Instead, preparers should analyze the transaction focusing on the general principles in IAS 18 dealing with the determination of whether an entity is acting as a principal or as an agent.

- EITF Issue No. 00-21, *Revenue Arrangements with Multiple Deliverables* (ASC 605-25-25), contains detailed guidance on how to account for multiple-element arrangements. IAS 18 contains a similar principle, but the guidance is much more limited.

These examples highlight that the accounting treatment might be similar and possibly culminate in similar conclusions in the vast majority of circumstances. However, it is evident that it really depends on facts and circumstances of the specific transaction to be accounted for. The IASB and the FASB are conducting a joint project to rewrite their standards on revenue recognition. It is expected that a concise and highly principles-based standard on revenue recognition will result.

ASC, FASB, AND DIFFERENCE BETWEEN GAAP AND IFRS

Topic	FASB Accounting Standards Codification (ASC)	Original FASB Standard	Corresponding IASB Standard	Differences between U.S. GAAP and IFRS
Revenue recognition	ASC 605	*Contained in a large number of* different *standards*	IAS 18, 11	U.S. GAAP and IFRS are generally consistent, but many detailed differences exist. The FASB and IASB are currently working on a joint revenue recognition project.
Completed-contract method	ASC 605-35	ARB 45 and SOP 81-1	IAS 11	Under IFRS, the completed contract method is not allowed.
Multiple-element arrangements	ASC 605-25	EITF 08-1	IAS 18	IFRS does not contain any specific provisions related to multiple-element arrangements.

Example
ANNUAL REPORT REFERENCE
Caterpillar
2008 Annual Report

Sales and Revenue Recognition

Sales of Machinery and Engines are generally recognized when title transfers and the risks and rewards of ownership have passed to customers or independently owned and operated dealers. Typically, where product is produced and sold in the same country, title and risk of ownership transfer when the product is shipped. Products that are exported from a country for sale typically pass title and risk of ownership at the border of the destination country.

No right of return exists on sales of equipment. Replacement part returns are estimable and accrued at the time a sale is recognized.

We provide discounts to dealers and original equipment manufacturers (OEM) through merchandising programs that are administered by our marketing divisions. We have numerous programs that are designed to promote the sale of our products. The most common dealer programs provide a discount when the dealer sells a product to a targeted end user. OEM programs provide discounts designed to encourage the use of our engines. The cost of these discounts is estimated based on historical experience and known changes in merchandising programs and is reported as a reduction to sales when the product sale is recognized.

Our standard invoice terms are established by marketing region. When a sale is made to a dealer, the dealer is responsible for payment even if the product is not sold to an end customer and must make payment within the standard terms to avoid interest costs. Interest at or above prevailing market rates is charged on any past due balance. Our policy is to not forgive this interest. In 2008 terms were extended to not more than one year for $544 million of receivables, which represent approximately 1% of consolidated sales. In 2007 and 2006, terms were extended to not more than one year for $219 million and $49 million of receivables, respectively, which represent less than 1% of consolidated sales

Sales with payment terms of two months or more were as follows:

(Dollars in millions)

	2008		*2007*		*2006*	
Payment Terms (months)	*Sales*	*Percent of Sales*	*Sales*	*Percent of Sales*	*Sales*	*Percent of Sales*
2	$ 4,130	8.6%	$ 2,830	6.8%	$ 2,557	6.6%
3	2,786	5.8%	2,067	4.9%	711	1.8%
4	866	1.8%	526	1.3%	336	0.9%
5	1,062	2.2%	965	2.3%	1,222	3.1%

6	561	1.2%	4,549	10.8%	8,583	22.1%
7–12	4,469	9.3%	293	0.7%	274	0.7%
	$13,874	28.9%	$11,230	28.8%	$13,683	35.2%

Revenues of Financial Products primarily represent the following Cat Financial revenues:

- Retail (end-customer) finance revenue on finance leases and installment sale contracts is recognized over the term of the contract at a constant rate of return on the scheduled outstanding principal balance. Revenue on retail notes is recognized based on the daily balance of retail receivables outstanding and the applicable effective interest rate.
- Operating lease revenue is recorded on a straight-line basis in the period earned over the life of the contract.
- Wholesale (dealer) finance revenue on installment contracts and finance leases is recognized over the term of the contract at a constant rate of return on the scheduled outstanding principal balance. Revenue on wholesale notes is recognized based on the daily balance of wholesale receivables outstanding and the applicable effective interest rate.
- Loan origination and commitment fees are deferred and then amortized to revenue using the interest method over the life of the finance receivables.

Recognition of income is suspended when collection of future income is not probable. Accrual is resumed, and previously suspended income is recognized, when the receivable becomes contractually current and/or collection doubts are removed. Cat Financial provides wholesale inventory financing to dealers. See Notes 7 and 8 for more information.

Sales and revenue recognition items are presented net of sales and other related taxes.

Review Questions

14. Robinson Construction Co. has consistently used the percentage-of-completion method. On January 10, 2X11, Robinson began work on a $3 million construction contract. At the inception date, the estimated cost of construction was $2,250,000. The following data relate to the progress of the contract: Income recognized at 12/31/2X11 = $ 300,000; Costs incurred 1/10/2X11 through 12/31/2X12 = 1,800,000; Estimated cost to complete at 12/31/2X12 = $600,000. In its income statement for the year ended December 31, 2X12, what amount of gross profit should Robinson report?

A. $450,000
B. $150,000
C. $300,000
D. $262,500

15. The percentage-of-completion method of accounting for long-term construction contracts is an exception to the

A. Matching principle.
B. Going concern assumption.
C. Historical cost principle.
D. Revenue recognition principle.

16. The percentage-of-completion and the completed-contract methods of accounting for long-term construction projects in progress differ in that

A. It is only under the percentage-of-completion method that progress billings are accumulated in a contra-inventory account called billings on construction in progress.
B. It is only under the completed-contract method that accumulated construction costs are included in a construction in progress inventory account.
C. Only the percentage-of-completion method recognizes all revenues and gross profit on the contract when the contract is completed.
D. It is only under the percentage-of-completion method that gross profit earned to date is accumulated in the construction in progress inventory account.

17. The calculation of the income recognized in the third year of a 5-year construction contract accounted for using the percentage-of-completion method includes the ratio of

A. Total costs incurred to date to total estimated costs.

B. Total costs incurred to date to total billings to date.
C. Costs incurred in year 3 to total estimated costs.
D. Costs incurred in year 3 to total billings to date.

18. Drew Co. produces expensive equipment for sale on installment contracts. When there is doubt about eventual collectibility, the income recognition method least likely to overstate income is

A. Recognition at the time the equipment is completed.
B. The installment method.
C. The cost-recovery method.
D. Recognition at the time of delivery.

19. The accounting method most clearly consistent with basic revenue recognition principles is the

A. Percentage-of-completion method.
B. Installment sales method.
C. Completion-of-production method.
D. Completed-contract method.

20. When the right of return exists, all of the following criteria must be met before revenue is recognized except that the

A. Amount of future returns can be reasonably estimated.
B. Seller's price to the buyer is substantially fixed at the date of the sale.
C. Buyer's obligation to the seller must be liquidated within 150 days from the date of the sale.
D. Buyer is obligated to pay the seller and the obligation is not contingent on the resale of the product.

Glossary

Account sales. A document a consignor periodically receives from the consignee that shows the merchandise received, merchandise sold, expenses chargeable to the consignment, and the cash remitted.

Completion of production basis. The recognition of revenue at the completion of production even though no sale has been made (examples include precious metals or agricultural products with assured prices).

Completed-Contract Method. The accounting for long-term construction contracts where revenues and gross profit are recognized only when the contract is completed.

Consignment. A contractual arrangement whereby a consignor ships merchandise to a consignee, who is to act as an agent for the consignor in selling the merchandise. The consignor retains title to the goods until the goods are sold.

Consignor. The party (generally a manufacturer) that sends goods to a consignee under consignment.

Consignee. The party (generally a dealer) that receives goods from a consignor under consignment.

Continuing franchise fees. The payments made by a franchisee to a franchisor for the continuing rights granted by the franchise agreement and for providing such services as management training, advertising and promotion, legal assistance, and other support.

Cost recovery method. Income is not recognized until cash payments by the buyer exceed the seller's cost of the merchandise sold.

Cost-to-cost basis. The method used under the percentage-of-completion method whereby the percentage of completion is measured by comparing cost incurred to date with the most recent estimate of the total costs to complete the contract.

Deposit method. The seller reports cash received in advance as a deposit on the contract and classifies it as a liability (refundable deposit or customer advance).

Earned. Revenues are earned when the entity has substantially accomplished what it must do to be entitled to the benefits represented by the revenues, that is when the earnings process is complete or virtually complete.

Franchise. A contractual arrangement whereby a franchisor grants business rights and provides services to a franchisee who in return agrees to pay an initial franchise fee to operate a business and pay continuing fess based on the operations of the business.

Franchisee. The party who operates the franchised business.

Franchisor. The party who grants business rights under the franchise.

Initial franchise fee. Consideration for establishing the franchise relationship and providing some initial services.

Installment sales method. Income is recognized when it is collected rather than in the period of sale.

Percentage-of-Completion Method. The accounting for long-term construction contracts where revenues and gross profit are recognized each period based upon the progress of the construction, that is, the percentage of completion.

Realizable. Revenues are realizable when assets received in exchanged are readily convertible to known amounts of cash or claims to cash.

Realized. Revenues are realized when goods and services are exchanged for cash or claims to cash (receivables).

Revenue recognition principle. The principle that provides that revenue is recognized when (1) it is realized or realizable and (2) it is earned.

Substantial performance. When the franchisor has no remaining obligation to refund any cash received or excuse any nonpayment of a note and has performed all the initial services required under the contract.

Review Answers

1. For $50 a month, Abel Co. visits its customers' premises and performs insect control services. If customers experience problems between regularly scheduled visits, Abel makes service calls at no additional charge. Instead of paying monthly, customers may pay an annual fee of $540 in advance. For a customer who pays the annual fee in advance, Abel should recognize the related revenue

A. Incorrect. Recognition when cash is collected is appropriate when the cash basis is used.
B. Incorrect. The revenue should be recognized evenly over the contract year, not at the end of the year.
C. Incorrect. Accrual-based revenue should be recognized uniformly over the contract period.
D. **Correct.** Accrual-based revenue should be recognized when realized or realizable and earned. These conditions are usually met when services are rendered. Because these services entail monthly visits for monthly fees, the annual payment should be recognized evenly over the period in which services are performed.

2. A company that sprays chemicals in residences to eliminate or prevent infestation of insects requires that customers prepay for 3 months' service at the beginning of each new quarter. Select the term that appropriately describes this situation from the viewpoint of the exterminating company.

A. **Correct.** Under the revenue recognition principle, revenue is recognized in the period in which it is earned; therefore, when it is received in advance of its being earned, the amount applicable to future periods is deferred. The amount unearned is considered a liability because it represents an obligation to perform a service in the future arising from a past transaction. Unearned revenue is revenue that has been received but not earned.
B. Incorrect. The revenue is not earned. The exterminator has not performed the related services for the customer.
C. Incorrect. Because accrued revenue is revenue that has been earned but not received.
D. Incorrect. The customer has a prepaid expense (expense paid but not incurred); the exterminator has unearned revenue (revenue received but not earned).

3. On October 1, 2X11, Acme Fuel Co. sold 100,000 gallons of heating oil to Karn Co. at $3 per gallon. Fifty thousand gallons were delivered on December 15, 2X11, and the remaining 50,000 gallons were delivered on January 15, 2X12. Payment terms were: 50% due on October 1, 2X11, 25% due on first delivery, and the remaining 25% due on second delivery. What amount of revenue should Acme recognize from this sale during 2X12?

A. Incorrect. $75,000 was the amount due on first delivery.

B. **Correct.** Revenue is recognized when it is realized or realizable and earned. Revenue is ordinarily earned upon delivery. Given that 50% of the heating oil was delivered in 2X12, 50% of the price was earned in 2X11. Thus, Acme should recognize $150,000 (50% x $300,000) of revenue from the sale.
C. Incorrect. $225,000 was the amount due in 2X11.
D. Incorrect. $300,000 is the total price.

4. For financial statement purposes, the installment method of accounting may be used if

A. Incorrect. Regardless of the length of the collection period, sales in the ordinary course of business should usually be recognized at the time of sale unless collectibility is not reasonably assured.
B. Incorrect. Uncertainty of cash collection will force revenue recognition to be deferred.
C. **Correct.** Profits from sales in the ordinary course of business should usually be recognized at the time of sale unless collection of the sales price is not reasonably assured. When receivables are collected over an extended period and, because of the terms of the transaction or other conditions, no reasonable basis exists for estimating the degree of collectibility, the installment method or the cost-recovery method of accounting may be used.
D. Incorrect. The installment method is not an alternative to the percentage-of-completion method, which is ordinarily used to account for long-term construction contracts.

5. According to the installment method of accounting, gross profit on an installment sale is recognized in income

A. Incorrect. Gross profit on installment sales cannot be recognized on the date of sale, since receivables are collected over an extended period and no reasonable basis exists for estimating the degree of collectibility.
B. Incorrect. The seller recognizes both revenues and cost of goods sold at the time of sale, but the related unrealized gross profit is deferred to later years based on cash collection.
C. **Correct.** When receivables are collected over an extended period and no reasonable basis exists for estimating the degree of collectibility, the installment method may be used. Under the installment method, gross profit recognized during each period of the term of an installment receivable is equal to the gross profit ratio on the installment sales for the period in which the receivable was recognized, multiplied by the cash collected on that receivable during the period. Hence, gross profit is recognized in proportion to the cash collections received.
D. Incorrect. The cost-recovery method recognizes income after cash collections equal to the cost of sales have been received.

6. Dunne Co. sells equipment service contracts that cover a 2-year period. The sales price of each contract is $600. Dunne's past experience is that, of the total dollars spent for repairs on service contracts, 40% is incurred evenly during the first contract year and 60% evenly during the second contract year. Dunne sold 1,000 contracts evenly throughout 2012. In its December 31, 2012 balance sheet, what amount should Dunne report as deferred service contract revenue?

A. Incorrect. $540,000 assumes the average contract has been outstanding for 3 months.
B. **Correct.** Service contract revenue should be recognized as the services are provided. Assuming that services are provided in proportion to the incurrence of expenses, 40% of revenue should be recognized in the first year of a service contract. Given that expenses are incurred evenly throughout the year, revenue will also be recognized evenly over the service contract year. Moreover, given that Dunne sold 1,000 contracts evenly throughout 2012, total sales revenues to be accounted for will be $600,000 (1,000 x $600), and the average contract must have been sold at midyear. Thus, the elapsed time of the average contract must be half a year, and the first year of the average contract extends over 6 months of 2012 and 6 months of 2008. Revenue earned in 2012 must therefore equal $120,000 (40% x $600,000 total revenue x .5 year), and deferred revenue is $480,000 ($600,000 - $120,000).
C. Incorrect. $360,000 assumes recognition of the entire first year's revenue for all contracts.
D. Incorrect. $300,000 assumes 50% of expenses are incurred each year and the average contract is outstanding for 1 year.

7. Ward, a consultant, keeps her accounting records on a cash basis. During 2012, Ward collected $200,000 in fees from clients. At December 31, 2011, Ward had accounts receivable of $40,000. At December 31, 2012, Ward had accounts receivable of $60,000, and unearned fees of $5,000. On an accrual basis, what was Ward's service revenue for 2012?

A. Incorrect. $175,000 equals $200,000 collections, minus $20,000 beginning accounts receivable, minus $5,000 unearned fees.
B. Incorrect. $180,000 equals $200,000 collections, minus $20,000 beginning accounts receivable.
C. **Correct.** Of the $200,000 in fees collected during 2012, $5,000 was unearned; therefore, $195,000 reflected collections of earned fees. Given that the ending balance in accounts receivable was $20,000 higher than the beginning balance ($60,000 - $40,000) and that $195,000 in fees were collected, service revenue on the accrual basis was $215,000 ($20,000 + $195,000).
D. Incorrect. $225,000 assumes the unearned fees were added to the $200,000 of fees collected.

8. Wren Co. sells equipment on installment contracts. Which of the following statements best justifies Wren's use of the cost-recovery method of revenue recognition to account for these installment sales?

A. Incorrect. Passage of title is not a recognition criterion.

B. Incorrect. Revenue recognition prior to sale is inappropriate when the installment or cost-recovery method is used.
C. Incorrect. A high rate of return on sales is irrelevant to the use of the cost-recovery method.
D. **Correct.** Revenues ordinarily should be accounted for when a transaction is completed, with appropriate provision for uncollectible accounts. However, when "there is no reasonable basis for estimating the degree of collectibility," either the installment method or the cost-recovery method may be used. The cost-recovery method recognizes profit only after collections exceed the cost of the item sold.

9. Aena Co., which began operations on January 1, 2X11, appropriately uses the installment method of accounting to record revenues. The following end-of-year information is available: 2X11 INFORMATION: Sales = $1,000,000; Gross Profit realized on sales made in 2X11 = $150, 000 and on sales made in 2X12 = $0; Gross profit percentage = 30%. 2X12 INFORMATION: Sales = $2,000,000; Gross Profit realized on sales made in 2X11 = $90, 000 and on sales made in 2X12 = $200,000; Gross profit percentage = 40%. What amount of installment accounts receivable should Aena report in its December 31, 2X12, balance sheet?

A. **Correct.** Gross profit realized equals the gross profit percentage times cash collected. Hence, cash collected on 2X11 sales was $800,000 [($150,000 + $90,000) ÷ 30%], and cash collected on 2X12 sales was $500,000 ($200,000 ÷ 40%). The remaining balance of installment receivables is therefore $1,700,000 ($1,000,000 + $2,000,000 - $800,000 - $500,000).
B. Incorrect. $1,100,000 equals the total gross profit (both realized and unrealized) for 2X11 and 2X12.
C. Incorrect. $1,300,000 is the total cash collected.
D. Incorrect. $1,900,000 equals total sales minus total gross profit for 2X11 and 2X12.

10. Gao Co., which began operations on January 1, 2X12, appropriately uses the installment sales method of accounting. The following information is available for December 31, 2X12: Installment accounts receivable = $400,000; Deferred gross profit (before recognition of realized gross profit for 2X12) = $280,000; Gross profit on sales = 40%. For the year ended December 31, 2X12, cash collections and realized gross profit on installment sales should be:

A. Incorrect. $160,000 is the total gross profit on the year-end installment receivables.
B. Incorrect. $700,000 equals sales for the year.
C. **Correct.** The installment sales method of accounting recognizes income over the term of the installment receivable based on cash collections. The periodic amount is equal to the gross profit percentage on the sale for the period in which the receivable was recognized multiplied by the amount of cash collected during the period. Given that 2X12 was the first year of operations for Gao Co., the $280,000 of total deferred gross profit before recognition of realized gross profit represents 40% of all sales. Hence, sales during the year were $700,000 ($280,000 ÷

40%). The $400,000 in accounts receivable at year-end is the difference between total sales and cash collections, so cash collections must have been $300,000 ($700,000 - $400,000). Because gross profit is recognized in proportion to cash collections, the realized gross profit for the year is equal to $120,000 ($300,000 cash collections x 40% gross margin).

D. Incorrect. $700,000 equals sales for the year and $160,000 is the total gross profit on the year-end installment receivables.

11. Given no reasonable basis for estimating the degree of collectibility, Lynda Co. uses the installment method of revenue recognition for the following sales: 2X11 INFORMATION: Sales = $600,000, Collections from 2X11 sales = $200,000; Collections from 2X12 Sales = $0; Accounts written off from 2X11 sales = $50,000; Accounts written off from 2X12 sales = $0; Gross Profit = 30%. 2X12 INFORMATION: Sales = $900,000, Collections from 2X11 sales = $100,000; Collections from 2X12 Sales = $300,000; Accounts written off from 2X11 sales = $150,000; Accounts written off from 2X12 sales = $50,000; Gross Profit = 40%. What amount should Lynda report as deferred gross profit in its December 31, 2X12 balance sheet for the 2X11 and 2X12 sales?

A. Incorrect. $150,000 is the profit included in the determination of net income as a result of 2X12 collections.
B. **Correct.** The remaining balance of 2X11 installment receivables is $100,000 [$600,000 sales - ($200,000 + $100,000) collections - ($50,000 + $150,000) write-offs]. The remaining balance of 2X12 installment receivables is $550,000 ($900,000 sales - $300,000 collections - $50,000 write-offs). Hence, total deferred gross profit reported at year-end is $250,000 [(30% x $100,000) + (40% x $550,000)].
C. Incorrect. $210,000 is the total gross profit included in the determination of net income to date.
D. Incorrect. $220,000 is the year-end deferred gross profit on 2X12 sales.

12. Sandra Co. uses the installment method of revenue recognition. The following data pertain to Sandra's installment sales for the years ended December 31, 2X11 and 2X12: Installment receivables at year-end on 2X11 sales for 2X11 = $60,000, for 2X12 = $30,000; Installment receivables at year-end on 2X12 sales for 2X11 = $0, for 2X12 = $69,000; Installment sales for 2X11 = $80,000, for 2X12 = $90,000; Cost of sales for 2X11 = $40,000, for 2X12 = $60,000. What amount should Sandra report as deferred gross profit in its December 31, 2X12 balance sheet?

A. Incorrect. $23,000 is the deferred gross profit on 2X12 sales.
B. Incorrect. $33,000 results from applying the 2X12 gross profit rate to all receivables.
C. Incorrect. $43,000 equals 33-1/3% of $69,000 plus 66-2/3% of $30,000.
D. **Correct.** The ending balance in the deferred gross profit account equals the year-end balance of installment accounts receivable times the gross profit margin on the installment sales. The gross profit margin is equal to the installment sales minus their cost, divided by installment sales. For 2X11 sales, the deferred gross profit is $15,000 {[($80,000 - $40,000) ÷ $80,000] x $30,000}. For

2X12 sales, the deferred gross profit is \$23,000 {[(\$90,000 - \$60,000)÷ \$90,000] x \$69,000}. Thus, the total deferred gross profit is \$38,000 (\$15,000 + \$23,000).

13. Bruin Co., which began operations on January 2, 2X12, appropriately uses the installment sales method of accounting. The following information is available for 2X12: Installment sales = \$1,400,000; Realized gross profit on installment sales = \$240,000; Gross profit percentage on sales =40%; For the year ended December 31, 2X12, what amounts should Bruin report as accounts receivable and deferred gross profit?

A. Incorrect. \$600,000 equals cash collections for the year.
B. **Correct.** The installment method recognizes income on a sale as the related receivable is collected. The amount recognized each period is the gross profit percentage (gross profit ÷ selling price) on the sale multiplied by the cash collected. Given realized gross profit on installment sales of \$240,000 and a gross profit percentage on sales of 40%, cash collections must have been \$600,000 (\$240,000 ÷ 40%). The accounts receivable at year-end is the difference between total installment sales and cash collected; therefore, accounts receivable must be \$800,000 (\$1,400,000 - \$600,000) on December 31, 2X12. Deferred gross profit on the year-end accounts receivable is \$320,000 (\$800,000 x 40%).
C. Incorrect. \$600,000 equals cash collections for the year, and \$360,000 is the difference between cash collections and realized gross profit.
D. Incorrect. \$560,000 is the total of realized and unrealized gross profit.

14. Robinson Construction Co. has consistently used the percentage-of-completion method. On January 10, 2X11, Robinson began work on a \$3 million construction contract. At the inception date, the estimated cost of construction was \$2,250,000. The following data relate to the progress of the contract: Income recognized at 12/31/2X11 = \$ 300,000; Costs incurred 1/10/2X11 through 12/31/2X12 = 1,800,000; Estimated cost to complete at 12/31/2X12 = \$600,000. In its income statement for the year ended December 31, 2X12, what amount of gross profit should Robinson report?

A. Incorrect. The current year's profit equals the cumulative income minus the previously recognized profit.
B. **Correct.** The percentage-of-completion method provides for the recognition of income based on the relationship between the costs incurred to date and estimated total costs for the completion of the contract. The total anticipated income is multiplied by the ratio of the costs incurred to date to the total estimated costs, and the product is reduced by previously recognized income. The percentage-of-completion at 12/31/2X12 is 75% [\$1,800,000 ÷ (\$1,800,000 + \$600,000)]. The total anticipated income is \$600,000 (\$3,000,000 contract price - \$2,400,000 expected total costs). Consequently, a profit of \$150,000 [(75% x \$600,000 total profit) - \$300,000 previously recognized income] is recognized for 2X12.
C. Incorrect. \$300,000 is the previously recognized profit.

D. Incorrect. $262,500 assumes the total estimated profit is $750,000 ($3,000,000 price - $2,250,000 originally estimated total cost).

15. The percentage-of-completion method of accounting for long-term construction contracts is an exception to the

A. Incorrect. The percentage-of-completion method attempts a more accurate association of cost incurrence and revenue recognition.
B. Incorrect. The percentage-of-completion method is completely consistent with the going concern assumption.
C. Incorrect. The percentage-of-completion method is completely consistent with the historical cost principle.
D. **Correct.** Revenue is recognized when realized or realizable and the earning process is substantially complete. This ordinarily occurs at the time of sale and delivery of goods or services. Thus, the percentage-of-completion method is essentially an exception to the revenue recognition principle. Production rather than sale and delivery is considered to be the culmination of the earning process.

16. The percentage-of-completion and the completed-contract methods of accounting for long-term construction projects in progress differ in that

A. Incorrect. Progress billings are accumulated in the billings on construction in progress account under both methods.
B. Incorrect. Accumulated construction costs are included in the construction in progress inventory account under both methods.
C. Incorrect. The percentage-of-completion method recognizes a percentage of revenues and gross profit each period.
D. **Correct.** The completed-contract method does not recognize any gross profit until the contract is completed. The percentage-of-completion method recognizes a portion of revenues and gross profit each period, based upon the ratio of costs incurred to date to total estimated costs of completion. Accumulated gross profit and accumulated construction costs are included in the construction in progress inventory account under the percentage-of-completion method.

17. The calculation of the income recognized in the third year of a 5-year construction contract accounted for using the percentage-of-completion method includes the ratio of

A. **Correct.** The percentage-of-completion method provides for the recognition of income based on the relationship between costs incurred to date and estimated total costs for completion of the contract. The amount of income recognized in the third year of a 5-year contract is calculated as follows: The total anticipated income (based on the latest available estimated costs) is multiplied by the ratio of costs incurred to date to the latest available total estimated costs, and the product is reduced by previously recognized income.

B. Incorrect. The ratio of total costs incurred to date to total billings to date is not relevant.
C. Incorrect. Total costs incurred must be used.
D. Incorrect. Neither the issuance nor the collection of billings results in income recognition.

18. Drew Co. produces expensive equipment for sale on installment contracts. When there is doubt about eventual collectibility, the income recognition method least likely to overstate income is

A. Incorrect. Recognition at the time of completion anticipates not only collection but also sale.
B. Incorrect. The installment method recognizes income equal to the gross profit percentage of cash collections. Thus, it recognizes some income before all costs are recovered.
C. **Correct.** The cost-recovery method recognizes profit only after collections exceed the cost of the item sold, that is, when the full cost has been recovered. Subsequent amounts collected are treated entirely as revenue (debit cash and deferred gross profit, credit the receivable and realized gross profit). Hence, the cost-recovery method is least likely to overstate income because none is recognized until all costs are recovered.
D. Incorrect. Recognition at the time of delivery anticipates collection.

19. The accounting method most clearly consistent with basic revenue recognition principles is the

A. Incorrect. The percentage-of-completion method allows for revenue to be recognized at various stages of the contract although the entire job is not complete.
B. Incorrect. If the collectibility of assets is relatively uncertain, revenues and gains may be recognized as cash is received using the installment sales method.
C. Incorrect. The completion-of-production method is an appropriate basis for recognition if products or other assets are readily realizable, e.g., precious metals and some agricultural products.
D. **Correct.** According to the revenue recognition principle, revenue should be recognized when (1) realized or realizable and (2) earned. Under the completed-contract method, revenue is not recognized until a long-term construction contract is complete. At this stage, the entity is most clearly entitled to the resulting revenues and is most likely to have been involved in an exchange.

20. When the right of return exists, all of the following criteria must be met before revenue is recognized except that the

A. Incorrect. One criterion for revenue recognition is: there is a reasonable basis to estimate returns.
B. Incorrect. Selling price being known or determinable is a criterion for revenue recognition.
C. **Correct.** SFAS 48, Revenue Recognition When Right of Return Exists (ASC 605-15-15), requires sales revenue and cost of sales to be reduced by expected returns when goods are sold with a right of return. Before revenue can be recognized, the following conditions must exist: the buyer must be independent of the seller (have economic substance apart from the seller), the price must be determined (substantially fixed), risk of loss must rest with the buyer, the buyer must have paid or be obligated to pay and the obligation is not contingent on resale, the seller has no significant future obligation to bring about resale, and returns can be reasonably estimated. No time limit for liquidation of the buyer's obligation is established; the buyer should simply have an obligation to pay at some future time.
D. Incorrect. The buyer must pay for merchandise even if he or she is not able to resell it. For example, a wholesaler buying goods from a manufacturer does not have the right to return the goods if he or she cannot find a retailer.