

THE OPERATING CYCLE and REVENUE RECOGNITION**I. Review of Key Concepts and Terms:**

A. The **operating cycle** is the *longer* of the accounting cycle or one year.

1. The Operating Cycle of a merchandising (retail) business is the average period of time, normally measured in months, that a business takes to:

- a. spend cash for assets (purchase inventory);
- b. sell the inventory for cash or receivables and;
- c. convert the receivables back into cash.
- d. pay for inventory

Revenues are inflows of assets from the enterprise ongoing operations. If services have been prepaid (creating a liability on the books), revenues are generated by the conversion of liabilities as prepaid services are performed.

2. The operating cycle of a service business (Doctor, lawyer, CPA etc) is the average period of time to take on a client/case and receive payment for services rendered.

B. **Revenue recognition** deals with when the business should recognize (record) revenue for reporting purposes.

1. SEC rules state that revenue should be recognized when the following four conditions have been satisfied:

- a. Persuasive evidence of an arrangement exists
- b. Delivery of goods has occurred or services have been rendered
- c. The price is fixed or determinable
- d. Collectability is reasonably assured

The short version of when to recognize revenue:

- the earnings process is complete and
- an exchange has taken place or services have been completed

2. Revenue recognition is *not appropriate for transactions that are consignments or financing even if title has passed to the purchaser* under the conditions described below:

Any of the following conditions preclude the recognition of revenue:

1. The buyer has the right to return the product and:

- The buyer does not pay the seller at the time of sale nor is it obligated to do so on a specified date
- Payment is not made at the time of sale; though the obligation to pay on a particular date is specified, that obligation is either contractually or implicitly excused until the buyer resells the product (or subsequently uses it).
- The buyer's obligation to the seller would be forgiven (or a refund granted) in the event of physical damage or theft of the product.
- The buyer (acquiring the product for resale) does not have economic substance independent of that provided by the seller.
- The seller has significant obligations for future performance to bring about the resale of the product by the purchaser.

2. The product is delivered for demonstration purposes.

3. The seller/manufacturer guarantees that the buyer (user of the product) will receive a minimum amount upon resale of the product after the buyer has used it.

4. The seller is required to repurchase the product (or a substantially identical one) at specified prices that change only in response to finance and holding costs (e.g., interest) incurred by the purchaser. Specifically, the following attributes of a transaction indicate the existence of such an arrangement:

- The seller provides interest-free or below-market financing beyond the seller's customary terms until the product is resold.
- The seller pays the buyer's interest cost in a third-party financing.
- The seller has a practice of refunding to the buyer a portion of the selling price representing interest expense for the period from the time the seller is paid to the time the buyer resells the product.

C. The matching principle and revenue recognition

1. The matching principle states that revenues and expenses should be recognized (recorded) in the periods in which they are earned/incurred.

2. There are **three scenarios**:

- a. Revenue Recognized at Point of Sale;
- b. Revenue Recognized Prior to Delivery and
- c. Revenue Recognized Post Delivery. We examine each scenario in order below

Point of Sale Recognition of Revenue

Rule: Revenue is recognized when the conditions in b.1. above are satisfied.

Payments received in the current accounting period for goods or services that will not be rendered until subsequent periods cannot be recorded as revenues in the current accounting period. Likewise, only those payments for assets that will be consumed in the current accounting period can be considered expenses.

Revenue Recognition at Point of Sale: Five Examples:

Note: The key issue in each of the following examples is the timing of revenue recognition. Cash received as payment for goods or services must be earned before revenue can be recognized. The following examples illustrate the revenue recognition process and the timing of revenue recognition.

Example 1: Services rendered and payment received in the current period:

Bill Shark, an attorney, takes a case and settles the matter in the current period. The client is billed \$1,000 and pays \$400 on account. The earnings process is complete and an exchange has taken place (Shark has provided legal services and been paid for them)

(asset)	Cash.....	400	
(asset)	Accounts receivable.....	600	
(revenue)	Legal service revenue.....		1,000

Example 2. Service is prepaid:

On December 15, 20x1 Bill Shark, an attorney, takes a case that he estimates will require 40 hours of legal work to be billed at \$200 per hour. Shark request and receives a retainer (prepayment of legal fees) of \$2,000. Shark uses a calendar year accounting cycle and performs no work on the case in the present year.

(asset)	Cash	2,000	
(liability)	Unearned retainer revenue.....		2,000

Note: The earnings process is not complete, and no exchange has taken place. The fees have been prepaid, but Shark has performed no services for which compensation has been earned, so a liability (debt) is recorded on Shark's books. **Note that Retainer revenue is unearned income.** Because it is unearned, it is a liability (debt) to the client until services are rendered. The process of Shark rendering services to the client converts the liability from a debt (owed the client for prepayment of fees) to revenue from services rendered.

Example 3: Service is prepaid and partially earned in the current period.

Assume the facts described in case (b) above except that Shark performed 5 hours of legal work prior to December 31, 20x1 (the end of the accounting cycle):

(asset)	Cash.....	2,000	
(liability)	Retainer Revenue (2,000 - 1,000).....	1,000	
(revenue)	Legal Service Revenue (5 @ \$200).....		1,000

To the extent that the revenue as been earned it should be recognized in the current period, to the extent that it has not been earned it's recognition as revenue must be put off until the earnings process is complete and recorded as a liability in the meantime

Example 4: Expenses incurred and paid for in current period.

Assume the same facts as in example 3 above except that Shark also pays \$500 for investigative services and receives the completed report prior to the end of the period.

(asset)	Cash.....	2,000	
(expense)	Investigation expenses ...	500	
(liability)	Unearned retainer revenue (2,000 - 1,000)...		1,000
(revenue)	Legal service revenue.....		1,000
(asset)	Cash (pay for investigation).....	500	

The cost of the investigation is expensed (charged against revenues) in the current period because the utility it rendered (the report) was utilized in the present period. That is to say that the knowledge rendered by the investigation was made available in the present period.

Example 5: Prepaid expenses

Assume the same facts described in example 4 above except that Shark also contracts for computerized legal research to be conducted January 2, 20x2. The estimated charge is \$300.

(asset)	Cash.....	2,000	
(expense)	Investigation expenses	500	
(asset)	Research expenses.....	300	
(liability)	Retainer revenue (2,000 - 1,000)..		1,000
(revenue)	Legal service revenue.....		1,000
(asset)	Cash.....	500	
(liability)	Accounts payable.....		300

To the extent that research expenses are **prepaid** they represent an asset. Recall that expenses are only charged against revenues in the current period if the benefits they create are utilized in that period.

Revenue Recognition before delivery

Long-term Construction (or Service) Contracts: Long-term contracts put increased economic pressure on sellers (builders) due to the huge expenses incurred and the extended time frame involved. In these cases cash payments are made by the purchaser and revenue is recognized by the seller/builder over the life of the contract as certain building milestones have been met. Some companies proved long-term service contracts...the same rules apply.

1. Completed-Contract Method:
 - a. no revenue is recognized until the contract is completed (or substantially completed)
 - b. losses are recognized immediately
2. Percentage-of-Completion Method:
 - a. Revenues and losses are both recognized in the current period based on the percentage of the contract completed based on either *input measures* or *output measures*
 1. Input Measures:
 - a. **Cost-to-Cost Method:** Computes Revenue to be recognized to date as follows:

$$\frac{\text{Cost incurred to date}}{\text{Currently Estimated Total Cost to Complete}} \times \text{Contract Revenue} = \text{Revenue that should have been Recognized to date}$$

Current year recognition of revenue/loss is the difference between *REVENUE THAT HAS ALREADY RECOGNIZED IN PRIOR PERIODS AND THE REVENUE THAT SHOULD HAVE BEEN RECOGNIZED BASED ON THE CURRENT APPLICATION OF THIS PROCESS*

b. **Efforts-Expended Method:** Computes Revenue to be recognized to date as follows:

$$\frac{\text{Machine hours, Labor hours, quantities used to date etc.}}{\text{Total Machine, Labor, quantities estimated to complete}} \times \text{Contract Revenue} = \text{Revenue that should have been Recognized to date}$$

Current year recognition of revenue/loss is the difference between *REVENUE THAT HAS ALREADY RECOGNIZED IN PRIOR PERIODS AND THE REVENUE THAT SHOULD HAVE BEEN RECOGNIZED BASED ON THE CURRENT APPLICATION OF THIS PROCESS*

Revenue/Loss Recognition before Delivery: Four Examples

Example 1: Profit on Long-Term Contract:

MDC Construction signs a \$2,000,000 contract with RJC Flight Services, Inc. to construct a hanger on 1 July, 20x0.

Estimated time to complete: 3 years (30 June, 20x3)
 Actual Completion Date: 31 December, 20x2 (30 months to complete)
 Data Available at year end at various points during the contract life:

	12/31/x0	12/31/x1	12/31/x2
Costs incurred to date:	\$ 280,000	\$ 1,100,000	\$ 1,800,000
Estimated Cost to Complete:	1,200,000	650,000	-0-
Progress Billings to RJC to Date	300,000	1,100,000	600,000
Cash Collected to Date	200,000	820,000	700,000

Computations of Revenue/Loss

Year	12/31/x0	12/31/x1	12/31/x2
Contract Price	2,000,000	2,000,000	2,000,000
Cost To Date:	280,000	1,100,000	1,800,000
Est Cost To Complete:	1,200,000	650,000	0
Total Costs	1,480,000	1,750,000	1,800,000
Est. Profit:	520,000	250,000	200,000
Percentage Completion:	18.92%	62.86%	100.00%
Total Profit Recog to Date:	98,378	157,143	200,000
Less: Rev from Prior Yr:	0	98,378	157,143
Profit/(Loss) Current Yr:	98,378	58,764	42,857

Cost to Date / Estimated Total Cost to Complete

Construction in Progress: An "catch-all" asset account comprised of the cost of construction work in progress plus profit recognized under percentage of completion method (the sum of Liabilities incurred, Inventory used, Cash paid; Expenses incurred and profit recognized). Under percentage of completion method the addition of profit raises the value of CIP to the net realizable value of the contract (which will equal the contract price upon completion).

Progress (Partial) Billings: A contra account to CIP and is credited for Accounts Receivable billed to customers.

Percentage of Completion: Closed against CIP upon completion of contract.

Completed Contract method: Closed against Construction Revenue

Construction Expense: Costs incurred during the year

Percentage of Completion: Recognized annually as part of profit recognition along with CIP (profit) and Construction Rev.

Completed Contract method: Recognized upon completion of contract and Closed against CIP

Construction Revenue: Revenue Recognized on Contract

Percentage of Completion: Recognized annually (must be reversed/eliminated if annual or overall contract loss is projected).

Completed Contract method: Recognized upon completion of contract. Projected losses recognized in current year. Closed against CIP.

Percentage of Completion Method:				
1	<u>Record Construction Costs:</u>	2010	2011	2012
	CIP	280,000	820,000	700,000
	Misc Exp & Payables	(280,000)	(820,000)	(700,000)
2	<u>Record Partial Billings:</u>			
	Accounts Receivable	300,000	1,100,000	600,000
	Progress Billings on CIP	(300,000)	(1,100,000)	(600,000)
3	<u>Record Collections:</u>			
	Cash	200,000	800,000	1,000,000
	Accounts Receivable	(200,000)	(800,000)	(1,000,000)
4	<u>Record Gross Profit:</u>			
	Construction Expense	280,000	820,000	700,000
	CIP (This is from NI)	98,378	58,764	42,857
	Construction Revenue	(378,378)	(878,764)	(742,857)
5	<u>Close CIP & Progress Billings:</u>			
	Progress Billings			2,000,000
	CIP			(2,000,000)

<u>CIP</u>	
280,000	
820,000	
700,000	
98,378	
58,764	
42,857	
2,000,000	2,000,000
<u>Progress Billings</u>	
2,000,000	
<u>Construction Expense</u>	
280,000	
820,000	
700,000	
1,800,000	
<u>Construction Revenue</u>	
	378,378
	878,764
	742,857
	2,000,000

<u>Income Summary</u>	
Yr 1 280,000	378,378
Yr 2 820,000	878,764
Yr 3 700,000	742,857

Completed Contract Method:				
1	<u>Record Construction Costs:</u>	2010	2011	2012
	CIP	280,000	820,000	700,000
	Misc Exp & Payables	(280,000)	(820,000)	(700,000)
2	<u>Record Partial Billings:</u>			
	Accounts Receivable	300,000	1,100,000	600,000
	Progress Billings on CIP	(300,000)	(1,100,000)	(600,000)
3	<u>Record Collections:</u>			
	Cash	200,000	900,000	1,000,000
	Accounts Receivable	(200,000)	(900,000)	(1,000,000)
4	<u>Record Gross Profit:</u>			
	Progress Billings			2,000,000
	Construction Revenue			(2,000,000)
5	<u>Close CIP & Construction Exp:</u>			
	Construction Expense			1,800,000
	CIP			(1,800,000)

<u>Retained Earnings</u>	
Yr 1	98,378
Yr 2	58,764
Yr 3	42,857

Percentage of Completion Method

1. Progress Billings are closed against CIP upon completion of contract.
2. Construction Expenses and Revenues are closed in the normal manner to Income Summary and then to Retained Earnings at the end of each year

Example 2: Loss in Current Period of a Long-Term contract (total Contract will produce a profit)

Percentage of Completion Method: Because profits have been recognized in prior periods under this method, the loss estimated in the current period requires an adjustment in the current period of previously recognized profits. This is **A CHANGE IN ESTIMATE**.

Completed Contract Method: No special treatment for estimated current year losses because profit is not recognized until completion

Assume the same facts as Example 1 above except that MDC Estimates cost to complete at 12/31/x1 to be \$750,000. The contract is still predicted to provide the same overall profit, but is now projecting a loss in the current year. y

Note that under percentage of completion that the CIP account must be adjusted for the profit recognized in the previous year. There is no current year effect under completed contract.

Year	1	2	3
Contract Price	2,000,000	2,000,000	2,000,000
Cost To Date:	280,000	1,100,000	1,800,000
Est Cost To Complete:	1,200,000	750,000	0
Estimated Total Costs	1,480,000	1,850,000	1,800,000
Est. Contract Profit or (Loss):	520,000	150,000	200,000
Percentage Completion:	18.92%	59.46%	100.00%
Current Year Profit/(Loss)	98,378	(9,189)	209,189
Revenue Recog. To Date:	378,378	1,189,189	2,000,000
Total Profit Recog to Date:	98,378	89,189	200,000
Less: Rev from Prior Yr:	0	98,378	89,189
Profit/(Loss) Current Yr:	98,378	(9,189)	110,811
Progress Billings to Date:	300,000	1,100,000	600,000
Cash Collected to Date:	200,000	800,000	1,000,000
Actual Costs Incurred (CIP):	280,000	820,000	700,000
Total Costs Incurred to date:	280,000	1,100,000	1,800,000

Percentage of Completion Method:

1 Record Construction Costs:			
CIP	280,000	820,000	700,000
Provision for Loss on Contract			
Misc Exp & Payables	(280,000)	(820,000)	(700,000)
2 Record Partial Billings:			
Accounts Receivable	300,000	1,100,000	600,000
Progress Billings on CIP	(300,000)	(1,100,000)	(600,000)
3 Record Collections:			
Cash	200,000	800,000	1,000,000
Accounts Receivable	(200,000)	(800,000)	(1,000,000)

4	<u>Record Gross Profit:</u>			
	Construction Expense	280,000	820,000	700,000
	CIP	98,378	(9,189)	110,811
	Construction Revenue	(378,378)	(810,811)	(810,811)
	Provisional Loss on Contract		0	0

5	<u>Close CIP & Progress Billings:</u>			
	Progress Billings			2,000,000
	CIP			(2,000,000)

Completed Contract Method:

1	<u>Record Construction Costs:</u>			
	CIP	280,000	820,000	700,000
	Misc Exp & Payables	(280,000)	(820,000)	(700,000)

2	<u>Record Partial Billings:</u>			
	Accounts Receivable	300,000	1,100,000	600,000
	Progress Billings on CIP	(300,000)	(1,100,000)	(600,000)

3	<u>Record Collections:</u>			
	Cash	200,000	800,000	1,000,000
	Accounts Receivable	(200,000)	(800,000)	(1,000,000)

4	<u>Record Gross Profit:</u>			
	Progress Billings			2,000,000
	Construction Revenue			(2,000,000)

5	<u>Close CIP & Construction Exp:</u>			
	Construction Expense			1,800,000
	Gain/Loss on Construction Contract			200,000
	CIP			(2,000,000)

Example 3: Predicted Overall loss on a Long-Term contract (total Contract will produce a loss)

Percentage of Completion Method: Profits recognized in prior periods must be eliminated from CIP and a provision for loss recorded.

Completed Contract Method: Predicted loss should be recognized in current period.

Assume the same facts as Example 1 above except that MDC Estimates cost to complete at 12/31/x1 to be \$950,000. The contract is now predicted to generate an overall loss of \$50,000.

Year	1	2	3
Contract Price	2,000,000	2,000,000	2,000,000
Cost To Date:	280,000	1,100,000	1,800,000
Est Cost To Complete:	1,200,000	950,000	0
Estimated Total Costs to Complete	1,480,000	2,050,000	2,050,000
Est. Contract Profit or (Loss):	520,000	(50,000)	(50,000)
Percentage Completion:	18.92%	53.66%	100.00%
Current Year Profit/(Loss)	98,378	(148,378)	0
Revenue Recog. To Date:	378,378	694,792	926,829
Total Profit Recog to Date:	98,378	(50,000)	(50,000)
Less: Rev from Prior Yr:	0	98,378	(50,000)
Profit/(Loss) Current Yr:	98,378	(148,378)	0
Progress Billings to Date:	300,000	1,100,000	600,000
Cash Collected to Date:	200,000	800,000	1,000,000
Actual Costs Incurred (CIP):	280,000	820,000	700,000
Total Costs Incurred to date:	280,000	1,100,000	1,800,000

Percentage of Completion Method:

1	<u>Record Construction Costs:</u>			
	CIP	280,000	820,000	900,000
	Provision for Loss on Contract			50,000
	Misc Exp & Payables	(280,000)	(820,000)	(950,000)
2	<u>Record Partial Billings:</u>			
	Accounts Receivable	300,000	1,100,000	600,000
	Progress Billings on CIP	(300,000)	(1,100,000)	(600,000)
3	<u>Record Collections:</u>			
	Cash	200,000	800,000	1,000,000
	Accounts Receivable	(200,000)	(800,000)	(1,000,000)
4	<u>Record Gross Profit:</u>			
	Construction Expense	280,000	843,171	926,829
	CIP (Projected profit on contract)	98,378	(98,378)	
	Construction Revenue	(378,378)	(694,792)	(926,829)
	Provisional Loss on Contract		(50,000)	
5	<u>Close CIP & Progress Billings:</u>			
	Progress Billings			2,000,000
	CIP			(2,000,000)

Completed Contract Method:

<u>1 Record Construction Costs:</u>			
CIP	280,000	820,000	700,000
Misc Exp & Payables	(280,000)	(820,000)	(700,000)
<u>2 Record Partial Billings:</u>			
Accounts Receivable	300,000	1,100,000	600,000
Progress Billings on CIP	(300,000)	(1,100,000)	(600,000)
<u>3 Record Collections:</u>			
Cash	200,000	800,000	1,000,000
Accounts Receivable	(200,000)	(800,000)	(1,000,000)
<u>4 Record Gross Profit:</u>			
Progress Billings			2,000,000
Construction Revenue			(2,000,000)
Construction Expense		50,000	
Provision for Loss		(50,000)	
<u>5 Close CIP & Construction Exp:</u>			
Construction Expense			2,000,000
Gain/Loss on Construction Contract			0
CIP			(2,000,000)

Example 4: Long-Term Service Contracts

General Rule: Revenues from long-term service contracts should be recognized when:

- Services have been rendered and
- Services are billable

Long-term service contracts are complex and GAAP is still developing.

PROPORTIONAL PERFORMANCE METHOD:

- The company recognizes revenue proportionate contribution of each service act to the overall value of the contract based upon:
 - A specified number of similar acts
 - A specified number of defined but not similar acts or
 - An unspecified number of similar acts using straight-line recognition over the contract period.

Definition and Treatment of service costs under the Proportional Performance Method:

Initial Direct Costs (IDC): Cost incurred in the negotiation of the contract (Legal, Accounting, Appraisal fees etc.).

IDC are deferred and amortized over the life of the service contract

Direct Costs: Costs that are directly related to the services performed (Labor costs)

Direct Costs are expensed as incurred

Indirect Costs: Costs that do not have a direct causal relationship with the performance of service and cannot be classified as IDC or Direct Costs; (General Accounting, Advertising; Depreciation etc.)

Indirect Costs are expensed as incurred

Long-Term Service Contract: Proportional Performance Method Example

Assume that LYC Moving and Storage signs a maintenance contract on 1/1/x0 with DMC Automotive Services to maintain its fleet of long-haul moving vans. Under the terms of the contract LYC pays a \$6,000 fee per truck that covers a two year period. During that period each truck will be a "light service" (rotate balance tires, check fluids etc.) every other month (12 inspections) and a full service every 50,000 miles. Most trucks drive 200,000 miles annually. LYC has 50 trucks to be serviced under this contract.

On 1/1/x0 DMC collects (50 x \$6,000) \$300,000 and is obligated to provide (50 x 12) 600 inspections and an estimated (2x4x50) 400 truck services over the next 24 months. This contract provides for a specified number of inspections and an estimated number of services.

During 20x0 and 20x1 the trucks averaged 250,000 miles and 170,000 miles respectively. LYC incurred the following costs in completing the contract with DMC:

IDC: _____	\$ 20,000
Annual Indirect Costs: _____	10,000
Estimated total Direct Costs for the two year period:	60,000 (for inspections)
	160,000 (for service)
Direct Cost per service act:	
Inspection: _____	100
Service: _____	400

Revenues for years 20x0 and 20x1 would be computed as follows:

$$\frac{\text{Total cost of inspections} + \text{Total Cost of Service}}{\text{Total Direct Costs}} = \% \text{ Proportional Performance; } (\%)(\text{Contract } \$) = \text{Revenue}$$

Year 20x0	$\frac{(300 \times \$100) + (250,000/50,000)(50)(\$400)}{\$220,000}$	=	$\frac{\$30,000 + \$100,000}{\$220,000}$	=	.59;	$(.59)(300,000) =$	<u>\$177,273</u>
Year 20x1	$\frac{(300 \times \$100) + (150,000*/50,000)(50)(\$400)}{\$220,000}$	=	$\frac{\$30,000 + \$60,000}{\$220,000}$	=	.41;	$(.41)(300,000) =$	<u>\$122,727</u> <u>\$300,000</u>

A Condensed Income Statement for DMC is presented below:

	<u>20x0</u>	<u>20x1</u>
Revenues:	\$ 177,273	\$ 122,727
Expenses:		
Initial Direct Costs (%) (20,000)	11,800	8,200
Direct Cost	130,000	90,000
Indirect Costs	<u>10,000</u>	<u>10,000</u>
Net Income	\$ 25,473	\$ 14,527

Revenue/Loss Recognition Post Delivery: Two Examples

Installment Sales (Example 1)

Installment sales are a contractual financing agreement in which a customer takes possession of an asset by making a small down payment and signing a contract by which the purchaser agrees to make payments over time. Typical examples are credit cards, mortgages and car loans.

- Under most installment sales contracts, title does not pass to the purchaser until the contract has been paid in full.

Installment Sales method of Accounting: Note that the installment method of accounting is an accounting technique as opposed to the installment sales contract described above.

- A company may only utilize the installment method of revenue recognition when the collectability of the receivables are not reasonably assured (note that this decision is not related to whether we are dealing with an installment contract).
- The Installment method of accounting is only allowed in specific circumstances under GAAP because:
 - The installment method defers only gross profit to future periods but recognizes sales, cost of sales and other sales and administrative expenses in the period of sale. Furthermore, income is not recognized until cash is received (cash basis) thereby failing to meet accrual accounting rules.

Installment Method Accounting Procedures

Assume MDC uses the installment method:	20x0	20x1
Total credit sales: (MDC uses Perpetual Inventory)	\$ 700,000	\$ 900,000
Total COS:	400,000	550,000
Installment Credit Sales:	200,000	300,000
Installment Sales Gross Profit %:	25%	30%
Installment Sales Cash Receipts:		
20x0 sales.....	30,000	50,000
20x1 sales.....		60,000
Non Installment Sales Cash Receipts:	420,000	540,000
20x0		
<u>Year of sale:</u> --Record sale in normal manner; no special accounting treatment; record sales, cost-of-sales (COS) and receipts as normal (installment sales are not broken out)		
A/R.....	700,000	
COS.....	400,000	
Sales.....		700,000
Inventory.....		400,000
Cash.....	450,000	
A/R.....		450,000
<u>Year end:</u> --Identify those transactions for which the installment method is to be applied and reverse revenue and COS that was 20x0 previously recorded		
Sales.....	200,000	
COS.....		150,000 (200,000 x .75)
Deferred Profit on Installment Sales 20x0	50,000	(200,000 x .25)
--Apply the gross profit rate on installment sales to recognize profit allowed to date:		
Deferred Profit on Installment Sales 20x0	7,500	30,000 x .25
Gross Profit Realized on installment sales		7,500
20x1 --In future years normal accounting procedures are applied and the remaining deferred profit is reduced as payments are received.		
A/R.....	900,000	
COS.....	550,000	
Sales.....		900,000
Inventory.....		550,000
Cash.....	650,000	
A/R.....		650,000

Year end: --Identify those transactions for which the installment method is to be applied and reverse revenue and COS that was previously recorded

Sales.....	300,000		
COS.....		225,000	(300,000 x .75)
Deferred Profit on Installment Sales 20x1		75,000	(300,000 x .25)
--Apply the gross profit rate on installment sales to recognize profit allowed to date:			
Deferred Profit on Installment Sales 20x0	12,500		(50,000 x .25)
Deferred Profit on Installment Sales 20x1	15,000		(50,000 x .30)
Gross Profit Realized on installment sales		27,500	

Note: If the amount of installment sales is considered to be a material component of reported net income both installment sales and installment gross profit should be reported separately on the income statement. If not material, it is permissible to disclose only the gross profit on installment sales on the income statement.

c. Interest on Installment Sales Contracts: Interest is accounted for separately using the interest method.

Installment Loan Information:					
Face Value:				12,000	
Stated Interest:				10.00%	
Market (Yield) Interest:				10.00%	
Date of Contract:				1/1/10	
Maturity Date of Bonds:				1/1/13	
Life in Years:				3	
Interest Payments Per Year:				1	

		0.10			
		Debit	Interest	Credit	
		Cash	Earned	to	Contract
		Payment	Installment	Installment	Unpaid
		on	Contract	Receivables	Balance
		Contract	Contract	Contract	Carrying
Date	Contract	Contract	Contract	Contract	Value
1/1/10				0.00	12,000.00
1/1/11	4,825.38	1,200.00	3,625.38	3,625.38	8,374.62
1/1/12	4,825.38	837.46	3,987.92	7,613.29	4,386.71
12/31/12	4,825.38	438.67	4,386.71	12,000.00	0.00

d. Uncollectible Accounts: If the contract provides for repossession upon default the company should:

1. Recognize bad debt expense to the extent sale of repossessed asset will yield less than the remaining undiscounted cash flow from the original contract.
2. If sale of repossessed asset is expected to yield more than the remaining undiscounted cash flow of the original contract, no action is necessary. Gain will be recorded upon final sale.

e. Defaults and Repossessions: When an asset is repossessed the asset is recorded on the books at FMV, the remaining deferred gross profit and account receivable is eliminated. Allowance for Bad Debts is plugged as necessary.

Repossessed Asset (at FMV).....	xxxx	
Remaining Deferred Gross Profit.....	xxxx	
Allowance for Bad Debts.....	Xxxx	←(Assumes A debit is required to balance)
Accounts Receivable.....	xxxx	

Cost-Recovery Method of Accounting for Sales Example 2

a. Cost-recovery method (like the installment sales method) is generally not acceptable under GAAP and its use is restricted to cases where there is a high degree of uncertainty about the collectability of the sales price.

1. limited to circumstances where:

a. A/R are to be collected over an extended period and

b. Terms of the transactions provide no reasonable basis for estimating the probability of collection.

General Motors attempted sale of its Hummer and Saab divisions are an example of an acceptable use of the cost recovery method.

D. The Terminology of Revenue Recognition:

Differentiating between Costs, Assets, Expenses and Mixed Accounts.

For financial accounting purposes (as opposed to economic purposes)

Cost: Historical cost amount, expressed in dollars that must be given up in order to attain an item.

Historical cost is used because it is objective (verifiable). It should be noted that *only at the time of purchase (because the transaction is assumed to be at "arms-length") does historical cost bare any relationship to market value.*

Asset: An item attained for a certain cost that will benefit the business both in the current and future periods. All assets with limited lives will be converted into **expenses** as there utility decreases over their useful lives.

Expense: An asset whose utility has been fully utilized.

Depreciation: The process of allocating the utility of an asset (less its salvage value) to the time periods benefited is known as depreciation. It is important to note that depreciation is an allocation process and that all assets with limited lives will be converted to expenses over their useful lives.

a. **Salvage value** is the residual or scrap value an asset will have at the end of its useful (economic) life. The salvage value is not depreciated.

b. **Straight line depreciation** allocates an equal portion of historical cost to each period the asset will benefit.

Straight-line Depreciation Expense = (Cost - Salvage)/Life

1. The journal entry to record depreciation is:

(expense)	Depreciation expense.....	xxxx	
(contra asset)*	Accumulated depreciation.....		xxxx

* a **contra** (offset) account is any account whose balance is deducted (offset) from the account to which it relates. Contra accounts can only exist in relationship with a **control account**. Contra accounts are utilized to allow the control account to remain at historical cost in the ledger for reporting purposes while the net value of the control account offset by the contra account reflects the historical cost of the asset after allocation of depreciation expense to the present and past periods.

2. A common misconception is that depreciation sets funds aside for asset replacement; **depreciation does not set any funds aside to replace the asset in the future; it is an allocation scheme only. It has no relationship with the market value of the asset.**

Mixed Accounts: Accounts that contains both a real (balance sheet) and nominal (income statement) component.

1. During the adjusting process, these two components (real and nominal) are separated and placed on the appropriate statement (balance sheet or income statement).
 - a. An example of a mixed account is **inventory**. Inventory has a real component (that portion on hand at the end of the period) and a nominal component (that portion that has been sold during the period and must be charged against revenues).
 1. In the adjusting process inventory will be reduced (credited) on the balance sheet and expensed (debited) on the income statement.

E. The accounting process revisited:

1. Transactions are **recorded in the general journal**;
The purpose of the journal is to provide a complete historical record of the transaction in a single location;
2. The amounts recorded in the journal are **posted to (recorded in) the appropriate ledger account**;
The purpose of the ledger is to provide a complete historical record of each account.
3. A **pre-closing trial balance** is taken to assure that the accounting equation is in balance;
4. **The nominal (temporary or income statement accounts) are closed** to the expense and revenue summary and any other adjustments necessary to correct the accounts to the end of year balances are made to the ledger;
 - a. This procedure is known and the **adjusting and closing process**.
 - b. The **purpose of the adjusting process** is to allow an accurate measurement of net income (revenues less expenses) and financial position on the **accrual** basis in order to conform to the matching principle.
 - c Adjusting entries always affect at least one real and at least one nominal account.
 - d. The **closing process** involves closing all the nominal accounts to the expense and revenue summary. The balance in the expense and revenue summary is net income and is closed to retained earnings.
5. **Adjustments are posted to the ledger**
6. A **post-closing trial balance** is taken to assure that the accounts remain in balance after all adjustments to real and nominal accounts and closing of nominal accounts;
7. The **financial statements are produced** using the numbers in the post closing trial balance; the balance sheet (real) accounts are reported on the balance sheet and the income statement (nominal or expense and revenue) accounts are reported on the income statement. The statement of cash flows reconciles the changes that have occurred in each of the ledger accounts and explains the sources and uses of cash for the accounting period.