# Chapter 18A

Revenue Recognition

Annual reports:

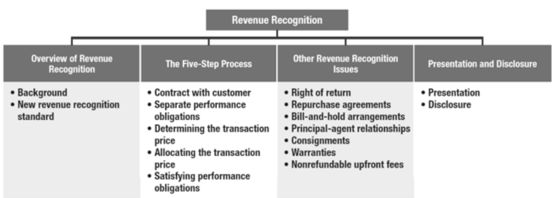
1

# Revenue Recognition

1. Revenue recognition issues
2. Five steps
3. (1) Contract with customers
4. (2) Separate performance obligations
5. (3) Determine transaction price
6. (4) Allocate transaction price to obligations
7. (5) Recognize revenue
8. Other revenue recognition issues
9. Presentation and disclosure

2

# Chapter Preview




3

# Learning Objective 1

- Revenue recognition issues

4

# Revenue Recognition

- Most revenue transactions easy
  - Pay cash at Safeway; no returns
  - Safeway has no further obligations
- Contracts more complex
  - Many elements occur over time
  - Revenue recognition more complex

http://www.lexus.com/ownership

5

# Revenue from Contracts with Customers

- Convergence
  - FASB and IASB work together and attempt to jointly issue new rules
  - Minimize (not eliminate) differences between GAAP and IFRS
- In 2013 FASB and IASB jointly issued one standard on revenue recognition

6

## Asset-Liability Approach

- Amount of revenue based upon value of asset (or liability) created in contract

No longer use "earned and realized" criteria

7

## Contract Assets: Two Types

- Accounts Receivable
  - All performance obligations fulfilled
  - Unconditional rights to consideration
- Contract Asset
  - One performance obligation has fulfilled
  - Other obligations must be fulfilled
  - Conditional rights to consideration

8

## Contract Assets: Two Types

| Description | Debit | Credit |
|---|---|---|
| Contract Asset | 20,000 | |
| Sales Revenue | | 20,000 |
| *Completed one of two performance obligations* | | |

| Description | Debit | Credit |
|---|---|---|
| Accounts Receivable | 50,000 | |
| Contract Asset | | 20,000 |
| Sales Revenue | | 30,000 |
| *Completed second performance obligation* | | |

9

## Contract Liabilities

- Unearned Revenue (liability)
  - Customer has prepaid
  - Obligation to provide future goods/services

| Description | Debit | Credit |
|---|---|---|
| Cash | 80,000 | |
| Unearned Sales Revenue | | 80,000 |
| *Customer paid $80,000 in advance; good will be delivered in 60 days* | | |

10

## Learning Objective 2

- Five steps

11

## Five-Step Process

1. Identify contract with customers
2. Identify performance obligations
3. Determine transaction price
4. Allocate transaction price to obligations
5. Recognize revenue when performance obligation satisfied

12

## Step 1

Boeing Corporation signs a contract to sell airplanes to Delta Air Lines for $100 million.

Step 1
Identify contract with customers

A contract is an agreement between two parties that creates enforceable rights or obligations. In this case, Boeing has signed a contract to deliver airplanes to Delta.

13

## Step 2

Boeing Corporation signs a contract to sell airplanes to Delta Air Lines for $100 million.

Step 2
Identify performance obligations

Boeing has only one performance obligation—to deliver airplanes to Delta. If Boeing also agreed to maintain planes, a separate performance obligation is recorded.

14

## Step 3

Boeing Corporation signs a contract to sell airplanes to Delta Air Lines for $100 million.

Step 3
Determine transaction price

Transaction price is amount of consideration expected to be received from customer in exchange for transferring a good or service. In this case, transaction price is straightforward — it is $100 million.

15

## Step 4

Boeing Corporation signs a contract to sell airplanes to Delta Air Lines for $100 million.

Step 4
Allocate transaction price to obligations

In this case, Boeing has only one performance obligation — to deliver airplanes to Delta.

16

## Step 5

Boeing Corporation signs a contract to sell airplanes to Delta Air Lines for $100 million.

Step 5
Recognize revenue when obligation satisfied

Boeing recognizes revenue of $100 million for sale of airplanes to Delta when it satisfies its performance obligation — delivery of airplanes to Delta.

17

## Learning Objective 3

- Step 1: Contract with customers

18

## Contract

- Agreement between two or more parties
- Creates enforceable rights, obligations

19

## 1: Contract with Customers

- Revenue not recognized
  - Until contract exists
- Net asset or net liability not recognized
  - Until one or both parties performs

20

## 1: Contract with Customers

Contract asset = Rights received > Performance obligation

Contract liability = Rights received < Performance obligation

21

**Brief Exercise 18A-1**

On May 10, 2014, Cosmo Co. enters into a contract to deliver a product to Greig Inc. on June 15, 2014. Greig agrees to pay the full contract price of $2,800 on July 15, 2014. The cost of the goods is $2,100. Cosmo delivers the product to Greig on June 15, 2014, and receives payment on July 15, 2014. Prepare the journal entries for Cosmo related to this contract. ***(If***

**No entry** is required on May 10, 2014, because neither party has performed on the contract. That is, neither party has an unconditional right as of May 10, 2014. On June 15, 2014, Cosmo delivers the product and therefore should recognize revenue as it received an unconditional right to consideration on that date. In addition, Cosmo satisfies its performance obligation by delivering the product to Greig.

| | | | |
|---|---|---|---|
| May 10, 2014 | No Entry | 0 | |
| | No Entry | | 0 |
| June 15, 2014 | Accounts Receivable | 2,800 | |
| | Sales Revenue | | 2,800 |
| | (To record sale) | | |
| | Cost of Goods Sold | 2,100 | |
| | Inventory | | 2,100 |
| | (To record cost of goods sold) | | |
| July 15, 2014 | Cash | 2,800 | |
| | Accounts Receivable | | 2,800 |

22

## Contract Modifications

- Change in terms of ongoing contract
- Determine whether
  - New contract (performance obligation)
  - Modification of existing contract

23

## Conditions for New Contract

1. Additional goods or services
   - Can be sold separately
   - Not dependent on original contract
2. Price = Standalone selling price

If both conditions met two separate contracts exist
No change to original contract

If both conditions not met
use prospective approach and blended price

24

## Original Contract

| Original Contact Terms | |
|---|---|
| Total units | 100 units |
| Deliver on May 1 | 60 units |
| Deliver on June 1 | 40 units |
| Selling price per unit | $100 |
| Total contract amount | $10,000 |

| Description | Debit | Credit |
|---|---|---|
| Accounts Receivable | 6,000 | |
| Sales Revenue | | 6,000 |
| *May 1: Deliver 60 units at $100 per unit* | | |

25

## Modification Creates New Contract

After delivery of 60 units customer modifies contract
Orders 20 additional units, $95 each (market price)
Deliver 10 additional units on June 1
Deliver 10 additional units on July 1

| Modified Contact Terms | |
|---|---|
| Additional units ordered | 20 |
| Selling price per unit | $95 |
| Total amount | $1,900 |

| Delivery Schedule | |
|---|---|
| June 1 | 50 = (40 + 10) |
| July 1 | 10 |

26

| Original Contact Terms | |
|---|---|
| Number of units | 100 |
| Selling price per unit | $100 |

| Modified Contact Terms | |
|---|---|
| Additional units ordered | 20 |
| Selling price per unit | $95 |

| Delivery Schedule | |
|---|---|
| June 1 | 50 = (40 + 10) |
| July 1 | 10 |

| Description | Debit | Credit |
|---|---|---|
| Accounts Receivable | 4,950 | |
| Sales Revenue | | 4,950 |
| *June 1: Deliver 40 units at $100 per unit plus 10 units at $95* | | |

27

| Original Contact Terms | |
|---|---|
| Number of units | 100 |
| Selling price per unit | $100 |

| Modified Contact Terms | |
|---|---|
| Additional units ordered | 20 |
| Selling price per unit | $95 |

| Delivery Schedule | |
|---|---|
| June 1 | 50 = (40 + 10) |
| July 1 | 10 |

| Description | Debit | Credit |
|---|---|---|
| Accounts Receivable | 950 | |
| Sales Revenue | | 950 |
| *July 1: Deliver 10 units at $95* | | |

28

## If Prospective Approach Used

| Revenue Calculation | | | | |
|---|---|---|---|---|
| $4,000 | = | $100 | × | 40 |
| $1,900 | = | $95 | × | 20 |
| **$5,900** | | | | |

| Revenue Per Unit Calculation | | | | |
|---|---|---|---|---|
| $98.33 | = | $5,900 | ÷ | 60 |

**Prospective approach**
Use blended price of $98.33
in current period and future periods

29

| Original Contact Terms | |
|---|---|
| Number of units | 100 |
| Selling price per unit | $100 |

| Modified Contact Terms | |
|---|---|
| Additional units ordered | 20 |
| Selling price per unit | $95 |

| Delivery Schedule | |
|---|---|
| June 1 | 50 = (40 + 10) |
| July 1 | 10 |

| Description | Debit | Credit |
|---|---|---|
| Accounts Receivable | 4,916.50 | |
| Sales Revenue | | 4,916.50 |
| *June 1: Deliver 50 units at $98.33* | | |

30

| Original Contact Terms | |
|---|---|
| Number of units | 100 |
| Selling price per unit | $100 |

| Modified Contact Terms | |
|---|---|
| Additional units ordered | 20 |
| Selling price per unit | $95 |

| Delivery Schedule | |
|---|---|
| June 1 | 50 = (40 + 10) |
| July 1 | 10 |

| Description | Debit | Credit |
|---|---|---|
| Accounts Receivable | 983.30 | |
| Sales Revenue | | 983.30 |
| *July 1: Deliver 10 units at $98.33* | | |

31

**Exercise 18A-3**

In September 2014, Gaertner Corp. commits to selling 158 of its iPhone-compatible docking stations to Better Buy Co. for $15,800 ($100 per product). The stations are delivered to Better Buy over the next 6 months. After 100 stations are delivered, the contract is modified and Gaertner promises to deliver an additional 50 products for an additional $4,750 ($95 per station). All sales are cash on delivery.

Prepare the journal entry for Gaertner for the sale of the first 100 stations. The cost of each station is $57. *(... unt titles and enter 0 for the ... nted when the amount is ente...*

| | | |
|---|---|---|
| Sales Revenue (100 × $100) | = | **$10,000** |
| Inventory (100 × $57) | = | **$5,700** |

| Account Titles and Explanation | Debit | Credit |
|---|---|---|
| Cash | 10,000 | |
| Sales Revenue | | 10,000 |
| (To record the sale) | | |
| Cost of Goods Sold | 5,700 | |
| Inventory | | 5,700 |
| (To record cost of goods sold) | | |

**Exercise 18A-3**

In September 2014, Gaertner Corp. commits to selling 158 of its iPhone-compatible docking stations to Better Buy Co. for $15,800 ($100 per product). The stations are delivered to Better Buy over the next 6 months. After 100 stations are delivered, the contract is modified and Gaertner promises to deliver an additional 50 products for an additional $4,750 ($95 per station). All sales are cash on delivery.

Prepare the journal entry for the sale of 10 more stations after the contract modification, assuming that the price for the additional stations reflects the standalone selling price at the time of the contract modification. In addition, the additional stations are distinct from the original products as Gaertner regularly sells the products separately. *(If no entry is*

| | | |
|---|---|---|
| Sales Revenue (10 × $100) | = | **$1,000** |
| Inventory (10 × $57) | = | **$570** |

In this situation, the contract modification for the additional 50 products is, in effect, a new and separate contract for future products that does not affect the accounting for the previously existing contract.

| Account Titles and Explanation | Debit | Credit |
|---|---|---|
| Cash | 1,000 | |
| Sales Revenue | | 1,000 |
| (To record the sale) | | |
| Cost of Goods Sold | 570 | |
| Inventory | | 570 |
| (To record cost of goods sold) | | |

**Exercise 18A-3**

In September 2014, Gaertner Corp. commits to selling 158 of its iPhone-compatible docking stations to Better Buy Co. for $15,800 ($100 per product). The stations are delivered to Better Buy over the next 6 months. After 100 stations are delivered, the contract is modified and Gaertner promises to deliver an additional 50 products for an additional $4,750 ($95 per station). All sales are cash on delivery.

Prepare the journal entry for the sale of 10 more stations (as in (b)), assuming that the pricing for the additional products *does not* reflect the standalone selling price of the additional products and the prospective method is used. ***(If no entry is required, select "No Entry" for the account titles and enter 0 for the amounts. Credit account titles are automatically indented when the amount is entered. Do not indent manually. Round answers to 2 decimal places, e.g. 52.75.)***

| Account Titles and Explanation | Debit | Credit |
|---|---|---|
| Cash | 976.90 | |
| Sales Revenue | | 976.90 |
| (To record the sale) | | |
| Cost of Goods Sold | 570 | |
| Inventory | | 570 |
| (To record cost of goods sold) | | |

In this case, because the new price does not reflect a stand-alone selling price, Gaertner allocates a modified transaction price (less the amounts allocated to products transferred at or before the date of the modification) to all remaining products to be transferred.

Under the prospective approach, Gaertner determines the transaction price for subsequent sales ($97.69) as follows.

| | |
|---|---|
| Consideration for products not yet delivered under original contract ($100 × 58) | $ 5,800 |
| Consideration for products to be delivered under the contract modification ($95 × 50) | 4,750 |
| Total remaining revenue | $10,550 |

Revenue per remaining unit ($10,550 ÷ 108) = $97.69.

As indicated, the numerator includes products not yet transferred under original contract ($100 × 58) plus products to be transferred under the contract modification ($95 × 50), which is divided by the remaining 108 products.

Cash (10 × $97.69) = **$976.90**

| Account Titles and Explanation | Debit | Credit |
|---|---|---|
| Cash | 976.90 | |
| Sales Revenue | | 976.90 |
| (To record the sale) | | |
| Cost of Goods Sold | 570 | |
| Inventory | | 570 |

**Exercise 18A-4**

Tyler Financial Services performs bookkeeping and tax-reporting services to startup companies in the Oconomowoc area. On January 1, 2014, Tyler entered into a 3-year service contract with Walleye Tech. Walleye promises to pay $11,900 at the beginning of each year, which at contract inception is the standalone selling price for these services. At the end of the second year, the contract is modified and the fee for the third year of services is reduced to $9,500. In addition, Walleye agrees to pay an additional $23,700 at the beginning of the third year to cover the contract for 3 additional years (i.e., 4 years remain after the modification). The extended contract services are similar to those provided in the first 2 years of the contract.

Prepare the journal entries for Tyler in 2014 and 2015 related to this service contract. ***(If no entry is required, select "No Entry" for the account titles and enter 0 for the amounts. Credit account titles are automatically indented when the amount is entered. Do not indent manually.)***

| Date | Account Titles and Explanation | Debit | Credit |
|---|---|---|---|
| January 1, 2014 | Cash | 11,900 | |
| | Unearned Service Reve | | 11,900 |
| December 31, 2014 | Unearned Service Revenue | 11,900 | |
| | Service Revenue | | 11,900 |
| January 1, 2015 | Cash | 11,900 | |
| | Unearned Service Reve | | 11,900 |
| December 31, 2015 | Unearned Service Revenue | 11,900 | |
| | Service Revenue | | 11,900 |

**Exercise 18A-4**

Tyler Financial Services performs bookkeeping and tax-reporting services to startup companies in the Oconomowoc area. On January 1, 2014, Tyler entered into a 3-year service contract with Walleye Tech. Walleye promises to pay $11,900 at the beginning of each year, which at contract inception is the standalone selling price for these services. At the end of the second year, the contract is modified and the fee for the third year of services is reduced to $9,500. In addition, Walleye agrees to pay an additional $23,700 at the beginning of the third year to cover the contract for 3 additional years (i.e., 4 years remain after the modification). The extended contract services are similar to those provided in the first 2 years of the contract.

Prepare the journal entries for Tyler in 2016 related to the modified service contract, assuming a prospective approach. ***(If no entry is required, select "No Entry" for the account titles***

| | | | |
|---|---|---|---|
| January 1, 2016 | Cash ($9,500 + $23,700) | = | **$33,200** |
| December 31, 2016 | Unearned Service Revenue ($33,200 ÷ 4) | = | **$8,300** |

In this case, the modification of the contract does not result in new performance obligation. As a result, the remaining service revenue is recognized evenly over the remaining four years.

| | | | |
|---|---|---|---|
| 2016 | Cash | 33,200 | |
| | Unearned Service Reve | | 33,200 |
| December 31, 2016 | Unearned Service Revenue | 8,300 | |
| | Service Revenue | | 8,300 |



**Exercise 18A-4**

Tyler Financial Services performs bookkeeping and tax-reporting services to startup companies in the Oconomowoc area. On January 1, 2014, Tyler entered into a 3-year service contract with Walleye Tech. Walleye promises to pay $11,900 at the beginning of each year, which at contract inception is the standalone selling price for these services. At the end of the second year, the contract is modified and the fee for the third year of services is reduced to $9,500. In addition, Walleye agrees to pay an additional $23,700 at the beginning of the third year to cover the contract for 3 additional years (i.e., 4 years remain after the modification). The extended contract services are similar to those provided in the first 2 years of the contract.

Repeat the requirements for part (b), assuming Tyler and Walleye agree on a revised set of services (fewer bookkeeping services but more tax services) in the extended contract period and the modification results in a separate performance obligation. ***(If no entry is required,***

Given the change in services in the extended contract period, the services are distinct; the modification should not be considered as part of the original contract – Tyler recognizes revenue on the remaining services at different rates. Tyler will recognize $7,900 ($23,700 ÷ 3) per year in the extended period (2017–2019).

For January 1, 2016, Cash ($9,500 + $23,700) = **$33,200**

| | | | |
|---|---|---|---|
| January 1, 2016 | Cash | 33,200 | |
| | Unearned Service Reve | | 33,200 |
| December 31, 2016 | Unearned Service Revenue | 9,500 | |
| | Service Revenue | | 9,500 |

## Learning Objective 4

Step 2: Identify performance obligations



## Step 2: Identifying Separate Performance Obligations

- Record one performance obligation
  - Single product / service is provided
  - If multiple obligations not separable (interdependent and interrelated)
- Record many performance obligations
  - If products / services are separable (not highly dependent or interrelated)
  - Obligations optional, sold at market price



## Example: One Performance Obligation

SoftTech Inc. licenses customer-relationship software. All software requires customization that only SoftTech can provide. Does licensing and customization describe a single performance obligation or multiple performance obligations?

The software license and the consulting services are distinct but interdependent and interrelated; record as one performance obligation.



## Example: Multiple Performance Obligations

Chen Computer sells computers that include a one-year assurance warranty. In addition, Chen separately sells an extended warranty, which provides protection for an additional three years.

Sale of computer and assurance warranty are one performance obligation because they are inseparable (interdependent and interrelated). The extended warranty is separately sold and is not interdependent or interrelated and should be recorded as a separate performance obligation.

**Exercise 18A-10**

Shaw Company sells goods that cost $351,000 to Ricard Company for $479,700 on January 2, 2014. The sales price includes an installation fee, which is valued at $46,800. The fair value of the goods is $432,900. The installation is considered a separate performance obligation and is expected to take 6 months to complete.

Prepare the journal entry to record the sale on January 2, 2014. ***(If no entry is required, select "No Entry" for the account titles and enter 0 for the amounts. Credit account titles are automatically indented when the amount is entered. Do not indent manually.)***

| Date | Account Titles and Explanation | Debit | Credit |
|---|---|---|---|
| January 2, 2014. | Accounts Receivable | 479,700 | |
| | Sales Revenue | | 432,900 |
| | Unearned Service Reve | | 46,800 |

43

## Learning Objective 5

- Step 3: Determine transaction price

44

## Step 3: Determining Transaction Price

- Amount of consideration we expect to receive from customer
- Variable consideration
- Noncash consideration
- Consideration paid by seller to customer
- Apply TVM if more than one year

45

## Variable Consideration

- Price dependent on future events
- Estimate revenue
  - Expected value: Probability-weighted
  - Most likely amount: Single outcome

Use most reasonable, reliable, objective estimate

46

Peabody Construction Company enters into a contract with a customer for $100,000 and a performance bonus of $50,000 based upon completion date. Bonus decreases by $5,000 per week after target completion date.

Peabody has completed many contracts with performance bonuses in the past, and Peabody believes it can reliably and objectively estimate future performance on this contract.

Management estimates there is a 60% probability contract will be completed by target date, a 30% probability it will be completed 1 week late, and a 10% probability it will be completed 2 weeks late.

47

## Estimating Variable Consideration

| Probability-Weighted Method | | | | |
|---|---|---|---|---|
| $90,000 | = | $100,000 + 50,000 | × | 60% |
| $43,500 | = | $100,000 + 45,000 | × | 30% |
| $14,000 | = | $100,000 + 40,000 | × | 10% |
| **$147,500** | | | | |

| Most Likely Outcome Method |
|---|
| $150,000 |

Management selects more reliable, objective estimate

48

**Brief Exercise 18A-5**

Nair Corp. enters into a contract with a customer to build an apartment building for $1,005,000. The customer hopes to rent apartments at the beginning of the school year and provides a performance bonus of $189,000 to be paid if the building is ready for rental beginning August 1, 2015. The bonus is reduced by $63,000 each week that completion is delayed. Nair commonly includes these completion bonuses in its contracts and, based on prior experience, estimates the following completion outcomes:

| Completed by | Probability |
|---|---|
| August 1, 2015 | 70 % |
| August 8, 2015 | 20 |
| August 15, 2015 | 5 |
| After August 15, 2015 | 5 |

| | |
|---|---|
| 1,194 = | 1,005 + 189 |
| 1,131 = | 1,005 + 189 − 63 |
| 1,068 = | 1,005 + 189 − (63 × 2) |
| 1,005 = | 1,005 + 189 − (63 × 3) |

Determine the transaction price for this contract.

Total transaction price $ 1,165,650

| Completion Date | Probability | | Expected Value |
|---|---|---|---|
| August 1 | 70% chance of $1,194,000 | = | $ 835,800 |
| August 8 | 20% chance of $1,131,000 | = | 226,200 |
| August 15 | 5% chance of $1,068,000 | = | 53,400 |
| After August 15 | 5% chance of $1,005,000 | = | 50,250 |
| | | | $1,165,650 |

## Variable Consideration

- Price dependent on future events
  - Discounts, rebates, credits, performance bonuses, royalties
- Only allocate variable consideration when reasonably assured
- Recognize variable consideration if
  - Experience with similar contracts
  - Can make reasonable estimates
  - Reversal of revenue unlikely



**Exercise 18A-1**

Jupiter Company sells goods to Danone Inc. on account on January 1, 2014. The goods have a sales price of $585,600 (cost $480,000). The terms of the sale are net 30. If Danone pays within 5 days, it receives a cash discount of $9,600. Past history indicates the cash discount will be taken.

Prepare the journal entries for Jupiter for January 1, 2014. ***(If no entry is required, select "No Entry" for the account titles and enter 0 for the amounts. Credit account titles are automatically indented when the amount is entered. Do not indent manually.)***

| Account Titles and Explanation | Debit | Credit |
|---|---|---|
| Accounts Receivable | 576,000 | |
| Sales Revenue | | 576,000 |
| (To record the sale) | | |
| Cost of Goods Sold | 480,000 | |
| Inventory | | 480,000 |
| (To record cost of goods sold) | | |

Sales Revenue ($585,600 – $9,600) = **$576,000**



Prepare the journal entries for Jupiter for January 31, 2014, assuming Danone does not make payment until January 31, 2014. ***(If no entry is required, select "No Entry" for the account titles and enter 0 for the amounts. Credit account titles are automatically indented when the amount is entered. Do not indent manually.)***

| Account Titles and Explanation | Debit | Credit |
|---|---|---|
| Cash | 585,600 | |
| Sales Discounts Forfeite | | 9,600 |
| Accounts Receivable | | 576,000 |

If payment is received after 5 days, Jupiter recognizes **$576,000** sales revenue and **$9,600** of additional revenue, using an account such as Sales Discounts Forfeited.



**Exercise 18A-6**

Aaron's Agency sells an insurance policy offered by Capital Insurance Company for a commission of $150. In addition, Aaron will receive an additional commission of $30 each year for as long as the policyholder does not cancel the policy. After selling the policy, Aaron does not have any remaining performance obligations. Based on Aaron's significant experience with these types of policies, it estimates that policyholders on average renew the policy for 5.5 years. It has no evidence to suggest that previous policyholder behavior will change.

Determine the transaction price of the arrangement for Aaron, assuming 150 policies are sold.

Transaction price $ 47,250

Prepare the journal entries, assuming that the 150 policies are sold in January 2014 and that Aaron receives commissions from Capital. ( ... or ***the account titles and enter 0 for the a ... cally indented when the amount is entered.***

| | | | | |
|---|---|---|---|---|
| $22,500 | = | $150 | × | 150 |
| $24,750 | = | $30 × 5.5 | × | 150 |
| **$47,250** | | | | |

| Date | Account Titles and Explanation | Debit | Credit |
|---|---|---|---|
| January, 2014 | Cash | 22,500 | |
| | Accounts Receivable | 24,750 | |
| | Service Revenue | | 47,250 |

## Time Value of Money

- Cash paid in more than one year
- Interest accrued over time
- Record interest revenue (or expense)
- Fair value determined either by
  - Measuring consideration received
  - Discounting future cash receipts using imputed interest rate (market rate)

**Brief Exercise 18A-7**

On January 2, 2014, Adani Inc. sells goods to Geo Company in exchange for a zero-interest-bearing note with face value of $14,700, with payment due in 12 months. The fair value of the goods at the date of sale is $13,800 (cost $6,398). Prepare the journal entry to record this transaction on January 2, 2014. ***(If no entry is required, select "No Entry" for the account titles and enter 0 for the amounts. Credit account titles are automatically indented when the amount is entered. Do not indent manually.)***

| Date | Account Titles and Explanation | Debit | Credit |
|---|---|---|---|
| January 2, 2014 | Notes Receivable | 14,700 | |
| | Discount on Notes Rece | | 900 |
| | Sales Revenue | | 13,800 |
| | (To record Adani Inc's sale to Geo Company) | | |
| January 2, 2014 | Cost of Goods Sold | 6,398 | |
| | Inventory | | 6,398 |
| | (To record cost of goods sold) | | |

How much total revenue should be recognized in 2014?

Total revenue $ 14,700

| | |
|---|---|
| Sales revenue | $13,800 |
| Interest revenue ($14,700 – $13,800) | 900 |
| Total revenue | **$14,700** |



**Brief Exercise 18A-8**

On March 1, 2014, Parnevik Company sold goods to Goosen Inc. for $727,300 in exchange for a 5-year, zero-interest-bearing note in the face amount of $1,068,600. The goods have an inventory cost on Parnevik's books of $441,000. Prepare the journal entries for Parnevik on (a) March 1, 2014, and (b) December 31, 2014. ***(If no entry is required, select "No Entry" for the account titles and enter 0 for the amounts. Credit account titles are automatically indented when the amount is entered. Do not indent manually. Round answers to 0 decimal places, e.g. 5,275. For calculation purposes, use 5 decimal places as displayed in the factor table provided.)***

| Date | Account Titles and Explanation | Debit | Credit |
|---|---|---|---|
| March 1, 2014 | Notes Receivable | 1,068,600 | |
| | Sales Revenue | | 727,300 |
| | Discount on Notes Rece | | 341,300 |
| | (To record Parnevik's sale to Goosen Company) | | |
| | Cost of Goods Sold | 441,000 | |
| | Inventory | | 441,000 |
| | (To record cost of goods sold) | | |
| December 31, 2014 | Discount on Notes Receiva | 48,487 | |
| | Interest Revenue | | 48,487 |

See solution on next page



**Brief Exercise 18A-8**

On March 1, 2014, Parnevik Company sold goods to Goosen Inc. for $727,300 in exchange for a 5-year, zero-interest-bearing note in the face amount of $1,068,600. The goods have an inventory cost on Parnevik's books of $441,000. Prepare the journal entries for Parnevik on (a) March 1, 2014, and (b) December 31, 2014. ***(If no entry is required, select "No Entry" for the account titles and enter 0 for the amounts. Credit account titles are automatically indented when the amount is entered. Do not indent manually. Round answers to 0 decimal places, e.g. 5,275. For calculation purposes, use 5 decimal places as displayed in the factor table provided.)***

| Date | Account Titles and Explanation | Debit | Credit |
|---|---|---|---|
| March 1, 2014 | Notes Receivable | 1,068,600 | |

Parnevik should record revenue of $727,300 on March 1, 2014, which is the fair value of the inventory in this case. Parnevik is also financing this purchase and records interest revenue on the note over the 5-year period. In this case, the interest rate is imputed to be 8% ([$727,300 / $1,068,600] = 0.68061, which is the PV of $1 factor for n = 5, I = 8%). Parnevik records interest revenue of **$48,487** (8% X $727,300 × 10/12) at December 31, 2014.

As a practical expedient, companies are not required to reflect the time value of money to determine the transaction price if the time period for payment is less than a year.

| Date | Account Titles and Explanation | Debit | Credit |
|---|---|---|---|
| December 31, 2014 | Discount on Notes Receiva | 48,487 | |
| | Interest Revenue | | 48,487 |

Use TVM calculator to solve for imputed interest rate



**Exercise 18A-9**

Sanchez Co. enters into a contract to sell Product A and Product B on January 2, 2014, for an upfront cash payment of $216,000. Product A will be delivered in 2 years (January 2, 2016) and Product B will be delivered in 5 years (January 2, 2019). Sanchez Co. allocates the $216,000 to Products A and B on a relative standalone selling price basis as follows.

| | Standalone Selling Prices | Percent Allocated | Allocated Amounts |
|---|---|---|---|
| Product A | $ 57,600 | 25% | $ 54,000 |
| Product B | 172,800 | 75% | 162,000 |
| | $230,400 | | $216,000 |

Sanchez Co. uses an interest rate of 6%, which is its incremental borrowing rate.

December 31, 2014 Interest Expense ($216,000 × 6%) = **$12,960**

| Date | Account Titles and Explanation | Debit | Credit |
|---|---|---|---|
| January 2, 2014 | Cash | 216,000 | |
| | Unearned Sales Revenu | | 216,000 |
| | (To record upfront payment for sales of products A and B) | | |
| December 31, 2014 | Interest Expense | 12,960 | |
| | Interest Payable | | 12,960 |
| | (To record interest on the contract liability) | | |

**Exercise 18A-9**

Sanchez Co. enters into a contract to sell Product A and Product B on January 2, 2014, for an upfront cash payment of $216,000. Product A will be delivered in 2 years (January 2, 2016) and Product B will be delivered in 5 years (January 2, 2019). Sanchez Co. allocates the $216,000 to Products A and B on a relative standalone selling price basis as follows.

| | Standalone Selling Prices | Percent Allocated | Allocated Amounts |
|---|---|---|---|
| Product A | $ 57,600 | 25% | $ 54,000 |
| Product B | 172,800 | 75% | 162,000 |
| | $230,400 | | $216,000 |

Sanchez Co. uses an interest rate of 6%, which is its incremental borrowing rate.

December 31, 2015 Interest Expense ([$216,000 + $12,960] × 6%) = **$13,738**

| Date | Account Titles and Explanation | Debit | Credit |
|---|---|---|---|
| December 31, 2015 | Interest Expense | 13,738 | |
| | Interest Payable | | 13,738 |
| | (To record interest on the contract liability) | | |



**Exercise 18A-9**

Sanchez Co. enters into a contract to sell Product A and Product B on January 2, 2014, for an upfront cash payment of $216,000. Product A will be delivered in 2 years (January 2, 2016) and Product B will be delivered in 5 years (January 2, 2019). Sanchez Co. allocates the $216,000 to Products A and B on a relative standalone selling price basis as follows.

| | Standalone Selling Prices | Percent Allocated | Allocated Amounts |
|---|---|---|---|
| Product A | $ 57,600 | 25% | $ 54,000 |
| Product B | 172,800 | 75% | 162,000 |
| | $230,400 | | $216,000 |

Sanchez Co. uses an interest rate of 6%, which is its incremental borrowing rate.

Interest Payable ([$12,960 + $13,738] × 25%) = **$6,675**

Note: Interest will continue to accrue on product B over the next 3 years.

| Date | Account Titles and Explanation | Debit | Credit |
|---|---|---|---|
| January 2, 2016 | Unearned Sales Revenue | 54,000 | |
| | Interest Payable | 6,675 | |
| | Sales Revenue | | 60,675 |
| | (To record revenue on transfer of product A) | | |

## Noncash Consideration

- Customers pay by providing services, non-cash assets, labor
- Recognize revenue at fair value
  - Selling price of goods / services
  - Fair value of consideration received

61

## Consideration Paid or Payable to Customers

- Seller pays buyer, reduces amount due
- Discounts, volume rebates, coupons
- Record consideration received and revenue recognized at net amount
- Record net amount if probable, does not need to have actually occurred

62

**Brief Exercise 18A-10**

Manual Company sells goods to Nolan Company during 2014. It offers Nolan the following rebates based on total sales to Nolan. If total sales to Nolan are 7,500 units, it will grant a rebate of 2%. If it sells up to 14,500 units, it will grant a rebate of 4%. If it sells up to 21,000 units, it will grant a rebate of 6%. In the first quarter of the year, Manual sells 12,500 units to Nolan at a sales price of $125,000. Manual, based on past experience, has sold over 41,000 units to Nolan, and these sales normally take place in the third quarter of the year. Prepare the journal entry that Manual should make to record the sale of the 12,500 units in the first quarter of the year on account. ***(If no entry is required, select "No Entry" for the account titles and enter 0 for the amounts. Credit account titles are automatically indented when the amount is entered. Do not indent manually. Round answers to 0 decimal places, e.g. 5,275.)***

| Account Titles and Explanation | Debit | Credit |
| --- | --- | --- |
| Accounts Receivable | 117,500 | |
| Sales Revenue | | 117,500 |

Sales Revenue ($125,000 × 94%) = **$117,500**

Manual reduces revenue by $7,500 ($125,000 – $117,500) because it is probable that it will provide rebates amounting to 6%. As a result, Manual recognized revenue of $117,500.

63

## Learning Objective 6

- Step 4: Allocate price to obligations

64

## Step 4: Allocate Transaction Price to Obligations

- More than one performance obligation
- Allocate based on relative fair values
- Standalone selling price method
- Fair value = Value of goods or services if sold separately

65

## Step 4: Allocate Transaction Price to Obligations

- If standalone selling prices not available
  - Adjusted market assessment approach
  - Expected cost plus a margin approach
  - Residual approach

66

## Standalone Selling Prices Not Available

- Adjusted market assessment approach
  - Estimate reasonable price customers would pay if sold separately
- Expected cost plus a margin approach
  - Forecast costs of performance obligation and add appropriate markup
- Residual approach
  - Subtract known (or estimated) obligation prices from total price, allocate remainder



**Exercise 18A-13**

Appliance Center is an experienced home appliance dealer. Appliance Center also offers a number of services together with the home appliances that it sells. Assume that Appliance Center sells ovens on a standalone basis. Appliance Center also sells installation services and maintenance services for ovens. However, Appliance Center does not offer installation or maintenance services to customers who buy ovens from other vendors. Pricing for ovens is as follows.

| | |
|---|---|
| Oven only | $1,360 |
| Oven with installation service | 1,445 |
| Oven with maintenance services | 1,658 |
| Oven with installation and maintenance services | 1,700 |

In each instance in which maintenance services are provided, the maintenance service is separately priced within the arrangement at $298. Additionally, the incremental amount charged by Appliance Center for installation approximates the amount charged by independent third parties. Ovens are sold subject to a general right of return. If a customer purchases an oven with installation and/or maintenance services, in the event Appliance Center does not complete the service satisfactorily, the customer is only entitled to a refund of the portion of the fee that exceeds $1,360.

Assume that a customer purchases an oven with both installation and maintenance services for $1,700. Indicate the amount of revenue that should be allocated to the oven, the installation, and to the maintenance contract. ***(Round answ***

| | | |
|---|---|---|
| Oven | $ | 1,326 |
| Installation | $ | 83 |
| Maintenance | $ | 291 |

| | | | | |
|---|---|---|---|---|
| Oven | $1,360 | / $1,743 × $1,700 | = | **$1,326** |
| Installation | $85 * | / $1,743 × $1,700 | = | **$83** |
| Maintenance | $298 ** | / $1,743 × $1,700 | = | **$291** |
| Total | $1,743 | | | |

*$85 = $1,445 – $1,360
**$298 = $1,658 – $1,360

## Learning Objective 7

- Recognize revenue when company satisfies its performance obligation



## Step 5: Revenue Recognition

- Company satisfies its performance obligation when customer obtains control of good or service
- Change in control indicators
  - Seller has right to payment
  - Legal title transferred
  - Physical possession transferred
  - Customer has risks / rewards of ownership
  - Customer has accepted goods or services



## Five Steps of Revenue Recognition

| Step 1 | Description | Implementation |
|---|---|---|
| Identify contract with customers | A contract is an agreement that creates enforceable rights or obligations | A company applies revenue guidance to contracts with customers and must determine if new performance obligations are created by a contract modification |



| Step 2 | Description | Implementation |
|---|---|---|
| Identify separate performance obligations in contract | A performance obligation is a promise in a contract to provide a product or service to a customer.<br><br>A performance obligation exists if customer can benefit from good or service on its own or together with other readily available resources. | A contract may be comprised of multiple performance obligations.<br>Accounting is based on evaluation of whether product or service is distinct within contract.<br>If each of goods or services is distinct, but is interdependent and interrelated, these goods and services are combined and reported as one performance obligation. |

| Step 3 | Description | Implementation |
|---|---|---|
| Determine transaction price | Transaction price is amount of consideration that a company expects to receive from a customer in exchange for transferring goods and services. | In determining transaction price, companies considers<br>1. Variable consideration<br>2. Time value of money<br>3. Noncash consideration<br>4. Consideration paid or payable to customer |

73

| Step 4 | Description | Implementation |
|---|---|---|
| Allocate transaction price to separate performance obligation | If more than one performance obligation exists, allocate transaction price based on relative fair values. | Best measure of fair value is what good or service could be sold for on a standalone basis.<br><br>Estimates of standalone selling price based on<br>1. Adjusted market assessment<br>2. Expected cost plus a margin approach<br>3. Residual approach |

74

| Step 5 | Description | Implementation |
|---|---|---|
| Recognize revenue when each performance obligation is satisfied | A company satisfies its performance obligation when customer obtains control of good or service. | Companies satisfy performance obligations either at a point in time or over a period of time.<br><br>Companies recognize revenue over a period of time if<br>1. Customer controls asset as it is created or company does not have an alternative use for asset<br>2. Company has a right to payment |

75

**Exercise 18A-7**

On June 3, 2014, Hunt Company sold to Ann Mount merchandise having a sales price of $8,480 (cost $5,936) with terms of 2/10, n/60, f.o.b. shipping point. Hunt estimates that merchandise with a sales value of $848 will be returned. An invoice totaling $127, terms n/30, was received by Mount on June 8 from Olympic Transport Service for the freight cost. Upon receipt of the goods, on June 5, Mount notified Hunt that $318 of merchandise contained flaws. The same day, Hunt issued a credit memo covering the defective merchandise and asked that it be returned at Hunt's expense. Hunt estimates the returned items to have a fair value of $127. The freight on the returned merchandise was $25, paid by Hunt on June 7. On June 12, the company received a check for the balance due from Mount.

| Date | Account Titles and Explanation | Debit | Credit |
|---|---|---|---|
| June 3, 2014 | Accounts Receivable | 8,480 | |
| | Refund Liability | | 848 |
| | Sales Revenue | | 7,632 |
| | (To record sale) | | |
| | Estimated Inventory Retur | 594 | |
| | Cost of Goods Sold | 5,342 | |
| | Inventory | | 5,936 |
| | (To record cost of goods sold) | | |

June 3, 2014 Estimated Inventory Returns (5,936 ÷ 8,480) × $848 = **$594**

**Exercise 18A-7**

On June 3, 2014, Hunt Company sold to Ann Mount merchandise having a sales price of $8,480 (cost $5,936) with terms of 2/10, n/60, f.o.b. shipping point. Hunt estimates that merchandise with a sales value of $848 will be returned. An invoice totaling $127, terms n/30, was received by Mount on June 8 from Olympic Transport Service for the freight cost. Upon receipt of the goods, on June 5, Mount notified Hunt that $318 of merchandise contained flaws. The same day, Hunt issued a credit memo covering the defective merchandise and asked that it be returned at Hunt's expense. Hunt estimates the returned items to have a fair value of $127. The freight on the returned merchandise was $25, paid by Hunt on June 7. On June 12, the company received a check for the balance due from Mount.

| | | | |
|---|---|---|---|
| June 5, 2014 | Refund Liability | 318 | |
| | Accounts Receivable | | 318 |
| | (To record Refund Liability) | | |
| | Returned Inventory | 127 | |
| | Estimated Inventory Re | | 127 |
| | (To record Estimated Inventory Returns) | | |

77

**Exercise 18A-7**

On June 3, 2014, Hunt Company sold to Ann Mount merchandise having a sales price of $8,480 (cost $5,936) with terms of 2/10, n/60, f.o.b. shipping point. Hunt estimates that merchandise with a sales value of $848 will be returned. An invoice totaling $127, terms n/30, was received by Mount on June 8 from Olympic Transport Service for the freight cost. Upon receipt of the goods, on June 5, Mount notified Hunt that $318 of merchandise contained flaws. The same day, Hunt issued a credit memo covering the defective merchandise and asked that it be returned at Hunt's expense. Hunt estimates the returned items to have a fair value of $127. The freight on the returned merchandise was $25, paid by Hunt on June 7. On June 12, the company received a check for the balance due from Mount.

| | | | |
|---|---|---|---|
| June 7, 2014 | Delivery Expense | 25 | |
| | Cash | | 25 |
| | (To record delivery cost) | | |
| une 12, 2014 | Cash | 7,999 | |
| | Sales Discounts | 163 | |
| | Accounts Receivable | | 8,162 |
| | (To record payment) | | |

June 12, 2014 Sales Discounts (2% × $8,162*) = **$163**

*$8,480 – $318

## Learning Objective 8

- Other revenue recognition issues
  - Right of return sales
  - Repurchase agreements
  - Bill and hold arrangements
  - Principal-agent relationships
  - Consignments
  - Warranties
  - Nonrefundable upfront deposits

79

## Right of Return

- Customer has right to return goods
- Usually seller can estimate returns
- Make entries for
  - Revenue net of estimated returns
  - Refund liability
  - Asset and adjustment to cost of goods sold for right to recover product

80

## Right of Return

- Customer has right to return goods
- If seller can estimate returns record
  - Revenue net of estimated returns
  - Refund liability
  - Asset and adjustment to cost of goods sold for right to recover product

81

## Right of Return

- Customer has right to return goods
- Estimate of returns not possible
- Revenue and cost recognition delayed until uncertainty resolved

82

**Brief Exercise 18A-13**

On July 10, 2014, Amodt Music sold CDs to retailers on account and recorded sales revenue of $745,000 (cost $596,000). Amodt grants the right to return CDs that do not sell in 3 months following delivery. Past experience indicates that the normal return rate is 15%. By October 11, 2014, retailers returned CDs to Amodt and were granted credit of $75,500. Prepare Amodt's journal entries to record (a) the sale on July 10, 2014, and (b) $75,500 of returns on October 11, 2014. ***(If no entry is required, select "No Entry" for the account titles and enter 0 for the***

| | | |
|---|---|---|
| Refund Liability (15% × $745,000) | = | **$111,750** |
| Estimated Inventory Returns ($596,000 ÷ $745,000) × $111,750 | = | **$89,400** |

| Date | Account Titles and Explanation | Debit | Credit |
|---|---|---|---|
| July 10 ,2014 | Accounts Receivable | 745,000 | |
| | Refund Liability | | 111,750 |
| | Sales Revenue | | 633,250 |
| | (To record the sale) | | |
| | Cost of Goods Sold | 506,600 | |
| | Estimated Inventory Retur | 89,400 | |
| | Inventory | | 596,000 |
| | (To record cost of goods sold) | | |

**Brief Exercise 18A-13**

On July 10, 2014, Amodt Music sold CDs to retailers on account and recorded sales revenue of $745,000 (cost $596,000). Amodt grants the right to return CDs that do not sell in 3 months following delivery. Past experience indicates that the normal return rate is 15%. By October 11, 2014, retailers returned CDs to Amodt and were granted credit of $75,500. Prepare Amodt's journal entries to record (a) the sale on July 10, 2014, and (b) $75,500 of returns on October 11, 2014. ***(If no entry is required, select "No Entry" for the account titles and enter 0 for the***

| | | |
|---|---|---|
| Returned Inventory ($596,000 ÷ $745,000) × $75,500 | = | **$60,400** |

| | | | |
|---|---|---|---|
| October 11, 2014 | Refund Liability | 75,500 | |
| | Accounts Receivable | | 75,500 |
| | (To record Refund Liability) | | |
| | Returned Inventory | 60,400 | |
| | Estimated Inventory Re | | 60,400 |
| | (To record estimated inventory returns) | | |

84

## Repurchase Agreements

- Obligation or right to repurchase asset
- If repurchase price ≥ selling price, financing transaction and not sale



**Exercise 18A-16**

Cramer Corp. sells idle machinery to Enyart Company on July 1, 2014, for $42,000. Cramer agrees to repurchase this equipment from Enyart on June 30, 2015, for a price of $44,520 (an imputed interest rate of 6%).

| Date | Account Titles and Explanation | Debit | Credit |
|---|---|---|---|
| July 1, 2014 | Cash | 42,000 | |
| | Liability to Enyart Comp | | 42,000 |

In this case, due to the agreement to repurchase the equipment, Cramer continues to have the control of the asset and therefore this agreement is a financing transaction and not a sale. Thus the asset is *not* removed from the books of Cramer.

| Date | Account Titles and Explanation | Debit | Credit |
|---|---|---|---|
| December 31, 2014 | Interest Expense | 1,260 | |
| | Liability to Enyart Comp | | 1,260 |

Liability to Enyart Company ($42,000 × 6%* × 1/2) = **$1,260**



**Exercise 18A-16**

Cramer Corp. sells idle machinery to Enyart Company on July 1, 2014, for $40,400. Cramer agrees to repurchase this equipment from Enyart on June 30, 2015, for a price of $42,824 (an imputed interest rate of 6%).

Prepare the journal entry for Cramer when the machinery is repurchased on June 30, 2015.

| Date | Account Titles and Explanation | Debit | Credit |
|---|---|---|---|
| June 30, 2015 | Interest Expense | 1,212 | |
| | Liability to Enyart Comp | | 1,212 |
| | (To record interest) | | |
| June 30, 2015 | Liability to Enyart Compan | 42,824 | |
| | Cash | | 42,824 |
| | (To record Enyart's liability related to interest expenses) | | |

| | | |
|---|---|---|
| Liability to Enyart Company ($40,400 × 6% × 1/2) | = | **$1,212** |
| Cash ($40,400 + $1,212 + $1,212) | = | **$42,824** |

## Bill and Hold Arrangement

- Contract to sell product to buyer
- Buyer not ready to take delivery
- Buyer takes title and accept billing
- Revenue recognized depending on when buyer obtains control



## Criteria to Recognize Revenue

- Reason for bill-and-hold substantive
- Product held specifically identified
- Product currently ready for delivery
- Seller cannot use product or deliver to different customer



**Brief Exercise 18A-15**

On June 1, 2014, Mills Company sells $202,100 of shelving units to a local retailer, ShopBarb, which is planning to expand its stores in the area. Under the agreement, ShopBarb asks Mills to retain the shelving units at its factory until the new stores are ready for installation. Title passes to ShopBarb at the time the agreement is signed. The shelving units are delivered to the stores on September 1, 2014, and ShopBarb pays in full. Prepare the journal entries for this bill-and-hold arrangement (assuming that conditions for recognizing the sale have been met) for Mills on June 1 and September 1, 2014. The cost of the shelving units to Mills is $126,000. ***(If n***

| Date | Account Titles and Explanation | Debit | Credit |
|---|---|---|---|
| June 1, 2014 | Accounts Receivable | 202,100 | |
| | Sales Revenue | | 202,100 |
| | (To record sale) | | |
| | Cost of Goods Sold | 126,000 | |
| | Inventory | | 126,000 |
| | (To record cost of goods sold) | | |
| September 1, 2014 | Cash | 202,100 | |
| | Accounts Receivable | | 202,100 |

See explanation on following slide

**Brief Exercise 18A-15**

In this case, the criteria are assumed to be met. As a result, revenue recognition should be permitted at the time the contract is signed. Mills makes the following entry to record the bill and hold sale.

If a significant period of time elapses before payment, the accounts receivable is discounted. In addition, if one of the four conditions is violated, revenue recognition should be deferred until the goods are delivered to ShopBarb.

| Date | Account Titles and Explanation | Debit | Credit |
|---|---|---|---|
| June 1, 2014 | Accounts Receivable | 202,100 | |
| | Sales Revenue | | 202,100 |
| | (To record sale) | | |
| | Cost of Goods Sold | 126,000 | |
| | Inventory | | 126,000 |
| | (To record cost of goods sold) | | |
| September 1, 2014 | Cash | 202,100 | |
| | Accounts Receivable | | 202,100 |

91

# Principal-Agent Relationships

- Principal
  - Provide goods/services to customer
  - Recognizes revenue when goods/services are sold to customer
- Agent
  - Arrange for principal to provide goods/ services to customer
  - Total collected not revenue (portion to prin)
  - Recognizes commission revenue

92

# Principal-Agent Relationships Examples

- Travel Company (agent) makes booking for Cruise Company (principal)
- Priceline (agent) arranges car rentals for Hertz (principal)
- Kayak (agent) books air travel for United Airlines (principal)

93

**Brief Exercise 18A-16**

Travel Inc. sells tickets for a Caribbean cruise on ShipAway Cruise Lines to Carmel Company employees. The total cruise package price to Carmel Company employees is $76,500. Travel Inc. receives a commission of 5% of the total price. Travel Inc. therefore remits $72,675 to ShipAway. Prepare the journal entry to record the remittance and revenue recognized by Travel Inc. on this transaction. ***(If no entry is required, select "No Entry" for the account titles and enter 0 for the amounts. Credit account titles are automatically indented when the amount is entered. Do not indent manually.)***

| Account Titles and Explanation | Debit | Credit |
|---|---|---|
| Accounts Payable | 76,500 | |
| Sales Revenue | | 3,825 |
| Cash | | 72,675 |

| | | |
|---|---|---|
| Accounts Payable (ShipAway Cruise Lines) | = | **$76,500** |
| Sales Revenue ($76,500 × 5%) | = | **$3,825** |

94

# Goods on Consignment

- Form of principal-agent relationship
- Consignor is principal
- Consignee is agent

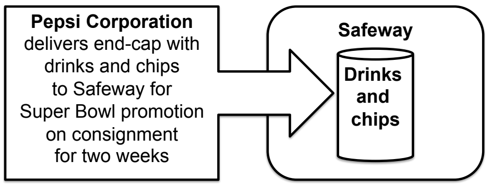
95

# Goods on Consignment

- Consignor (manufacturer or reseller)
  - Delivers merchandise to consignee (store)
  - Lists merchandise in inventory until sold
- Consignee (store or seller)
  - Sells units
  - Remits to consignor selling price less commissions and expenses
  - No inventory on books

96

## Goods on Consignment




The goods on display at Safeway (consignee) are legally owned by Pepsi (consignor) and appear in the inventory of Pepsi; Safeway records sale and remits cash to Pepsi less a fee



**Brief Exercise 18A-17**

Jansen Corporation shipped $31,000 of merchandise on consignment to Gooch Company. Jansen paid freight costs of $2,800. Gooch Company paid $690 for local advertising, which is reimbursable from Jansen. By year-end, 60% of the merchandise had been sold for $21,000. Gooch notified Jansen, retained a 10% commission, and remitted the cash due to Jansen. Prepare Jansen's journal entry when the cash is received. ***(If no entry is required, select "No Entry"***

| Account Titles and Explanation | Debit | Credit |
|---|---|---|
| Cash | 18,210 | |
| Advertising Expense | 690 | |
| Commission Expense | 2,100 | |
| Revenue from Consignr | | 21,000 |
| (To record sales and expenses) | | |
| Cost of Goods Sold | 20,280 | |
| Inventory on Consignm | | 20,280 |
| (To record cost of goods sold) | | |

Cash [$21,000 – $690 – ($21,000 × 10%)] = **$18,210**
Inventory on Consignment [60% × ($31,000 + $2,800)] = **$20,280**

**Exercise 18A-19**

On May 3, 2014, Eisler Company consigned 96 freezers, costing $590 each, to Remmers Company. The cost of shipping the freezers amounted to $890 and was paid by Eisler Company. On December 30, 2014, a report was received from the consignee, indicating that 48 freezers had been sold for $890 each. Remittance was made by the consignee for the amount due after deducting a commission of 6%, advertising of $230, and total installation costs of $340 on the freezers sold.

Compute the inventory value of the units unsold in the hands of the consignee. ***(Round answer to 0 decimal places, e.g. 5,275.)***

Inventory value of the units $ 28,765

| | |
|---|---|
| Inventoriable costs: | |
| 96 units shipped at cost of $590 each | $56,640 |
| Freight | 890 |
| Total inventoriable cost | $57,530 |
| 48 units on hand (48/96 × $57,530) | **$28,765** |



**Exercise 18A-19**

On May 3, 2014, Eisler Company consigned 96 freezers, costing $590 each, to Remmers Company. The cost of shipping the freezers amounted to $890 and was paid by Eisler Company. On December 30, 2014, a report was received from the consignee, indicating that 48 freezers had been sold for $890 each. Remittance was made by the consignee for the amount due after deducting a commission of 6%, advertising of $230, and total installation costs of $340 on the freezers sold.

Compute the profit for the consignor for the units sold. ***(Round answer to 0 decimal places, e.g. 5,275.)***

Profit for the consignor $ 10,822

| | |
|---|---|
| Computation of consignment profit: | |
| Consignment sales (48 × $890) | $42,720 |
| Cost of units sold (48/96 × $57,530) | (28,765) |
| Commission charged by consignee (6% × $42,720) | (2,563) |
| Advertising cost | (230) |
| Installation costs | (340) |
| Profit on consignment sales | **$10,822** |



**Exercise 18A-19**

On May 3, 2014, Eisler Company consigned 96 freezers, costing $590 each, to Remmers Company. The cost of shipping the freezers amounted to $890 and was paid by Eisler Company. On December 30, 2014, a report was received from the consignee, indicating that 48 freezers had been sold for $890 each. Remittance was made by the consignee for the amount due after deducting a commission of 6%, advertising of $230, and total installation costs of $340 on the freezers sold.

Compute the amount of cash that will be remitted by the consignee. ***(Round answer to 0 decimal places, e.g. 5,275.)***

Remittance from consignee $ 39,587

| | | | |
|---|---|---|---|
| Remittance of consignee: | | | |
| Consignment sales | | | $42,720 |
| Less: | Commissions | $2,563 | |
| | Advertising | 230 | |
| | Installation | 340 | 3,133 |
| Remittance from consignee | | | **$39,587** |



## Warranties

- Assurance-type
  - Included in sales price of product
  - Inseparable from product
  - Not separate performance obligation
- Service-type
  - Not included in sales price of product
  - Sold separately
  - Separate performance obligation

**Exercise 18A-20**

On December 31, 2014, Grando Company sells production equipment to Fargo Inc. for $65,000. Grando includes a 1-year assurance warranty service with the sale of all its equipment. The customer receives and pays for the equipment on December 31, 2014. Grando estimates the prices to be $63,440 for the equipment and $1,560 for the cost of the warranty.

| Account Titles and Explanation | Debit | Credit |
|---|---|---|
| Cash | 65,000 | |
| Warranty Expense | 1,560 | |
| Warranty Liability | | 1,560 |
| Sales Revenue | | 65,000 |

Cash ($63,440 + $1,560) = **$65,000**

103

**Exercise 18A-20**

On December 31, 2014, Grando Company sells production equipment to Fargo Inc. for $65,000. Grando includes a 1-year assurance warranty service with the sale of all its equipment. The customer receives and pays for the equipment on December 31, 2014. Grando estimates the prices to be $63,440 for the equipment and $1,560 for the cost of the warranty.

Repeat the requirements for (a), assuming that in addition to the assurance warranty, Grando sold an extended warranty (service-type warranty) for an additional 2 years (2016–2017) for $1,040. ***(If no entry is required, select "No Entry" for the account titles and enter 0 for***

| Account Titles and Explanation | Debit | Credit |
|---|---|---|
| Cash | 66,040 | |
| Warranty Expense | 1,560 | |
| Warranty Liability | | 1,560 |
| Sales Revenue | | 65,000 |
| Unearned Warranty Rev | | 1,040 |

Grando should recognize $520 of warranty revenue in 2016 and 2017.

Cash ($63,440 + $1,560 + $1,040) = **$66,040**

104

## Nonrefundable Upfront Fees

- Payments from customers before
  - Delivery of a product
  - Performance of a service
- Initiation, membership, or setup fee
- Usually nonrefundable
- Allocated over periods benefitted
- Examples
  - Membership fee in a health club, Costco
  - Activation fees for phone, Internet, cable

105

## Learning Objective 9

- Presentation and Disclosure

106

## Contract Assets: Two Types

- Accounts Receivable
  - All performance obligations fulfilled
  - Unconditional rights to consideration
- Contract Asset
  - One performance obligation has fulfilled
  - Other obligations must be fulfilled
  - Conditional rights to consideration

107

## Contract Assets: Two Types

| Description | Debit | Credit |
|---|---|---|
| Contract Asset | 20,000 | |
| Sales Revenue | | 20,000 |
| *Completed one of two performance obligations* | | |

| Description | Debit | Credit |
|---|---|---|
| Accounts Receivable | 50,000 | |
| Contract Asset | | 20,000 |
| Sales Revenue | | 30,000 |
| *Completed second performance obligation* | | |

108

## Contract Liabilities

- Unearned Revenue (liability)
  - Customer has prepaid
  - Obligation to provide future goods/services

| Description | Debit | Credit |
|---|---|---|
| Cash | 80,000 | |
| Unearned Sales Revenue | | 80,000 |
| *Customer paid $80,000 in advance; good will be delivered in 60 days* | | |

109

**Brief Exercise 18A-19**

On May 1, 2014, Mount Company enters into a contract to transfer a product to Eric Company on September 30, 2014. It is agreed that Eric will pay the full price of $27,500 in advance on June 15, 2014. Eric pays on June 15, 2014, and Mount delivers the product on September 30, 2014. Prepare the journal entries required for Mount in 2014. ***(If no entry is required, select "No***

| Date | Account Titles and Explanation | Debit | Credit |
|---|---|---|---|
| May 1, 2014 | No Entry | 0 | |
| | No Entry | | 0 |
| June 15, 2014 | Cash | 27,500 | |
| | Unearned Sales Revenu | | 27,500 |
| September 30, 2014 | Unearned Sales Revenue | 27,500 | |
| | Sales Revenue | | 27,500 |

**No entry** is required on May 1, 2014 because neither party has performed on the contract. On June 15, 2014, Eric agreed to pay the full price and therefore Mount has an unconditional right to those funds on that date.

110

## Collectability

- Record revenue at total amount
- Do not consider credit risk
- Estimate bad debt expense as AJE

111

## Disclosure

- Quantitative and qualitative information
  - Contracts with customers
  - Significant judgments
  - Assets recognized from costs incurred to fulfill a contract

112

## Learning Objective Appendix A

- Long-Term Construction Contracts

113

## Revenue Recognition

- Usually revenue recorded: point of sale
  - Uncertainties resolved
  - Exchange price known
  - Earnings process complete
- Exception: Long-term construction
  - Measurements difficult because events and amounts occur over years

114

## Long-Term Contracts

- Many periods required to finish project
- Example: Construction contractor pours concrete for SFO expansion, five years
- Wait until complete to recognize rev?
  - No revenue, expense for first four years
  - All revenue, expense in year five
- Income statement should reflect activity even though delivery has not occurred

115

## When to Record Revenue Over Time

- Customer controls asset as it is created
- Asset has no alternative use and
  - Customer receives benefits as work done
  - Work would need to be re-performed
  - Right to payment for work completed

Recognize revenue over time if either condition true

116

## Work Over Many Periods

**Seller works over many periods**

**Buyer pays over many periods**

1. Percentage of completion (progress can be estimated)
2. Completed contract (progress cannot be estimated)

117

## Long-Term Contracts

- Percentage-of-completion
  - Preferred method, most commonly used
  - If we can estimate progress
- Completed contract
  - If progress cannot be estimated

118

## New Accounts

- Construction In Progress
- Billings On Construction Contract
  - Billings On Construction In Process
- Cost Of Construction
- Revenue From Long-term Contracts

119

## Construction In Progress

- Asset account similar to WIP inventory
- Debit account
  - For actual construction costs during period (Labor, Materials, Overhead)
  - Recognized gross profit
- Ending balance = selling price
- Ending balance = cost + profit
- Credit account to close (title to buyer)

120

# Construction in Progress

| Description | Debit | Credit |
|---|---|---|
| **Construction In Progress** | **250,000** | |
| Cash, Supplies Inventory, Etc | | 250,000 |
| **Actual construction costs incurred this period** | | |

Actual work

| | Description | Debit | Credit |
|---|---|---|---|
| **Expense** | Cost Of Construction | 250,000 | |
| **Asset** | **Construction In Progress** | **30,000** | |
| **Revenue** | Revenue From Long-term Contracts | | 280,000 |

**Gross profit**

121

# Billings on Construction Contr.

- Contra-asset account to CIP
- Credit account
  - For billings to customers
- Debit account
  - To close (title to buyer)

122

# Billings on Construction Contr.

| Description | Debit | Credit |
|---|---|---|
| Accounts Receivable | 200,000 | |
| **Billings On Construction Contract** | | **200,000** |
| **Amount billed to customer this period** | | |

Negotiated

Two assets accounts

Net effect of **Accounts Receivable** and **Billings** = 0

123

# Balance Sheet Accounts

Three assets accounts

Net effect of **Accounts Receivable** and **Billings** = 0

| **Balance Sheet** | |
|---|---|
| Current assets | |
| Accounts Receivable | Increases |
| Construction In Progress | |
| Less: Billings On Construction Contract | Increases |

124

# Balance Sheet

- Construction In Progress compared to Billings On Construction Contract
- Debit balance
  - CIP [Costs + profits] > billings
  - Asset, like a receivable
- Credit balance
  - Billings > CIP [costs + profits]
  - Liability, like an over billed receivable

125

# Balance Sheet Accounts

**Asset**

| **Construction In Progress** | |
|---|---|
| **Labor** | **Asset sold** |
| **Material** | |
| **Overhead** | |
| **Gross profit** | |

**Contra Asset**

| **Billing On Construction Contract** | |
|---|---|
| **Asset sold** | **Billings** |

126

## Balance Sheet Accounts

Construction In Progress > Billings, asset like receivable

| Balance Sheet | |
|---|---|
| Current assets | |
| Construction In Progress | $500,000 |
| Less: Billings On Construction Contract | 300,000 |
| **Cost and profit in excess of billings** | **200,000** |

127

## Balance Sheet Accounts

Billings > Construction In Progress, liability like payable

| Balance Sheet | |
|---|---|
| Current liabilities | |
| Billings On Construction Contract | $700,000 |
| Less: Construction In Progress | 600,000 |
| **Billings in excess of cost and profits** | **100,000** |

128

## Balance Sheet Accounts

- Double counting of assets
  - Accounts Receivable: financial asset
  - Construction In Progress: physical asset

| Balance Sheet | |
|---|---|
| Current assets | |
| Accounts Receivable | Increases |
| Construction In Progress | |
| Less: Billings on construction contract | Increases |

129

## Balance Sheet Accounts

- In manufacturing
  - First: Inventory (RM, WIP, FG)
  - Do not recognize receivable until sale
  - Inventory sold, removed from books
  - Then: Accounts receivable
  - Physical asset converted to financial asset
  - One asset at a time

130

## Balance Sheet Accounts

- Long-term contracts
  - Recognize receivable every period
  - As if we sold portion of project each period
  - Physical asset: Construction In Progress
  - Financial asset: Accounts Receivable
  - Double counting
  - Offset A/R with Billings On Construction
  - Net effect: One asset

131

## Balance Sheet Accounts

Three assets accounts

| Balance Sheet | |
|---|---|
| Current assets | |
| Accounts Receivable | |
| Construction In Progress | Same amount |
| Less: Billings On Construction Contract | Same amount |

At end of project CIP = Billings, net effect 0

132

## Expense Account

- Cost of construction
- Debit account
  - For actual construction costs during period
    - Labor, Materials, Overhead
  - Same amount debited to CIP

133

## Revenue Account

- Revenue from long-term contracts
  - % of total revenue realized each period

134

## Income Statement Accounts

**Expense**

| Cost Of Construction | |
|---|---|
| Labor<br>Material<br>Overhead | R/E |

**Revenue**

| Revenue From Long-term Contracts | |
|---|---|
| R/E | Revenue |

All revenue and expense accounts closed to R/E

135

## Review New Accounts

- Construction In Progress
- Billings On Construction Contract
- Cost Of Construction
- Revenue From Long-term Contracts

136

## Sample Problem

- Completed contract
- Percentage-of-completion

137

## Percentage of Completion or Completed Contract

- Seller's work over many periods
- Progress estimates can be made
  - Percentage-of-completion method
- Progress estimates cannot be made
  - Completed contract method

138

## Completed-Contract

- Use completed-contract when any one of following conditions applies
  - Company has primarily short-term contracts
  - There are inherent hazards in contract beyond normal, recurring business risks
  - Company cannot meet conditions for using percentage-of-completion method

139

## Completed Contract Method

- Companies recognize all revenue and gross profit when contract is completed
- Completed contract = Point of sale
- Journal entries
  - Accumulate contract costs in asset account
  - No interim entries to income statement for revenues, costs, or gross profit

140

## Completed Contract Method

- Recognize revenue and expense when earnings process complete
- Income statement does not show activity of periods when revenue earned
- Only used when forecasts of costs to complete highly uncertain, impossible
- Not preferred method: Seldom used

141

## Data for Sample Problem

Three year project. Total revenue $1,400,000.

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Construction costs incurred during year | $250,000 | $550,000 | $400,000 |
| Construction costs incurred in prior years | None | 250,000 | 800,000 |
| Cumulative construction costs | 250,000 | 800,000 | 1,200,000 |
| Estimated costs to complete at year end | 1,000,000 | 425,000 | None |
| Estimated + actual construction costs | $1,250,000 | $1,225,000 | $1,200,000 |

Completed contract: Use actual costs only, no estimates

142

## Data for Sample Problem

Three year project. Total revenue $1,400,000.

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Construction costs incurred during year | $250,000 | $550,000 | $400,000 |
| ~~Construction costs incurred in prior years~~ | ~~None~~ | ~~250,000~~ | ~~800,000~~ |
| ~~Cumulative construction costs~~ | ~~250,000~~ | ~~800,000~~ | ~~1,200,000~~ |
| ~~Estimated costs to complete at year end~~ | ~~1,000,000~~ | ~~425,000~~ | ~~None~~ |
| ~~Estimated + actual construction costs~~ | ~~$1,250,000~~ | ~~$1,225,000~~ | ~~$1,200,000~~ |

Completed contract: Use actual costs only, no estimates

143

## Data for Sample Problem

Three year project. Total revenue $1,400,000.

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Construction costs incurred during year | $250,000 | $550,000 | $400,000 |
| ~~Construction costs incurred in prior years~~ | ~~None~~ | ~~250,000~~ | ~~800,000~~ |
| ~~Cumulative construction costs~~ | ~~250,000~~ | ~~800,000~~ | ~~1,200,000~~ |
| ~~Estimated costs to complete at year end~~ | ~~1,000,000~~ | ~~425,000~~ | ~~None~~ |
| ~~Estimated + actual construction costs~~ | ~~$1,250,000~~ | ~~$1,225,000~~ | ~~$1,200,000~~ |

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Billings during the year | $200,000 | $700,000 | $500,000 |
| Cash collections during the year | 175,000 | 705,000 | 520,000 |

144

## Billings and Collections

- Billings: Negotiated by seller and buyer
- Collections: What buyer chooses to pay
- Billings and collections
  - NOT related to revenue recognition
  - NOT related to expense recognition
  - NOT related to actual costs incurred

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Billings during the year | $200,000 | $700,000 | $500,000 |
| Cash collections during the year | 175,000 | 705,000 | 520,000 |

145

## Billings and Collections

- Billings are negotiated: $1,400,000
  - Seller wants front loaded billings, such as
    - $900,000; $300,000; $200,000
  - Buyer wants back loaded billings, such as
    - $200,000; $300,000; $900,000
- Collections
  - Buyer pays when he wants to pay
  - Depends upon relative strength of parties

146

## Completed Contract: Year 1

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Construction costs incurred during year | $250,000 | $550,000 | $400,000 |
| Construction costs incurred in prior years | None | 250,000 | 800,000 |
| Cumulative construction costs | 250,000 | 800,000 | 1,200,000 |
| Estimated costs to complete at year end | 1,000,000 | 425,000 | None |
| Estimated + actual construction costs | $1,250,000 | $1,225,000 | $1,200,000 |

| Description | Debit | Credit |
|---|---|---|
| Construction In Progress | 250,000 | |
| Cash, Supplies Inventory, Etc | | 250,000 |
| **Actual construction costs incurred this period** | | |

Actual work

147

## Completed Contract: Year 1

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Billings during the year | $200,000 | $700,000 | $500,000 |
| Cash collections during the year | 175,000 | 705,000 | 520,000 |

| Description | Debit | Credit |
|---|---|---|
| Accounts Receivable | 200,000 | |
| Billings On Construction Contract | | 200,000 |
| **Amount billed to customer this period** | | |

Negotiated

148

## Completed Contract: Year 1

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Billings during the year | $200,000 | $700,000 | $500,000 |
| Cash collections during the year | 175,000 | 705,000 | 520,000 |

| Description | Debit | Credit |
|---|---|---|
| Cash | 175,000 | |
| Accounts Receivable | | 175,000 |
| **Amount collected from customer this period** | | |

Buyer pays

149

## Completed Contract: Year 1

| Description | Debit | Credit |
|---|---|---|
| Construction In Progress | 250,000 | |
| Cash, Supplies Inventory, Etc | | 250,000 |
| **Actual construction costs incurred this period** | | |

Actual work

| Description | Debit | Credit |
|---|---|---|
| Accounts Receivable | 200,000 | |
| Billings On Construction Contract | | 200,000 |
| **Amount billed to customer this period** | | |

Negotiated

| Description | Debit | Credit |
|---|---|---|
| Cash | 175,000 | |
| Accounts Receivable | | 175,000 |
| **Amount collected from customer this period** | | |

Buyer pays

150

## Completed Contract: Year 1

Construction in progress > Billings, Asset like receivable

| Balance Sheet | |
|---|---|
| Current assets | |
| Construction In Progress | $225,000 |
| Less: Billings On Construction Contract | 200,000 |
| **Cost and profit in excess of billings** | **25,000** |

Gross profit is not recognized until project is complete

151

## Completed Contract: Year 2

| | 2012 | 2013 |
|---|---|---|
| Construction costs incurred during year | $550,000 | $400,000 |
| Construction costs incurred in prior years | 250,000 | 800,000 |
| Cumulative construction costs | 800,000 | 1,200,000 |
| Estimated costs to complete at year end | 425,000 | None |
| Estimated + actual construction costs | $1,225,000 | $1,200,000 |

| Description | Debit | Credit |
|---|---|---|
| Construction In Progress | 550,000 | |
| Cash, Supplies Inventory, Etc | | 550,000 |
| **Actual construction costs incurred this period** | | |

Actual work

152

## Completed Contract: Year 2

| | 2012 | 2013 |
|---|---|---|
| Billings during the year | $700,000 | $500,000 |
| Cash collections during the year | 705,000 | 520,000 |

| Description | Debit | Credit |
|---|---|---|
| Accounts Receivable | 700,000 | |
| Billings On Construction Contract | | 700,000 |
| **Amount billed to customer this period** | | |

Negotiated

153

## Completed Contract: Year 2

| | 2012 | 2013 |
|---|---|---|
| Billings during the year | $700,000 | $500,000 |
| Cash collections during the year | 705,000 | 520,000 |

| Description | Debit | Credit |
|---|---|---|
| Cash | 705,000 | |
| Accounts Receivable | | 705,000 |
| **Amount collected from customer this period** | | |

Buyer pays

154

## Completed Contract: Year 2

| Description | Debit | Credit |
|---|---|---|
| Construction In Progress | 550,000 | |
| Cash, Supplies Inventory, Etc | | 550,000 |
| **Actual construction costs incurred this period** | | |

Actual work

| Description | Debit | Credit |
|---|---|---|
| Accounts Receivable | 700,000 | |
| Billings On Construction Contract | | 700,000 |
| **Amount billed to customer this period** | | |

Negotiated

| Description | Debit | Credit |
|---|---|---|
| Cash | 705,000 | |
| Accounts Receivable | | 705,000 |
| **Amount collected from customer this period** | | |

Buyer pays

155

## Completed Contract: Year 2

**Asset**

| Construction In Progress | |
|---|---|
| 250,000 | |
| 550,000 | |
| **800,000** | |

**Contra Asset**

| Billing On Construction Contract | |
|---|---|
| | 200,000 |
| | 700,000 |
| | **900,000** |

156

## Completed Contract: Year 2

| Billings > Construction In Progress, liability | |
|---|---|
| **Balance Sheet** | |
| Current liabilities | |
| Billings On Construction Contract | $900,000 |
| Less: Construction In Progress | 800,000 |
| **Billings in excess of cost and profits** | **100,000** |

Gross profit is not recognized until project is complete

157

## Completed Contract: Year 3

| | 2013 |
|---|---|
| Construction costs incurred during year | $400,000 |
| Construction costs incurred in prior years | 800,000 |
| Cumulative construction costs | 1,200,000 |
| Estimated costs to complete at year end | None |
| Estimated + actual construction costs | $1,200,000 |

| Description | Debit | Credit |
|---|---|---|
| Construction In Progress | 400,000 | |
| Cash, Supplies Inventory, Etc | | 400,000 |
| **Actual construction costs incurred this period** | | |

Actual work

158

## Completed Contract: Year 3

| | 2013 |
|---|---|
| Billings during the year | $500,000 |
| Cash collections during the year | 520,000 |

| Description | Debit | Credit |
|---|---|---|
| Accounts Receivable | 500,000 | |
| Billings On Construction Contract | | 500,000 |
| **Amount billed to customer this period** | | |

Negotiated

159

## Completed Contract: Year 3

| | 2013 |
|---|---|
| Billings during the year | $500,000 |
| Cash collections during the year | 520,000 |

| Description | Debit | Credit |
|---|---|---|
| Cash | 520,000 | |
| Accounts Receivable | | 520,000 |
| **Amount collected from customer this period** | | |

Buyer pays

160

## Completed Contract: Year 3

| Description | Debit | Credit |
|---|---|---|
| Construction In Progress | 400,000 | |
| Cash, Supplies Inventory, Etc | | 400,000 |
| **Actual construction costs incurred this period** | | |

Actual work

| Description | Debit | Credit |
|---|---|---|
| Accounts Receivable | 500,000 | |
| Billings On Construction Contract | | 500,000 |
| **Amount billed to customer this period** | | |

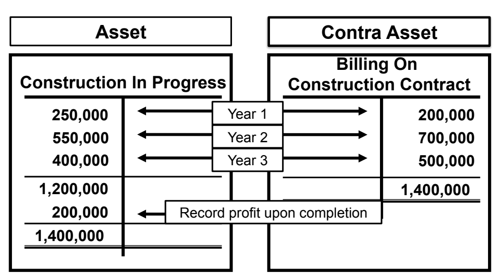
Negotiated

| Description | Debit | Credit |
|---|---|---|
| Cash | 520,000 | |
| Accounts Receivable | | 520,000 |
| **Amount collected from customer this period** | | |

Buyer pays

161

## Completed Contract: Year 3




162

## Completed Contract: End

- In period contract completed
  - Record all revenue
  - Record all expense
  - Profit (loss) to Construction in Progress

| Description | Debit | Credit |
|---|---|---|
| Cost Of Construction (Expense) | 1,200,000 | |
| Construction In Progress (Asset) | 200,000 | |
| Revenue From Long-term Contract | | 1,400,000 |

163

## Completed Contract: End

**Asset**

| Construction In Progress | |
|---|---|
| 250,000 | |
| 550,000 | |
| 400,000 | |
| 1,200,000 | |
| 200,000 | |
| 1,400,000 | 1,400,000 |
| 0 | |

**Contra Asset**

| Billing On Construction Contract | |
|---|---|
| | 200,000 |
| | 700,000 |
| | 500,000 |
| 1,400,000 | 1,400,000 |
| | 0 |

164

## Completed Contract: End

- Asset is transferred to buyer
- Asset removed from seller's books

| Description | Debit | Credit |
|---|---|---|
| Billings On Construction Contract | 1,400,000 | |
| Construction In Progress | | 1,400,000 |

165

## Completed Contract: Loss on Project

- In general, no revenue, expense recognized until project completed
- Exception: Estimated loss on project
- Immediately recognize loss in full

166

## Completed Contract: Loss on Project

Three year project. Total revenue $1,400,000.

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Construction costs incurred during year | $250,000 | $100,000 | $1,100,000 |
| Construction costs incurred in prior years | None | 250,000 | 350,000 |
| Cumulative construction costs | 250,000 | 350,000 | 1,450,000 |
| Estimated costs to complete at year end | 1,000,000 | 1,100,000 | None |
| Estimated + actual construction costs | $1,250,000 | $1,450,000 | $1,450,000 |

| Description | Debit | Credit |
|---|---|---|
| Loss On Long-term Contracts | 50,000 | |
| Construction In Progress (Loss) | | 50,000 |

Record $50,000 loss in year 2 of contract

167

## Percentage-of-Completion

- Use percentage-of-completion when estimates reasonably dependable for
  - Progress toward completion
  - Revenues
  - Costs

168

## Percentage-of-Completion

- All of following conditions must exist
  - Contract clearly specifies enforceable rights regarding goods or services by parties, consideration to be exchanged, and manner and terms of settlement
  - Buyer can be expected to satisfy all obligations
  - Contractor can be expected to perform under contract



## Percentage-of-Completion

- Recognize revenue and expense as if portion of asset sold each period
- Revenue recognized each period
- Match expense to revenue
- Revenue − expense = gross profit
- Record gross profit each period

Recognize portion of estimated gross profit each period based upon progress



## Percentage-of-Completion

- How to measure gross profit earned?
- Prefer units of output measure
  - Cubic yards of concrete poured
  - Units of output usually not measurable
- Estimated progress based on cost
  - Actual cost incurred to date
  - Estimate total cost
  - Estimate gross profit percentage



## Percentage-of-Completion

$$\frac{\text{Costs incurred to date}}{\text{Most recent estimate of total costs}} = \text{Percent complete}$$

$$\text{Percent complete} \times \begin{array}{c}\text{Estimated}\\\text{total revenue}\\\text{(or gross profit)}\end{array} = \begin{array}{c}\text{Revenue (or gross}\\\text{profit) to be}\\\text{recognized to date}\end{array}$$

$$\begin{array}{c}\text{Revenue (or gross}\\\text{profit) to be}\\\text{recognized to date}\end{array} - \begin{array}{c}\text{Revenue (or gross}\\\text{profit) recognized}\\\text{in prior periods}\end{array} = \begin{array}{c}\text{Current-period}\\\text{revenue}\\\text{(or gross profit)}\end{array}$$

## Percentage-of-Completion

$$\text{Percent complete} = \frac{\text{Actual costs incurred to date}}{\text{Estimate of total cost}}$$



## Data for Sample Problem

Three year project. Total revenue $1,400,000.

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Construction costs incurred during year | $250,000 | $550,000 | $400,000 |
| Construction costs incurred in prior years | None | 250,000 | 800,000 |
| Cumulative construction costs | 250,000 | 800,000 | 1,200,000 |
| Estimated costs to complete at year end | 1,000,000 | 425,000 | None |
| Estimated + actual construction costs | $1,250,000 | $1,225,000 | $1,200,000 |

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Billings during the year | $200,000 | $700,000 | $500,000 |
| Cash collections during the year | 175,000 | 705,000 | 520,000 |

Same entry as Completed Contract method

## Percentage of Completion: Yr 1

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Construction costs incurred during year | $250,000 | $550,000 | $400,000 |
| Construction costs incurred in prior years | None | 250,000 | 800,000 |
| Cumulative construction costs | 250,000 | 800,000 | 1,200,000 |
| Estimated costs to complete at year end | 1,000,000 | 425,000 | None |
| Estimated + actual construction costs | $1,250,000 | $1,225,000 | $1,200,000 |

| Description | Debit | Credit |
|---|---|---|
| Construction In Progress | 250,000 | |
| Cash, Supplies Inventory, Etc | | 250,000 |
| **Actual construction costs incurred this period** | | |

Actual work

175

Same entry as Completed Contract method

## Percentage of Completion: Yr 1

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Billings during the year | $200,000 | $700,000 | $500,000 |
| Cash collections during the year | 175,000 | 705,000 | 520,000 |

| Description | Debit | Credit |
|---|---|---|
| Accounts Receivable | 200,000 | |
| Billings On Construction Contract | | 200,000 |
| **Amount billed to customer this period** | | |

Negotiated

176

Same entry as Completed Contract method

## Percentage of Completion: Yr 1

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Billings during the year | $200,000 | $700,000 | $500,000 |
| Cash collections during the year | 175,000 | 705,000 | 520,000 |

| Description | Debit | Credit |
|---|---|---|
| Cash | 175,000 | |
| Accounts Receivable | | 175,000 |
| **Amount collected from customer this period** | | |

Buyer pays

177

Same entry as Completed Contract method

## Percentage of Completion: Yr 1

| Description | Debit | Credit |
|---|---|---|
| Construction In Progress | 250,000 | |
| Cash, Supplies Inventory, Etc | | 250,000 |
| **Actual construction costs incurred this period** | | |

Actual work

| Description | Debit | Credit |
|---|---|---|
| Accounts Receivable | 200,000 | |
| Billings On Construction Contract | | 200,000 |
| **Amount billed to customer this period** | | |

Negotiated

| Description | Debit | Credit |
|---|---|---|
| Cash | 175,000 | |
| Accounts Receivable | | 175,000 |
| **Amount collected from customer this period** | | |

Buyer pays

178

Same account balances as Completed Contract method

## Percentage of Completion: Yr 1

Construction in progress > Billings, Asset like receivable

| Balance Sheet | |
|---|---|
| Current assets | |
| Construction In Progress | $225,000 |
| Less: Billings On Construction Contract | 200,000 |
| **Cost and profit in excess of billings** | **25,000** |

179

## Percentage of Completion: Yr 1

- First three entries same
- What is different?
- Completed contract recognizes all gross profit in final period
- Percentage of completion allocates gross profit to each period, as if portion of asset sold each period

New calculation: Gross profit earned in current period

180

## Percentage of Completion: Yr 1

Three year project. Total revenue $1,400,000.

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Construction costs incurred during year | $250,000 | $550,000 | $400,000 |
| Construction costs incurred in prior years | None | 250,000 | 800,000 |
| Cumulative construction costs | 250,000 | 800,000 | 1,200,000 |
| Estimated costs to complete at year end | 1,000,000 | 425,000 | None |
| Estimated + actual construction costs | $1,250,000 | $1,225,000 | $1,200,000 |

181

## Percentage of Completion: Yr 1

Four calculations

| 1. Estimated Total Gross Profit | | |
|---|---|---|
| Total revenues | | $1,400,000 |
| Actual cumulative construction costs | $ 250,000 | |
| Estimated cost to complete | 1,000,000 | |
| Total projected cost (actual + estimate) | | 1,250,000 |
| **Estimated total gross profit** | | **$150,000** |

Remember this number

182

## Percentage of Completion: Yr 1

Four calculations

| 2. Estimated Percentage Complete | |
|---|---|
| Actual cost to date / Total projected cost | = Percentage complete |
| $250,000 / $1,250,000 | = 20% |

Remember this number

183

## Percentage of Completion: Yr 1

Four calculations

| 3. Calculate Revenue from Long-Term Contract | |
|---|---|
| Total contract revenue | $1,400,000 |
| Estimated percentage complete | 20% |
| Revenue earned to date | $280,000 |
| Less revenue recognized in previous periods | 0 |
| **Revenue recognized in current period** | **$280,000** |

Remember this number

184

## Percentage of Completion: Yr 1

Four calculations

| 4. Gross Profit Recognized in Current Period | |
|---|---|
| Estimated total gross profit | $150,000 |
| Estimated percentage complete | 20% |
| Gross profit earned to date | $30,000 |
| Less gross profit recognized in previous periods | 0 |
| **Gross profit recognized in current period** | **$30,000** |

Remember this number

185

| | Description | Debit | Credit |
|---|---|---|---|
| Expense | Cost Of Construction | 250,000 | |
| Asset | Construction In Progress | 30,000 | |
| Revenue | Revenue From Long-term Contracts | | 280,000 |

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Construction costs incurred during year | $250,000 | $550,000 | $400,000 |
| Construction costs incurred in prior years | None | 250,000 | 800,000 |
| Cumulative construction costs | 250,000 | 800,000 | 1,200,000 |
| Estimated costs to complete at year end | 1,000,000 | 425,000 | None |
| Estimated + actual construction costs | $1,250,000 | $1,225,000 | $1,200,000 |

186

| | Description | Debit | Credit |
|---|---|---|---|
| Expense | Cost Of Construction | 250,000 | |
| Asset | Construction In Progress | 30,000 | |
| Revenue | Revenue From Long-term Contracts | | 280,000 |

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Construction costs incurred during year | $250,000 | $550,000 | $400,000 |
| Con | | | |
| Cum | | | |
| Esti | | | |
| Esti | | | |

**3. Calculate Revenue from Long-Term Contract**

| | |
|---|---|
| Total contract revenue | $1,400,000 |
| Estimated percentage complete | 20% |
| Revenue earned to date | $280,000 |
| Less revenue recognized in previous periods | 0 |
| Revenue recognized in current period | $280,000 |

187

| | Description | Debit | Credit |
|---|---|---|---|
| Expense | Cost Of Construction | 250,000 | |
| Asset | Construction In Progress | 30,000 | |
| Revenue | Revenue From Long-term Contracts | | 280,000 |

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Construction costs incurred during year | $250,000 | $550,000 | $400,000 |
| Con | | | |
| Cum | | | |
| Esti | | | |
| Esti | | | |

**3. Calculate Revenue from Long-Term Contract**

| | |
|---|---|
| Total contract revenue | $1,400,000 |
| Estir | |
| Reve | |
| Less | |
| Reve | |

**4. Gross Profit Recognized in Current Period**

| | |
|---|---|
| Estimated total gross profit | $150,000 |
| Estimated percentage complete | 20% |
| Gross profit earned to date | $30,000 |
| Less gross profit recognized in previous periods | 0 |
| Gross profit recognized in current period | $30,000 |

188

## Percentage of Completion: Yr 1

- Cost of Construction actual amount
- Recognize allocated revenue of period
- Recognize allocated gross profit

| | Description | Debit | Credit |
|---|---|---|---|
| Expense | Cost Of Construction | 250,000 | |
| Asset | Construction In Progress | 30,000 | |
| Revenue | Revenue From Long-term Contracts | | 280,000 |

Gross profit

189

## Percentage of Completion: Yr 1

- Cost of construction
  - Equals actual costs incurred during period
  - Except during year in which loss for entire project is recognized (details later)

| | Description | Debit | Credit |
|---|---|---|---|
| Expense | Cost Of Construction | 250,000 | |
| Asset | Construction In Progress | 30,000 | |
| Revenue | Revenue From Long-term Contracts | | 280,000 |

Gross profit

190

## T-Accounts

**Asset**

| Construction In Progress | |
|---|---|
| Labor | Asset sold |
| Material | |
| Overhead | |
| Gross profit | |

**Expense**

| Cost Of Construction | |
|---|---|
| Labor | R/E |
| Material | |
| Overhead | |

191

## T-Accounts

**Asset**

| Construction In Progress | |
|---|---|
| 250,000 | |
| 30,000 | |

**Expense**

| Cost Of Construction | |
|---|---|
| 250,000 | |

192

## Actual Costs Debited Twice

| Description | Debit | Credit |
|---|---|---|
| Construction In Progress | 250,000 | |
| Cash, Supplies Inventory, Etc | | 250,000 |
| **Actual construction costs incurred this period** | | |

Asset

| Description | Debit | Credit |
|---|---|---|
| Cost Of Construction | 250,000 | |
| Construction In Progress | 30,000 | |
| Revenue From Long-term Contracts | | 280,000 |

Expense

193

## Construction in Progress

| Description | Debit | Credit |
|---|---|---|
| Construction In Progress | 250,000 | |
| Cash, Supplies Inventory, Etc | | 250,000 |
| **Actual construction costs incurred this period** | | |

Asset

| Description | Debit | Credit |
|---|---|---|
| Cost Of Construction | 250,000 | |
| Construction In Progress | 30,000 | |
| Revenue From Long-term Contracts | | 280,000 |

Asset

194

## Percentage of Completion: Yr 2

| | 2012 | 2013 |
|---|---|---|
| Construction costs incurred during year | $550,000 | $400,000 |
| Construction costs incurred in prior years | 250,000 | 800,000 |
| Cumulative construction costs | 800,000 | 1,200,000 |
| Estimated costs to complete at year end | 425,000 | None |
| Estimated + actual construction costs | $1,225,000 | $1,200,000 |

| Description | Debit | Credit |
|---|---|---|
| Construction In Progress | 550,000 | |
| Cash, Supplies Inventory, Etc | | 550,000 |
| **Actual construction costs incurred this period** | | |

Actual work

195

## Percentage of Completion: Yr 2

| | 2012 | 2013 |
|---|---|---|
| Billings during the year | $700,000 | $500,000 |
| Cash collections during the year | 705,000 | 520,000 |

| Description | Debit | Credit |
|---|---|---|
| Accounts Receivable | 700,000 | |
| Billings On Construction Contract | | 700,000 |
| **Amount billed to customer this period** | | |

Negotiated

196

## Percentage of Completion: Yr 2

| | 2012 | 2013 |
|---|---|---|
| Billings during the year | $700,000 | $500,000 |
| Cash collections during the year | 705,000 | 520,000 |

| Description | Debit | Credit |
|---|---|---|
| Cash | 705,000 | |
| Accounts Receivable | | 705,000 |
| **Amount collected from customer this period** | | |

Buyer pays

197

## Percentage of Completion: Yr 2

| Description | Debit | Credit |
|---|---|---|
| Construction In Progress | 550,000 | |
| Cash, Supplies Inventory, Etc | | 550,000 |
| **Actual construction costs incurred this period** | | |

Actual work

| Description | Debit | Credit |
|---|---|---|
| Accounts Receivable | 700,000 | |
| Billings On Construction Contract | | 700,000 |
| **Amount billed to customer this period** | | |

Negotiated

| Description | Debit | Credit |
|---|---|---|
| Cash | 705,000 | |
| Accounts Receivable | | 705,000 |
| **Amount collected from customer this period** | | |

Buyer pays

198

# Percentage of Completion: Yr 2

Three year project. Total revenue $1,400,000.

| | 2012 | 2013 |
|---|---|---|
| Construction costs incurred during year | $550,000 | $400,000 |
| Construction costs incurred in prior years | 250,000 | 800,000 |
| Cumulative construction costs | 800,000 | 1,200,000 |
| Estimated costs to complete at year end | 425,000 | None |
| Estimated + actual construction costs | $1,225,000 | $1,200,000 |

199

# Percentage of Completion: Yr 2

Four calculations

| 1. Estimated Total Gross Profit | | |
|---|---|---|
| Total revenues | | $1,400,000 |
| Actual cumulative construction costs | $ 800,000 | |
| Estimated cost to complete | 425,000 | |
| Total projected cost (actual + estimate) | | 1,225,000 |
| **Estimated total gross profit** | | **$175,000** |

200

# Percentage of Completion: Yr 2

Four calculations

| 2. Estimated Percentage Complete | |
|---|---|
| Actual cost to date / Total projected cost | = Percentage complete |
| $800,000 / $1,225,000 | = approximately 65% |

201

# Percentage of Completion: Yr 2

Four calculations

| 3. Calculate Revenue from Long-Term Contract | |
|---|---|
| Total contract revenue | $1,400,000 |
| Estimated percentage complete | × 800/1,225 |
| Revenue earned to date | $914,286 |
| Less revenue recognized in previous periods | $280,000 |
| **Revenue recognized in current period** | **$634,286** |

202

# Percentage of Completion: Yr 2

Four calculations

| 4. Gross Profit Recognized in Current Period | |
|---|---|
| Estimated total gross profit | $175,000 |
| Estimated percentage complete | × 800/1,225 |
| Gross profit earned to date | $114,286 |
| Less gross profit recognized in previous periods | 30,000 |
| **Gross profit recognized in current period** | **$84,286** |

203

# Percentage of Completion: Yr 2

- Cost of construction actual amount
- Recognize allocated revenue of period
- Recognize allocated gross profit

| | **Description** | **Debit** | **Credit** |
|---|---|---|---|
| Expense | Cost Of Construction | 550,000 | |
| Asset | Construction In Progress | 84,286 | |
| Revenue | Revenue From Long-term Contracts | | 634,286 |

**Gross profit**

204

## Percentage of Completion: Yr 3

| | 2013 |
|---|---|
| Construction costs incurred during year | $400,000 |
| Construction costs incurred in prior years | 800,000 |
| Cumulative construction costs | 1,200,000 |
| Estimated costs to complete at year end | None |
| Estimated + actual construction costs | $1,200,000 |

| | 2013 |
|---|---|
| Billings during the year | $500,000 |
| Cash collections during the year | 520,000 |

205

## Percentage of Completion: Yr 3

| Description | Debit | Credit |
|---|---|---|
| Construction In Progress | 400,000 | |
| Cash, Supplies Inventory, Etc | | 400,000 |
| **Actual construction costs incurred this period** | | |

Actual work

| Description | Debit | Credit |
|---|---|---|
| Accounts Receivable | 500,000 | |
| Billings On Construction Contract | | 500,000 |
| **Amount billed to customer this period** | | |

Negotiated

| Description | Debit | Credit |
|---|---|---|
| Cash | 520,000 | |
| Accounts Receivable | | 520,000 |
| **Amount collected from customer this period** | | |

Buyer pays

206

## Percentage of Completion: Yr 3

Three year project. Total revenue $1,400,000.

| | 2013 |
|---|---|
| Construction costs incurred during year | $400,000 |
| Construction costs incurred in prior years | 800,000 |
| Cumulative construction costs | 1,200,000 |
| Estimated costs to complete at year end | None |
| Estimated + actual construction costs | $1,200,000 |

207

## Percentage of Completion: Yr 3

Four calculations

| 1. Actual Total Gross Profit | | |
|---|---|---|
| Total revenues | | $1,400,000 |
| Actual cumulative construction costs | $ 1,200,000 | |
| Estimated cost to complete | 0 | |
| Total projected cost (actual + estimate) | | 1,200,000 |
| **Actual total gross profit** | | **$200,000** |

208

## Percentage of Completion: Yr 3

Four calculations

| 2. Estimated Percentage Complete | |
|---|---|
| Actual cost to date / Total actual cost | = Percentage complete |
| $1,200,000 / $1,200,000 | = 100% |

209

## Percentage of Completion: Yr 3

Four calculations

| 3. Calculate Revenue from Long-Term Contract | |
|---|---|
| Total contract revenue | $1,400,000 |
| Estimated percentage complete | × 100% |
| Revenue earned to date | $1,400,000 |
| Less revenue recognized in previous periods | $914,286 |
| **Revenue recognized in current period** | **$485,714** |

210

# Percentage of Completion: Yr 3

Four calculations

| 3. Gross Profit Recognized in Current Period | |
|---|---|
| Actual total gross profit | $200,000 |
| Estimated percentage complete | 100% |
| Gross profit earned to date | $200,000 |
| Less gross profit recognized in previous periods | 114,286 |
| **Gross profit recognized in current period** | **$85,714** |

211

# Percentage of Completion: Yr 3

- Cost of construction actual amount
- Recognize allocated revenue of period
- Recognize allocated gross profit

| | Description | Debit | Credit |
|---|---|---|---|
| Expense | Cost Of Construction | 400,000 | |
| Asset | Construction In Progress | 85,714 | |
| Revenue | Revenue From Long-term Contracts | | 485,714 |

Gross profit

212

# Percentage of Completion: Yr 3

Construction in progress > Billings, Asset like receivable

| Balance Sheet | |
|---|---|
| Current assets | |
| Construction In Progress | $1,400,000 |
| Less: Billings On Construction Contract | 1,400,000 |
| **Cost and profit in excess of billings** | **0** |

213

# Percentage of Completion: Yr 3

**Asset**

| | Construction In Progress | |
|---|---|---|
| 2011 Cost | 250,000 | |
| 2011 Profit | 30,000 | |
| 2012 Cost | 550,000 | |
| 2012 Profit | 83,750 | |
| 2013 Cost | 400,000 | |
| 2013 Profit | 86,250 | |
| | 1,400,000 | 1,400,000 |
| | 0 | |

**Contra Asset**

| Billing On Construction Contract | |
|---|---|
| | 200,000 |
| | 700,000 |
| | 500,000 |
| 1,400,000 | 1,400,000 |
| | 0 |

214

# Percentage of Completion: Yr 3

- Project completed
- Title transferred to customer
- Remove asset, contra asset from books

| Description | Debit | Credit |
|---|---|---|
| Billings On Construction Contract | 1,400,000 | |
| Construction In Progress | | 1,400,000 |

215

# Summary

Three year project. Total revenue $1,400,000.

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Construction costs incurred during year | $250,000 | $550,000 | $400,000 |
| Construction costs incurred in prior years | None | 250,000 | 800,000 |
| Cumulative construction costs | 250,000 | 800,000 | 1,200,000 |
| Estimated costs to complete at year end | 1,000,000 | 425,000 | None |
| Estimated + actual construction costs | $1,250,000 | $1,225,000 | $1,200,000 |

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Estimated gross profit | $150,000 | $175,000 | $200,000 |
| Estimated percent complete | 20% | ≈ 65% | 100% |
| Gross profit earned to date | $30,000 | $114,286 | $200,000 |
| Gross profit recognized in current period | $30,000 | $84,286 | $85,714 |

216

## Gross Profit Recognition: Comparison of Methods

| Year | Percentage of Completion | Completed Contract |
|---|---|---|
| 2011 | $30,000 | $0 |
| 2012 | 84,286 | 0 |
| 2013 | 85,714 | 200,000 |
| **Total** | **$200,000** | **$200,000** |

217

## Learning Objective

- Losses on long-term contracts

218

## Three Profit (Loss) Scenarios

- Project profitable
  - Profits in all periods
- Project profitable
  - Some periods have profits, some losses
- Project not profitable

219

## Losses on Contracts

- Loss in current period on profitable contract
- Loss on unprofitable contract

220

## Loss in Current Period on Profitable Contract

- Completed contract method
  - No entry: All rev, exp recorded in final year
- Percentage-of-completion method
  - Estimated cost increase requires a current-period adjustment of gross profit recognized in prior periods

221

## Loss on Unprofitable Contract

- Under both percentage-of-completion and completed-contract methods
  - Recognize entire expected contract loss in current period

222

## Long-Term Contract Losses

- Profitable Projects: Loss in period
  - Credit Construction in Progress for period loss

Change in estimate: Prospective only, not retrospective

223

## Loss on Year 2 Only

Three year project.  Total revenue $1,400,000.

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Construction costs incurred during year | $250,000 | $100,000 | $950,000 |
| Construction costs incurred in prior years | None | 250,000 | 350,000 |
| Cumulative construction costs | 250,000 | 350,000 | 1,300,000 |
| Estimated costs to complete at year end | 1,000,000 | 950,000 | None |
| Estimated + actual construction costs | $1,250,000 | $1,300,000 | $1,300,000 |

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Estimated gross profit | $150,000 | $100,000 | $100,000 |
| Estimated percent complete | 20% | ≈ 27% | 100% |
| Gross profit earned to date | $30,000 | $26,993 | $100,000 |
| Gross profit recognized in current period | $30,000 | ($3,007) | $73,007 |

224

## Loss on Year 2 Only

Three year project.  Total revenue $1,400,000.

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Total contract revenue | $1,400,000 | $1,400,000 | $1,400,000 |
| Estimated percentage complete | 20% | ≈ 27% | 100% |
| Revenue earned to date | $280,000 | $376,923 | $1,400,000 |
| **Revenue recognized in current period** | **$280,000** | **$96,923** | **$1,023,077** |

| Description | Debit | Credit |
|---|---|---|
| Cost Of Construction | 100,000 | |
| Construction In Progress | | 3,007 |
| Revenue From Long-term Contracts | | 96,923 |

225

## Long-term Contract Losses

- Loss estimated for entire project
  - Full estimated loss recognized immediately
  - Credit Construction in Progress for full loss
  - Total expenditures > total revenue
  - Like lower of cost or market for inventory
  - Cost of construction: Plug, not actual amt

Change in estimate: Prospective only, not retrospective

226

## Loss on Project

Three year project.  Total revenue $1,400,000.

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Construction costs incurred during year | $250,000 | $100,000 | $1,100,000 |
| Construction costs incurred in prior years | None | 250,000 | 350,000 |
| Cumulative construction costs | 250,000 | 350,000 | 1,450,000 |
| Estimated costs to complete at year end | 1,000,000 | 1,100,000 | None |
| Estimated + actual construction costs | $1,250,000 | $1,450,000 | $1,450,000 |

| Description | Debit | Credit |
|---|---|---|
| Construction In Progress | 100,000 | |
| Cash, Supplies Inventory, Etc | | 100,000 |
| **Actual construction costs incurred this period** | | |

Actual work

Same entry as always, but CIP will be > Revenue

227

## Loss on Project

| | 2011 | 2012 | 2013 |
|---|---|---|---|
| Estimated gross profit | $150,000 | ($50,000) | None |
| Estimated percent complete | 20% | N/A | N/A |
| Gross profit earned to date | $30,000 | None | None |
| Gross profit recognized in current period | $30,000 | **($80,000)** | None |

| **Total revenue: $1,400,000** | 2011 | 2012 | 2013 |
|---|---|---|---|
| Estimated percent complete | 20% | ≈ 24% | 100% |
| Revenue earned to date | $280,000 | $337,931 | $1,400,000 |
| Revenue recognized in current period | $280,000 | $57,931 | $1,062,069 |

Plug

| Description | Debit | Credit |
|---|---|---|
| Cost Of Construction | 137,931 | |
| Construction In Progress | | 80,000 |
| Revenue From Long-term Contracts | | 57,931 |

228

## Difference in Debits

| Description | Debit | Credit |
|---|---|---|
| Construction In Progress | 100,000 | |
| Cash, Supplies Inventory, Etc | | 250,000 |
| **Actual construction costs incurred this period** | | |

Asset

| Description | Debit | Credit |
|---|---|---|
| Cost Of Construction | 137,931 | |
| Construction In Progress | | 80,000 |
| Revenue From Long-term Contracts | | 57,931 |

Expense

229

## Loss on Project

- Cost of Construction (expense account)
  - Plug figure
  - Not actual amount
- When project is a loss
  - Recognize entire loss immediately
  - Plug expense to cost of construction
  - Cost of Construction now allocated amount based upon completion, like revenue (no longer actual amount)

230

## Loss on Project

| | |
|---|---|
| Project cost (without loss) | $1,400,000 |
| Percent complete at end of year 2 | × (350/1,450) |
| **Cost allocated to year 1 and year 2** | **337,931** |
| Add loss | 50,000 |
| **Cost allocated to date + loss** | **387,931** |
| Less cost recognized in year 1 | 250,000 |
| **Cost allocated to year 2** | **137,931** |

| Description | Debit | Credit |
|---|---|---|
| Cost Of Construction | 137,931 | |
| Construction In Progress | | 80,000 |
| Revenue From Long-term Contracts | | 57,931 |

231

## Disclosures in Financial Statements

- Method of recognizing revenue
- Basis used to classify assets and liabilities as current
  - Nature and length of operating cycle
- Basis for recording inventory
- Effects of any revision of estimates
- Backlog on uncompleted contracts
- Details about receivables

232

Frozen Delight, Inc. charges an initial franchise fee of $78,300 for the right to operate as a franchisee of Frozen Delight. Of this amount, $29,300 is collected immediately. The remainder is collected in four equal annual installments of $12,250 each. These installments have a present value of $41,500. As part of the total franchise fee, Frozen Delight also provides training (with a fair value of $2,200) to help franchisees get the store ready to open. The franchise agreement is signed on April 1, 2014, training is completed, and the store opens on July 1, 2014. Prepare the journal entries required by Frozen Delight in 2014. ***(If no entry is required, select "No Entry"***

Notes Receivable ($78,300 – $29,300) = **$49,000**

Unearned Franchise Revenue ($29,300 + $41,500 - $2,200) = **$68,600**

| | | | |
|---|---|---|---|
| April 1, 2014 | Cash | 29,300 | |
| | Notes Receivable | 49,000 | |
| | Discount on Notes Rece | | 7,500 |
| | Unearned Service Reve | | 2,200 |
| | Unearned Franchise Re | | 68,600 |
| July 1, 2014 | Unearned Service Revenue | 2,200 | |
| | Unearned Franchise Reven | 68,600 | |
| | Franchise Revenue | | 68,600 |
| | Service Revenue | | 2,200 |

## Learning Objective 8

- Other revenue recognition issues
  - Right of return sales
  - Repurchase agreements
  - Bill and hold arrangements
  - Principal-agent relationships
  - Consignments
  - Warranties
  - Nonrefundable upfront deposits

234

# End of Chapter

235

**Brief Exercise 18A-18**

Talarczyk Company sold 18,000 Super-Spreaders on July 1, 2014, at a total price of $1,800,000, with a warranty guarantee that the product was free of any defects. The cost of the spreaders sold is $670,000. The assurance warranties extend for a 2-year period and are estimated to cost $41,500. Talarczyk also sold extended warranties (service-type warranties) related to 3,000 spreaders for 2 years beyond the 2-year period for $14,300. Prepare the journal entries that Talarczyk should make in 2014 related to the sale and the related warranties. ***(If no entry is***

| Account Titles and Explanation | Debit | Credit |
|---|---|---|
| Cash | 1,814,300 | |
| Warranty Expense | 41,500 | |
| Warranty Liability | | 41,500 |
| Unearned Warranty Rev | | 14,300 |
| Sales Revenue | | 1,800,000 |
| Cost of Goods Sold | 670,000 | |
| Inventory | | 670,000 |

Talarczyk reduces the Warranty Liability account over the first two years as the actual warranty costs are incurred The company also recognizes revenue related to the service type warranty over the two-year period that extends beyond the assurance warranty period (two years). In most cases, the unearned warranty revenue is recognized on a straight line basis and the costs associated with the service type warranty are expensed as incurred.