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SHATT AL-ARAB UNIVERSITY

Accounting Principles, 7th Edition

Weygandt • Kieso • Kimmel

Chapter 6

Inventories

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CHAPTER 6
INVENTORIES

After studying this chapter, you should be able to:

1. Describe steps in determining inventory quantities
2. Explain the basis of accounting for inventories and describe the inventory cost flow methods
3. Explain the financial statements and the tax effects of each inventory cost flow method
4. Explain the lower of cost or market basis of accounting for inventories
5. Indicate the effects of inventory errors on the financial statements
6. Compute and interpret inventory turnover

INVENTORY BASICS

- Balance sheet of merchandising and manufacturing companies
  - inventory significant current asset
- Income statement
  - inventory is vital in determining results
- Gross profit
  - (net sales - cost of goods sold)
    - watched by management, owners, and others

MERCHANDISE INVENTORY CHARACTERISTICS

Merchandise inventory

1 Owned by the company

2 Form ready for sale

CLASSIFYING INVENTORY IN A MANUFACTURING ENVIRONMENT

- **Manufacturing inventories**
  - may not yet be ready for sale

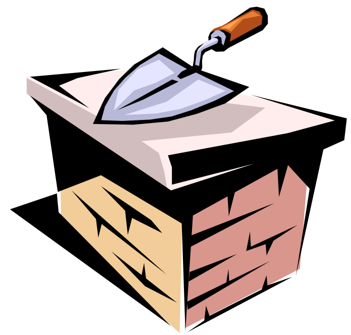
- **Classified into three categories:**

  1 Finished goods

  ready for sale

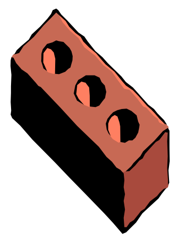
  2 Work in process

  various stages of production (not completed)



  3 Raw materials

  components on hand waiting to be used



DETERMINING INVENTORY QUANTITIES

STUDY OBJECTIVE 1

To prepare financial statements determine

1. **the number of units in inventory by taking a physical inventory of goods on hand physical inventory by counting, weighing or measuring**
2. **The ownership of goods**

DETERMINING COST OF GOODS ON HAND

3. applying unit costs to the total units on hand for each item
4. total the cost of each item of inventory to determine total cost of goods on hand

TAKING A PHYSICAL INVENTORY

Internal control principles for Inventory:

1 Segregation of duties

counting by employees not having custodial responsibility for the inventory

2 Establishment of responsibility

each counter should establish the authenticity of each inventory item

TAKING A PHYSICAL INVENTORY

3 Independent internal verification

second count by another employee

4 Documentation procedures

pre-numbered inventory tags

5 Independent internal verification

designated supervisor checks all inventory items tags, no items have more than one tag

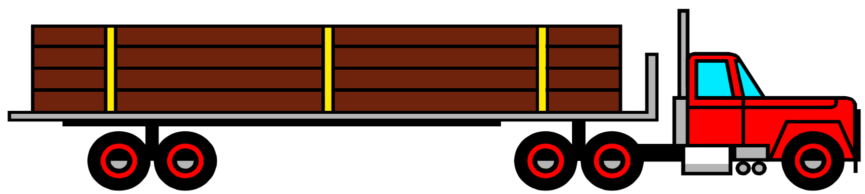
OWNERSHIP OF GOODS IN TRANSIT

- **Goods in transit:**

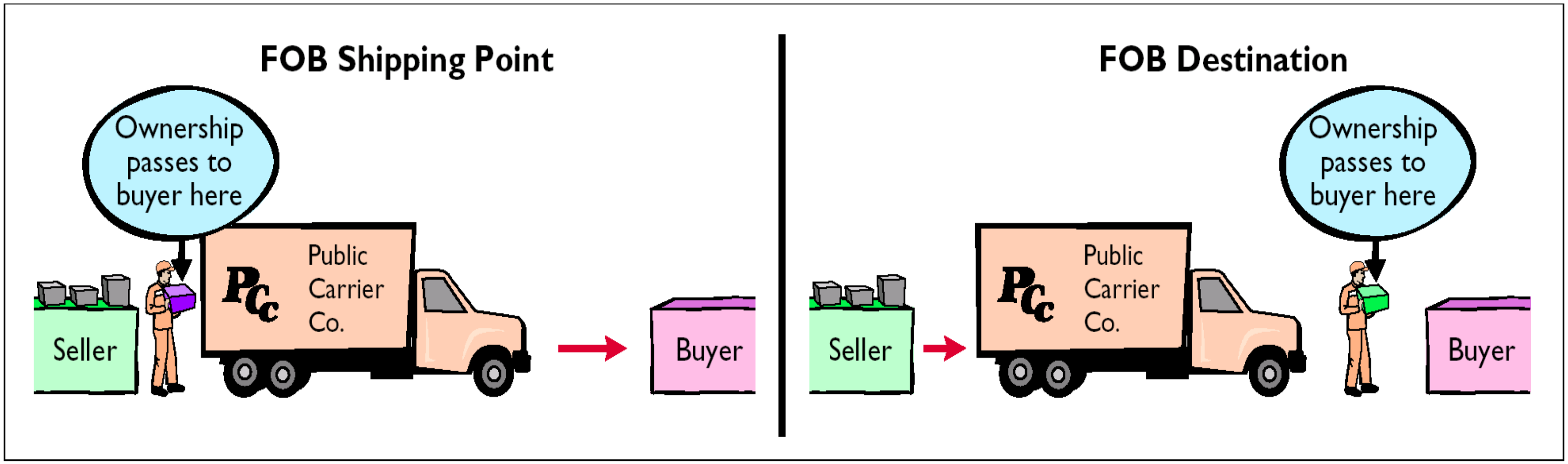
  included in the inventory of the party that has legal title to the goods
- **FOB (Free on Board) shipping point:**

  ownership of the goods passes to the buyer when the public carrier accepts the goods from the seller
- **FOB destination point:**

  legal title to the goods remains with the seller until the goods reach the buyer



TERMS OF SALE



CONSIGNED GOODS

Consignment:

the holder of the goods (consignee) does not own the goods

- **ownership remains with the consignor of the goods until the goods are sold**
- **consigned goods should be included in the consignor's inventory not the consignee's inventory**

Owned by a consignor; do not count in consignee inventory

Consignee Company

INVENTORY ACCOUNTING SYSTEMS

1 Perpetual

- detailed records
- cost of each item maintained
- cost of each item sold is determined when sale occurs

2 Periodic

- cost of goods sold is determined at the end of accounting period

Basis of Accounting for Inventories Periodic Cost Flow Methods

STUDY OBJECTIVE 2

- **Revenues from the sale of merchandise are recorded when sales are made in the same way as in a perpetual system.**
- **No calculation of cost of goods sold is made at the time of sale of the merchandise.**
- **Physical inventories are taken at end of period to determine:**
  - **the cost of merchandise on hand**
  - **the cost of the goods sold during the period**

ALLOCATING INVENTORIABLE COSTS

- Inventory costs- periodic inventory system
  - allocated between ending inventory and cost of goods sold
  - allocation is made at the end of the accounting period

1 the costs assignable to the ending inventory are determined

2 the cost of the ending inventory is subtracted from the cost of goods available for sale to determine the cost of goods sold

3 cost of goods sold is then deducted from sales revenues in accordance with the matching principle to get gross profit

COST OF GOODS SOLD

Cost of Goods Sold –Review

Periodic inventory system

Three steps are required:

1. **record purchases of merchandise,**
2. **determine the cost of goods purchased,**
3. **determine the cost of goods on hand at the beginning and end of the accounting period**

DETERMINING COST OF GOODS PURCHASED

To determine Cost of Goods Purchased:

1 **subtract contra purchase accounts of Purchases Discounts and Purchases Returns and Allowances from Purchases to get Net Purchases**

2 **add Freight-in to Net Purchases**

ALLOCATION (MATCHING) OF POOL OF COSTS

STUDY OBJECTIVE 5

Pool of Costs	
Cost of Goods Available for Sale	
Beginning inventory	$ 20,000
Cost of goods purchased	100,000
Cost of goods available for sale	$ 120,000

Step 1				Step 2	
Ending Inventory				Cost of Goods Sold	
	Unit	Total		Cost of goods available for sale	$120,000
Units	Cost	Cost		Less: Ending inventory	15,000
5,000	$ 3.00	$15,000		Cost of goods sold	$105,000

The cost of goods available for sale is allocated between

- a. beginning inventory and ending inventory
- b. beginning inventory and cost of goods on hand.
- c. ending inventory and cost of goods sold
- d. beginning inventory and cost of goods purchased.

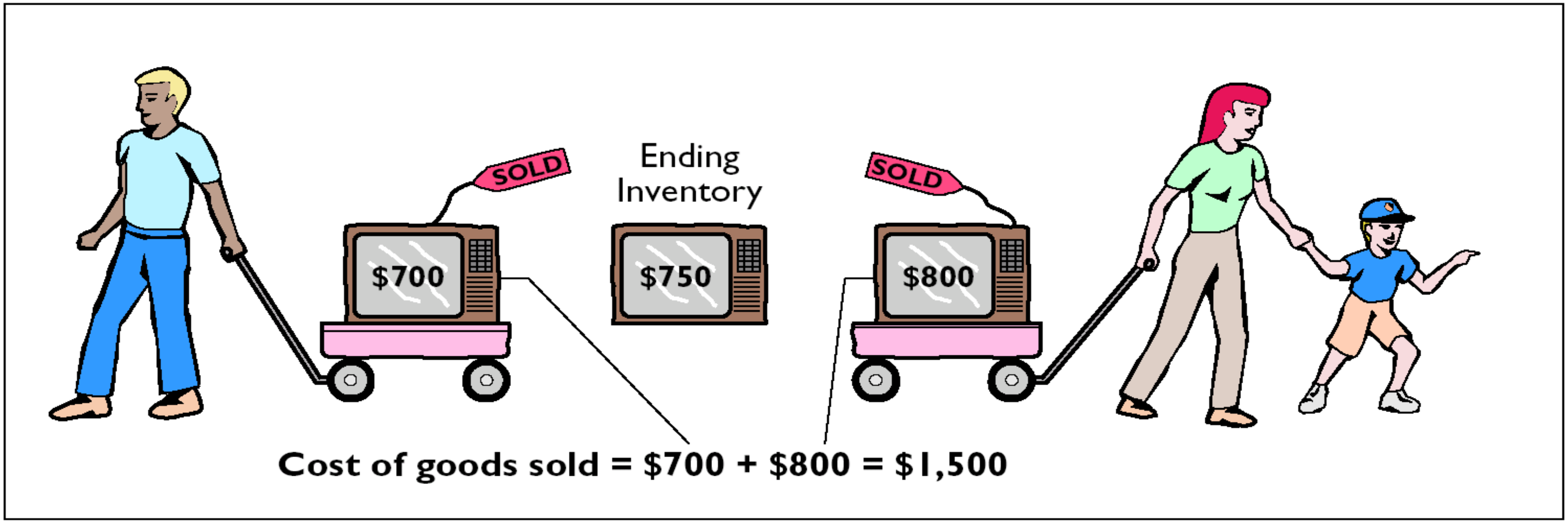
The cost of goods available for sale is allocated between

- a. beginning inventory and ending inventory.
- b. beginning inventory and cost of goods on hand.
- c. ending inventory and cost of goods sold
- d. beginning inventory and cost of goods purchased.

USING ACTUAL PHYSICAL FLOW COSTING

- **Costing of the inventory is complicated because specific items of inventory on hand may have been purchased at different prices.**
- **The specific identification method tracks the actual physical flow of the goods.**
- **Each item of inventory is marked, tagged, or coded with its specific unit cost.**
- **Items still in inventory at the end of the year are specifically costed to arrive at the total cost of the ending inventory.**

SPECIFIC IDENTIFICATION METHOD



USING ASSUMED COST FLOW METHODS

- **Other cost flow methods are allowed since specific identification is often impractical.**
- **These methods assume flows of costs that may be unrelated to the physical flow of goods.**
- **For this reason we call them assumed cost flow methods or cost flow assumptions. They are:**

  1 First-in, first-out (FIFO).

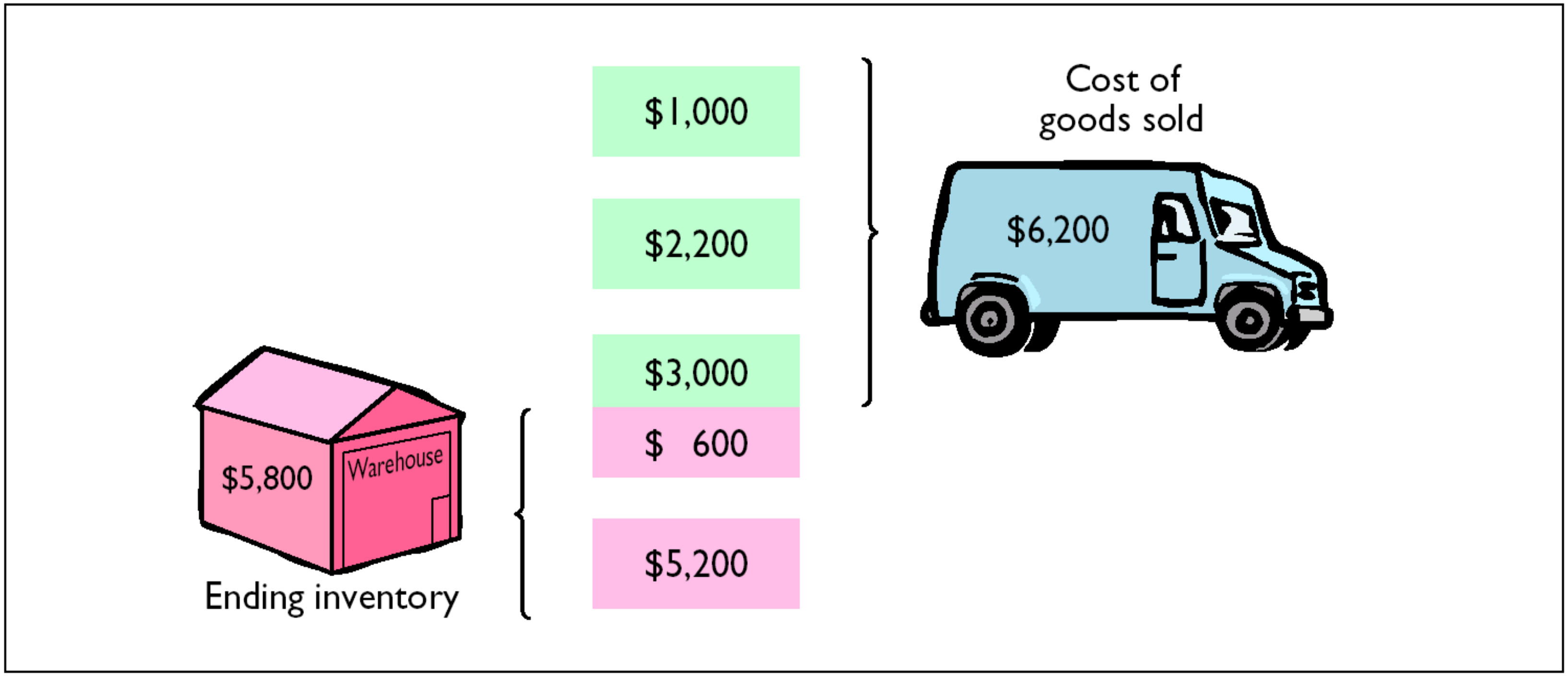
  2 Last-in, first-out (LIFO).

  3 Average cost.

FIFO

- **The FIFO method**
  - **earliest goods purchased are the first to be sold.**
  - **often parallels the actual physical flow of merchandise**
  - **the costs of the earliest goods purchased are the first to be recognized as cost of goods sold**

FIFO



$1,000
$2,200
$3,000
$ 600
$5,200
Cost of goods sold
$6,200
$5,800
Warehouse
Ending inventory

ALLOCATION OF COSTS - FIFO METHOD

Pool of Costs

Cost of Goods Available for Sale

Date	Explanation	Units	Unit Cost	Total Cost
01/01	Beginning inventory	100	$10	$ 1,000
04/15	Purchase	200	11	2,200
08/24	Purchase	300	12	3,600
11/27	Purchase	400	13	5,200
	Total	1,000		$ 12,000

Step 1

Ending Inventory

Date	Units	Unit Cost	Total Cost
11/27	400	$ 13	$ 5,200
08/24	50	12	600
	450		$ 5,800

Step 2

Cost of Goods Sold

Cost of goods available for sale	$ 12,000
Less: Ending inventory	5,800
Cost of goods sold	$ 6,200

PROOF OF COST OF GOODS SOLD

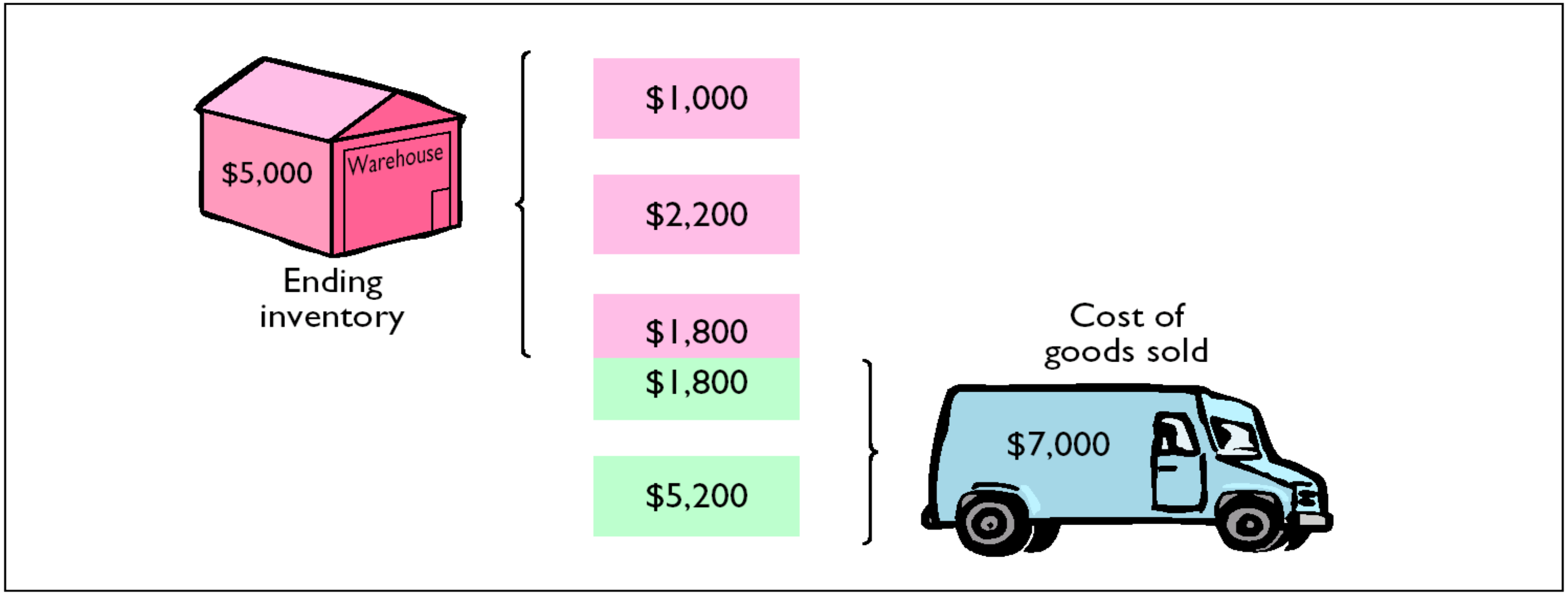
The **accuracy** of the cost of goods sold can be verified by recognizing that the **first** units acquired are the **first** units sold.

Date	Units		Unit Cost		Total Cost
01/01	100	X	$ 10	=	$ 1,000
04/15	200	X	11	=	2,200
08/24	250	X	12	=	3,000
Total	550				$ 6,200

LIFO

- The LIFO method assumes that the latest goods purchased are the first to be sold.
- LIFO seldom coincides with the actual physical flow of inventory.
- Under LIFO, the costs of the latest goods purchased are the first to be cost of goods sold.

LIFO



$5,000
Warehouse
Ending inventory
$1,000
$2,200
$1,800
$1,800
$5,200
Cost of goods sold
$7,000

ALLOCATION OF COSTS - LIFO METHOD

Pool of Costs

Cost of Goods Available for Sale

Date	Explanation	Units	Unit Cost	Total Cost
01/01	Beginning inventory	100	$10	$ 1,000
04/15	Purchase	200	11	2,200
08/24	Purchase	300	12	3,600
11/27	Purchase	400	13	5,200
	Total $ 12,000	1,000		

Step 1

Ending Inventory

Date	Units	Unit Cost	Total Cost
01/01	100	$ 10	$ 1,000
04/15	200	$ 5,000 11	2,200
08/24	150	12	1,800
	450		

Step 2

Cost of Goods Sold

Cost of goods $ 7,000 available for sale	$ 12,000
Less: Ending inventory	5,000
Cost of goods sold	

PROOF OF COST OF GOODS SOLD

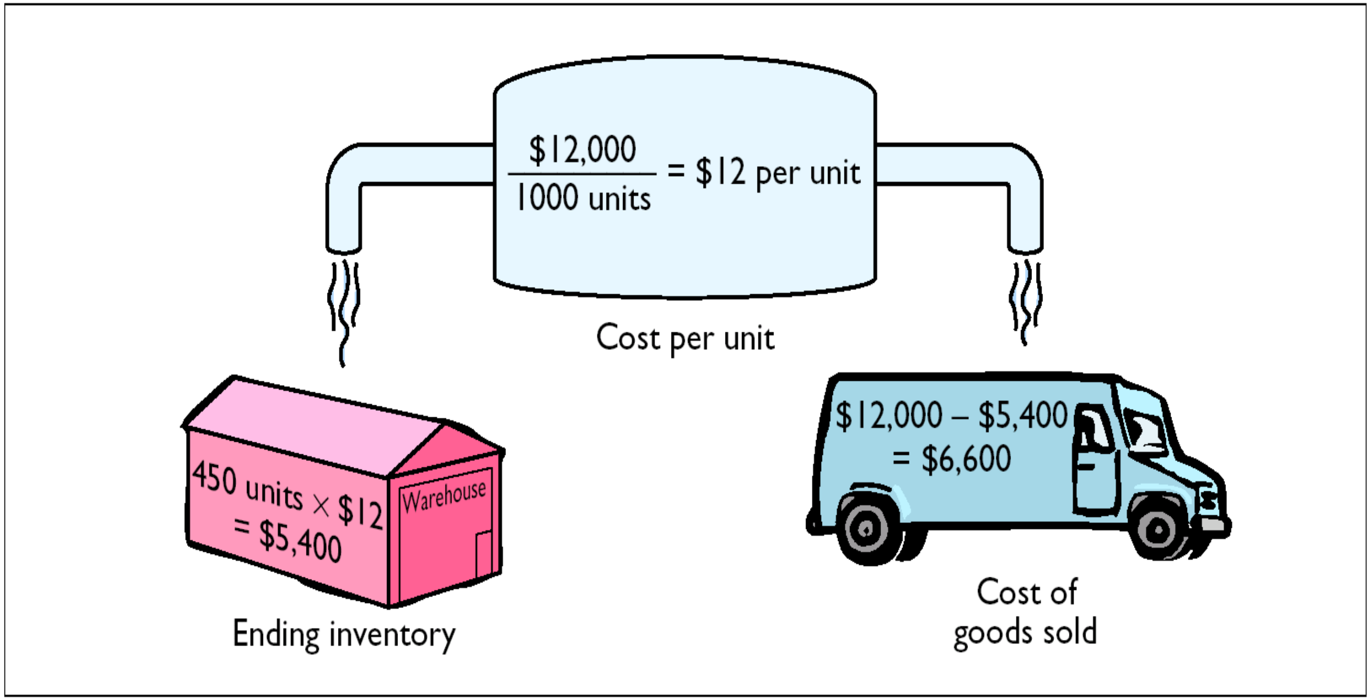
The cost of the last goods in are the first to be assigned to cost of goods sold. Under a periodic inventory system, all goods purchased during the period are assumed to be available for the first sale, regardless of the date of purchase.

Date	Units		Unit Cost		Total Cost
11/27	400	X	$ 13	=	$ 5,200
08/24	150	X	12	=	1,800
Total	550				$ 7,000

AVERAGE COST

- The **average cost method**
  - assumes goods available for sale are homogeneous
  - the cost of goods available for sale is allocated on the basis of the **weighted average unit cost** incurred
  - weighted average unit cost is applied to the units on hand to determine cost of the ending inventory

AVERAGE COST



ALLOCATION OF COSTS - AVERAGE COST METHOD

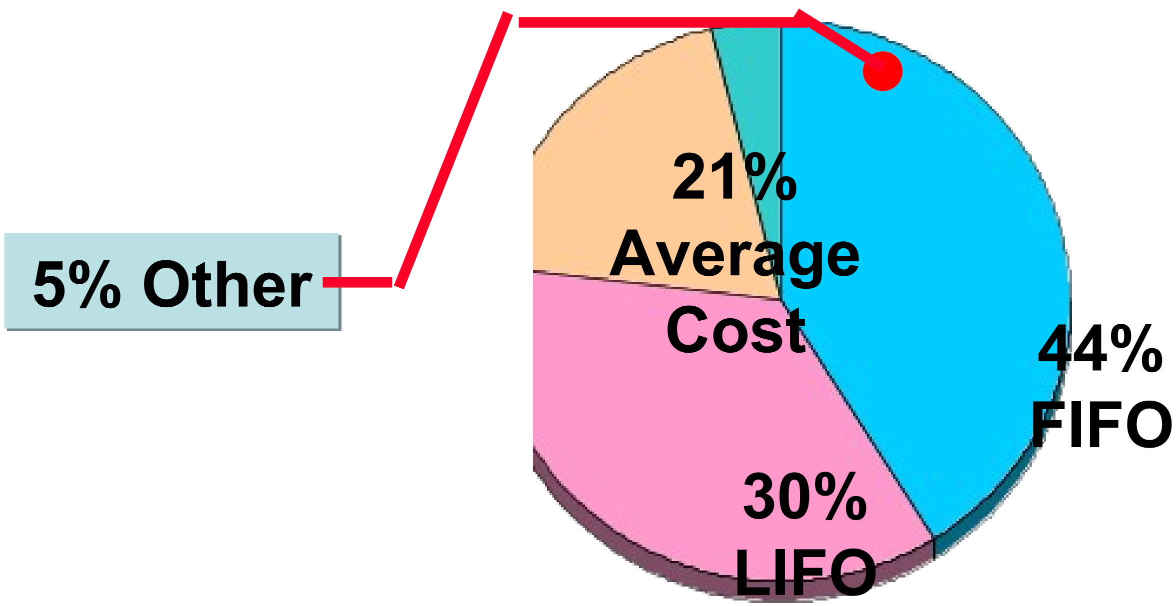
Pool of Costs				
Cost of Goods Available for Sale				
Date	Explanation	Units	Unit Cost	Total Cost
01/01	Beginning inventory	100	$10	$ 1,000
04/15	Purchase	200	11	2,200
08/24	Purchase	300	12	3,600
11/27	Purchase	400	13	5,200
	Total $ 12,000	1,000		

Step 1					
Ending Inventory					
$ 12,000	÷	1,000	=	$12.00	
Units		Unit Cost		Total Cost	
450	x	$ 12.00	=	$ 5,400	

Step 2	
Cost of Goods Sold	
Cost of goods available for sale	$ 12,000
Less: Ending inventory	5,400
Cost of goods sold $ 6,600	

USE OF COST FLOW METHODS IN MAJOR U.S. COMPANIES

Companies adopt different inventory cost flow methods for various reasons. Usually one of the following factors is involved: 1) income statement effects, 2) balance sheet effects, or 3) tax effects.



A company had the following inventory information for the month of May:

May 1	Beg. Inventory	400 units	@	$10.00 =	$4000
8	Purchase	500 units	@	$10.50 =	$5250
20	Purchase	600 units	@	$10.60 =	$6360
Total units and cost units		1100			$15,610 [redacted]

Assuming the company is using the Lifo method of inventory:
Calculate the value of the ending inventory if there are 100 units in ending inventory on May 31st.

INCOME STATEMENT EFFECTS COMPARED

STUDY OBJECTIVE 3

Kralik Company buys 200 XR492s at $20 per unit on January 10 and 200 more on December 31 at $24 each. During the year, 200 units are sold at $30 each. Under LIFO, the company recovers the current replacement cost ($4,800) of the units sold. Under FIFO, however, the company recovers only the January 10 cost ($4,000). To replace the units sold, it must invest $800 (200 x $4) of the gross profit. Thus, $800 of the gross profit is said to be phantom or illusory profits. As a result, reported net income is overstated in real terms.

	LIFO	FIFO
Cost of goods sold	4,000 (200 x $20)	4,800 (200 x $24)

USING INVENTORY COST FLOW METHODS CONSISTENTLY

- **Consistency**
  - **Companies needs to use its chosen cost flow method from one period to another.**
  - **Consistent application makes financial statements comparable over successive time periods.**
  - **If a company adopts a different cost flow method:**
    - **The change and its effects on net income must be disclosed in the financial statements**

VALUING INVENTORY AT THE LOWER OF COST OR MARKET

STUDY OBJECTIVE 4

- **Value of inventory is lower than its cost**
  - **The inventory is written down to its market value**
- **Known as the lower of cost or market (LCM) method**
- **LCM basis**
  - **Market is defined as current replacement cost, not selling price**

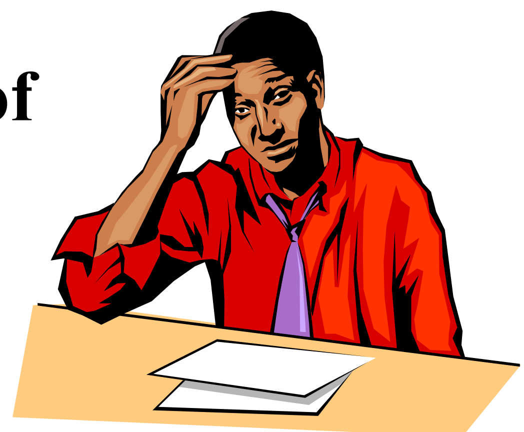
COMPUTATION OF LOWER OF COST OR MARKET

	Cost	Market	Lower of Cost or Market
Television sets			
Consoles	$ 60,000	$ 55,000	$ 55,000
Portables	45,000	52,000	45,000
Total	105,000	107,000	
Video equipment			
Recorders	48,000	45,000	45,000
Movies	15,000	14,000	14,000
Total	63,000	59,000	
Total inventory	$ 168,000	$ 166,000	$ 159,000

INVENTORY ERRORS - INCOME STATEMENT EFFECTS

STUDY OBJECTIVE 5

- **both beginning and ending inventories appear on the income statement**
- **ending inventory of one period automatically becomes the beginning inventory of the next period**
- **inventory errors**
  - **affect the determination of cost of goods sold and net income**



FORMULA FOR COST OF GOODS SOLD

Beginning Inventory	+	Cost of Goods Purchased	–	Ending Inventory	=	Cost of Goods Sold

the effects on cost of goods sold can be determined by entering the incorrect data in the above formula and then substituting the correct data

EFFECTS OF INVENTORY ERRORS ON CURRENT YEAR'S INCOME STATEMENT

Inventory Error	Cost of Goods Sold	Net Income
Understate beginning inventory	**Understated**	**Overstated**
Overstate beginning inventory	**Overstated**	**Understated**
Understate ending inventory	**Overstated**	**Understated**
Overstate ending inventory	**Understated**	**Overstated**

an error in ending inventory of the current period will have a reverse effect on net income of the next period

ENDING INVENTORY ERROR - BALANCE SHEET EFFECTS

the effect of ending inventory errors on the balance sheet can be determined by the basic accounting equation:

Assets = Liabilities + Owners Equity

ENDING INVENTORY ERROR - BALANCE SHEET EFFECTS

errors in the ending inventory have the following effects on these components:

Ending Inventory Error	Assets	Liabilities	Owner's Equity

Overstated Overstated None Overstated Understated Understated
None Understated

INVENTORY DISCLOSURES

- **Inventory**
  – **classified as a current asset after receivables in the balance sheet**
- **Cost of goods sold**
  – **subtracted from sales in the income statement**

•Disclosure either in the balance sheet or in accompanying notes of:

1. **major inventory classifications**
2. **basis of accounting (cost or lower of cost or market)**
3. **costing method (FIFO, LIFO, or average cost)**

Wal-Mart Stores, Inc

Notes to the Financial Statements

Note 1. Summary of accounting policies

Inventories

The company uses the retail, last-in, first-out (LIFO) method for the Wal-Mart Stores segment, cost LIFO for the SAM'S CLUB segment, and other cost methods, including the retail first-in, first-out (FIFO) and average costs methods, for the International segment. Inventories are not recorded in excess of market

INVENTORY TURNOVER FORMULA AND COMPUTATION

STUDY OBJECTIVE 6

The inventory turnover ratio measures the number of times, on average, the inventory is sold during the period – which measures the liquidity of the inventory. It is computed by dividing cost of goods sold by average inventory during the year. Assume that Wal-Mart, Inc. has a beginning inventory of $21,442 million and ending inventory of $21,614 and cost of goods sold for 2002 of $171,562; its inventory turnover formula and computation is shown below:

COST OF GOODS SOLD

INVENTORY TURNOVER =

AVERAGE INVENTORY

7.97 times = $171,562

($21,442 + $21,614) /2

APPENDIX 6A

INVENTORY COST FLOW METHODS IN PERPETUAL INVENTORY SYSTEMS

To illustrate the application of the 3 assumed cost flow methods (FIFO, Average Cost, and LIFO), the data shown below for Bow Valley Electronics' product Z202 Astro Condenser is used.

Bow Valley Electronics
Z202 Astro Condensers

Date	Explanation	Units	Unit Cost	Total Cost
01/01	Beginning inventory	100	$10	$ 1,000
04/15	Purchase	200	11	2,200
08/24	Purchase	300	12	3,600
11/27	Purchase	400	13	5,200
	Total			$ 12,000

PERPETUAL SYSTEM - FIFO

Under **FIFO**, the cost of the **earliest** goods on hand prior to each sale is charged to **cost of goods sold**. Therefore, the cost of goods sold on September 10 consists of the units on hand January 1 and the units purchased April 15 and August 24.

Date	Purchases		Sales		Balance	
January 1					(100 @ $10)	$1,000
April 15	(200 @ $11)	$2,200			(100 @ $10) (200 @ $11)	$3,200
August 24	(300 @ $12)	$3,600			(100 @ $10) (200 @ $11) (300 @ $12)	$6,800
September 10			(100 @ $10) (200 @ $11) (250 @ $12)	$6,200	(50 @ $12)	$600
November 27	(400 @ $13)	$5,200			(50 @ $12) (400 @ $13)	$5,800

PERPETUAL SYSTEM - LIFO

Under the LIFO method using a perpetual system, the cost of the most recent purchase prior to sale is allocated to the units sold. The cost of the goods sold on September 10 consists entirely of goods from the August 24 and April 15 purchases and 50 of the units in beginning inventory.

Date	Purchases		Sales		Balance	
January 1					(100 @ $10)	$1,000
April 15	(200 @ $11)	$2,200			(100 @ $10) (200 @ $11)	$3,200
August 24	(300 @ $12)	$3,600			(100 @ $10) (200 @ $11) (300 @ $12)	$6,800
September 10			(300 @ $20) (200 @ $11) (50 @ $10)	$6,300	(50 @ $10)	$500
November 27	(400 @ $13)	$5,200			(50 @ $10) (400 @ $13)	$5,700

PERPETUAL SYSTEM - AVERAGE COST

The average cost method in a perpetual inventory system is called the moving average method. Under this method a new average is computed after each purchase. The average cost is computed by dividing the cost of goods available for sale by the units on hand. The average cost is then applied to

1. the units sold, to determine the cost of goods sold, and,
2. the remaining units on hand, to determine the ending inventory amount.

PERPETUAL SYSTEM - AVERAGE COST METHOD

As indicated below, a new average is computed each time a purchase is made. On April 15, after 200 units are purchased for $2,200, a total of 300 units costing $3,200 ($1,000 + $2,200) are on hand. The average cost is $10.667 ($3,200/300).

Date	Purchases	Sales	Balance	
January 1			(100 @ $10)	
April 15	(200 @ $11) $2,200		(300 @ $10.667)	$3,200
August 24	(300 @ $12) $3,600		(600 @ $11.333)	$6,800
September 10		(550 @ $11.333) $6,233	(50 @ $11.333)	$567
November 27	(400 @ $13) $5,200		(450 @ $12.816)	$5,767

APPENDIX 6B
ESTIMATING INVENTORIES

- Two circumstances for estimating inventories:

  1 management may want monthly or quarterly financial statements, but a physical inventory is usually only taken annually.

  2 a casualty such as a fire or flood may make it impossible to take a physical inventory.

- Two widely used methods of estimating inventories:

  1 the gross profit method and

  2 the retail inventory method

GROSS PROFIT METHOD

- Gross profit method
  - Estimates the cost of ending inventory by applying a gross profit rate to net sales
- used in preparing monthly financial statements under a periodic system
- should NOT be used in preparing the company's financial statements at year-end
- is assumed to remain constant from one year to the next

GROSS PROFIT METHOD FORMULAS

Step 1 Net sales less estimated gross profit equals estimated cost of goods sold.

Net Sales — Estimated Gross Profit = Estimated Cost of Goods Sold

Cost of Goods Available for Sale — Estimated Cost of Goods Sold = Estimated Cost of Ending Inventory

Step 2 Cost of goods available for sale less estimated cost of goods sold (from Step 1) equals the estimated cost of ending inventory.

RETAIL INVENTORY METHOD

- A store has many different types of merchandise at low unit costs
  - the retail inventory method is often used
  - a company's records must show both the cost and retail value of the goods available for sale
- Major disadvantage
  - it is an averaging technique

RETAIL INVENTORY METHOD FORMULAS

Step 1	Goods Available for Sale at Retail	−	Net Sales	=	Ending Inventory at Retail
Step 2	Goods Available for Sale at Cost	÷	Goods Available for Sale at Retail	=	Cost to Retail Ratio
Step 3	Ending Inventory at Retail	X	Cost to Retail Ratio	=	Estimated Cost of Ending Inventory

DETERMINING COST OF GOODS ON HAND

Under the periodic method, cost of inventory on hand is determined from a physical inventory requiring:

1 counting the units on hand for each item of inventory

2 applying unit costs to the total units on hand for each item

3 totaling the cost of each item of inventory to determine total cost of goods on hand

A company had the following inventory information for the month of May:

May 1	Beg. Inventory	400 units	@	$10.00 =	$4000
8	Purchase	500 units	@	$10.50 =	$5250
20	Purchase	600 units	@	$10.60 =	$6360
Total units and cost units		1100			$15,610
Assuming the company is using the LIFO method of inventory: **Calculate the value of the ending inventory if there are 100 units in ending inventory on May 31.**					

A company had the following inventory information for the month of May:

May 1	**Beg. Inventory**	**400 units**	**@**	**$10.00 =**	**$4000**
8	Purchase	500 units	@	$10.50 =	$5250
20	Purchase	600 units	@	$10.60 =	$6360
Total units and cost		100 units			$15,610

Inventory would consist of the oldest layer

100 units @ $10.00 = $1000

(Cost of Goods sold would be equal to (Cost of Goods available for Sale-Ending Inventory)

$15,610-$1,000= $14,610

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Chapter 9

Accounting for Receivables

Prepared by Naomi Karolinski
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and
Marianne Bradford
Bryant College

CHAPTER 9
ACCOUNTING FOR RECEIVABLES

After studying this chapter, you should be able to:

1. Identify the different types of receivables.
2. Explain how accounts receivable are recognized in the accounts.
3. Distinguish between the methods and bases used to value accounts receivable.
4. Describe the entries to record the disposition of accounts receivable.
5. Compute the maturity date of and interest on notes receivable.

CHAPTER 9
ACCOUNTING FOR RECEIVABLES

After studying this chapter, you should be able to:

6 **Explain how notes receivable are recognized in the accounts.**

7 **Describe how notes receivable are valued.**

8 **Describe the entries to record the disposition of notes receivable.**

9 **Explain the statement presentation and analysis of receivables.**

RECEIVABLES

STUDY OBJECTIVE 1

- Amounts due from individuals and other companies
  – claims expected to be collected in cash
- Three major classes of receivables are

  1 Accounts Receivable

  - amounts owed by customers on account

  2 Notes Receivable

  - claims for which formal instruments of credit are issued

  3 Other Receivables –

  - non-trade receivables

  Examples: interest receivable and advances to employees

ACCOUNTS RECEIVABLE

Three primary accounting issues with accounts receivable:

1. **Recognizing accounts receivable.**
2. **Valuing accounts receivable.**
3. **Disposing of accounts receivable.**

RECOGNIZING ACCOUNTS RECEIVABLE

STUDY OBJECTIVE 2

General Journal			
Date	Account Titles	Debit	Credit
July 1	**Accounts Receivable – Polo Co.**	**1,000**	
	Sales		**1,000**

When a business sells merchandise to a customer on credit, Accounts Receivable is debited and Sales is credited.

RECOGNIZING ACCOUNTS RECEIVABLE

General Journal			
Date	Account Titles	Debit	Credit
July 5	**Sales Returns and Allowances**	**100**	
	Accounts Receivable – Polo Company		**100**

When a business receives returned merchandise previously sold to a customer on credit, Sales Returns and Allowances is debited and Accounts Receivable is credited.

RECOGNIZING ACCOUNTS RECEIVABLE

Cash ($900-$18)	882	
Sales Discounts ($900 x .02)	18	
Accounts Receivable – Polo Company		900
(To record collection of AR)		

When a business collects cash from a customer for merchandise previously sold on credit during the discount period, Cash and Sales Discounts are debited and Accounts Receivable is credited.

VALUING ACCOUNTS RECEIVABLE

STUDY OBJECTIVE 3

- Cash (net) realizable value
  - net amount expected to be received in cash and excludes amounts that the company estimates it will not be able to collect
- Credit losses
  - debited to Bad Debts Expense
  - considered a normal and necessary risk of doing business.
- Two methods of accounting for uncollectible accounts are:

  1 Direct write-off method

  2 Allowance method

DIRECT WRITE-OFF METHOD

- Direct write-off method
  - Bad debt losses are not anticipated and no allowance account is used
  - No entries are made for bad debts until an account is determined to be uncollectible at which time the loss is charged to Bad Debts Expense
- No matching
- No cash realizable value of accounts receivable on the balance sheet
- Not acceptable for financial reporting purposes

DIRECT WRITE-OFF METHOD

General Journal			
Date	Account Titles	Debit	Credit
Dec. 12	**Bad Debts Expense**	**200**	
	Accounts Receivable – M.E. Doran		**200**

Warden Co. writes off M. E. Doran's $200 balance as uncollectible on December 12. When this method is used, Bad Debts Expense will show only actual losses from uncollectibles.

THE ALLOWANCE METHOD

- **Allowance method**
  - **required when bad debts are deemed to be material in amount.**
- **Uncollectible accounts are estimated**
  - **expense for the uncollectible accounts is matched against sales in the same accounting period in which the sales occurred.**

THE ALLOWANCE METHOD

General Journal			
Date	Account Titles	Debit	Credit
Dec. 31	**Bad Debts Expense**	**12,000**	
	Allowance for Doubtful Accounts		**12,000**

Estimated uncollectibles are debited to Bad Debts Expense and credited to Allowance for Doubtful Accounts at the end of each period.

THE ALLOWANCE METHOD

General Journal			
Date	Account Titles	Debit	Credit
Mar. 1	**Allowance for Doubtful Accounts**	**500**	
	Accounts Receivable - R. A. Ware		**500**

Actual uncollectibles are debited to Allowance for Doubtful Accounts and credited to Accounts Receivable at the time the specific account is written off.

THE ALLOWANCE METHOD

General Journal			
Date	Account Titles	Debit	Credit
July 1	**Accounts Receivable – R. A. Ware**	**500**	
	Allowance for Doubtful Accounts		**500**

When there is recovery of an account that has been written off: 1 reverse the entry made to write off the account and...

THE ALLOWANCE METHOD

General Journal			
Date	Account Titles	Debit	Credit
July 1	**Cash**	**500**	
	Accounts Receivable		**500**

2 Record the collection in the usual manner.

BASES USED FOR THE ALLOWANCE METHOD

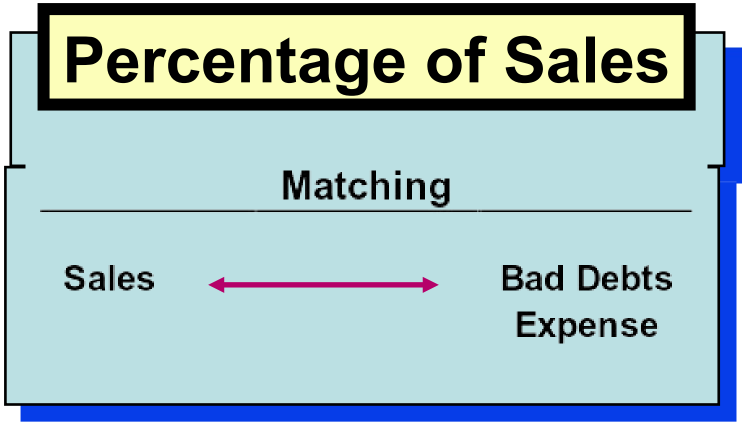
- Companies use one of two methods in the estimation of uncollectibles:

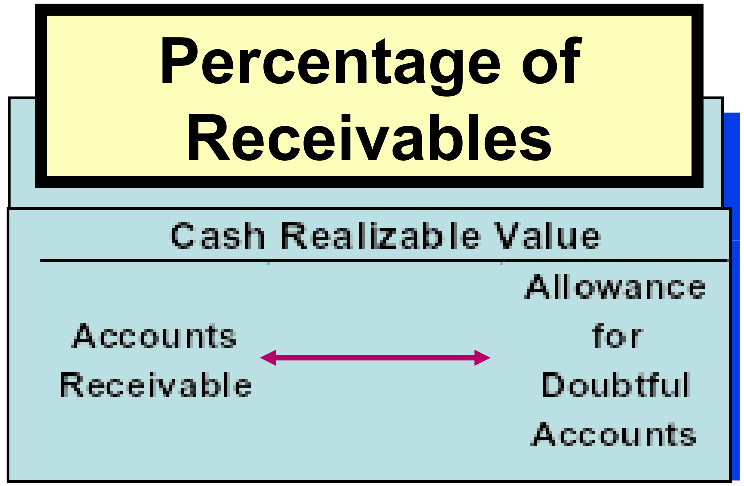
  1 Percentage of sales

  2 Percentage of receivables

- Both bases are GAAP; the choice is a management decision.

COMPARISON OF BASES OF ESTIMATING UNCOLLECTIBLES





Emphasis on Income Statement Relationships

Emphasis on Balance Sheet Relationships

PERCENTAGE OF SALES BASIS

- Management estimates what percentage of credit sales will be uncollectible.
- Expected bad debt losses are determined by applying the percentage to the sales base of the current period.
- Better match
  - Expenses with revenues

PERCENTAGE OF SALES BASIS

General Journal			
Date	Account Titles	Debit	Credit
Dec. 31	**Bad Debts Expense**	**8,000**	
	Allowance for Doubtful Accounts		**8,000**

If net credit sales for the year are $800,000, the estimated bad debts expense is $8,000 (1% X $800,000).

PERCENTAGE OF RECEIVABLES BASIS

- **Management estimates what percentage of receivables will result in losses from uncollectible accounts.**
- **Amount of the adjusting entry**
  - **difference between the required balance and the existing balance in the allowance account**
- **Produces the better estimate of cash realizable value of receivables.**

Review

Which of the following approaches for bad debts is best described as a balance sheet method?

a. Percentage of receivables basis.

b. Direct write-off method.

c. Percentage of sales basis.

d. Both a and b.

Review

Which of the following approaches for bad debts is best described as a balance sheet method?

a. Percentage of receivables basis.

b. Direct write-off method.

c. Percentage of sales basis.

d. Both a and b.

PERCENTAGE OF RECEIVABLES BASIS

General Journal			
Date	Account Titles	Debit	Credit
Dec. 31	**Bad Debts Expense**	**1,700**	
	Allowance for Doubtful Accounts		**1,700**

If the trial balance shows Allowance for Doubtful Accounts with a credit balance of $528, an adjusting entry for $1,700 ($2,228 - $528) is necessary.

DISPOSING OF ACCOUNTS RECEIVABLE

STUDY OBJECTIVE 4

- Companies frequently dispose of accounts receivable in one of two ways:

  1 sell to a factor such as a finance company or a bank

– factor buys receivables from businesses for a fee and collects the payments directly from customers

  2 make credit card sales

SALE OF RECEIVABLES

General Journal			
Date	Account Titles	Debit	Credit
	Cash	**588,000**	
	Service Charge Expense (2% x $600,000)	**12,000**	
	Accounts Receivable		**600,000**

Hendrendon Furniture factors $600,000 of receivables to Federal Factors, Inc. Federal Factors assesses a service charge of 2%of the amount of receivables sold.

CREDIT CARD SALES

- Credit cards
  - used by retailers who wish to avoid the paperwork of issuing credit
  - cash is received quickly from the credit card issuer
- National credit cards
  - Visa, MasterCard, Discover, and American Express

CREDIT CARD SALES

- Three parties
  1 credit card issuer
  2 retailer
  3 customer

- Retailer pays the credit card issuer a fee of 2-6% of the invoice price for its services.
- From an accounting standpoint, sales from Visa, MasterCard, and Discover are treated differently than sales from American Express.

VISA, MASTERCARD, AND DISCOVER SALES

- VISA, MasterCard, and Discover
  - cards issued by banks
  - considered cash sales by the retailer
- Upon receipt of credit card sales slips from a retailer
  - the bank immediately adds the amount to the seller's bank balance

VISA, MASTERCARD, AND DISCOVER SALES

General Journal			
Date	Account Titles	Debit	Credit
	Cash	**970**	
	Service Charge Expense	**30**	
	Sales		**1,000**

Anita Ferreri purchases a number of compact discs for her restaurant from Karen Kerr Music Co. for $1,000 using her VISA First Bank Card. The service fee that First Bank charges is 3%.

AMERICAN EXPRESS SALES

- American Express cards
  - reported as credit sales, not cash sales
- Conversion to cash does not occur until the American Express remits the net amount to the seller.

AMERICAN EXPRESS SALES

General Journal			
Date	Account Titles	Debit	Credit
	Accounts Receivable – American Express	**285**	
	Service Charge Expense	**15**	
	Sales		**300**

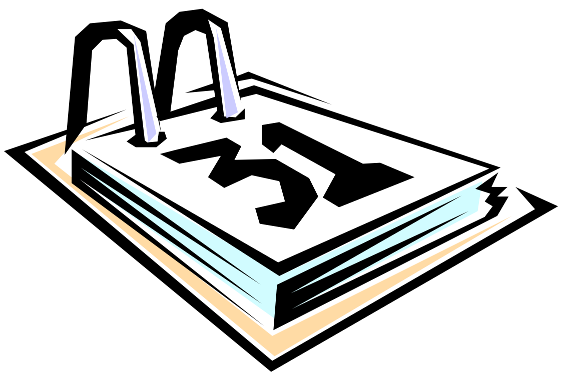
Four Seasons Restaurant accepts an American Express card for a $300 bill. The service fee that American Express charges is 5%.

NOTES RECEIVABLE

- **Promissory note**
  - **written promise to pay a specified amount of money on demand or at a definite time.**
- **Maker**
  - **The party making the promise.**
- **Payee**
  - **The party to whom payment is made.**

NOTES RECEIVABLE

- Life of the note expressed in terms of months
  - the due date is found by counting the **months** from the date of issue
- Example: The maturity date of a 3 month note dated May 31 is August 31.



DETERMINING THE MATURITY DATE

STUDY OBJECTIVE 5

- Life of the note is expressed in terms of days
  - you need to count the days.
  - the date of issue is omitted but the due date is included.
- Example: The maturity date of a 60-day note dated July 17 is:

Term of note		60
July 31 – 17	14	
August	31	45
Maturity date: September		15

FORMULA FOR COMPUTING INTEREST

The basic formula for computing interest on an interest-bearing note is:

Face Value of Note	x	Annual Interest Rate	x	Time in Terms of One Year	=	Interest

The interest rate specified on the note is an annual rate of interest.

COMPUTATION OF INTEREST

Terms of Note	Face	X	Rate	X	Time	=	Interest
$ 730, 18%, 120 days	$ 730	X	18%	X	120/360	=	$ 43.80
$1,000, 15%, 6 months	$1,000	X	15%	X	6/12	=	$ 75.00
$2,000, 12%, 1 year	$2,000	X	12%	X	1/1	=	$240.00

Helpful hint: The interest rate specified is the annual rate.

RECOGNIZING NOTES RECEIVABLE

STUDY OBJECTIVE 6

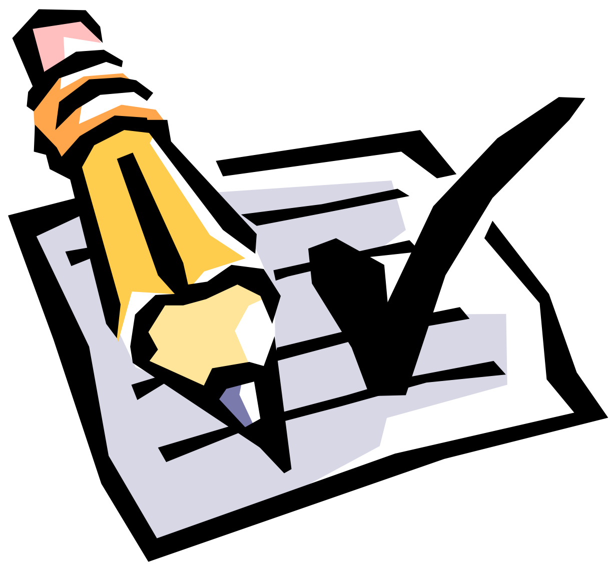
General Journal			
Date	Account Titles	Debit	Credit
May 1	**Notes Receivable**	**1,000**	
	Accounts Receivable – Brent Company		**1,000**

Wilma Company receives a $1,000, 2-month, 12% promissory note from Brent Company to settle an open account.

VALUING NOTES RECEIVABLE

STUDY OBJECTIVE 7

- **Like accounts receivable, short-term notes receivable are reported at their cash (net) realizable value.**
- **The notes receivable allowance account is Allowance for Doubtful Accounts.**



HONOR OF NOTES RECEIVABLE

Nov. 1	Cash	10,300	
	Notes Receivable		10,000
	Interest Revenue		375
	(To record collection of Higley Inc. note)		

- A note is **honored** when it is paid in full at its maturity date.
- For an interest-bearing note, the amount due at maturity is
  the face value of the note plus interest for the length of
  time specified on the note.
- Betty Co. lends Wayne Higley Inc. $10,000 on June 1, accepting a 5-month, 9% interest-bearing note.
- Betty Co. collects the maturity value of the note from

HONOR OF NOTES RECEIVABLE

Sept. 30	Interest Receivable	300	
	Interest Revenue		300
	(To accrue 4 months' interest)		

If Betty Co. prepares prepares financial statements as of September 30, interest for 4 months, or $300, would be accrued.

HONOR OF NOTES RECEIVABLE

Nov. 1	Cash	10,375	
	Notes Receivable		10,000
	Interest Receivable		300
	Interest Revenue		75

When interest has been accrued, it is necessary to credit Interest Receivable at maturity.

DISHONOR OF NOTES RECEIVABLE

General Journal			
Date	Account Titles	Debit	Credit
Oct. 1	Accounts Receivable	10,375	
	Notes Receivable		10,000
	Interest Revenue		375

- A **dishonored note** is a note that is not paid in full at maturity.
- A dishonored note receivable is no longer negotiable.
- Since the payee still has a claim against the maker of the note, the balance in **Notes Receivable** is usually transferred to **Accounts Receivable**.

BALANCE SHEET PRESENTATION OF RECEIVABLES

STUDY OBJECTIVE 9

- **In the balance sheet, short-term receivables are reported in the current assets section below short-term investments.**
- **Report both the *gross amount of receivables* and the *allowance for doubtful accounts.***

ACCOUNTS RECEIVABLE TURNOVER RATIO AND COMPUTATION

- Ratios are computed to evaluate the liquidity of a company's accounts receivable.
- Accounts receivables turnover ratio used to assess the liquidity of the receivables.
- If Cisco had net credit sales of $18, 915 million for the year and beginning net accounts receivable balance of $1,466 million and ending net accounts receivable balance of $1,105 million:

Net Credit Sales / ,466 + Average Net Receivables = .7 tim Accounts Receivable Turnover

AVERAGE COLLECTION PERIOD FOR RECEIVABLES FORMULA AND COMPUTATION

- **Variant of the turnover ratio that makes liquidity even more evident.**
- **This is done by dividing the turnover ratio into 365 days. The *general rule* is that the collection period should not exceed the credit term period.**
- **Cisco's turnover ratio is computed as:**

Days in Year/AR Turnover = ection Period in Days

365 days / 14.7 times = 24.8 days

Review

Which of the following statements about VISA credit card sales is correct?

a. The credit card issuer makes the credit investigation of the customer.

b. The retailer is not involved in the collection process.

c. Two parties are involved.

Review

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Accounting Principles, 7th Edition

Weygandt • Kieso • Kimmel

Chapter 10

Plant Assets, Natural Resources, and Intangible Assets

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CHAPTER 10

PLANT ASSETS, NATURAL RESOURCES, AND INTANGIBLE ASSETS

After studying this chapter, you should be able to:

1 Describe how the cost principle applies to plant assets.

2 Explain the concept of depreciation.

3 Compute periodic depreciation using different methods.

4 Describe the procedure for revising periodic depreciation.

5 Distinguish between revenue and capital expenditures, and explain the entries for these expenditures.

PLANT ASSETS, NATURAL RESOURCES, AND INTANGIBLE ASSETS

After studying this chapter, you should be able to:

6 **Explain how to account for the disposal of a plant asset.**

7 **Compute periodic depletion of natural resources.**

8 **Explain the basic issues related to accounting for intangible assets.**

9 **Indicate how plant assets, natural resources, and intangible assets are reported and analyzed.**

PLANT ASSETS

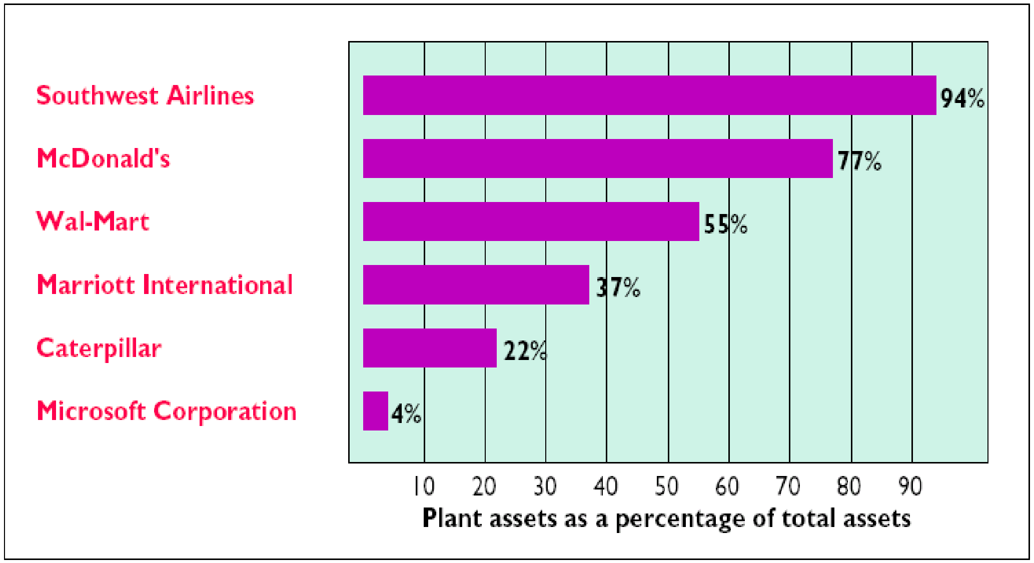
- **Plant assets**
  - tangible resources used in the operations of a business
  - not intended for sale to customers
- **Plant assets are subdivided into four classes:**

  1 Land

  2 Land improvements

  3 Buildings

  4 Equipment



DETERMINING THE COST OF PLANT ASSETS

STUDY OBJECTIVE 1

- Plant assets are recorded at cost in accordance with the cost principle.
- Cost
  - consists of all expenditures necessary to acquire the asset and make it ready for its intended use
  - includes purchase price, freight costs, and installation costs
- Expenditures that are not necessary
  - recorded as expenses, losses, or other assets

LAND

- The cost of Land includes:
  1 cash purchase price
  2 closing costs such as title and attorney's fees
  3 real estate brokers' commissions
  4 accrued property taxes and other liens on the land assumed by the purchaser.
- All necessary costs incurred to make land ready for its intended use are debited to the Land account.

COMPUTATION OF COST OF LAND

Sometimes purchased land has a building on it that must be removed before construction of a new building. In this case, all demolition and removal costs, less any proceeds from salvaged materials are debited to the Land account.

Land	
Cash price of property	$ 100,000
Net removal cost of warehouse	6,000
Attorney's fee	1,000
Real estate broker's commission	8,000
Cost of land	$ 115,000

LAND IMPROVEMENTS

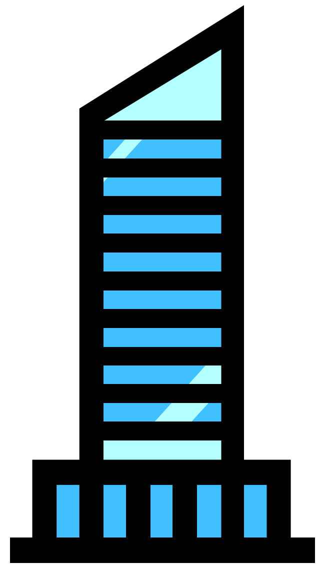
The cost of land improvements includes:

all expenditures needed to make the improvements ready for their intended use such as:

1. **parking lots**
2. **fencing**
3. **lighting**

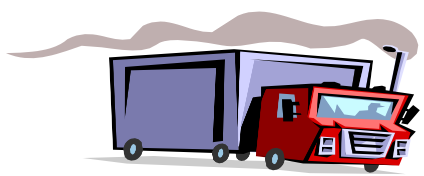
BUILDINGS

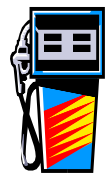
- The cost
  - includes all necessary expenditures relating to the purchase or construction of a building:
  - costs include the purchase price, closing costs, and broker's commission
- Costs to make the building ready for its intended use include
  - expenditures for remodeling and replacing or repairing the roof, floors, wiring, and plumbing
- If a new building is constructed, costs include
  - contract price plus payments for architects' fees, building permits, interest payments during construction, and excavation costs



EQUIPMENT

- Cost of equipment
  - consists of the cash purchase price and certain related costs
  - costs include sales taxes, freight charges, and insurance paid by the purchaser during transit
  - includes all expenditures required in assembling, installing, and testing the unit
- Recurring costs such as licenses and insurance are expensed as incurred.



ENTRY TO RECORD PURCHASE OF MACHINERY

Factory Machinery	
Cash price	$ 50,000
Sales taxes	3,000
Insurance during shipping	500
Installation and testing	1,000
Cost of factory machinery	$ 54,500

The summary entry to record the cost of the factory machinery and related expenditures is as follows:

Factory Machinery		54,500	
Cash			54,500

COMPUTATION OF COST OF DELIVERY TRUCK

The cost of equipment consists of the cash purchase price, sales taxes, freight charges, and insurance during transit paid by the purchaser. It also includes expenditures required in assembling, installing, and testing the unit. However, motor vehicle licenses and accident insurance on company cars and trucks are expensed as incurred, since they represent annual recurring events that do not benefit future periods.

Delivery Truck	
Cash price	$ 22,000
Sales taxes	1,320
Painting and lettering	500
Cost of delivery truck	$ 23,820

ENTRY TO RECORD PURCHASE OF TRUCK

Delivery Truck	
Cash price	$ 22,000
Sales taxes	1,320
Painting and lettering	500
Cost of delivery truck	$ 23,820

The entry to record the cost of the delivery truck and related expenditures is as follows:

Account Titles and Explanation	Debit	Credit
Delivery Truck	23,820	
License Expense	80	
Prepaid Insurance	1,600	
Cash		25,500
(To record purchase of delivery truck and related expenditures)		

DEPRECIATION

STUDY OBJECTIVE 2

- **Depreciation**
  - **allocation of the cost of a plant asset to expense over its useful (service) life in a rational and systematic manner.**
- **Cost allocation**
  - **provides for the proper matching of expenses with revenues in accordance with the matching principle.**
- **Usefulness may decline because of wear and tear or obsolescence.**
- **Depreciation does not result in an accumulation of cash for the replacement of the asset.**
- **Land**
  - **is the only plant asset that is not depreciated.**

FACTORS IN COMPUTING DEPRECIATION

THREE FACTORS THAT AFFECT THE COMPUTATION OF DEPRECIATION ARE:

1 Cost:

all expenditures necessary to acquire the asset and make it ready for intended use

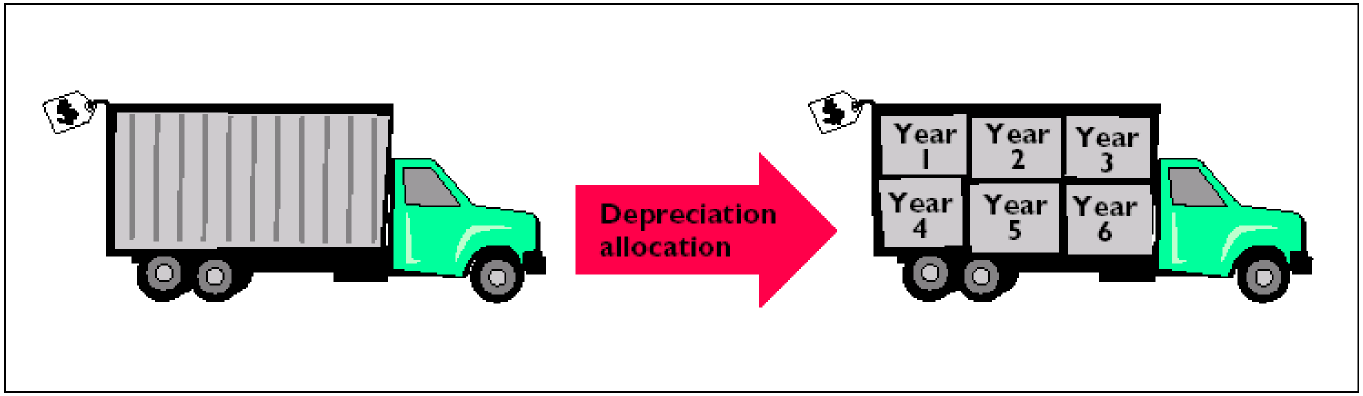
2 Useful life:

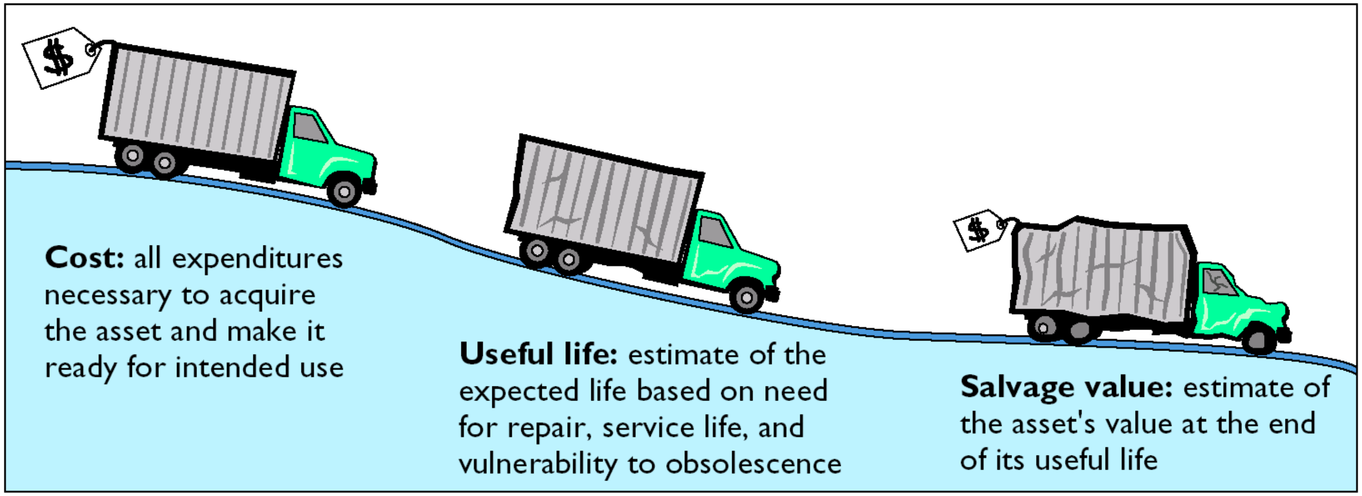
estimate of the expected life based on need for repair, service life, and vulnerability to obsolescence

3 Salvage value:

estimate of the asset's value at the end of its useful life

DEPRECIATION





Review

Depreciation is a process of:

a. valuation.

b. cost allocation.

c. cash accumulation.

d. appraisal.

Review

Depreciation is a process of:

a. valuation.

b. cost allocation.

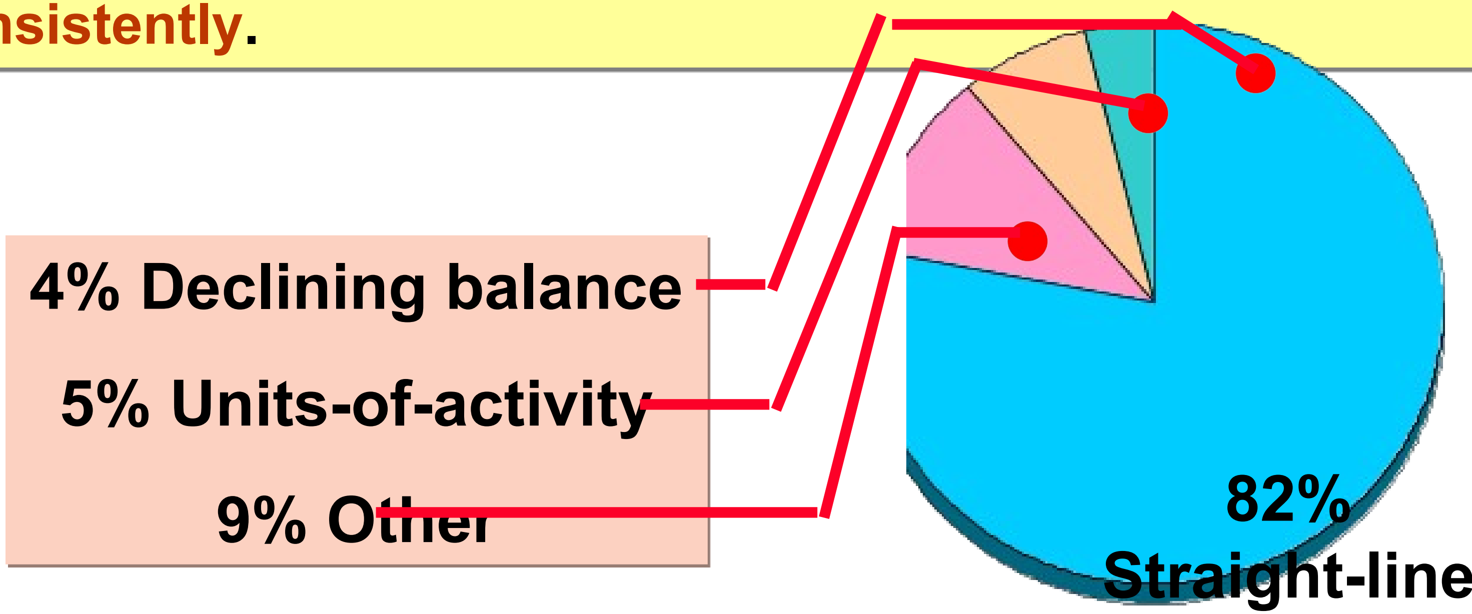
c. cash accumulation.

d. appraisal.

USE OF DEPRECIATION METHODS IN 600 LARGE U.S. COMPANIES

STUDY OBJECTIVE 3

Three methods of recognizing depreciation are: 1 Straight-line, 2 Units of activity, and 3 Declining-balance. Each method is acceptable under generally accepted accounting principles. Management selects the method that is appropriate in the circumstances. Once a method is chosen, it should be applied consistently.



DELIVERY TRUCK DATA

- Compare the three depreciation methods, using the following data for a small delivery truck purchased by Barb's Florists on January 1, 2005.

Cost	$13,000
Expected salvage value	$1,000
Estimated useful life in years	5
Estimated useful life in miles	100,000

STRAIGHT-LINE

- **Straight-line method**
  - Depreciation is the same for each year of the asset's useful life.
  - It is measured solely by the passage of time.
- It is necessary to determine **depreciable cost**.
- Depreciable cost
  - total amount subject to depreciation and is computed as follows:
- Cost of asset - salvage value

FORMULA FOR STRAIGHT-LINE METHOD

The formula for computing annual depreciation expense is:

Depreciable Cost / Useful Life (in years) = Depreciation Expense

Cost	—	Salvage Value	=	Depreciable Cost
$13,000	**-**	**$1,000**	**=**	**$12,000**

Depreciable Cost	÷	Useful Life (in Years)	=	Annual Depreciation Expense
$12,000	**÷**	**5**	**=**	**$2,400**

UNITS-OF-ACTIVITY

- Useful life = total units of production or total expected use expressed in hours, miles, etc.
- Depreciable Cost ÷ Total Units of Activity = Depreciation Cost per Unit
- Depreciation Cost per Unit X Units of Activity During the Year = Annual Depreciation Expense
  - It is often difficult to make a reasonable estimate of total activity.
- When productivity varies from one period to another, this method results in the best matching of expenses with revenues.

FORMULA FOR UNITS-OF-ACTIVITY METHOD

To use the units-of-activity method, 1) the total units of activity for the entire useful life are estimated, 2) the amount is divided into depreciable cost to determine the depreciation cost per unit, and 3) the depreciation cost per unit is then applied to the units of activity during the year to determine the annual depreciation.

Depreciable Cost	÷	Total Units of Activity	=	Depreciable Cost per Unit
$12,000	÷	100,000 miles	=	$0.12
Depreciable Cost per Unit	X	Units of Activity during the Year	=	Annual Depreciation Expense
$0.12	x	15,000 miles	=	$1,800

DECLINING-BALANCE

- **Decreasing annual depreciation expense over the asset's useful life**
- **Periodic depreciation is based on a *declining book value**
  - **(cost - accumulated depreciation)**
- **To compute annual depreciation expense**
  - **Multiply the book value at the beginning of the year by the declining-balance depreciation rate**
- **Depreciation rate remains constant from year to year**
  - **book value declines each year**

DECLINING-BALANCE

- **Book value for the first year is the cost of the asset.**
  - **Balance in accumulated depreciation at the beginning of the asset's useful life is zero**
- **In subsequent years, book value is the difference between cost and accumulated depreciation at the beginning of the year.**
- **Formula for computing depreciation expense:**
- **Book Value at Beginning of Year x Declining Balance Rate = Annual Depreciation Expense**
- **Method compatible with the matching principle**
  - **the higher depreciation in early years is matched with the higher benefits received in these years.**

FORMULA FOR DECLINING-BALANCE METHOD

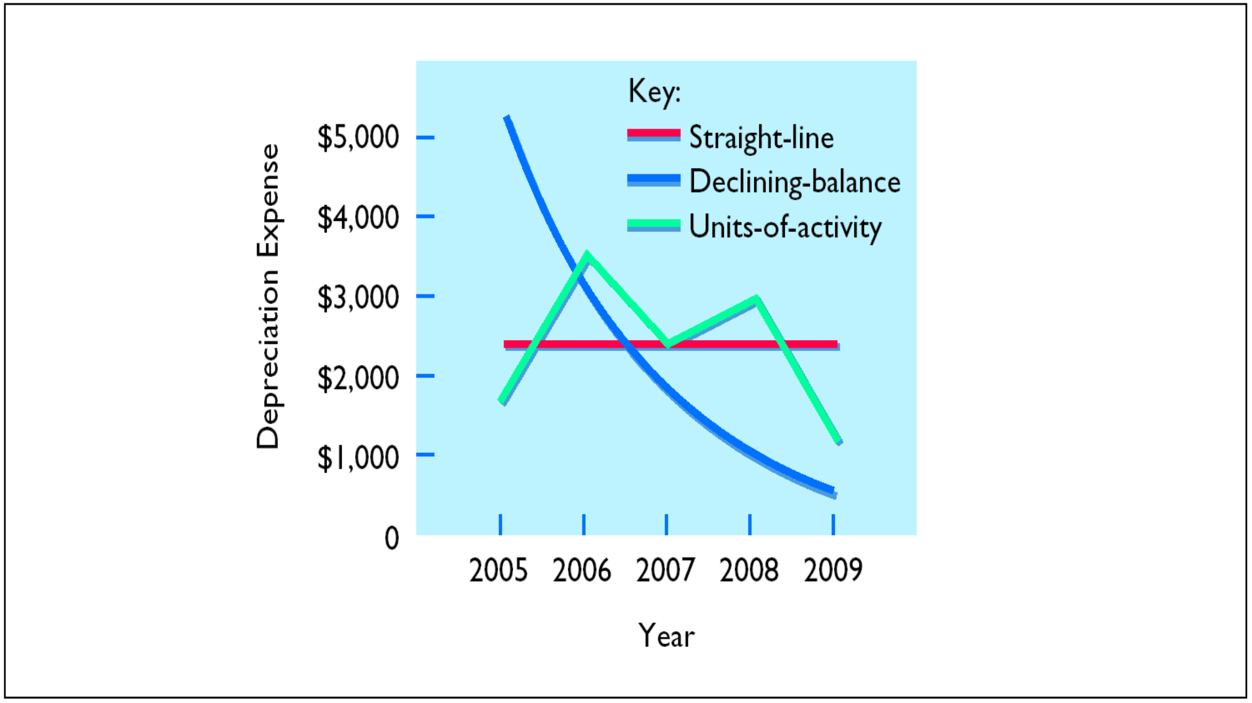
Unlike the other depreciation methods, salvage value is ignored in determining the amount to which the declining balance rate is applied.

A common application of the declining-balance method is the double-declining-balance method, in which the declining-balance rate is double the straight-line rate.

If Barb's Florists uses the double-declining-balance method, the depreciation is 40% (2 X the straight-line rate of 20%).

Depreciable Cost per Unit	X	Units of Activity during the Year	=	Annual Depreciation Expense
$13,000	**x**	**40%**	**=**	**$5,200**

PATTERNS OF DEPRECIATION



REVISING PERIODIC DEPRECIATION

STUDY OBJECTIVE 4

- Changes should be made
  - Excessive wear and tear or obsolescence indicate that annual depreciation estimates are inadequate.
- When a change is made
  - No correction of previously recorded depreciation expense
  - Depreciation expense for current and future years is revised
- To determine the new annual depreciation expense
  - The depreciable cost at the time of the revision is divided by the remaining useful life.

REVISED DEPRECIATION COMPUTATION

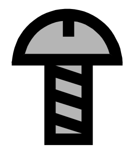
Barb's Florists decides on January 1, 2008, to extend the useful life of the truck one year because of its excellent condition. The company has used the straight-line method to depreciate the asset to date, and book value is $5,800 ($13,000 - $7,200). The new annual depreciation is $1,600, calculated as follows:

Book value, 1/1/08	$5,800	
Less: Salvage value	1,000	
Depreciable cost	$4,800	
Remaining useful life	3 years	(2008-2010)
Revised annual depreciation ($4,800 ÷ 3)	$1,600	

EXPENDITURES DURING USEFUL LIFE

STUDY OBJECTIVE 5

- **Ordinary repairs**
  - **expenditures to maintain the operating efficiency and productive life of the unit**
  - **such repairs are debited to Repairs Expense as incurred and are often referred to as revenue expenditures.**



EXPENDITURES DURING USEFUL LIFE

- **Capital expenditures**
- **Additions and improvements**
  - **increase the operating efficiency, productive capacity, or useful life of a plant asset**

1 **Usually material in amount and occur infrequently.**

2 **Increase the company's investment in productive facilities.**

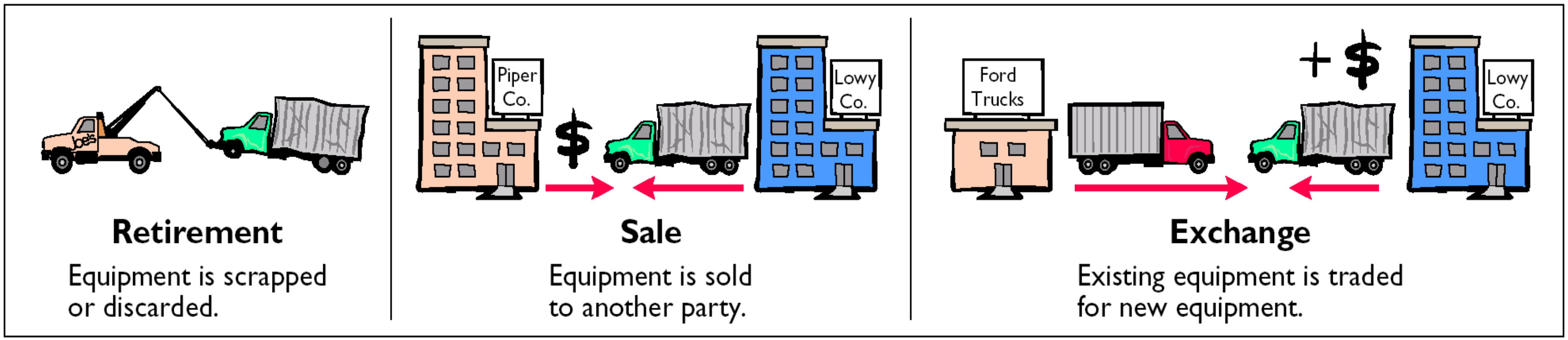
Debit the plant asset affected.

PLANT ASSET DISPOSALS

STUDY OBJECTIVE 6

- Retirement
  - Plant asset is scrapped or discarded.
  - Eliminate the book value of the plant asset at the date of sale by debiting Accumulated Depreciation and crediting the asset account for its cost.
  - Debit Cash to record the cash proceeds from the sale.
  - Compute gain or loss.
- If the cash proceeds > the book value
  - recognize a gain by crediting Gain on Disposal for the difference.
- If the cash proceeds are < the book value
  - recognize a loss by debiting Loss on Disposal for the difference.

PLANT ASSET DISPOSALS



GAIN ON DISPOSAL

On July 1, 2005, Wright Company sells office furniture for $16,000 cash. Original cost was $60,000 and as of January 1, 2005, had accumulated depreciation of $41,000. Depreciation for the first 6 months of 2005 is $8,000. The entry to record depreciation expense and update accumulated depreciation to July 1 is as follows:

Depreciation Expense		8,000	
Accumulated Depreciation			8,000

GAIN ON DISPOSAL

After the accumulated depreciation is updated, a gain on disposal of $5,000 is computed:

Cost of office furniture	$ 60,000
Less: Accumulated depreciation ($41,000 + $8,000)	49,000
Book value at date of disposal	11,000
Proceeds from sale	16,000
Gain on disposal	$ 5,000

The entry to record the sale and the gain on disposal is as follows:

Cash	16,000	
Accumulated Depr.-Office Furniture	49,000	
Office Furniture		60,000
Gain on Disposal		5,000

LOSS ON DISPOSAL

Instead of the selling the office furniture for $16,000, Wright sells it for $9,000. In this case, a loss of $2,000 is computed:

Cost of office furniture	$ 60,000
Less: Accumulated depreciation ($41,000 + $8,000)	49,000
Book value at date of disposal	11,000
Proceeds from sale	9,000
Loss on disposal	$ 2,000

The entry to record the sale and the loss on disposal is as follows:

Cash	9,000	
Accumulated Depr.-Office Furniture	49,000	
Loss on Disposal	2,000	
Office Furniture		60,000

NATURAL RESOURCES

STUDY OBJECTIVE 7

- Natural resources
  - consists of standing timber and underground deposits of oil, gas, and minerals
- These long-lived productive assets have two distinguishing characteristics:

  1 They are physically extracted in operations.

  2 They are replaceable only by an act of nature.

DEPLETION

DEPLETION

- **Allocation of the cost of natural resources to expense in a rational and systematic manner over the resource's useful life.**
- **Units-of-activity method is generally used to compute depletion.**
  - **depletion generally is a function of the units extracted during the year**

FORMULA TO COMPUTE DEPLETION EXPENSE

Total Cost minus Salvage Value ÷ Total Estimated Units = Depletion Cost per Unit

Depletion Cost per Unit X Number of Units Extracted and Sold = Annual Depletion Expense

Helpful hint: This computation for depletion is similar to the computation for depreciation using the units-of-activity method of depreciation.

RECORDING DEPLETION

The Lane Coal Company invests $5 million in a mine estimated to have 10 million tons of coal and no salvage value. In the first year, 800,000 tons of coal are extracted and sold. Using the formulas, the calculations are as follows:

$5,000,000 ÷ 10,000,000 = $.50 depletion cost per ton

$.50 X 800,000 = $400,000 depletion expense

The entry to record depletion expense for the first year of operations is as follows:

Depletion Expense	400,000	
Accumulated Depletion		400,000

STATEMENT PRESENTATION OF ACCUMULATED DEPLETION

Accumulated Depletion is a contra asset account similar to accumulated depreciation. It is deducted from the cost of the natural resource in the balance sheet as follows:

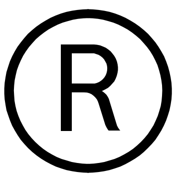
Lane Coal Company
Balance Sheet (partial)

Coal mine	$5,000,000	
Less: Accumulated depletion	400,000	$4,600,000

INTANGIBLE ASSETS

Study Objective 8

- **Intangible assets**
  - Rights, privileges, and competitive advantages that result from the ownership of long lived assets that do not possess physical substance
  - May arise from government grants, acquisition of another business, and private monopolistic arrangements



ACCOUNTING FOR INTANGIBLE ASSETS

- In general, accounting for intangible assets parallels the accounting for plant assets.
- Intangible assets are:

  1 recorded at cost

  2 written off over useful life in a rational and systematic manner

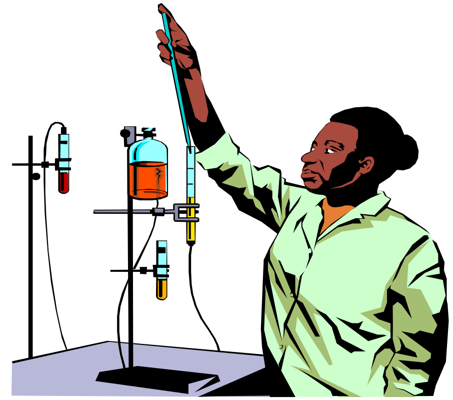
  3 at disposal, book value is eliminated and gain or loss, if any, is recorded

ACCOUNTING FOR INTANGIBLE ASSETS

STUDY OBJECTIVE 8

- **Key differences between accounting for intangible assets and accounting for plant assets include:**
  - **The systematic write-off of an intangible asset is referred to as amortization**
- **To record amortization**
  - **Debit Amortization Expense and credit the specific intangible asset**
  - **Intangible assets typically amortized on a straight-line basis**

PATENTS



- A patent
  - exclusive right issued by the Patent Office
  - manufacture, sell, or otherwise control an invention for a period of 20 years from the date of grant
- Cost of a patent
  - initial cost is the cash or cash equivalent price paid to acquire the patent
  - legal costs – amount an owner incurs in successfully defending a patent are added to the Patent account and amortized over the remaining useful life of the patent
  - should be amortized over its 20-year legal life or its useful life, whichever is shorter.

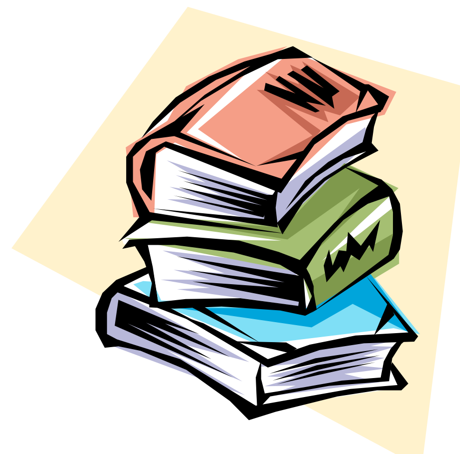
RECORDING PATENTS

National Labs purchases a patent at a cost of $60,000. If the useful life of the patent is 8 years, the annual amortization expense is $7,500 ($60,000 ÷ 8). Amortization Expense is classified as an operating expense in the income statement. The entry to record the annual patent amortization is:

Amortization Expense	7,500	
Patents		7,500

COPYRIGHTS

- Copyrights
  - grants from the federal government
  - gives the owner the exclusive right to reproduce and sell an artistic or published work
- Copyrights extend for the life of the creator plus 70 years.
- The cost of a copyright is the cost of acquiring and defending it.



TRADEMARKS AND TRADE NAMES

TM

- A trademark or trade name
  - word, phrase, jingle or symbol identifying a particular enterprise or product
- Trademark or trade name purchased
  - the cost is purchase price
- Trademark developed by a company
  - the cost includes attorney's fees, registration fees, design costs and successful legal defense fees

FRANCHISES AND LICENSES

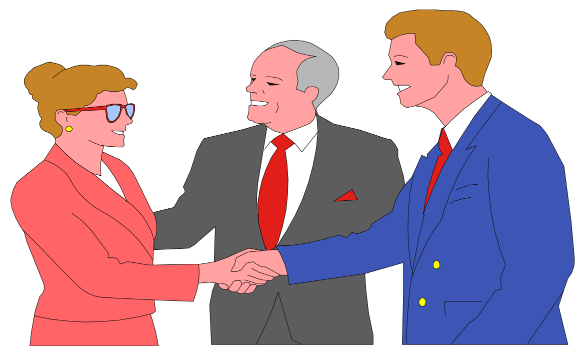
- Franchise
  - contractual arrangement under which the franchisor grants the franchisee the right to sell certain products, render specific services, or use certain trademarks or trade names, usually restricted to a designated geographical area
- Another type of franchise, commonly referred to as a license or permit
  - entered into between a governmental body and a business enterprise and permits the enterprise to use public property in performing its services.

GOODWILL

- **Goodwill**
  - value of all favorable attributes that relate to a business enterprise
  - attributes may include exceptional management, desirable location, good customer relations and skilled employees
  - cannot be sold individually in the marketplace; it can be identified only with the business as a whole

GOODWILL

- Goodwill
  - recorded only when a transaction involves the purchase of an entire business
  - excess of cost over the fair market value of the net assets (assets less liabilities) acquired
  - not amortized
  - reported under Intangible Assets



RESEARCH AND DEVELOPMENT COSTS

- Research and development costs
  - pertain to expenditures incurred to develop new products and processes
- These costs are **not** intangible costs
  - recorded as an expense when incurred

FINANCIAL STATEMENT PRESENTATION

STUDY OBJECTIVE 9

- Plant assets and natural resources
  - Under "property, plant, and equipment" in the balance sheet
  - Major classes of assets, such as land, buildings, and equipment, and accumulated depreciation by major classes or in total should be disclosed
  - Depreciation and amortization methods that were used should be described. Finally, the amount of depreciation and amortization expense for the period should be disclosed
- Intangibles are shown separately under intangible assets

LANDS' END'S PRESENTATION OF PROPERTY, PLANT, AND EQUIPMENT, AND INTANGIBLES

The financial statement presentation of property, plant, and equipment by Lands' End in its 2005 balance sheet is quite brief, as shown below:

Balance Sheet - Partial
December 31, 2005 (in thousands)

	Jan. 28, 2005	Jan. 29, 2004
Property, plant and equipment, at costs		
Land and buildings	102,776	102,018
Fixtures and equipment	175,910	154,663
Leasehold improvements	4,453	5,475
Total property, plant and equipment	283,139	262,156
Less: accumulated depr. and amort.	117,317	101,570
Property, plant and equipment, net	165,822	160,586
Intangibles, net	966	1,030

The notes to Lands' End financial statements present greater details, namely, that "intangibles" contains goodwill and trademarks…

PRESENTATION OF PROPERTY, PLANT, AND EQUIPMENT AND INTANGIBLE ASSETS

A more comprehensive presentation of property, plant, and equipment is excerpted from the balance sheet of Owens-Illinois and shown below.

OWENS-ILLINOIS, INC.
Balance Sheet - Partial
(In millions of dollars)

Property, plant, and equipment			
Timberlands, at cost, less accumulated depletion		$ 95.4	
Buildings and equipment, at cost	$ 2,207.1		
Less: Accumulated depreciation	1,229.0	978.1	
Total property, plant, and equipment			$ 1,073.5
Intangibles			
Patents			410.0
Total			$ 1,483.5

EXCHANGES OF PLANT ASSETS

- **Exchanges**
  - **can be for similar or dissimilar assets**
  - **For similar assets, the new asset performs the same function as the old asset**
- **Necessary to determine two things:**

1) the cost of the asset acquired

2) the gain or loss on the asset given up

LOSS TREATMENT

- Losses on exchange of similar assets
  - recognized immediately
- Cost of the new asset received
  - equal to the fair market value of the old asset exchanged plus any cash or other consideration given up
- Losses result when the book value is greater than the fair market value of the asset given up.

COMPUTATION OF COST OF NEW OFFICE EQUIPMENT

Roland Company exchanges old office equipment for new similar office equipment. The book value of the old office equipment is $26,000 ($70,000 cost less $44,000 accumulated depreciation), AND its fair market value is $10,000, and $81,000 of cash is paid. The cost of the new office equipment, $91,000, is calculated as follows:

Fair market value of old office equipment	$ 10,000
Cash	81,000
Cost of new office equipment	$ 91,000

COMPUTATION OF LOSS ON DISPOSAL

Through this exchange, a loss on disposal of $16,000 is incurred. A loss results when the book value is greater than the fair market value of the asset given up. The calculation is as follows:

Book value of old office equipment ($70,000 — $44,000)	$ 26,000
Fair market value of old office equipment	10,000
Loss on disposal	$ 16,000

In recording the exchange at a loss three steps are required: 1) eliminate the book value of the asset given up, 2) record the cost of the asset acquired, and 3) recognize the loss on disposal.

Office Equipment (new)	91,000	
Accumulated Depreciation-Office Equipment	44,000	
Loss on Disposal	16,000	
Office Equipment (old)		70,000
Cash		81,000

GAIN TREATMENT

- Gains of similar assets
  - not recognized immediately, but, are deferred by reducing the cost basis of the new asset
- Cost of the new asset
  - fair market value of the old asset exchanged plus any cash or other consideration given up
- Gains result when the fair market value is greater than the book value of the asset given up

COST OF NEW EQUIPMENT (BEFORE DEFERRAL OF GAIN)

Mark's Express Delivery exchanges old delivery equipment plus $3,000 cash for new delivery equipment. The book value of the old delivery equipment is $12,000 ($40,000 cost less $28,000 accumulated depreciation), its fair market value is $19,000. The cost of the new delivery equipment, $22,000, is calculated as follows:

Fair market value of old delivery equipment	$ 19,000
Cash	3,000
Cost of new delivery equipment (before deferral of gain)	$ 22,000

COMPUTATION OF GAIN ON DISPOSAL

For Mark's Express Delivery, there is a gain of $7,000, calculated as follows, on the disposal:

Fair market value of old delivery equipment	$ 19,000
Book value of old delivery equipment ($40,000 – $28,000)	12,000
Gain on disposal	$ 7,000

COST OF NEW DELIVERY EQUIPMENT (AFTER DEFERRAL OF GAIN)

The $7,000 gain on disposal is then offset against the $22,000 cost of the new delivery equipment. The result is a $15,000 cost of the new delivery equipment, after deferral of the gain.

Cost of new delivery equipment (before deferral of gain)	$ 22,000
Less: Gain on disposal	7,000
Cost of new delivery equipment (after deferral of gain)	$ 15,000

The entry to record the exchange is as follows:

Delivery Equipment (new)	15,000	
Accumulated Depreciation - Delivery Equipment (old)	28,000	
Delivery Equipment (old)		40,000
Cash		3,000

ACCOUNTING RULES FOR PLANT EXCHANGES

Type of Event	Recognition
Loss	Recognize immediately by debiting Loss on Disposal
Gain	Defer and reduce cost of new asset

Review

In exchanges of similar assets:

a. neither gains nor losses are recognized immediately.
b. gains, but not losses, are recognized immediately.
c. losses, but not gains, are recognized immediately.
d. both gains and losses are recognized immediately.

Review

In exchanges of similar assets:

a. neither gains nor losses are recognized immediately.

b. gains, but not losses, are recognized immediately.

c. losses, but not gains, are recognized immediately.

d. both gains and losses are recognized immediately.

Accounting Principles, 7th Edition

Weygandt • Kieso • Kimmel

Chapter 14

CORPORATIONS: Organization and Capital Stock Transactions

Prepared by Naomi Karolinski
Monroe Community College
and
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Bryant College

CHAPTER 14
CORPORATIONS: ORGANIZATION AND CAPITAL STOCK TRANSACTIONS

After studying this chapter, you should be able to:

1 **Identify the major characteristics of a corporation.**

2 **Differentiate between paid-in capital and retained earnings.**

3 **Record the issuance of common stock.**

4 **Explain the accounting for treasury stock.**

5 **Differentiate preferred stock from common stock.**

6 **Prepare a stockholders' equity section.**

7 **Compute book value per share.**

The Corporate Form of Organization

- Corporation
  - entity created by law
  - *separate and distinct* from its owners
  - continued existence is dependent upon the statutes of the state in which it is incorporated
- Two common bases for classification of corporations are:
  1) by purpose
  2) by ownership

Classifications of Corporations

- ***Purpose***
  - to earn a **profit**
  - or **nonprofit**
- Classification by ***ownership***
  - **publicly-held corporations**
  - **privately-held corporations**

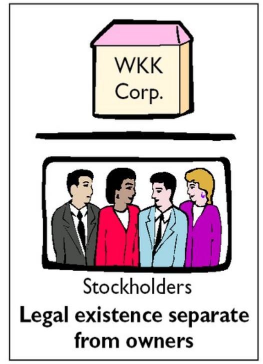
Classification of Corporations

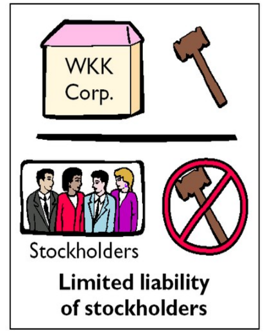
- Publicly-held corporations
  - may have thousands of stockholders
  - stock is regularly traded on a national securities exchange.
- Privately-held corporations
  - often referred to as closely held corporations, usually have only a few stockholders
  - does not offer its stock for sale to the general public

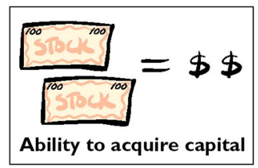
Characteristics of a Corporation

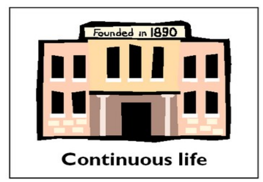
STUDY OBJECTIVE 1

- Separate legal existence from its owners
- Stockholders have limited liability
- Ownership held in shares of capital stock
  - transferable units.
- Ability to acquire capital through the issuance of stock
- Continuous life





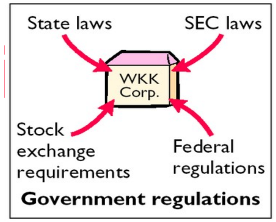




Characteristics of a Corporation

- Corporate management
  - is at the discretion of the board of directors who are elected by the stockholders

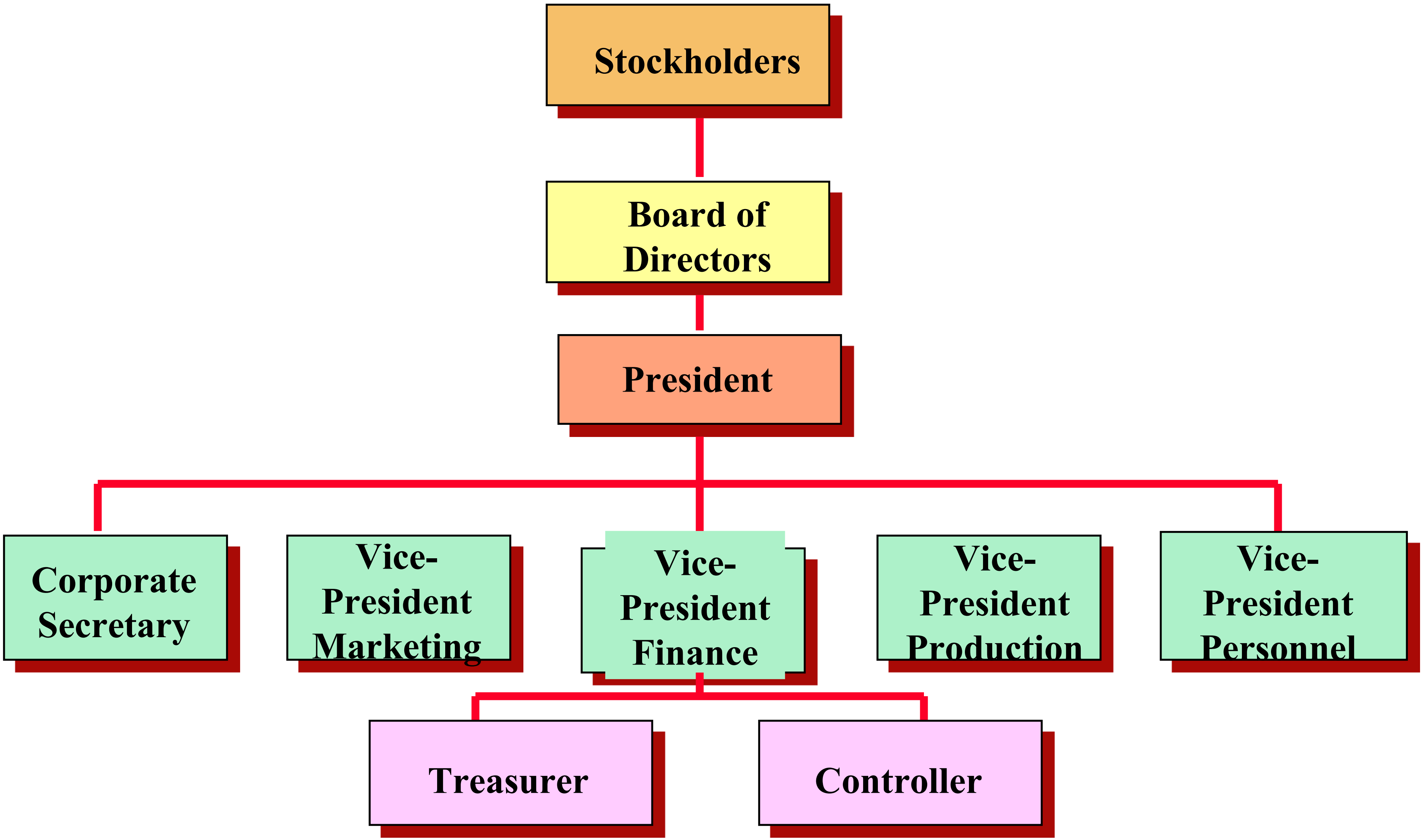
- Subject to numerous government regulat



- Must pay an income tax on its earnings

- Stockholders required to pay taxes on the dividends they receive: the result is double taxation

Corporation Organization Chart



Advantages and Disadvantages of a Corporation

Advantages	Disadvantages
Separate legal existence Limited liability of stockholders	Corporation management- separation of ownership and management
Transferable ownership rights	Government regulations
Ability to acquire capital	Additional taxes
Continuous life	
Corporation management – professional managers	

Forming a Corporation

1) File application with the Secretary of State
   in the state in which incorporation is desired

2) Articles of Incorporation
   charter creates the corporation

3) By-laws
   establishes the internal rules and procedures for conducting the affairs of the corporation and indicates the powers of parties involved

Organization Costs

- Costs incurred in forming a corporation
- Includes legal fees, state fees and promotional expenditures
- *Expensed as incurred* since it is so difficult to determine the amount and timing of future benefits.

Ownership Rights of Stockholders

1) Vote
2) Share in corporate earnings through the receipt of dividends
3) Preemptive right

   maintain the same percentage ownership when additional shares of common
4) Residual claim

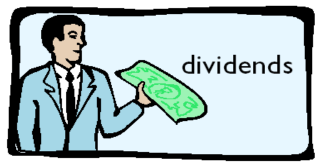
   Share in assets upon liquidation

Ownership Rights of Stockholders

Stockholders have the right to:

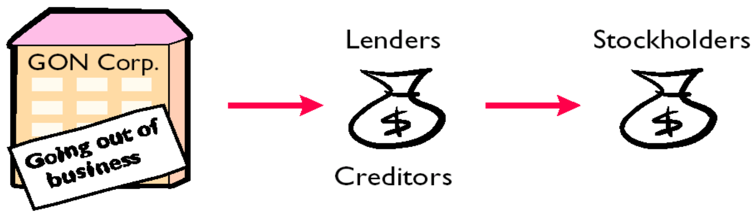
1. Vote in election of board of directors at annual meeting and vote on actions that require stockholder approval.

2. Share the corporate earnings through receipt of dividends.

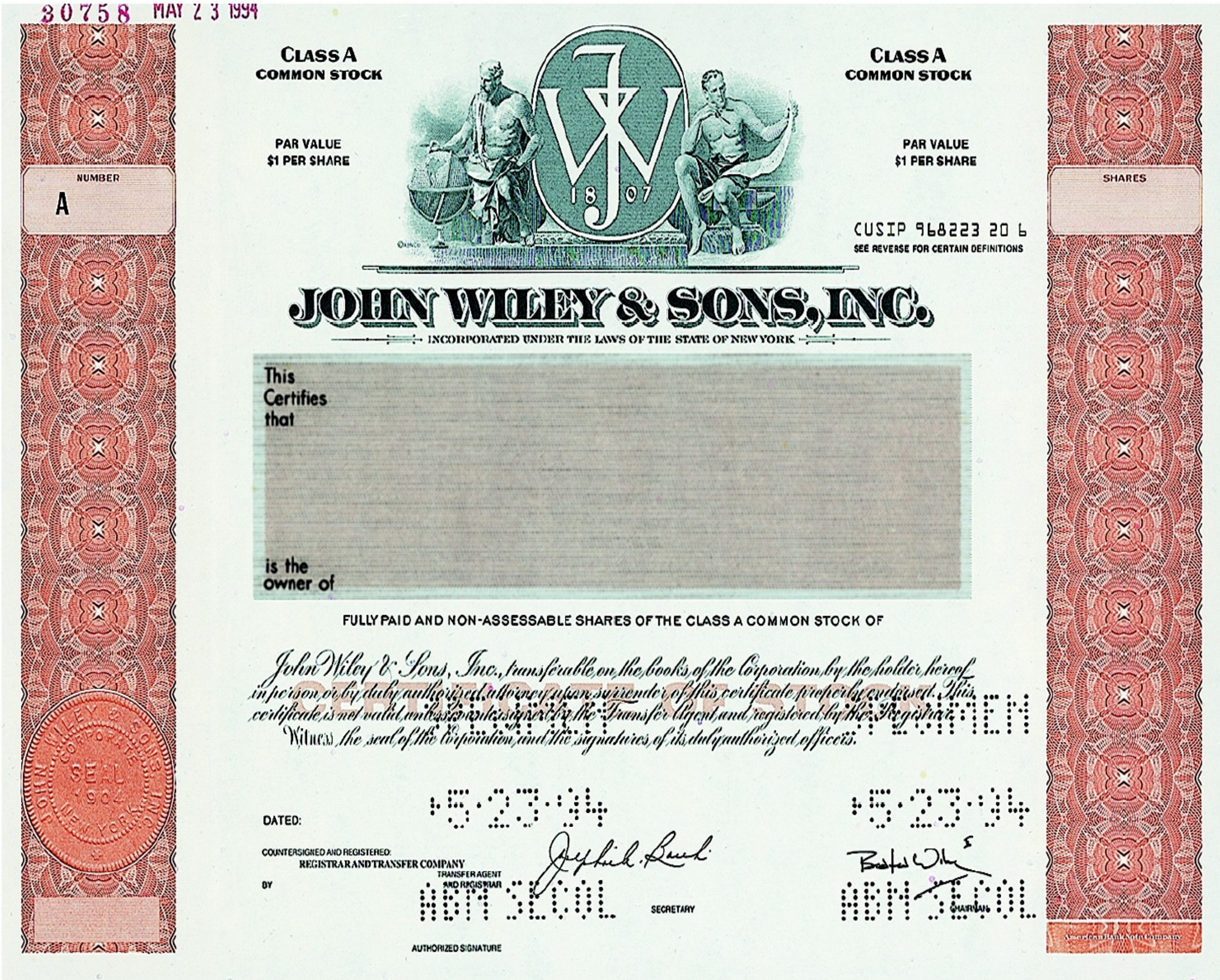


3. Keep the same percentage ownership when new shares of stock are issued (**preemptive right**[2]).

4. Share in assets upon liquidation in proportion to their holdings. This is called a **residual claim** because owners are paid with assets that remain after all claims have been paid.



A Stock Certificate



Stock Issue Considerations
Authorized Stock

Authorized stock

– amount of stock a corporation is allowed to sell as indicated by its charter

•The authorization of capital stock does not result in a formal accounting entry. This event has no immediate effect on either corporate assets or stockholders' equity.

Stock Issue Considerations
Issuance of Stock

A corporation can issue common stock *directly* to investors or *indirectly* through an investment banking firm (brokerage house).

- Direct issue is typical in closely held companies.
- Indirect issue is customary for a publicly held corporation.
  - In an indirect issue, the investment banking firm may agree to *underwrite* the entire stock issue.

Stock market price information

- Publicly held companies
  - traded on organized exchanges
  - dollar prices per share are established by the interaction between buyers and sellers
- The prices set by the marketplace generally follow the trend of a company's earnings and dividends.
- A recent listing for PepsiCo is shown below:

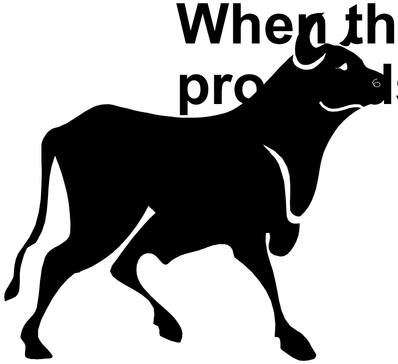
Stock	Volume	High	Low	Close	Net Change
PepsiCo	2,942.4m	48.88	47.31	47.5	-1.19

Par Value & No-Par Value Stock

- **Par value stock**
  - capital stock that ***has been*** assigned a value per share in the corporate charter
  - represents the **legal capital** per share that must be retained in the business for the protection of corporate creditors
- **No-par stock**
  - capital stock that ***has not been*** assigned a value in the corporate charter

In many states the board of directors can assign a stated value to the shares which then becomes the legal capital per share.

When there is no assigned stated value, the entire proceeds are considered to be legal capital.



Relationship of Par and No-par Value Stock to Legal Capital

Stock	Legal Capital per Share
Par value →	Par value
No-par value with stated value →	Stated value
No-par value without stated value →	Entire proceeds

Corporate Capital

STUDY OBJECTIVE 2

- **Stockholders' equity, shareholders' equity**, or **corporate capital.**
  - Owner's equity in a corporation
- Stockholders' equity section of a corporation's balance sheet

Paid-in (contributed) capital –

Total amount of cash and other assets paid in to the corporation by stockholders in exchange for capital stock.

Retained earnings

Net income that is retained in a corporation.

Retained Earnings

Retained earnings is net income that is retained in the corporation. Net income is recorded in Retained Earnings by a closing entry in which Income Summary is debited and Retained Earnings is credited. For example, if net income for Delta Robotics is $130,000 in its first year of operations, the closing entry is:

Account Titles and Explanation	Debit	Credit
Income Summary	130,000	
Retained Earnings		130,000
(To close income summary and transfer net income to retained earnings)		

Stockholders' Equity Section

If Delta Robotics has a balance of $800,000 in common stock at the end of its first year, its stockholders' equity section is as follows:

Delta Robotics
Balance Sheet (partial)

Stockholders' equity

Paid-in capital

Common stock $800,000

Retained earnings 130,000

Total Stockholders' equity $930,000

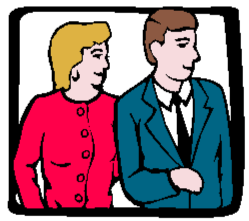
From previous slide

Comparison of Owners' Equity Accounts

Proprietorship

Able, Capital

	Normal bal.



Partnership

Able, Capital

	Normal bal.

Baker, Capital

	Normal bal.

Corporation

Common Stock

	Normal bal.

Retained Earnings

	Normal bal.

Stockholders have all of the following rights except to:

- a. Share corporate earnings through receipt of dividends.
- b. Vote for the corporate officers.
- c. Keep the same percentage ownership when new shares of stock are issued.
- d. Share in assets upon liquidation.

Stockholders have all of the following rights except to:

- a. Share corporate earnings through receipt of dividends.
- b. Vote for the corporate officers.
- c. Keep the same percentage ownership when new shares of stock are issued.
- d. Share in assets upon liquidation.

Common Stock Issues

STUDY OBJECTIVE 3

The primary objectives in accounting for the issuance of common stock are:

(1) to identify the specific sources of paid-in capital

(2) to maintain the distinction between paid-in capital and retained earnings.

Issuing Par Value Common Stock for Cash

When the issuance of common stock for cash is recorded, and the issue price is the same as the par value of the stock, the par value of the shares is credited to Common Stock and debited to Cash.

If Hydro-Slide, Inc. issues 1,000 shares of $1 par value common stock at par for cash, the entry to record this transaction is:

Account Titles and Explanation	Debit	Credit
Cash	1,000	
Common Stock		1,000
(To record issuance of 1,000 shares of $1 par common stock at par)		

Issuing Par Value Common Stock for Cash

When the issuance of common stock for cash is recorded, and the par value of the shares is NOT the same as the cash price, the par value is credited to Common Stock, and the portion of the proceeds that is above or below par value is recorded in a separate paid-in-capital account.

Account Titles and Explanation	Debit	Credit
Cash	5,000	
Common Stock		
Paid-in capital in Excess of Par Value	1,000	
(To record issuance of 1,000 shares of $1 par common stock in excess of par)	4,000	

Stockholders' Equity: Paid-in Capital in Excess of Par Value Balance Sheet Presentation

The total paid-in-capital from these transactions is $6,000, and the legal capital is $2,000. If Hydro-Slide, Inc. has retained earnings of $27,000, the stockholders' equity section is as follows:

Hydro-Slide, Inc. Balance Sheet (partial)	
Stockholders' equity	
Paid-in-capital	
Common Stock	$2,000
Paid-in capital in excess of par	4,000
Total paid-in-capital	6,000
Retained earnings	27,000
Total stockholders' equity	$33,000

Issuing No-Par Common Stock for Cash

When no-par common stock has a stated value, the stated value is credited to Common Stock. When the selling price exceeds the stated value, the excess is credited to Paid-in Capital in Excess of Stated Value.

Assume that instead of $1 par value stock, Hydro-Slide Inc. has $5 stated value no-par stock and the company issues 5,000 shares at $8 per share for cash. The entry is:

Account Titles and Explanation	Debit	Credit
Cash	40,000	
Common Stock		25,000
Paid-in capital in Excess of Stated Value		15,000
(To record issuance of 5,000 shares of $5 stated value no-par stock)		

Issuing No-Par Common Stock for Cash

When no-par stock does not have a stated value, the entire proceeds from the issue are credited to Common Stock.

If Hydro-Slide Inc. does not assign a stated value to its no-par stock, the issuance of the 5,000 shares at $8 per share for cash if recorded as follows:

Account Titles and Explanation	Debit	Credit
Cash	40,000	
Common Stock		40,000
(To record issuance of 5,000 shares of no-par stock)		

Issuing Common Stock for Services or Noncash Assets

- Issued for services
  - Example: compensation to attorneys or consultants, or for noncash assets, such as land
- Common stock issued for services or non-cash assets
  - Cost is either the fair market value of the consideration *given up,* or the consideration *received*, whichever is more clearly determinable.

Issuing Common Stock for Services or Noncash Assets

Athletic Research Inc. is a publicly held corporation. Its $5 par value is actively traded at $8 per share. The company issues 10,000 shares of stock to acquire land recently advertised for sale at $90,000. The most clearly evident value is the *MARKET VALUE* of the consideration given, which is $80,000.

Account Titles and Explanation	Debit	Credit
Land	80,000	
Common Stock		50,000
Paid-in capital in Excess of Par Value		30,000
(To record issuance of 10,000 shares of $5 par value stock for land)		

NOTE: The par value of the stock is **NEVER** a factor in determining the cost of the assets received.

ABC Corporation issues 1,000 shares of $10 par value common stock at $12 per share. In recording the transaction, credits are made to:

- a. Common Stock $10,000 and Paid-in Capital in Excess of Stated Value $2,000.
- b. Common Stock $12,000.
- c. Common Stock $10,000 and Paid-in Capital in Excess of Par Value $2,000.
- d. Common Stock $10,000 and Retained Earnings $2,000.

ABC Corporation issues 1,000 shares of $10 par value common stock at $12 per share. In recording the transaction, credits are made to:

- a. Common Stock $10,000 and Paid-in Capital in Excess of Stated Value $2,000.
- b. Common Stock $12,000.
- c. Common Stock $10,000 and Paid-in Capital in Excess of Par Value $2,000.
- d. Common Stock $10,000 and Retained Earnings $2,000.

Treasury Stock

STUDY OBJECTIVE 4

Corporation's own stock that has been issued, fully paid for, and reacquired *but not retired.* ***Why???***

1) **To reissue the shares to officers or employees**

2) **To increase trading thereby enhancing market value**

3) **To have additional shares available for use in acquisitions of other companies**

Treasury Stock

Continued:

4) To reduce the number of shares outstanding and thereby increase earnings per share

5) To rid the company of disgruntled investors, perhaps to avoid a takeover

Stockholders' Equity with No Treasury Stock

Before the purchase of the treasury stock, the stockholders' equity is as follows:

Mead, Inc. Balance Sheet (partial)	
Stockholders' equity	
Paid-in capital	
Common stock, $5 par, 100,000 shares	
Issued and outstanding	$ 500,000
Retained earnings	200,000
Total stockholders' equity	$ 700,000

Purchase of Treasury Stock

Under the cost method, Treasury Stock is debited for the price paid for the shares. The same amount is credited to Treasury Stock when the shares are disposed of.

If Mead, Inc. has 100,000 shares of $5 par value common stock outstanding (all issued at par value) and it decides to acquire 4,000 shares of its stock at $8 per share, the entry is:

Account Titles and Explanation	Debit	Credit
Treasury Stock	32,000	
Cash		32,000
(To record purchase of 4,000 shares of treasury stock at $8 per share)		

Stockholders' Equity With Treasury Stock

The stockholders' equity section of Mead, Inc. after purchase of treasury stock is as follows:

Mead, Inc. Balance Sheet (partial)		
Stockholders' equity		
Paid-in capital		
Common stock, $5 par, 100,000 shares issued and 96,000 shares outstanding	$500,000	
Retained earnings	200,000	
Total paid-in capital and retained earnings		700,000
Less: Treasury stock (4,000 shares)		32,000
Total stockholders' equity		$668,000

The acquisition of treasury stock REDUCES stockholders' equity.

Disposal of Treasury Stock

Treasury Stock resold

- Selling price of the shares is greater than cost
  - the difference is *credited* to Paid-in Capital from Treasury Stock
- Selling price is less than cost
  - the excess of cost over selling price is usually *debited* to Paid-in Capital From Treasury Stock
- When there is no remaining balance in Paid-in Capital From Treasury Stock, the remainder is *debited* to Retained Earnings.

Sale of Treasury Stock Above Cost

Assume that 1,000 shares of treasury stock of Mead, Inc., previously acquired at $8 per share, are sold at $10 per share on July 1. The entry is:

Account Titles and Explanation	Debit	Credit
Cash	10,000	
Treasury Stock		
Paid-in capital from Treasury Stock		
(To record sale of 1,000 shares of	8,000	
treasury stock above cost)	2,000	

Note: The $2,000 credit in the entry would not be considered a Gain on Sale of Treasury Stock.

Sale of Treasury Stock Below Cost

Assume instead that Mead, Inc. sells an additional 800 shares of treasury stock on October 1 at $7 per share, the entry is:

Date	Account Titles and Explanation	Debit	Credit
Oct. 1	Cash	5,600	
	Paid-in Capital from Treasury Stock	800	
	Treasury Stock		6,400
	(To record sale of 800 shares of treasury stock below cost)		

When treasury stock is sold *below* its cost, the excess of cost over selling price is usually debited to Paid-in Capital from Treasury Stock.

Preferred Stock

STUDY OBJECTIVE 5

- **Contractual provisions give it priority over common stock in certain areas:**

1) distribution of earnings

2) assets in the event of liquidation.

- **usually do not have voting rights**
- **shown first in the stockholders' equity section**
- **identified separately from other stock and paid-in capital accounts.**

Dividend Preferences
Cumulative Dividend

- **Cumulative dividend**
  - preferred stockholders must be paid ***both current and prior year*** **dividends** before common stockholders receive any dividends
- **Dividends in arrears**
  - preferred dividends not declared in a given period
  - not considered a liability, but the amount of the dividends in arrears should be disclosed in the notes to the financial statements

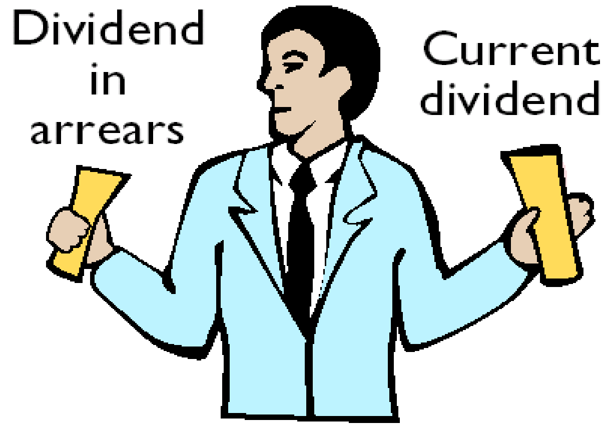
Dividend Preferences

Preferred stockholders

Common stockholders

Dividend Preference

Payment of a Cumulative Dividend



Preferred stockholders

Computation of Total Dividends to Preferred Stock

If Scientific-Leasing has 5,000 shares of 7%, $100 par value cumulative preferred stock outstanding, then the annual dividend is $ 35,000 (5,000 shares x $7 per share). If dividends were two years in arrears, preferred stockholders are entitled to receive the following before any dividends are paid to common stockholders.

Dividends in arrears ($35,000 x 2)	$ 70,000
Current-year dividends	35,000
Total preferred dividends	$105,000

Stockholders' Equity Presentation and Analysis

STUDY OBJECTIVE 6

- Stockholders' equity section of the balance sheet
  - paid-in capital and retained earnings are reported
  - specific sources of paid-in capital are identified
- Paid-in capital
  - Capital stock
  - Additional paid-in capital
- Paid-in capital is sometimes called contributed capital.

Stockholders' Equity Presentation

Connally Inc.
Balance Sheet (partial)

Stockholders' equity		
Paid-in capital		
Capital Stock		
9% preferred stock, $100 par value, callable at $120, cumulative, 10,000 shares authorized, 6,000 shares issued and outstanding		$ 600,000
Common Stock, no par, $5 stated value, 500,000 shares authorized, 400,000 shares issued, and 390,000 outstanding		2,000,000
Additional paid-in capital		
In excess of par value-preferred stock	$ 30,000	
In excess of par value-common stock	860,000	
From treasury stock	140,000	
Total additional paid-in capital		1,030,000
Total paid-in capital		3,630,000
Retained Earnings		1,058,000
Total paid-in capital and retained earnings		4,688,000
Less: Treasury stock-common (10,000 shares at cost)		80,000
Total stockholders' equity		$4,608,000

Published Stockholders' Equity Section

KELLOGG COMPANY
Balance Sheet (partial)
(in millions, except per share data)

Stockholders' equity	
Common stock $.0.25 par value, 1,000,00,000,000 shares authorized Issued: 415,343 shares	$ 104.1
Capital in excess of par value	49.9
Retained earnings	1,873.0
Treasury stock, at cost 7,598,923 shares	(278.2)
Accumulated other comprehensive income	(853.4)
Total stockholders' equity	$ 895.4

Book Value Per Share Formula

STUDY OBJECTIVE 7

- **Represents the *equity a common stockholder has in the net assets of the corporation* from owning one share of stock**

- **Formula for computing book value per share**
  - ***If corporation has only one class of stock is:***

Total Stockholders' Equity / **Number of Common Shares Outstanding** = **Book Value per Share**

Book Value *versus* Market Value

- Book value per share
  - based on recorded costs
- Market value per share
  - reflects subjective judgments of thousands of stockholders and prospective investors about the company's potential for future earnings and dividends
  - may exceed book value per share, but that fact does not necessarily mean that the stock is overpriced

Book and Market Values Compared

The correlation between book value and the annual range of a company's market value per share is often remote, as indicated by the following data:

Company	Book Value (year-end)	Market Range (for year)
Limited, Inc.	$8.25	$22.34-$12.53
HJ Heinz Company	$5.25	$43.48-$29.60
Cisco Systems	$3.92	$21.84-$12.24
Wal-Mart Stores	$9.10	$63.90-$43.70

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Accounting Principles, 7th Edition

Weygandt • Kieso • Kimmel

Chapter 18

The Statement of Cash Flows

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CHAPTER 18

THE STATEMENT OF CASH FLOWS

After studying this chapter, you should be able to:

1 Indicate the usefulness of the statement of cash flows.

2 Distinguish among operating, investing, and financing activities.

3 Prepare a statement of cash flows using the indirect method.

4 Prepare a statement of cash flows using the direct method.

5 Analyze the statement of cash flows.

THE STATEMENT OF CASH FLOWS
STUDY OBJECTIVE 1

- Provides information about an entity's cash receipts and cash payments during a period.

1) Where did the cash come from during the period?

2) What was the cash used for during the period?

3) What was the change in the cash balance during the period?

MEANING OF CASH FLOWS

STUDY OBJECTIVE 2

Prepared using cash and cash equivalents as its basis.

Cash equivalents - short-term, highly liquid investments that are both:

1) **readily convertible to known amounts of cash**

2) **so near to their maturity that their market value is relatively insensitive to changes in interest rates.**

Types of Cash Flows - Operating Activities

- **Cash inflows:**
  - From sale of goods or services
  - From return on loans (interest received) and on equity securities (dividends received)
- **Cash outflows:**
  - To suppliers for inventory
  - To employees for services
  - To government for taxes
  - To lenders for interest
  - To others for expenses

Operating activities

Types of Cash Flows - Investing Activities

- **Cash inflows:**
  - From sale of property, plant, and equipment
  - From sale of debt or equity securities of other entities
  - From collection of principal on loans to other entities
- **Cash outflows:**
  - To purchase property, plant, and equipment
  - To purchase debt or equity securities of other entities
  - To make loans to other entities

Investing activities

Types of Cash Flows - Financing Activities

- **Cash inflows:**
  - From sale of equity securities (company's own stock)
  - From issuance of debt (bonds and notes)
- **Cash outflows:**
  - To stockholders as dividends
  - To redeem long-term debt or reacquire capital stock

Financing activities

Types of Cash Inflows and Outflows

Operating activities—Income statement items

Cash inflows:

- From sale of goods or services.
- From returns on loans (interest received) and on equity securities (dividends received).

Cash outflows:

- To suppliers for inventory.
- To employees for services.
- To government for taxes.
- To lenders for interest.
- To others for expenses.

Investing activities—Changes in investments and long-term assets

Cash inflows:

- From sale of property, plant, and equipment.
- From sale of debt or equity securities of other entities.
- From collection of principal on loans to other entities.

Cash outflows:

- To purchase property, plant, and equipment.
- To purchase debt or equity securities of other entities.
- To make loans to other entities.

Financing activities—Changes in long-term liabilities and stockholders' equity

Cash inflows:

- From sale of common stock.
- From issuance of debt (bonds and notes).

Cash outflows:

- To stockholders as dividends.
- To redeem long-term debt or reacquire capital stock.

Significant Noncash Activities...

- That do NOT affect cash are NOT reported in the body of the statement of cash flows.
- Are reported:
  - **In a separate schedule at the bottom of the statement of cash flows or**
  - **In a separate note or supplementary schedule to the financial statements.**

Significant Noncash Activities...

1. Issuance of common stock to purchase assets.
2. Conversion of bonds into common stock.
3. Issuance of debt to purchase assets.
4. Exchanges of plant assets.

FORMAT OF STATEMENT OF CASH FLOWS

The general format of the SCF:

Is the 3 activities previously discussed – operating, investing, and financing – plus the significant noncash investing and financing activities.

COMPANY NAME
Statement of Cash Flows
Period Covered

Cash flows from operating activities		
(List of individual items)	XX	
Net cash provided (used) by operating activities		XXX
Cash flows from investing activities		
(List of individual inflows and outflows)	XX	
Net cash provided (used) by investing activities		XXX
Cash flows from financing activities		
(List of individual inflows and outflows)	XX	
Net cash provided (used) by financing activities		XXX
Net increase (decrease) in cash		XXX
Cash at beginning of period		XXX
Cash at end of period		XXX
Noncash investing and financing activities		
(List of individual noncash transactions)		XXX

USEFULNESS OF THE STATEMENT OF CASH FLOWS

1) Ability to generate future cash flows.

2) Ability to pay dividends and meet obligations.

3) Reasons for the difference between net income and net cash provided (used) by operating activities.

4) Cash invested and financing transactions during the period.

PREPARING THE STATEMENT OF CASH FLOWS

Information to prepare this statement usually comes from 3 sources:

1) Comparative balance sheet.

2) Current income statement.

3) Additional information.

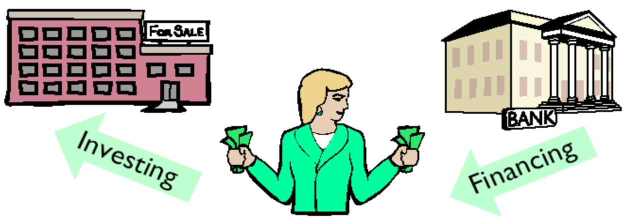
The SCF deals with cash receipts and payments, so the accrual concept is not used in the preparation of the SCF.

THREE MAJOR STEPS IN PREPARING THE STATEMENT OF CASH FLOWS

Step 1: Determine net cash provided/used by operating activities by converting net income from an accrual basis to a cash basis.

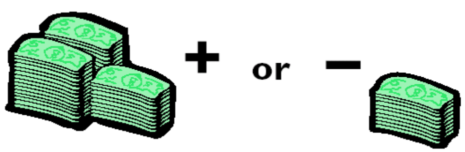
This step involves analyzing not only the current year's income statement but also comparative balance sheets and selected additional data.

Step 2: Analyze changes in noncurrent asset and liability accounts and record as investing and financing activities, or as significant noncash transactions.



This step involves analyzing comparative balance sheet data and selected additional information for their effects on cash.

Step 3: Compare the net change in cash on the statement of cash flows with the change in the cash account reported on the balance sheet to make sure the amounts agree.



The difference between the beginning and ending cash balances can be easily computed from comparative balance sheets.

USAGE OF INDIRECT AND DIRECT METHODS

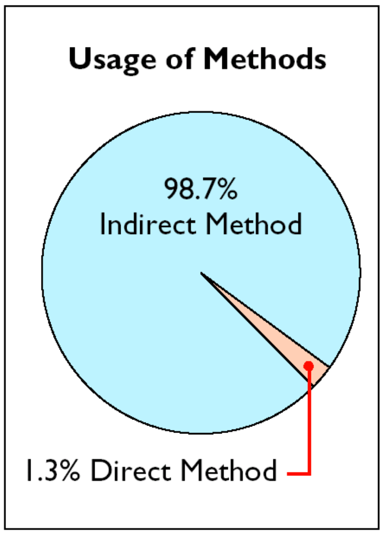
In order to determine net cash provided/used by operating activities, the operating activities section must be converted from accrual basis to cash basis. This conversion may be accomplished by :

1) the indirect method or
2) the direct method.

The indirect method is used extensively in practice, as shown below.

The indirect is favored by companies for 2 reasons:

- it is easier to prepare and
- it focuses on the differences between net income and net cash flow from operating activities.



COMPARATIVE BALANCE SHEET, 2005, WITH INCREASES AND DECREASES

Study Objective 3

The **comparative balance sheets** at the beginning and end of **2005** – showing increases and decreases – are shown to the right.

COMPUTER SERVICES COMPANY
Comparative Balance Sheets
December 31

Assets	2005	2004	Change in Account Balance Increase/Decrease
Current assets			
Cash	$ 55,000	$ 33,000	$ 22,000 Increase
Accounts receivable	20,000	30,000	10,000 Decrease
Merchandise inventory	15,000	10,000	5,000 Increase
Prepaid expenses	5,000	1,000	4,000 Increase
Property, plant, and equipment			
Land	130,000	20,000	110,000 Increase
Building	160,000	40,000	120,000 Increase
Accumulated depreciation—building	(11,000)	(5,000)	6,000 Increase
Equipment	27,000	10,000	17,000 Increase
Accumulated depreciation—equipment	(3,000)	(1,000)	2,000 Increase
Total	$398,000	$138,000	
Liabilities and Stockholders' Equity			
Current liabilities			
Accounts payable	$ 28,000	$ 12,000	$ 16,000 Increase
Income tax payable	6,000	8,000	2,000 Decrease
Long-term liabilities			
Bonds payable	130,000	20,000	110,000 Increase
Stockholders' equity			
Common stock	70,000	50,000	20,000 Increase
Retained earnings	164,000	48,000	116,000 Increase
Total liabilities and stockholders' equity	$398,000	$138,000	

INCOME STATEMENT AND ADDITIONAL INFORMATION, 2005

The income statement and additional information for 2005 for Computer Services Company are shown to the right.

COMPUTER SERVICES COMPANY
Income Statement
For the Year Ended December 31, 2005

Revenues		$507,000
Cost of goods sold	$150,000	
Operating expenses (excluding depreciation)	111,000	
Depreciation	9,000	
Interest expense	42,000	
Loss on sale of equipment	3,000	315,000
Income before income taxes		192,000
Income tax expense		47,000
Net income		$145,000

ANALYSIS OF ACCUMULATED DEPRECIATION — EQUIPMENT

- The increase in **Accumulated Depreciation – Equipment** was **$2,000**, which does not represent depreciation expense for the year since the account was debited **$1,000** as a result a sale of some equipment.
- Depreciation expense for 2005 was **$3,000**.
- This amount is added to net income to determine net cash provided by operating activities.
- The T-account below provides information about the changes that occurred in this account in 2005.

ACCUMULATED DEPRECIATION — EQUIPMENT				
Accumulated depreciation on equipment sold	1,000	1/1/05	Balance	1,000
			Depreciation expense	3,000
		12/31/05	Balance	3,000

PRESENTATION OF NET CASH PROVIDED BY OPERATING ACTIVITIES, 2005 — INDIRECT METHOD

Net cash provided by operating activities for 2005 is $154,000 as calculated below.

COMPUTER SERVICES COMPANY Partial Statement of Cash Flows — Indirect Method For the Year Ended December 31, 2005	
Cash flows from operating activities	
Net income	$ 145,000
Adjustments to reconcile net income to net cash provided by operating activities:	
Depreciation expense	9,000
Net cash provided by operating activities	$ 154,000

ANALYSIS OF EQUIPMENT

Equipment increased $17,000, which was a net increase that resulted from 2 transactions:

1) a purchase of equipment of $25,000 and

2) the sale of equipment costing $8,000 for $4,000.

These transactions are classified as investing activities and each should be reported separately. The purchase of equipment should therefore be reported as an outflow of cash for $25,000 and the sale should be reported as an inflow of cash for $4,000. The T-account below shows the reasons for the change in this account during the year.

EQUIPMENT				
1/1/05	Balance	10,000	Cost of old equipment	8,000
	Purchase of equipment	25,000		
12/31/05	Balance	27,000		

STATEMENT OF CASH

COMPUTER SERVICES COMPANY

Statement of Cash Flows

For the Year Ended December 31, 2005

Cash flows from operating activities		
Net income		$145,000
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation expense	$ 9,000	
Loss on sale of equipment	3,000	
Decrease in accounts receivable	10,000	
Increase in merchandise inventory	(5,000)	
Increase in prepaid expenses	(4,000)	
Increase in accounts payable	16,000	
Decrease in income tax payable	(2,000)	27,000
Net cash provided by operating activities		$172,000

STATEMENT OF CASH

COMPUTER SERVICES COMPANY

Statement of Cash Flows

For the Year Ended December 31, 2005

Cash flows from investing activities		
Purchase of building	$(120,000)	
Purchase of equipment	(25,000)	
Sale of equipment	4,000	
Net cash used by investment activities		$(141,000)
Cash flows from financing activities		
Issuance of common stock	20,000	
Payment of cash dividends	(29,000)	
Net cash used by financing activities		(9,000)
Net increase in cash		22,000
Cash at beginning of period		33,000
Cash at end of period		$ 55,000
Noncash investing and financial activities		
Issuance of bonds payable to purchase land		$ 110,000

SECTION 2
STATEMENT OF CASH FLOWS DIRECT METHOD

Study Objective 4

- **The transactions of Juarez Company for 2005 and 2004 are used to illustrate and explain the indirect method of preparing the SCF.**

- **1 Juarez Company started on January 1, 2003, when it issued 300,000 shares of $1 par value common stock for $300,000 cash.**

  2 The company rented its office, sales space, and equipment.

COMPARATIVE BALANCE SHEETS WITH INCREASES AND DECREASES

The comparative balance sheets at the end of 2005 and end of 2004 showing increases and decreases – are shown to the right.

JUAREZ COMPANY
Comparative Balance Sheet

Assets	2005	2004	Change Increase/Decrease
Cash	$ 191,000	$ 159,000	$ 32,000 Increase
Accounts receivable	12,000	15,000	3,000 Decrease
Inventory	170,000	160,000	10,000 Increase
Prepaid expenses	6,000	8,000	2,000 Decrease
Land	140,000	80,000	60,000 Increase
Equipment	160,000	0	160,000 Increase
Accum. dep. –Equip.	(16,000)	0	16,000 Increase
Total	$ 663,000	$ 422,000	
Liabilities and Stockholders' Equity			
Accounts payable	$ 52,000	$ 60,000	$ 8,000 Decrease
Accrued exp. payable	15,000	20,000	5,000 Decrease
Income taxes payable	12,000	–0–	12,000 Increase
Bonds payable	130,000	–0–	130,000 Increase
Common stock	360,000	300,000	60,000 Increase
	94,000	42,000	52,000 Increase
Total	$ 663,000	$ 422,000	

INCOME STATEMENT AND ADDITIONAL INFORMATION, 2005

JUAREZ COMPANY
Income Statement
For the Year Ended December 31, 2005

Revenues from sales		$ 975,000
Cost of goods sold	$ 660,000	
Operating expenses (excluding depreciation)	176,000	
Depreciation expense	18,000	
Loss on sale of store equipment	1,000	855,000
Income before income taxes		120,000
Income tax expense		36,000
Net income		84,000

The income statement and additional information for 2005 for Juarez Company are shown.

Additional information:

(1) In 2005, the company d

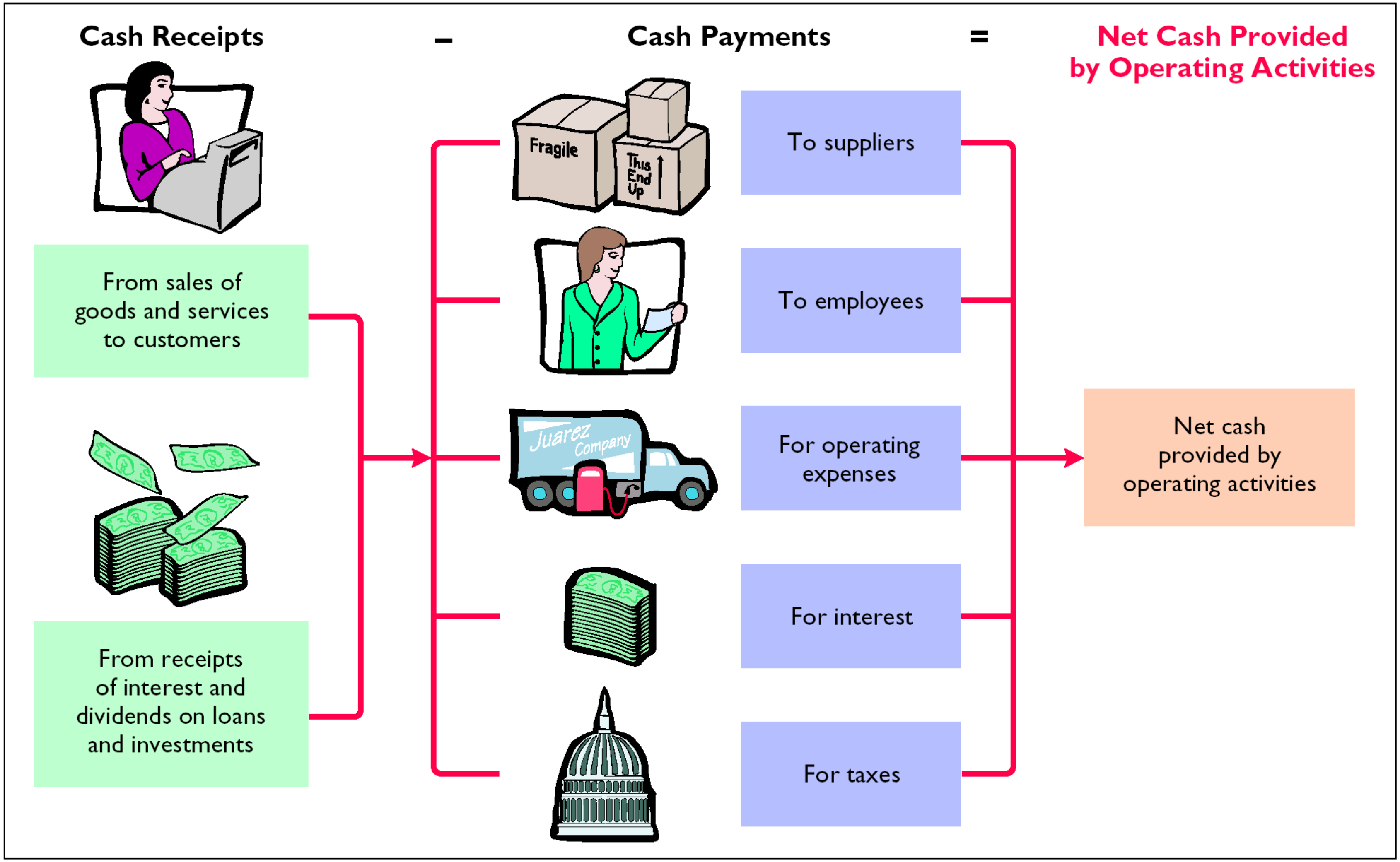
(2) Bonds were issued at face value for $130,000 in cash.

(3) Equipment costing $180,000 was purchased for cash.

(4) Equipment costing $20,000 was sold for $17,000 cash when the book value of the Equipment was $18,000.

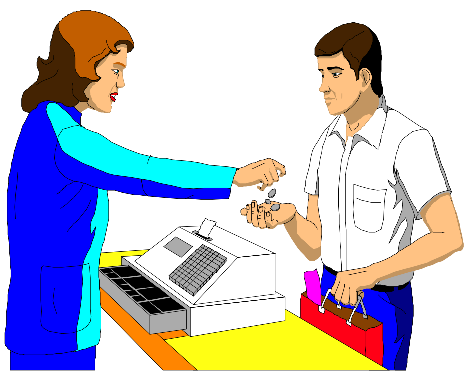
(5) Common stock of $60,000 was issued to acquire land.

MAJOR CLASSES OF CASH RECEIPTS AND PAYMENTS



CASH RECEIPTS FROM CUSTOMERS

- The income statement for Juarez Company reported revenues from customers of $975,000.
- To determine the amount of cash receipts, the decrease in accounts receivable is added to sales revenue.
- Conversely, an increase in accounts receivable is deducted from sales revenues.



COMPUTATION OF CASH RECEIPTS FROM CUSTOMERS

Revenues from sales were $975,000. Cash receipts from customers were greater than sales revenues since accounts receivable decreased $3,000. Cash receipts from customers were $978,000, as calculated below.

Revenues from sales	$ 975,000
Add: Decrease in accounts receivable	3,000
Cash receipts from customers	$ 978,000

FORMULA TO COMPUTE CASH RECEIPTS FROM CUSTOMERS — DIRECT METHOD

The relationships among cash receipts from customers, revenues from sales, and changes in accounts receivable.

Cash receipts from customer = Revenues from sales { + Decrease in accounts receivable or – Increase in accounts

COMPUTATION OF PURCHASES

Juarez Company reported cost of goods sold on its income statement of $660,000. To determine purchases, cost of goods sold must be adjusted for the change in inventory. An increase (decrease) in inventory is added to (deducted from) cost of goods sold to arrive at purchases. In 2005, Juarez Company's inventory increased $10,000. Purchases are calculated as follows.

Cost of goods sold	$660,000
Add: Increase in inventory	10,000
Purchases	**$670,000**

FORMULA TO COMPUTE CASH PAYMENTS TO SUPPLIERS — DIRECT METHOD

The relationship among cash payments to suppliers, cost of goods sold, changes in inventory, and changes in accounts payable is shown.

Cash payments to supplier

=

Cost of goods sold **+ Increase in inventory or** **+ Decrease in accounts payable or**

COMPUTATION OF PURCHASES

Juarez Company reported cost of goods sold on its income statement of $660,000. To determine cash paid for purchases, cost of goods sold must be adjusted for the change in inventory and the change in accounts payable. An increase (decrease) in inventory is added to (deducted from) cost of goods sold and an increase (decrease) in accounts payable is deducted from (added to) cost of goods sold to arrive at cash payments for purchases. In 2005, Juarez Company's inventory increased $10,000. Accounts payable decreased $8,000. Cash payments for purchases are calculated as follows.

Cost of goods sold	$660,000
Add: Increase in inventory	10,000

COMPUTATION OF CASH PAYMENTS FOR OPERATING EXPENSES

Operating expenses (exclusive of depreciation expense) was $176,000 for 2005. The $2,000 decrease in prepaid expenses is deducted and the $5,000 decrease in accrued expenses payable is added in determining cash payments for operating expenses, as shown in Illustration 18-23.

Operating expenses, exclusive of depreciation	$ 176,000
Deduct: Decrease in prepaid expenses	(2,000)
Add: Decrease in accrued expenses payable	5,000
Cash payments for operating expenses	$ 179,000

FORMULA TO COMPUTE CASH PAYMENTS FOR INCOME TAXES — DIRECT METHOD

The relationships among cash payments for income taxes, income tax expense, and changes in income taxes payable are as follows.

Cash payments for income taxes

=

Income tax expense **+ Decrease in income taxes payable or – Increase in income taxes payable**

COMPUTATION OF CASH PAYMENTS FOR INCOME TAXES

Juarez Company reported income tax expense of $36,000. Income taxes payable increased $12,000. Cash payments for income taxes are calculated as follows.

Income tax expense	**$36,000**
Less: Increase in income taxes payable	**12,000**

OPERATING ACTIVITIES SECTION — DIRECT METHOD

- All of the revenues and expenses in the 2005 income statement have now been adjusted to cash basis.
- The operating activities section of the SCF is shown below.

JUAREZ COMPANY
Partial Statement of Cash Flows — Direct Method
For the Year Ended December 31, 2005

Cash flows from operating activities		
Cash receipts from customers		$ 978,000
Cash payments:		
To suppliers	$ 678,000	
For operating expenses	179,000	
For income taxes	24,000	881,000
Net cash provided by operating activities		$ 97,000

STATEMENT OF CASH FLOWS 2005 — DIRECT METHOD

JUAREZ COMPANY
Statement of Cash Flows—Direct Method
For the Year Ended December 31, 2005

Cash flows from operating activities		
Cash receipts from customers		$ 978,000
Cash payments:		
To suppliers	$ 678,000	
For operating expenses	179,000	
For income taxes	24,000	881,000
Net cash provided by operating activities		97,000
Cash flows from investing activities		
Purchase of equipment	(180,000)	
Sale of equipment	17,000	
Net cash used by investing activities		(163,000)
Cash flows from financing activities		
Issuance of bonds payable	130,000	
Payment of cash dividends	(32,000)	
Net cash provided by financing activities		98,000
Net increase in cash		32,000
Cash at beginning of period		159,000
Cash at end of period		$ 191,000
Noncash investing and financing activities		
Issuance of common stock to purchase land		$ 60,000

FREE CASH FLOW

Study Objective 5

Free Cash Flow – Cash provided by operating activities adjusted for capital expenditures and dividends paid.

$$\text{Free Cash Flow} = \text{Cash Provided by Operations} - \text{Capital Expenditures} - \text{Cash Dividends}$$

Review

Which of the following items is reported on a cash flow statement prepared by the direct method?

a. Loss on sale of building.
b. Increase in accounts receivable.
c. Depreciation expense.
d. Cash payments to suppliers.

Review

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