

## **Chapter Eight**

### **Inventory Valuation**

**Inventories:** are asset items that a company holds for sale in the ordinary course of business, or goods that it will use or consume in the production of goods to be sold. The description and measurement of inventory require careful attention. The investment in inventories is frequently the largest current asset of merchandising (retail) and manufacturing businesses

#### **Classifying Inventory:**

**1. Merchandising Inventory:** Wholesale and retail companies purchase goods that are primarily in finished form. These companies are intermediaries in the process of moving goods from the manufacturer to the end-user. They often are referred to as merchandising companies and their inventory as merchandise inventory. The cost of merchandise inventory includes the purchase price plus any other costs necessary to get the goods in condition and location for sale.

**2. Manufacturing Inventories:** manufacturing companies actually produce the goods they sell to wholesalers, retailers, other manufacturers, or consumers. Inventory for a manufacturer consists of:

**(a) raw materials inventories:** represent the cost of components purchased from suppliers that will become part of the finished product.

**(b) work in process inventories:** refers to the products that are not yet complete in the manufacturing process. The cost of work in process includes the cost of raw materials used in production, the cost of labor that can be directly traced to the goods in process, and an allocated portion of other manufacturing costs, called manufacturing overhead :

**(3) Finished goods inventories:** is manufactured items that are completed and ready for sale.

Merchandising Company

Manufacturing Company

## Balance Sheet

Current assets

Cash and cash equivalents

Accounts Receivables

Inventories

materials

## Balance Sheet

Current assets

Cash and cash

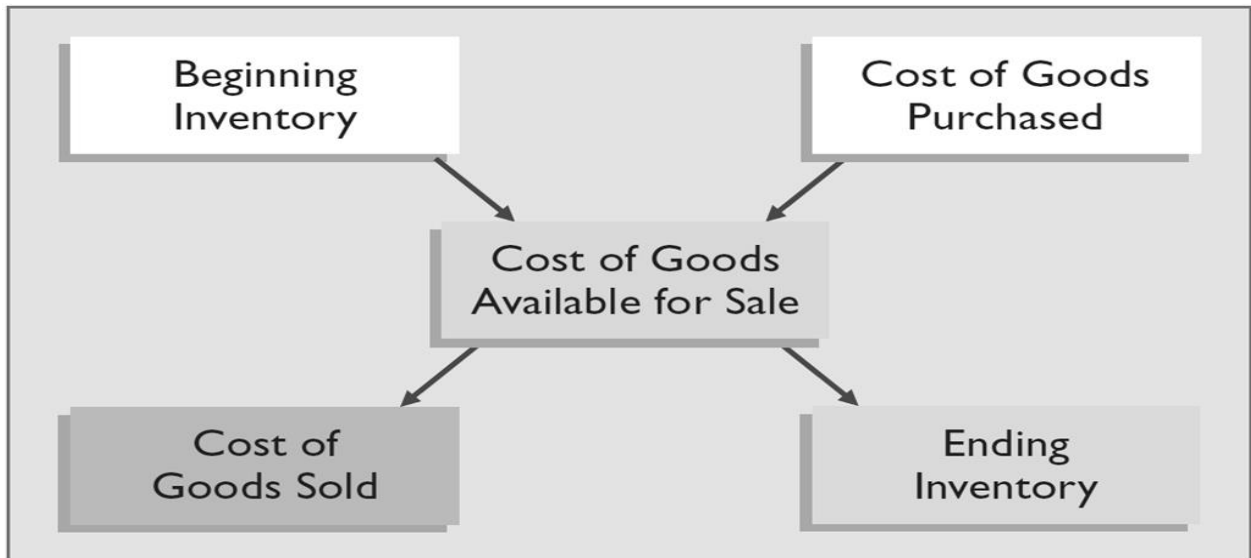
Accounts receivable

Inventories:

Finished goods

Work in process and raw

## Inventory Cost Flow:



## Inventory Systems:

Two accounting systems are used to record transactions involving inventory: the perpetual inventory system and the periodic inventory system.

**1. The perpetual inventory system:** A perpetual inventory system continuously tracks changes in the Inventory account. That is, a company records all purchases and sales (issues) of goods directly in the Inventory account as they occur.

**2. The periodic inventory system:** Under a periodic inventory system, a company determines the quantity of inventory on hand only periodically, as

the name implies. It records all acquisitions of inventory during the accounting period by debiting the Purchases account.

**Beginning inventory + Net purchases – Ending inventory = Cost of goods sold**

**Comparing Perpetual and Periodic Systems:**

To illustrate the difference between a perpetual and a periodic system, assume that Baghdad Company had the following transactions during the current year:

Beginning inventory	100 units at \$6	= \$ 600
Purchases	900 units at \$6	= \$5400
Sales	600 units at \$12	= \$7200
Ending inventory	400 units at \$6	= \$2400

**Solution:**

Perpetual Inventory System

Periodic Inventory System

Beginning inventory, 100 units at \$6

The Inventory account shows the inventory on hand at \$600.

The Inventory account shows the inventory on hand at \$600.

Inventory	5400
5400	
Accounts Payable	5400
5400	

Purchases
Accounts Payable

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Accounts Receivable	7200
7200	
Sales Revenue	7200
7200	

Accounts Receivable
Sales Revenue

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Cost of Goods Sold      3600..... (600 at \$6)

(No entry)

Inventory 3600

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**End-of-period entries for inventory accounts, 400 units at \$6**

No entry necessary.	Inventory	2400
The Inventory account shows	Cost of Goods Sold	3600
the ending balance of \$2400	Purchases	
5400		
(\$600 + \$5400 - \$3600).	Inventory	
600		

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**Perpetual System: The perpetual inventory system provides a continuous record of the balance in both the Inventory and Cost of Goods Sold accounts:**

1. Purchases of merchandise are debited to Inventory.
2. Freight-in is debited to Inventory. Purchase returns and allowances and purchase discounts are credited to Inventory.
3. Cost of goods sold is debited and Inventory is credited for each sale.
4. Subsidiary records show quantity and cost of each type of inventory on hand.

**Periodic System:**

1. Purchases of merchandise are debited to Purchases.
2. Ending Inventory determined by physical count.
3. Calculation of Cost of Goods Sold:

Beginning inventory \$ 100,000

Purchases, net + 800,000

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Goods available for sale 900,000

Ending inventory - 125,000

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Cost of goods sold                      \$ 775,000

**Inventory Cost Flow Assumptions:** The main cost flow methods are:

1. First-in first-out (FIFO): assumes that the first goods purchased are the first used
2. Last-in, first-out (LIFO): assumes that the latest goods purchased are the first to be sold.
3. Weighted average (W.A): To obtain a weighted-average unit cost, the total cost of goods available for sale is divided by the total units available for sale. This average

unit cost is then used to determine inventory and cost of goods sold. The advantage of the method is that costs are assigned equally to both inventory and goods sold.

$$\text{Cost per unit} = \text{Cost of goods available} \div \text{Unit available}$$

**Example (1):** The following information is extracted from AL-Iraqi Co, records during 2024 year.

<b>Units</b>		<b>Total</b>			<b>Balance</b>
<b>Date</b>	<b>Explanation</b>	<b>Units</b>	<b>Cost</b>	<b>Cost</b>	<b>in Units</b>
1/1	Beginning inventory	100	\$10	\$ 1,000	100
15/4	Purchases	200	11	2,200	300
24/8	Purchases	300	12	3,600	600
9/10	Sale	550			50
27/11	Purchases	400	13	5,200	450

**Required:**

1. The perpetual inventory system by using the following methods: (a) First in-first-out (b) Last in- first-out (c) Weighted average.
2. The periodic inventory system by using the following methods: (a) First in-first-out (b) Last in- first-out (c) Weighted average.

**Solution:**

1. (a)The perpetual inventory system (FIFO)

Date	Purchased			Sold			Balance		
	Units	Unit cost	Total	Units	Unit cost	Total	Units	Unit cost	Total
1/1							100	10	1000
15/4	200	11	2200				100	10	1000
							200	11	2200
24/8	300	12	3600				100	10	1000
							200	11	2200
							300	12	3600
9/10				100	10	1000			
				200	11	2200			
				250	12	3000			
							50	12	600
27/11	400	13	5200				50	12	600
							400	13	5200

**Cost of goods sold**

**Ending**

**inventory**

**1. (b) The perpetual inventory system (LIFO)**

Date	Purchased			Sold			Balance		
	Units	Unit cost	Total	Units	Unit cost	Total	Units	Unit cost	Total
1/1							100	10	1000
15/4	200	11	2200				100 200	10 11	1000 2200
24/8	300	12	3600				100 200 300	10 11 12	1000 2200 3600
9/10				300 200 50	12 11 10	3600 2200 500			
27/11	400	13	5200				50 400	10 13	500 5200

**Cost of goods sold  
inventory**

**Ending  
inventory**

**1. (c) The perpetual inventory system (W.A)**

Date	Purchased			Sold			Balance		
	Units	Unit cost	Total	Units	Unit cost	Total	Units	Unit cost	Total
1/1							100	10	1000
15/4	200	11	2200				300 (100+200)	<b>10.667</b> (1000+2200) <hr/> (100+200)	3200
24/8	300	12	3600				600 (100+200+300)	<b>11.333</b> (1000+2200+3600) <hr/> (100+200+300)	6800
9/10				550	11.333	6233	50	11.333	567
27/11	400	13	5200				450 (50+400)	12.816 (567+5200) <hr/> (50+400)	5767



