



# Inventory

## المخزون

**Inventory:** Inventory refers to the assets a company (1) intends to sell in normal course of business, (2) has in production for future sale, or (3) uses currently in the production of goods to be sold (raw materials).

### **Types of inventory:**

The company classifies its inventory depending on whether the firm is a merchandiser or a manufacturer as follows:

#### **1 -Merchandising Inventory:**

Wholesale and retail companies purchase goods that are primarily in finished form. These companies are intermediate in process of moving goods from manufacture to the end- user. They often are referred to as merchandising companies. In a merchandising company, such inventory consists of many different items. For example, in a grocery store, canned goods, dairy products, meats, are just a few of the inventory items on hand. These items have two common characteristics:

- (1)They are owned by the company, and
- (2)They are in a form ready for sale to customers in the ordinary course of business.



The cost of merchandising 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 produce the goods they are sell to wholesalers, retailers, or other manufacturers. Inventory for a manufacturer consists of:

- a- Raw materials inventory**
- b- Work- in- process inventory**
- c- Finished goods inventory**

**Raw materials inventory:** refers to the components purchased from other manufacturers that will become part of the finished product.

**Work-in-process inventory:** refers to the products that are not yet complete. 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 allocated portion of other manufacturing costs, called manufacturing overhead.

**Finished goods inventory:** Manufactured items that completed and ready for sale.

### **Determining and recording Inventory Transactions:**

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

**A perpetual inventory system:** in this system continuously records both changes in inventory quantity and inventory cost. Therefore, a perpetual inventory system tracks both inventory quantities and inventory costs.



**Example (1):** Baghdad Company purchases soft drinks from producers and then sells them to retailers. The company begins 2003 with merchandise inventory of ID 120000 on hand; during 2003 additional merchandise is purchased on account at a cost of ID 600000. Sales for the year (all on account) totaled ID 820000. The cost of the soft drinks sold is ID 540000.

**Required:** record the journal entries of the above transactions in Baghdad's company records by using perpetual inventory system.

**Solution:**

Inventory .....600000  
    Accounts payable.....600000  
    To record the purchase of merchandise inventory

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Accounts Receivable.....820000  
    Sales revenue.....820000  
    To record sales on account

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Cost of goods sold.....540000  
    Inventory.....540000  
    To record the cost of sales

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**A periodic inventory system:** is not designed to track either the quantity or cost of merchandise. Therefore, a periodic inventory system adjusts inventory and records cost of goods sold only at the end of each reporting period.

**Example (2):** Baghdad Company purchases soft drinks from producers and then sells them to retailers. The company begins 2003 with merchandise inventory of ID 120000 on hand; during 2003 additional merchandise is purchased on account at a



cost of ID 600000. Sales for the year (all on account) totaled ID 820000. A physical count determined the cost of inventory at the end of the year to be ID 180000.

**Required:** record the journal entries of the above transactions in Baghdad's company records by using periodic inventory system.

**Solution:**

Purchases.....600000  
Accounts payable.....600000

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Accounts receivable.....820000  
Sales revenue.....820000  
To record sales on account

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❖ No entry is recorded for the cost of inventory sold.

Because cost of goods sold isn't determined automatically and continually by the periodic system, it must be determined indirectly after physical inventory count by using:

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



Beginning inventory		ID 120000
Plus:net Purchases		<u>600000</u>
Cost of goods available for sale		720000
Less: Ending inventory (per physical count)		(180000)
Cost of goods sold		<u><u>ID 540000</u></u>
31/12 each year		
Ending inventory	180000	
Cost of goods sold	540000	
Beginning inventory		120000
Purchases		<u>600000</u>

### Inventory Cost Flow Assumptions

It is sometimes possible for each unit sold during the period or each unit on hand at the end of period to be matched with its actual cost which called (specific Identification . for most companies, the specific identification method is not practical). These differ from specific Identification in that they assume flows of costs that may be unrelated to the physical flow of goods. There are three assumed cost flow methods:

- 1- First-in, first-out (FIFO) methods
- 2- Last-in, first-out (LIFO) methods
- 3- Average-cost methods

**First-in, first-out (FIFO) methods:** this method assumes that items sold are those that were purchased first.

**Last-in, first-out (LIFO) methods:** this method assumes that items sold are those were most recently acquired.

**Average-cost methods:** this method assumes that items sold and items in ending inventory come from a mixture of all the goods available for sale.



**Example 1:** the following information is extracted from Baghdad's company records during 2016.

- 1- Balance of beginning inventory 300 units at cost of ID 10.
- 2- On 1/3/2016 sold 100 units of ID 15 per unit.
- 3- On 5/4 /2016 purchased 200 units at cost of ID 11 per unit.
- 4- On 1/6/2016 sold 300 units by ID 15 per unit.
- 5- On 3/7/2018 the company purchased 550 units at cost of ID 12 per unit.
- 6- On 23/11/2016 the company sold 300 units by ID15 per unit.

**Required:** Compute the cost of goods sold and ending inventory under the following situations:

- 1. The perpetual system by using the following methods;**
  - a. FIFO b. LIFO, c. Weighted Average (WA).
- 2. The periodic system by using the following methods;**
  - a. FIFO b. LIFO, c. Weighted Average (WA).



1. a: perpetual system by FIFO

Date	Purchased			Sold			Balance		
	Units	Unit cost	Total	Units	Unit cost	Total	Units	Unit cost	Total
1/1/2008							300	10	3000
1/3/2008				100	10	1000	200	10	2000
1/6/2008	200	11	2200				200	10	2000
							200	11	2200
1/8/2008				200	10	2000	100	11	1100
				100	11	1100			
1/10/2008	550	12	6600				100	11	1100
							550	12	6600
1/11/2008				100	11	1100	350	12	4200
				200	12	2400			
				700		7600	350		4200

Cost of goods sold

Ending inventory



## 1.b: perpetual system by LIFO

Date	Purchases			issued(Sold)			Balance		
	Units	Unit cost	total	Units	Unit cost	Total	Units	Unit cost	Total
1/1/2008							300	10	3000
1/3/2008				100	10	1000	200	10	2000
1/6/2008	200	11	2200				200	10	2000
							200	11	2200
1/8/2008				200	11	2200	100	10	1000
				100	10	1000			
1/10/2008	550	ID 12	ID 6600				100	ID 10	ID 1100
							550	12	6600
1/11/2008				300	12	3600	100	10	1000
							250	12	3000
				700		7800	350		4000

Cost of goods sold

Ending inventory





**L.c: perpetual system by Weighted Average(WA)**

Date	Purchases			issued(Sold)			Balance		
	Units	Unit cost	total	Units	Unit cost	Total	Units	Unit cost	Total
1/1/2008							300	10	3000
1/3/2008				100	10	1000	200	10	2000
1/6/2008	200	11	2200				200	10	2000
							<u>200</u>	<u>11</u>	<u>2200</u>
							<u>400</u>	<u>10.5</u>	<u>4200</u>
1/8/2008				300	10.5	3150	100	10.5	1050
1/10/2008	550	12	6600				100	<u>10.5D</u>	1050
							<u>550</u>	<u>12</u>	<u>6600</u>
							<u>650</u>	<u>11.7</u>	<u>7650</u>
1/11/2008				300	11.7	3510	350	11.7	4095
				700		7660	350		4095

Cost of goods sold

Ending inventory



## 2. a: Periodic system by FIFO

Details	Units	Total
beginning inventory	300	ID 3000
+purchases(200*11)+(550*12)=ID8800	750	ID 8800
= Cost of goods available for sale	1050	ID 11800
– Ending inventory(350*12)=ID4200	(350)	(ID 4200)
= Cost of goods sold	700	ID 7600

## 2.b: Periodic system by LIFO

Details	Units	Total
beginning inventory	300	ID 3000
+ purchases(200*11)+(550*12)=ID8800	750	ID 8800
= Cost of goods available for sale	1050	ID 11800
– Ending inventory(300*10)+(50*11)=ID3550	(350)	(ID 3550)
= Cost of goods sold	700	ID 8250

## 2.c: Periodic system by Weighted Average(WA)

Details	units	Total
beginning inventory	300	ID 3000
+ purchases(200*11)+(550*12)=ID8800	750	ID 8800
= Cost of goods available for sale(11800/1050)= 11,238	1050	ID 11800
– Ending inventory(350*11,238)=ID3933	(350)	(ID 3933)
= Cost of goods sold 11,238	700	ID 7867