

Inventories

Inventories An item of assets held by an economic unit for the purpose of sale or goods to be used in the production of goods intended for sale.

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

Balance Sheet

Current assets

Cash and cash equivalents

Receivables

Inventories

Manufacturing Company

Balance Sheet

Current assets

Cash and cash equivalents

Accounts receivable

Inventories:

Finished goods

Work in process and raw materials

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 on hand at \$600.

Purchase 900 units at \$6

Inventory	5400
Accounts Payable	5400

Purchases	5400
Accounts Payable	5400

Sale of 600 units at \$12

Accounts Receivable	7200
Sales Revenue	7200

Accounts Receivable	7200
Sales Revenue	7200

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(ending, by count)
The Inventory account shows	Cost of Goods Sold	3600
the ending balance of \$2400	Purchases	5400
(\$600 + \$5400 - \$3600).	Inventory	600 ... (beginning)
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When a company uses a perpetual inventory system and a difference exists between the perpetual inventory balance and the physical inventory count, it needs a separate entry to adjust the perpetual inventory account.

Assume that at the end of the reporting period, the perpetual inventory account reported an inventory balance of \$4000. However, a physical count indicates inventory of \$3800 is actually on hand. The entry to record the necessary write-down is as follows.

Inventory Over and Short	200
Inventory	200
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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.

Cost per unit = Cost of goods available ÷ Unit available

Example: The following information is extracted from AL-Iraqi Co, records during 2018 year.

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

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	50	10	500
27/11	400	13	5200				50 400	10 13	500 5200

Cost of goods sold
Ending inventory

1. (c) 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				300 (100+200)	10.667 (1000+2200) <hr/> (100+200)	3200
24/8	300	12	3600				600 (100+200+300)	11.333 (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

Cost of goods sold
Ending inventory

2. (a) The periodic inventory system (FIFO)

<u>Details</u>	<u>Units</u>	<u>Total cost</u>
Beginning inventory	100	1000
+ purchases $(200 \times 11) + (300 \times 12) + (400 \times 13)$	<u>900</u>	<u>11000</u>
= Cost of goods available for sale	1000	12000
- Ending inventory $(50 \times 12) + (400 \times 13)$	<u>(450)</u>	<u>(5800)</u>
= Cost of goods sold	550	6200

2. (b) The periodic inventory system (LIFO)

<u>Details</u>	<u>Units</u>	<u>Total cost</u>
Beginning inventory	100	1000
+ purchases $(200 \times 11) + (300 \times 12) + (400 \times 13)$	<u>900</u>	<u>11000</u>
= Cost of goods available for sale	1000	12000
- Ending inventory $(50 \times 10) + (400 \times 13)$	<u>(450)</u>	<u>(5700)</u>
= Cost of goods sold	550	6300

2. (c) The periodic inventory system (WA)

<u>Details</u>	<u>Units</u>	<u>Total cost</u>
Beginning inventory	100	1000
+ purchases $(200 \times 11) + (300 \times 12) + (400 \times 13)$	<u>900</u>	<u>11000</u>
= Cost of goods available for sale	1000	12000
- Ending inventory (450×12.816)	<u>(450)</u>	<u>(5767)</u>
= Cost of goods sold	550	6233