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Chapter 6- Reporting and Analyzing Inventory

Determining Inventory Quantities

Two steps to determine inventory quantities:

1. Take a physical inventory of goods on hand.
2. Determine ownership of goods.
   - **Goods in transit**
   - **Consigned goods**

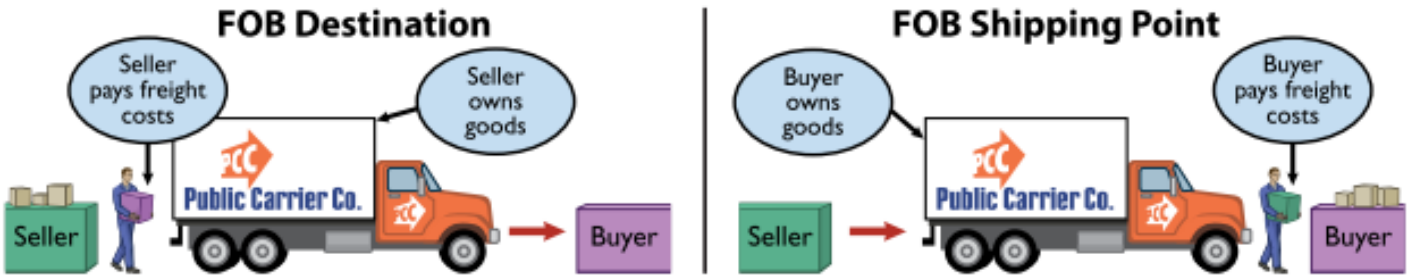
1. Taking a physical inventory of goods on hand.

- All companies need to determine quantity of inventory at the end of each accounting period.
  - For companies using the perpetual inventory system
  - For companies using the periodic inventory system

- Involves actually counting, weighing, or measuring each kind of inventory on hand.
- A good system of internal control minimises errors in counting inventory.

2. Determining ownership of goods

- Goods in transit:
  - should be included in the inventory of the company that has legal title to the goods on the date of count.



Consigned goods:

- The **consignee** sells the goods on behalf of the consignor in exchange for a fee without ever transferring legal title or ownership.

- Consigned goods are counted in the inventory of the consignor (owner) rather than the consignee.

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Methods of Cost Determination

Methods:
- 1. Specific identification method.
- 2. Cost formula methods:
  - First-in first-out (FIFO)
  - Average cost.

1. Specific identification method:
- Used when goods are not ordinarily interchangeable.
- Tracks the actual physical flow of goods.

- It reports ending inventory at its actual cost.
- Normally only used in a perpetual inventory system.

2. Cost formula methods:

- assume a flow of costs that may not be the same as the actual flow of goods.

- Two methods under IFRS:
  - **FIFO**

  - **Average cost**

First-in, first-out (FIFO)

- assumes that the earliest goods purchased are the first to be sold and recognized as cost of goods sold.
- can be used in perpetual and periodic systems
- The results under FIFO in a perpetual system are the same as in a periodic system.

	Purchases			Cost of Goods Sold			Balance		
Date	Units	Cost	Total	Units	Cost	Total	Units	Cost	Total
Jan. 1							100	$10	$1,000
Apr. 15	200	$11	$ 2,200				100 200	10 11	3,200
May 1				100 50	$10 11	$1,550	150	11	1,650
Aug. 24	300	12	3,600				150 300	11 12	5,250
Sept. 10				150 250	11 12	4,650	50	12	600
Nov. 27	400	13	5,200				50 400	12 13	5,800
	900		$11,000	550		$6,200			

The average cost

- assumes that it is not possible to measure a specific physical flow of inventory.

- Used under both inventory systems

- The allocation of the cost of goods available for sale between COGS and ending inventory is made based on the weighted average unit cost.

- A new average, also known as a moving average, is calculated after each purchase in the perpetual inventory system.
- Only one average is calculated under the periodic inventory system and the allocation is made at the end of the period.

Date	Purchases			Cost of Goods Sold			Balance		
	Units	Cost	Total	Units	Cost	Total	Units	Cost	Total
Jan. 1							100	$10.00	$1,000.00
Apr. 15	200	$11.00	$ 2,200.00				300	10.67	3,200.00
May 1				150	$10.67	$1,600.00	150	10.67	1,600.00
Aug. 24	300	12.00	3,600.00				450	11.56	5,200.00
Sept. 10				400	11.56	4,622.22	50	11.56	577.78
Nov. 27	400	13.00	5,200.00				450	12.84	5,777.78
	900		$11,000.00	550		$6,222.22			

FIFO or the average cost formula?
The company should consider:
- whether the method corresponds to the physical flow of goods.
- whether the inventory cost on the statement of financial position is close to the recent costs.

Whatever cost formula a company chooses, it should be used consistently from one accounting period to another.

Advantages of Cost Determination Methods

Specific Identification	FIFO	Average
• Exactly matches costs and revenues on the income statement.	• Ending inventory on the statement of financial position includes the most current costs (closest to replacement cost).	• Cost of goods sold on the income statement includes more current costs than FIFO.
• Tracks the actual physical flow.	• Approximates the physical flow of most retailers.	• Smooths the effects of price changes by assigning all units the same average cost.

Financial Statement Effects of Cost Determination Methods (during a period of rising prices)

	Specific Identification	FIFO	Average
Income statement			
Cost of goods sold	Variable	Lowest	Highest
Gross profit	Variable	Highest	Lowest
Profit	Variable	Highest	Lowest
Statement of financial position			
Cash (pre-tax)	Same	Same	Same
Ending inventory	Variable	Highest	Lowest
Retained earnings	Variable	Highest	Lowest

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Presentation and Analysis of Inventory

- value the inventory at the **lower of cost and net realizable value.**
  - net realizable value = selling price - any costs required to make the goods ready for sale.
  - The lower of cost and net realizable value basis should be applied to individual inventory items as opposed to total inventory.
  - In certain cases the lower of cost and net realizable value can be applied to groups of similar items.

	Cost	NRV	LCNRV
Vehicle A	$16,000	$15,500	$15,500
Vehicle B	14,500	15,300	14,500
Vehicle C	14,800	14,500	14,500
Vehicle D	13,200	14,800	13,200
Vehicle E	11,500	11,400	11,400
Total inventory	$70,000	$71,500	$69,100

- If the value of inventory < cost: inventory is **written down.**
- Journal Entry for write down:
- Dr. Cost of goods sold
- Cr. Merchandise inventory
- When conditions that caused the write down no longer exist:
  - Reverse inventory write down.
    - The reversal can only be written back up to the original cost.

Reporting Inventory

- In the statement of financial position:
  - At the lower of cost and NRV

- In the notes to the statements
  - Total amount of inventory
  - Cost of goods sold
  - Cost determination method
  - Amount of write-downs or reversals

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Inventory Ratios

$$\text{Inventory Turnover} = \frac{\text{Cost of goods sold}}{\text{Average inventory}}$$

$$\text{Days in Inventory} = \frac{365 \text{ days}}{\text{Inventory turnover}}$$

In general, the higher the inventory turnover and the lower the days in inventory ratios, the better it is.