

Inventory Valuation

Methods of inventory valuation

Closing Inventory can be valued using various methods. Most Accurate but time consuming method would be to label each item with its cost and record its cost when the item is sold. However it is a time consuming method especially where items are in bulk and no distinction is placed between old and new inventories. For these reasons we use some assumptions based methods. IAS 2 allows FIFO and AVCO Method.

FIFO (First In First Out)

FIFO uses the price of first batch received for costing all units of sales until all units of this batch are sold after which the price of next batch received is used for costing purposes and so on.

Advantages

- i) Inventory value is based on most recent purchase price and closer to market value
- ii) It is more realistic as based on actual cost and relates to physical flow of goods especially when goods are perishable
- iii) FIFO is acceptable according Inland Revenue, IAS 2
- iv) It is simple and easy to use

Disadvantages

- i) When price are increasing FIFO results in lower cost of sales and high inventory values as such profits will be overstated which is against prudence concept
- ii) Identical items may be valued at different prices when sold on same date or issued to similar jobs
- iii) Prices will vary when using cost plus pricing methods
- iv) In case of return outwards the cost deducted will be original cost but the balances column may not have any such lot

AVCO (Weighed Average Cost)

AVCO involves computing the weighted average cost of inventory held after each receipt takes place. Any inventory sold or used is then valued at this average cost until another receipt takes place when a new average cost is calculated.

Advantages

- i) Variations in prices are minimized
- ii) AVCO is also acceptable according Inland Revenue and IAS 2
- iii) Comparison between profits of different periods become easier and realistic because of average prices
- iv) Value assigned to closing inventory units is fairly closed to the market value
- v) Identical items may be valued at same cost even if they are purchased at difference prices and different dates

Disadvantages

- i) Prices used to value inventory are not the prices actually paid for
- ii) No and complexity of calculations with AVCO can create rounding off problems which increases the risk of error.

Advantages of Using LIFO Method:

- During inflation environment, cost of goods is higher whereas remaining inventory balance is lower. Through LIFO, the main advantage lies in reporting lower profits, which in turn, allows businesses to pay less tax.
- It is more apt for matching cost and revenue figures and allows complete recovery of material cost.
- LIFO is simple to understand, easy to operate.

Disadvantages of Using LIFO Method:

- Firstly, inventory valuation does not talk about current prices, hence LIFO of no relevance, in assessing current situations.
- It is more difficult and complex to maintain. If most recent purchased inventories are always used as cost of goods sold, it creates older and outdated inventories, which can never be sold. Therefore, it is quite unrealistic.
- LIFO calculations are more complicated, especially when prices keep fluctuating.
- Clerical work is more in LIFO procedure
- If businesses plan to expand globally, LIFO is definitely not the right choice for valuing company's current assets.

Systems of Accounting for Inventories.

There are two principal systems of inventory accounting:

Periodic inventory System

In Periodic system inventory account is not debited or credited on purchase or sale of inventory rather inventory is determined by a physical inventory count only at the end of the year or specific intervals.

Advantages

- i) Time and cost are saved as continuous records are not maintained
- ii) It is a simple system as compared with perpetual

Disadvantages

- i) Physical inventory count cannot be done often because of time and cost limitations
- ii) Little control over inventory movements because inventory is only determined at the end of the period
- iii) Interim Accounts cannot be prepared unless an inventory count is taken at the end of each period

Perpetual inventory System

In Perpetual inventory system inventory records are updated on a continuous basis on each receipt and issued of goods.

Advantages

- i) Control can be exercised by comparison of records with physical inventory count
- ii) Interim financial statements can be prepared as the values of cost of sales and inventory are available in ledgers
- iii) Inventories can be maintained at optimum levels ensuring no over or under stock

Disadvantages

- i) Time consuming and costly method to use especially when using manual accounting systems

Due to growth in Technology, Perpetual inventory system is most widely used

Inventory Adjustment

Inventory should be valued at Lower of Cost or NRV

NRV (Net Realizable Value) = Fair Value – Cost to Sell

It is an application of prudence concept.

Stock Account Entries (Very rarely tested)

Stock A/c (Closing Stock)
Trading Account

XXX

XXX

Trading Account
Stock A/c (Opening Stock)

XXX

XXX

Stock Account

Trading Account (Closing Stock)	<u>XXX</u>	c/d	<u>XXX</u>
b/d	XXX	Trading A/c (Opening Stock)	XXX
Trading Account (Closing Stock)	<u>XXX</u>	c/d	<u>XXX</u>
	<u>XXX</u>		<u>XXX</u>
b/d	XXX		

Unable to value inventory at year end (Reverse working)

STATEMENT OF INVENTORY VALUATION

Inventory as at 14 Feb 2016 XXX

<u>Adjustments</u>	ADD	LESS	
1) Sales at Cost	XXX		
2) Purchase		(XXX)	
3) Return Inwards at Cost		(XXX)	
4) Return Outward	XXX		
5) Goods Drawing	XXX		
6) Others	<u>XXX</u>	<u>(XX)</u>	<u>XX/(XX)</u>

Inventory as at 31 Dec 2015 XXXX

Exercises

14.1 The following data relates to stock for PSO company

Jan 2015

1st Stock in hand 500 ltr @ \$50

3rd Purchased 700 ltr @ \$55

7th Sold 1000 ltr @78

10th Purchased 400 ltr @ \$60

15th Purchased 1500 ltr @ \$65

30th Sold 600 ltr @ \$79

Required:

- 1) Cost of Issues / Sales**
- 2) Closing Inventory**
- 3) Gross Profit**

Using FIFO and AVCO Method

14.2 The following data relates to stock for ARD company

July 2016

1st Stock in hand 400 kgs @ \$10

3rd Purchased 900 kgs @ \$12

7th Sold 1000 kgs @20

10th Purchased 500 kgs @ \$14

15th Purchased 2000 kgs @ \$16
30th Sold 800 kgs @ \$25

Required:

- 1) **Cost of Issues / Sales**
- 2) **Closing Inventory**
- 3) **Gross Profit**

Using FIFO and AVCO Method

Past Paper Questions

Q1. Because of illness, Achmed's annual stocktaking, which should have taken place on 31 March 2001, was not completed until 7 April 2001, and was undertaken by an inexperienced member of staff. Achmed felt that the stock figure of \$92 050 was too low and ordered an investigation. It was discovered that the following had occurred during the week ended 7 April 2001 and had not been accounted for in the closing stock calculation:

- 1 Goods with a selling price of \$1040 had been sent to a customer on approval.
- 2 Goods costing \$9400 were received and invoiced.
- 3 Sales of \$18 760 had been made and invoiced to customers.

These sales included

- (i) an overcharge of \$160;
- (ii) sales of \$6000 on special offer at a margin of 10%;
- (iii) damaged goods which had cost \$2500 and were sold for \$2800.

Achmed's standard rate of gross profit is 25% of sales.

Calculate the correct value of closing stock at 31 March 2001.

- Q2.** Lari, a retailer whose financial year ends on 31 May, failed to check his stock until 8 June in 2009. At that date his stock at cost was valued at \$72 200. Lari's mark-up is 30% on cost.

During the first 8 days of June, the following transactions took place:

	\$
(i) Purchases of goods for resale	21 200
(ii) Purchases returns	510
(iii) Sales	25 740
(iv) Sales returns (at selling price)	273
(v) Goods taken for personal use, at cost	700

After taking stock, Lari discovered that the following items had been included in the valuation at 8 June:

- (vi) A parcel of stock which had been water-damaged. This had been on sale for \$390 but was now worthless.
- (vii) Stock which had cost \$1200 but was now out of fashion and would have to be sold for \$400 less than cost.
- (viii) Goods costing \$950 which Lari had acquired on a sale or return basis. He had not decided whether or not to keep them.
- (ix) Goods, sold during May for \$1560, which were awaiting collection by a customer.

REQUIRED

- (a) Explain the difference between mark-up and margin.
- (b) Prepare a statement to calculate the correct value of stock at cost at 31 May 2009. Begin your calculation with the original stock valuation of \$72 200. Show **all** workings.

- Q3.** At 1 January 2013, Brahms had opening inventory of 50 teddy bears at a purchase price of \$30 each.

His transactions for the first three months of 2013 were:

Date		Purchases (units)	Purchase price (per unit)	Sales (units)
Jan	8			30
	10	100	\$30.00	
	12			80
	21	120	\$30.50	
	28			90
Feb	1			50
	14	150	\$31.00	
	23			100
March	1			30
	4	120	\$31.50	
	19			120
	23	100	\$32.00	
	27			120

No other transactions took place during these months.
Each teddy bear was sold for \$50.

REQUIRED

- (a) Calculate the value of the inventory at 31 March 2013 using the following methods of valuation.
- (i) FIFO
 - (ii) AVCO.
- (b) Using each method of valuation, calculate the gross profit for the three months ending 31 March 2013.
- (i) FIFO
 - (ii) AVCO.
- (c) State **one** advantage and **one** disadvantage of using the following methods of inventory valuation:
- (i) FIFO
 - (ii) AVCO.
- (d) Brahms currently uses FIFO to value his inventory. He is considering changing the method to show a lower profit each year. State **two** reasons why he should not do this. Make reference to any relevant accounting principles, concepts and conventions.

Charlie runs a similar business and also completes his financial year on 31 March 2013. He is unable to value his inventory at that date. The stock count takes place on 7 April 2013. The value at that date is \$1000. Between the two dates the following transactions had occurred.

Sold goods at a selling price of \$120. (Charlie normally marks up his goods for sale at 25%. These goods were in stock on 31 March 2013.)

Purchased goods at an invoice price of \$70.

Goods sold to a customer for \$80 had been returned by them. (The sale took place on 28 March 2013.)

Damaged goods were discovered which had been included at a cost of \$30. Charlie could only sell them for \$20.

REQUIRED

(e) Calculate the value of Charlie's closing inventory at 31 March 2013.

Q4. Joy Locke sells wooden toy train sets. She sells engines, carriages and pieces of track, any of which may be bought individually. She buys them in plain wood and employs an assistant at \$10 an hour to paint them before she sells them.

The following information is available:

	Engine	Carriage	Track
Cost of plain toy	\$7.00	\$5.00	\$2.00
Cost of paint	\$0.80	\$0.50	\$0.25
Number painted in one hour	2	5	10
Selling price	\$18.00	\$11.00	\$4.00

REQUIRED

(c) Calculate the value at which **one** unit of **each** toy is included in inventory (stock) once it is ready for sale. [6]

Joy Locke's financial year end fell on 31 January 2010. Unfortunately she was not able to count her inventory (stock) until 4 February. Her inventory (stock) count showed that there were 14 plain engines and 26 painted engines in inventory (stock).

In the period between 31 January and 4 February the following had taken place:

- 20 engines had been received from the toymaker.
- 18 engines had been painted by the assistant.
- 21 engines had been sold to customers.

It was also discovered that on 30 January ten engines had been sent to a customer on a sale or return basis.

During the inventory (stock) count it was also discovered that one of the engines ready for sale was faulty and it would have to be sold for \$4. This engine was believed to have been in inventory (stock) for some time.

REQUIRED

- (d) Calculate the total value of the inventory (stock) of engines at 31 January 2010. **Show your workings clearly.** [16]
- (e) Name the IAS which deals with inventory (stock). [2]

[Total: 40]

Q5 Paula Bridgewater, a retailer, supplied the following information on purchases and sales for the month of February 2009.

At 1 February 2009 Paula Bridgewater had an opening inventory (stock) of 500 units valued at \$14 each.

Date	Purchase of goods for resale (purchases)		Revenue (sales)	
	Quantity (units)	Cost price per unit (\$)	Quantity (units)	Selling price per unit (\$)
February 2	2 000	15		
3			2 300	30
10	1 500	18		
14			1 300	32
18	2 000	20		
19			2 100	34

REQUIRED

- (a) Calculate the closing inventory (stock) valuation at 28 February 2009 using the FIFO method of inventory (stock) valuation (perpetual).
- (b) Prepare the income statement (trading account) for the month of February 2009 using the FIFO method of inventory (stock) valuation (perpetual).
- (c) Advise Paula Bridgewater how the inventory (stock) should be valued in the final accounts. Give reasons for your advice.

Paula Bridgewater continued trading throughout the remainder of 2009.

On 31 December 2009 her entire inventory (stock) together with all of her non-current (fixed) assets were destroyed by fire.

Some of her business records had also been destroyed but the following information is available.

- 1 When stocktaking last took place on 31 October 2009 the balance of inventory (stock) was \$11 700.

Ordinary goods purchased (purchases) between 1 November 2009 and 31 December 2009 amounted to \$22 600.

Revenue (sales) made for cash and on credit during this period amounted to \$36 200.

All revenue (sales) was made at a uniform profit margin of 25% and all purchases were on credit.

- 2 Information available from Paula Bridgewater's Balance Sheet at 31 October 2009 included:

Non-current (fixed) assets	Cost	Depreciation	Net Book Value
	\$	\$	\$
Fixtures and Fittings	6 000	2 160	3 840
Current assets			
Inventory (stock)	11 700		
Trade receivables (debtors)	2 400		

- 3 Paula Bridgewater depreciates her fixtures and fittings at 20% per annum using the straight line method assuming a residual value of \$600.
- 4 Also at that date the bank statement showed cash at the bank of \$620.
- 5 Paula Bridgewater's cash book showed receipts from trade receivables (debtors) for the two month period to be \$4 300.
- Her invoices to customers supplied on credit over the same period totalled \$6 500.
- 6 One of the trade receivables (debtors) who owed \$600 had gone bankrupt in the last week of December and Paula had decided to write off this amount.
- 7 Paula does not offer any discount to her customers for prompt payment.

REQUIRED

- (d) Calculate the cost of the inventory (stock) destroyed by the fire.
- (e) Calculate the net book value of the fixtures and fittings at 31 December 2009 (immediately prior to the fire) assuming depreciation is charged equally throughout the year.
- (f) Calculate the trade receivables (debtors) total to be included in the balance sheet at 31 December 2009.

- Q6** Richard Staverton is a retailer of bicycles. The following information is available for the period 1 November 2008 to 30 April 2009.

<i>Month</i>	<i>Purchases of bicycles</i>	<i>Sales of bicycles in units</i>
November	32 @ £125 each	20
December	36 @ £127 each	40
January	48 @ £128 each	54
February	62 @ £128 each	56
March	44 @ £130 each	48
April	66 @ £129 each	64

At 1 November 2008, Richard had an opening stock of 16 bicycles costing £124 each. The sales price of all bicycles during the period 1 November 2008 to 31 January 2009 was based on a mark up of 60% on the November 2008 purchase price. The selling price was increased by 4% for all sales during the period 1 February 2009 to 30 April 2009. During the six month period 1 November 2008 to 30 April 2009, total expenses were £12 712.

REQUIRED

- (a) Calculate the closing stock valuation as at 30 April 2009, using the following methods of stock valuation (periodic basis):
- (i) FIFO; [3]
 - (ii) LIFO. [5]
- (b) Calculate the net profit for the six months ended 30 April 2009, under the FIFO method of stock valuation. [7]
- (c) Discuss the advantages and disadvantages of using the FIFO method of stock valuation. [8]
- (d) Richard Staverton is considering using the economic order quantity system for ordering stock.
- Assess the usefulness of this system of stock management for his business. [6]

Total marks [29]
