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Inventory

Study Unit 10

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Study Unit 10: Inventory

Introduction

Lecture 1

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What do we need to know about Inventory?

- Recognition
- Measurement
  - Inventory valuation
  - Methods for valuing inventory
- Disclosure

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What is inventory?

- Assets that are:
  - Held for sale in the ordinary course of business
  - In the process of production to sell in future (partially completed manufactured goods)
  - Going to be used in the process of producing saleable goods or services (raw materials) or are going to be consumed in the rendering of a service (consumables)

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Measurement

Lecture 2

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How do we measure inventory?

- There are two main components that need to be quantified:
  - Quantity of inventory
    - Physical inventory counts
  - Cost of inventory (Historical cost vs NRV)
    - Determining the cost price
    - Applying a chosen cost formula which will be used in measuring the value of inventory
    - Determining the net realisable value of the inventory

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Physical Inventory Counts

Lecture 3

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What needs to be considered?

- Perpetual vs Periodic Stock systems
- Quantity of inventory must be determined
- Condition of inventory must be evaluated
- Consigment goods, Goods-in-transit must be analysed
  - When do the risks and rewards of ownership pass?
  - Only goods that belong to the entity should be recorded

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Cost of Inventory

Lecture 4

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How do we determine the cost?

- Take into account the following:
  - Cost of purchases
  - Conversion costs (manufacturing)
  - Other costs incurred in bringing the inventory to its present location and current condition

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Remember Accrual Basis?

- The accrual basis means that we must account for costs where the related income is earned, thus, we learnt that Cost of Sales is calculated as:

  Opening Inventory

  Plus: Purchases

  Less: Closing Inventory

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Calculation

Cost of Purchases	Conversion Costs	Other Costs
• Purchase Price • Import duties • Transport costs of purchase • Handling costs *LESS* • Trade / cash / settlement discounts • Rebates on purchases	Direct costs, for example: • Direct labour • Variable production overhead costs • Fixed production overhead costs (that remain fairly constant)	• Product design costs for customers • Storage costs where ageing is required

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Importance of accurate valuation

Lecture 5

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Why is it so important to value inventory so accurately?

- Affects both Profit or Loss AND the Financial Position
- Can distort the Gross Profit, Profit, Cost of Sales… thus Equity… and Current Assets
- Affects the next year. Closing Inventory this year is Opening Inventory next year
- This can put costs in incorrect periods

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Example

- Study Guide Example 10.1 (Pg 219)
- Consider the impact of the errors on the financial information for all the years disclosed

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Cost Formula to value Inventory

Lecture 7

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Why do we need Cost formulae?

- Inventory is bought for different prices at different times
  - Inventory on hand at yearend may include similar items that were bought at different prices
  - Which price do you use to value inventory?

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Options for costing?

To value inventory using the actual costs

- Specific identification
- Weighted average method
- First-in, First-out method

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Specific identification

- Keep track of actual costs allocated to inventory along the production process
  - Labour, materials, hours spent etc
- This is the most accurate method, but not always an option due to varying nature of inventory / production process

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Study Unit 10: Inventory

Weighted Average Method

Lecture 8

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Weighted Average method

- Average cost method
- Used by entities that retain goods for a longer time, or high volumes of low-value, fluctuating prices
- Cost of Sales / number of units purchased
  - This will give the cost per unit purchased
  - Multiply this by units on hand at yearend

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Example

Inventory costs for Item A			
Date purchased	**Units purchased**	**Unit price**	**Cost of Sales**
2 June	100	2.30	230
10 June	300	2.10	630
17 June	150	2.45	367.50
26 June	450	3.00	1 350
29 June	310	2.47	765.70
	1 310		3 342.2

Weighted Average Cost: **R3 312.20 / 1 310 = R2.53**

If Inventory on Hand at 30 June was 240 units,

then value of closing inventory: **R2.55 X 350 = R892.50**

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First-in, First-out (FIFO) method

Lecture 9

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FIFO method

- Assumes that older inventory is sold first, thus the costs of the older purchases are no longer valid in the calculation of inventory values, since they'd have been sold
- This means that closing inventory is calculated using more 'current' prices

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Example

Inventory costs for Item A						
Date purchased	**Units purchased**	**Unit price**	**Sales**	**On Hand**	**Cost of Sales**	**Cost of goods on hand**
2 June	100	2.30	100		230	
10 June	300	2.10	300		630	
17 June	150	2.45	150		367.50	
26 June	450	3.00	410	40	1 230	120
29 June	310	2.47		310		765.70
					2457.50	885.70

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Study Unit 10: Inventory

Net Realisable Value

Lecture 10

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Historical Cost vs NRV

- Weighted Average, FIFO and Specific Costs are all methods of calculating the Historical Cost of inventory
- Net Realisable Value, however, is about the future value of inventory to the business, ie: how much is the inventory WORTH, rather than the cost

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Net Realisable Value

- IFRS requires the inventory is measured at the LOWER OF COST OR NRV in the Financial Statements.
- This means that you need to determine both, and then evaluate which is lower, and value inventory using that
- NRV is calculated using the selling price of the goods, under normal business conditions, less any costs to sell

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Study Unit 10: Inventory

Estimating the value of inventory

Lecture 11

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Why do we need to estimate?

- Entities using the Periodic stock system may need to estimate the value of inventory without doing a physical count
- Methods:
  - Standard Costs
  - Retail method (Gross Profit method)

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Statement of Profit or Loss

Revenue	XXXX
Cost of Sales:	(XXXX)
Opening Inventory	xxx
Plus: Purchases	xxx
	xxx
Less: Closing Inventory	(xxx)
Gross Profit	xxx

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Gross Profit method

- Calculate the average markup for the last few available periods
- Use this to calculate the Gross Profit, using the Sales figures given
- Deduct Gross Profit from Sales… you will have Cost of Sales
- Determine the closing inventory using the opening Inventory, and Cost of Sales

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Gross Profit method: Example

- Study Guide Page 226, Revision Exercise 4

Note how important it is to be able to change your equations depending on the information you have, to get the information you need.

You need to know the formulae for Cost of Sales, Gross Profit etc, so that you are comfortable with the equations used!

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Disclosing Inventory in the Financial Statements

Lecture 13

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Disclosure includes:

- The disclosure can include:
  - Merchandise
  - Consumables in a service entity
  - Raw materials
  - Work-in-Progress
  - Finished Goods
  - Contracts in progress

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Statement of Financial Position

Current Assets	
Inventories	xxx
Trade and other Receivables (1)	xxx
Cash and Cash Equivalents	xxx

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Accounting Policy note

Inventories

Inventories are initially measured at cost and are subsequently valued at the lower of cost or net realisable value. The following formulae were applied:

Raw materials:	First-in, First-out
Work-in-Progress:	Standard Cost
Finished Goods:	Standard Cost
Merchandise:	Weighted Average
Consumables:	First-in, First-out

Excess and slow-moving inventory were identified and written off to their estimated net realisable values

Lecture 13