

CFA LEARNING OUTCOMES DECODED

In our series *Learning Outcomes Decoded* we break down a single Learning Outcome Statement (LOS) from the CFA level 1 curriculum. This article is written by Cheryl Wu, CFA, CPA. Cheryl is the Content Developer of the CFA team at the Princeton Review. She works as a corporate development manager in the Energy and Utilities industry.

FINANCIAL STATEMENT ANALYSIS: INVENTORIES

LOS 1: Describe the measurement of inventory at the lower cost and net realizable value

LOS 2: Describe implications of valuing inventory at net realized value for financial statements and ratios

This learning module discusses the treatment of inventory and the inventory costs to be recognized on the income statement during the period they occur. It discusses different inventory valuation methods and explains the calculation on cost of goods sold and ending inventory using different inventory valuation methods. This LOS introduces the measurement of inventory and the implications of different measurement methods to financial statements and ratios.

Inventory Measurement

IFRS: Inventory is measured at the lower of cost and net realizable value. Net realizable value is defined as the estimated selling price in the ordinary course of business less any selling costs to get the inventory in condition for sale. If the net realizable value of the inventory is below its carrying value on the balance sheet, then the inventory carrying value must be written down to its net realizable value. Any resulting loss is recognized as expense on the income statement within cost of goods sold.

If the carrying value of the inventory is later found to be higher than its net realizable value, then a reversal of the write-down is allowed. The reversal is only allowed up to the maximum of any previous write-downs and is recorded as a reduction in cost of goods sold.

US GAAP: Treatment under US GAAP is consistent with IFRS for inventory under the FIFO method with the exception that US GAAP prohibits reversal of write-downs. Under LIFO and retail inventory methods, inventory is valued using lower of cost or market value. Market value is defined as replacement cost subject to upper and lower limits. The upper limit is net realizable value, and the lower limit is net realizable value less a normal profit margin.

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Financial Statement Impact

An inventory write-down reduces both profit (through an increase in cost of goods sold) and the carrying amount of inventory on the balance sheet. Thus, it has a negative effect on profitability, liquidity and solvency ratios. It has a positive effect on activity ratios such as inventory turnover and total asset turnover.

Inventory write-downs can be significant in industries where technological obsolescence is a significant risk. The write-downs are less likely when companies use the LIFO method in recording inventory.

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PRACTICE QUESTIONS

On December 31, 2017, Sura International had inventory of \$3.0 million on the balance sheet. Yet due to inventory obsolescence problems, the net realizable value of the inventory is \$2.6 million. The replacement cost of the inventory is \$2.7 million. Sura International uses retail inventory method in recording inventory. On December 21, 2018, the net realizable value of inventory is \$3.1 million, and the replacement cost of the inventory is \$2.8 million.

- A. What will be the amount of inventory write-off in 2017 if Sura International reports under IFRS and US. GAAP?
- B. What will be the ending inventory amount in 2018 if Sura International reports under IFRS and US GAAP?

Solutions:

A: The amount of write off will be $\$3.0 - 2.6 = \0.4 million under IFRS and $\$3.0 - 2.7 = \0.3 million under US. GAAP.

B: The ending inventory amount in 2018 will be \$3.0 million under IFRS. This is because any reversal of write-downs is only allowed to the maximum of previous write-downs. Therefore, the maximum reversal allowed is \$0.4 million, and the ending inventory amount is \$3.0 million. Under US GAAP, the ending inventory will be \$2.7 million as any reversal of write-downs are prohibited.