

## **Learning Module 6: Analysis of Inventories**

Q.511 Xing, a company engaged in the trade of mobile parts and accessories, reduced its inventory value to its current replacement cost and recorded a write-off of \$0.5 million in 2014. However, in 2015, the net realizable value is now \$0.3 million higher than its carrying value. What would be the *most appropriate* accounting treatment using the US GAAP?

- A. No accounting treatment is required.
- B. Increase inventory fluctuation allowance by \$0.3 million.
- C. Increase inventory value by \$0.3 million and reduce the cost of sales.

The correct answer is **A**.

The reversal of a reduction in inventory value is not allowed under US GAAP.

**B is incorrect.** The reversal of a write-down is only allowed under IFRS, and this amount is limited to the original write-down.

**C is incorrect.** Under IFRS, the reversal of write-down of inventories is recognized as a reduction in the cost of sales and is only limited to the original write-down.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 6: Analysis of Inventories, LOS 6a: describe the measurement of inventory at the lower of cost and net realisable value and its implications for financial statements and ratios***

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Q.512 A company following the weighted-average method of inventory valuation decides to shift to LIFO for the current year. Which of the following adjustment would *most likely* be made, assuming that the company follows US GAAP?

- A. The company cannot shift to LIFO.
- B. No adjustments have to be made to historical financials.
- C. Historical financials have to be reinstated for the change in method to facilitate comparison.

The correct answer is C.

According to US GAAP, if a company changes its inventory valuation method, the new method should be applied retrospectively. This means that the company must restate its historical financials to reflect the change, making the financial statements comparable across periods. Therefore, this option is the most likely to occur.

**A is incorrect.** The company can shift to LIFO if it provides a justification for why LIFO is more suitable to their business operations compared to the weighted-average method. The US GAAP allows for different inventory valuation methods, including LIFO. Therefore, this option is not correct.

**B is incorrect.** Although it may be less complex to not make any adjustments to the historical financials, this practice is not in alignment with US GAAP principles when there's a change in the inventory valuation method. The change should be reported retrospectively to maintain the consistency and comparability of the financial statements. Thus, this option is not correct.

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 6: Analysis of Inventories, LOS 6c: describe the presentation and disclosures relating to inventories and explain issues that analysts should consider when examining a company's inventory disclosures and other sources of information.**

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Q.516 Which of the following methods will *most likely* give a higher debt-to-equity ratio in the case of rising prices?

- A. LIFO.
- B. FIFO.
- C. Weighted average.

The correct answer is **A**.

Under LIFO, the most recently acquired inventory items are the first to be sold. In a scenario where prices are increasing, this means that the COGS reported will reflect the higher prices of the most recently purchased inventory. Consequently, this leads to a lower gross profit and, by extension, a lower net income assuming other expenses remain constant.

**B is incorrect.** When prices are increasing, using FIFO will result in lower COGS and, therefore, higher net income and retained earnings. Higher retained earnings will result in higher equity and a lower debt-to-equity ratio.

**C is incorrect.** The weighted average assigns the average cost of the goods available for sale during the accounting period to the units that are sold as well as to the units that remain in ending inventory keeping the COGS stable.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 6: Analysis of Inventories, LOS 6b: calculate and explain how inflation and deflation of inventory costs affect the financial statements and ratios of companies that use different inventory valuation methods***

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Q.518 An analyst has gathered the following information on a small-cap firm for the month of May 2016:

Opening inventory: \$2 million

Closing inventory: \$3 million

Cost of sales: \$10 million

Given the information, the inventory turnover ratio is *closest to*:

- A. 3.
- B. 4.
- C. 5.

The correct answer is **B**.

$$\text{Inventory turnover ratio} = \frac{\text{Cost of sales}}{\text{Average inventory}}$$
$$\text{Average inventory} = \frac{(\text{Closing inventory} + \text{Opening inventory})}{2}$$
$$= \frac{(\$3 \text{ million} + \$2 \text{ million})}{2}$$
$$= \$2.5 \text{ million}$$
$$\text{Inventory turnover ratio} = \frac{\$10 \text{ million}}{\$2.5 \text{ million}}$$
$$= 4$$

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 6: Analysis of Inventories, LOS 6c: describe the presentation and disclosures relating to inventories and explain issues that analysts should consider when examining a company's inventory disclosures and other sources of information**

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Q.519 Which of the following businesses is expected to have the lowest inventory turnover ratio?

- A. A bread manufacturer.
- B. A luxury car manufacturer.
- C. A supplier of electrical fittings.

The correct answer is **B**.

A luxury car manufacturer is expected to have the lowest inventory turnover ratio among the options provided. The inventory turnover ratio is a measure of how quickly a company sells its inventory within a given period. It is calculated by dividing the cost of goods sold by the average inventory. Luxury car manufacturers typically deal with high-value items that are produced and sold in lower quantities compared to everyday consumer goods. These manufacturers often have longer production cycles and sell their products at a premium, which means the inventory stays on the balance sheet for a longer period before being sold. This results in a lower inventory turnover ratio, indicating that the inventory is held for a longer duration before being sold.

**A is incorrect.** Bread, being a staple food item, has a consistent demand, and the inventory does not stay unsold for long periods. Therefore, a bread manufacturer is expected to have a higher inventory turnover ratio compared to a luxury car manufacturer.

**C is incorrect.** A supplier of electrical fittings also operates in a market with relatively quicker inventory cycles compared to luxury car manufacturing. Electrical fittings are essential components in various construction and maintenance projects, leading to steady demand. Although the turnover rate for such suppliers may not be as high as that of FMCG products, it is still expected to be higher than that of a luxury car manufacturer. The nature of the products, being more of a necessity and used in various applications, ensures a quicker turnover of inventory. Thus, a supplier of electrical fittings is expected to have a higher inventory turnover ratio than a luxury car manufacturer, which deals with high-value, low-volume products.

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Q.1943 Which of the following inventory cost methods will *most likely* result in the lowest net income in an inflationary environment?

- A. Last-in, first-out (LIFO).
- B. First-in, first-out (FIFO).
- C. Weighted average cost (WAC).

The correct answer is **A**.

The LIFO method calculates the cost of goods sold (COGS) based on the most recent inventory. Therefore, in an inflationary environment, the LIFO COGS will be the highest, and net income will be the lowest as compared to the two other methods.

**B is incorrect.** The FIFO method calculates the cost of goods sold (COGS) based on the oldest (beginning) inventory. Therefore, in an inflationary environment, the FIFO COGS will be the lowest, and net income will be the highest as compared to the two other methods.

**C is incorrect.** The weighted average method will result in net income, but greater than that of LIFO less than that of FIFO methods.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 6: Analysis of Inventories, LOS 6b: calculate and explain how inflation and deflation of inventory costs affect the financial statements and ratios of companies that use different inventory valuation methods***

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Q.1944 Which of the following inventory cost recognition method will *most likely* result in the highest ending inventory in an inflationary environment?

- A. LIFO.
- B. FIFO.
- C. Weighted average method.

The correct answer is **B**.

In an inflationary environment, the First-In, First-Out (FIFO) inventory cost recognition method will most likely result in the highest ending inventory value. This outcome is due to the FIFO method's principle of selling or using the oldest inventory first. Consequently, in times of rising prices, the cost of goods sold (COGS) reflects the cost of older, less expensive inventory, while the ending inventory is valued at more recent—and typically higher—purchase prices. This valuation approach leads to a higher reported ending inventory value under inflationary conditions because the inventory still on hand is accounted for at the most recent and higher costs.

**A is incorrect.** The Last-In, First-Out (LIFO) method, in contrast to FIFO, assumes that the most recently acquired inventory is sold or used first. In an inflationary environment, this means that the COGS reflects the cost of newer, more expensive inventory, while the ending inventory is valued at the cost of older, less expensive purchases. This results in a lower ending inventory value under LIFO during periods of inflation, as the remaining inventory is accounted for at earlier and lower costs. This approach can lead to lower reported profits and reduced tax liability, but it does not result in the highest ending inventory value compared to FIFO.

**C is incorrect.** The Weighted Average Method smooths out price fluctuations over the accounting period by averaging the cost of goods available for sale and assigning this average cost to both the ending inventory and the COGS. In an inflationary environment, this method dilutes the impact of rising prices by spreading the cost increases across all units. Therefore, the ending inventory value under the Weighted Average Method will not be as high as under FIFO, which specifically leverages the most recent, higher costs for valuing the ending inventory. The Weighted Average Method results in a middle-ground valuation, not capturing the full extent of inflationary price increases on the ending inventory as FIFO does.

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Q.1948 Turks Printers is a printer retailer that sells printers to large corporations. Assume that Turks uses the weighted average cost method of inventory.

Beginning Inventory	50 printers at \$100 each
Purchased on January 1st	100 printers at \$110 each
Purchased on March 1st	20 printers at \$130 each

If Turks sell 100 printers to Loop Corp. in April, the ending inventory for Turks is *closest to*:

- A. \$7,200
- B. \$7,658
- C. \$8,100

The correct answer is **B**.

The weighted average cost method uses the average cost to calculate the COGS and the ending inventory.

$$\text{Average cost of printers} = \frac{(50 \times \$100 + 100 \times \$110 + 20 \times \$130)}{170} = \$109.4$$

$$\text{Ending inventory of printers} = \$109.40 \times (170 - 100) = \$7,658$$

**A is incorrect.** Uses LIFO method.

**C is incorrect.** Uses FIFO method.

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Q.1950 Which of the following inventory cost recognition method will result in the highest net income in times of falling prices?

- A. LIFO.
- B. FIFO.
- C. Weighted average method.

The correct answer is **A**.

LIFO method calculates the COGS based on the most recent inventory. When prices are falling, the cost of the most recent inventory is lower than that of older inventory. Consequently, using LIFO leads to a lower COGS and, by extension, a higher gross margin and net income, assuming sales and other expenses remain constant. This effect is particularly pronounced in periods of significant price declines, as the cost disparity between the oldest and newest inventory widens.

**B is incorrect.** FIFO calculates COGS based on the cost of the oldest inventory first. In a falling price environment, this means that the COGS reflects higher historical prices, leading to a higher COGS and lower net income compared to LIFO. The FIFO method would result in the highest net income in times of rising prices, not falling prices, because it would use the cost of the oldest (and therefore cheapest) inventory first, minimizing COGS.

**C is incorrect.** The weighted average method smooths out price fluctuations by calculating COGS based on the average cost of all inventory available during the period. While this method may lead to a COGS that is lower than FIFO's during times of falling prices, it does not typically result in a COGS as low as LIFO's. Therefore, the net income under the weighted average method would be higher than under FIFO but lower than under LIFO in a falling price environment. The weighted average method does not specifically target the most recent or the oldest inventory costs but rather uses a blend, which does not optimize net income as effectively as LIFO does in these circumstances.

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Q.1969 A firm following IFRS reports its inventory with the carrying value of \$450,000. If the net realizable value of inventory is \$500,000, then the amount of the gain/loss on write-down of inventory is *closest to*:

- A. \$0.
- B. a \$50,000 loss.
- C. a \$50,000 gain

The correct answer is **A**.

Under IFRS, inventory value is written down if the carrying value of inventory is greater than the net realizable value (NRV) (or the selling price minus the selling cost). Since the carrying value of inventory is less than the NRV, the inventory will not be written down, and no loss will be recognized.

**B and C are incorrect.** Contradicts option A.

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Q.1971 Core Corp. has an inventory with a carrying value of \$12,000 with the additional data given below.

Selling Price	\$8,000
Selling Cost	\$1,500
Normal Profit	\$2,000
Replacement Cost	\$5,500

The current inventory value after adjustments if Core reports under IFRS is *closest to*:

- A. \$4,500
- B. \$5,500
- C. \$6,500

The correct answer is C.

Under International Financial Reporting Standards (IFRS), inventory must be reported at the lower of cost and net realizable value (NRV). The NRV is the estimated selling price in the ordinary course of business, minus the estimated costs of completion and the estimated costs necessary to make the sale. In this case, the NRV can be calculated as follows:

$$\text{NRV} = \text{Selling Price} - \text{Selling Cost} = \$8,000 - \$1,500 = \$6,500$$

Given that the carrying value of the inventory is \$12,000, which is higher than the NRV, the inventory should be written down to its NRV of \$6,500 according to IFRS. This adjustment ensures that the inventory is not overstated on the balance sheet and reflects a more accurate financial position of Core Corp.

**A is incorrect.** Represents the loss after the inventory write-down less the normal profit.

**B is incorrect.** Represents the loss after the inventory write down.

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Q.1972 Core Corp., an agricultural company, reports under IFRS and its inventory was written down to \$6,500. The original value of the inventory was \$8,000. However, due to a shortage in supply, the Net Realizable Value (NRV) of inventory recently increased to \$8,000. Which of the following is *most likely* the value of the write-up of inventory?

- A. \$0
- B. \$1,500
- C. \$2,000

The correct answer is **B**.

Under IFRS, the inventory can be written up (reversed) later if the value of inventory is recovered. These reversals must be recognized in the period in which they occur and are limited to the amount of the original write-down. The NRV of inventory increased from \$6,500 to \$8,000, there will be a write-up of inventory by \$1,500.

**A is incorrect.** Under U.S. GAAP, no write-up is allowed.

**C is incorrect.** The value of the write-up can be computed as  $\$8,000 - \$6,500 = \$1,500$ .

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Q.2174 Identify the *most appropriate* statement regarding the First-In, First-Out (FIFO) method.

- A. In FIFO, the COGS is valued based on the most recently purchased inventory.
- B. In FIFO, the ending inventory is valued based on the most recently purchased inventory.
- C. The beginning inventory is always the same under FIFO and the Specific identification method.

The correct answer is **B**.

In the First-In, First-Out (FIFO) method of inventory, valuation of the COGS is calculated based on the earliest purchased inventory, while ending inventory is valued based on the most recently purchased inventory.

**A is incorrect.** Valuing COGS based on the most recently purchased inventory is the LIFO method.

**C is incorrect.** Specific identification method keeps track of each specific item in inventory and assigning cost individually and is used when a company can identify, mark, and track each unit in its inventory, unlike FIFO that groups items together.

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Q.2175 Which of the following cost valuation methods will *most likely* result in the lowest tax expenses during a period of inflation?

- A. FIFO.
- B. LIFO.
- C. Weighted average cost.

The correct answer is **B**.

Under LIFO, the cost of goods sold (COGS) is calculated using the prices of the most recently acquired inventory. In an inflationary environment, these prices are higher than those of inventory purchased earlier. Consequently, reporting higher COGS reduces the taxable income, leading to lower tax expenses. This approach aligns with the principle of matching current costs with current revenues, providing a more accurate reflection of the company's financial performance during inflation.

**A is incorrect.** The First In, First Out (FIFO) method calculates COGS based on the cost of the oldest inventory. During inflation, these costs are lower than the costs of more recently acquired inventory. As a result, FIFO leads to a lower COGS and a higher taxable income compared to LIFO. This increases the company's tax expenses, making FIFO less advantageous in periods of inflation. The primary benefit of FIFO is that it may better match the actual physical flow of goods in some businesses, but this does not translate to tax efficiency during inflationary times.

**C is incorrect.** The weighted average cost method calculates COGS and ending inventory value by averaging the costs of all items available for sale during the period. This method smooths out price fluctuations over the accounting period but does not specifically account for the effects of inflation as effectively as LIFO. In an inflationary period, the weighted average cost will typically result in a COGS that is lower than LIFO but higher than FIFO. Consequently, it leads to higher taxable income and tax expenses than LIFO but lower than FIFO. While the weighted average cost method provides a middle ground in terms of tax efficiency during inflation, it does not offer the lowest tax expenses compared to LIFO.

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Q.2176 Which of the following cost valuation methods is *most likely* to increase the current ratio during a period of inflation?

- A. FIFO.
- B. LIFO.
- C. Weighted average cost.

The correct answer is **A**.

In the First In, First out (FIFO) inventory method, ending inventory is valued based on the most recently purchased inventory. Since the inventory (a current asset) is higher under the FIFO method, the current ratio (current assets/current liabilities) is highest under the FIFO method during a period of inflation.

**B is incorrect.** Under LIFO, ending inventory will be valued using the earliest purchased inventory. During a period of inflation, ending inventory will have a lower value compared to the FIFO method. A lower inventory will result in a lower current asset value and a lower current ratio.

**C is incorrect.** The weighted average cost assigns an average cost during the accounting period to both COGS and inventory. Therefore, the cost per unit, even during the period of inflation, will be the same. This will not affect inventory value.

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Q.2177 Which of the following statements related to the weighted average cost method is *most accurate*?

- A. During inflationary periods, inventory values generated by the weighted average cost method will be higher than last-in, first-out (LIFO) values but lower than first-in, first-out (FIFO) values.
- B. During inflationary periods, inventory values generated by the weighted average cost method will be higher than first-in, first-out (FIFO) values but lower than last-in, first-out (LIFO) values.
- C. During inflationary periods, inventory values generated by the weighted average cost method will be the same in first-in, first-out (FIFO), and last-in, first-out (LIFO) values.

The correct answer is **A**.

The weighted average cost method calculates inventory and cost of goods sold based on the average cost of all items in inventory, regardless of when they were purchased. This method smooths out price fluctuations over the accounting period by averaging the costs. During inflationary periods, when prices are rising, the cost of goods sold under the weighted average cost method will be lower than under the Last-In, First-Out (LIFO) method but higher than under the First-In, First-Out (FIFO) method. This is because LIFO assumes that the most recently acquired (and presumably more expensive) items are sold first, leading to a higher cost of goods sold and a lower ending inventory value. Conversely, FIFO assumes that the oldest (and presumably cheaper) items are sold first, resulting in a lower cost of goods sold and a higher ending inventory value. The weighted average cost method falls in between these two extremes, as it averages the cost of all items.

**B is incorrect.** FIFO, which uses the oldest costs first, will generally report higher inventory values during inflation than the weighted average method, which uses a blend of old and new costs. LIFO, which uses the newest costs first, will generally report the lowest inventory values during inflation.

**C is incorrect.** Each method uses a different approach to valuing inventory and cost of goods sold. FIFO assumes the oldest items are sold first, leading to higher inventory values during inflation. LIFO assumes the newest items are sold first, leading to lower inventory values during inflation. The weighted average cost method averages the cost of all items, resulting in inventory values that are between those calculated by FIFO and LIFO.

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Q.2179 An electronic appliances trading company acquires units of LCD TVs on a monthly basis. The accountant of the firm is unsure whether to use the first-in, first-out (FIFO) method or the last-in, first-out (LIFO) method. He has given you the following information:

Date		No. of Units
1-Oct	Buy LCD TVs @ \$300	600
8-Oct	Buy LCD TVs @ \$370	450
22-Oct	Buy LCD TVs @ \$400	300
30-Oct	Sold LCD TVs	800

Using the data given in the table, the difference between the values of FIFO ending inventory and LIFO ending inventory is *closest to*:

- A. \$47,500.
- B. \$81,700.
- C. \$254,000.

The correct answer is **A**.

Since the COGS of 800 units under LIFO is \$301,500 and under FIFO is \$254,000, the difference in COGS due to the difference in valuation methods is \$47,500. (Using the following table)

LIFO	No. of Units	Dollar Value
Sold @\$400	300	\$120,000
Sold @\$370	450	\$166,500
Sold @\$300	50	\$15,000
COGS	800	\$301,500
Ending Inventory @\$300	550	\$165,000

  

FIFO	No. of Units	Dollar Value
Sold @\$300	600	\$180,000
Sold @\$370	200	\$74,000
COGS	800	\$254,000
Ending Inventory @\$370	250	\$92,500
Ending Inventory @\$400	300	\$120,000
Total Ending Inventory	550	\$212,500

Therefore;

$$\$212,500 - \$165,000 = \$47,500$$

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*inventory costs affect the financial statements and ratios of companies that use different inventory valuation methods.*

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Q.2180 An electronic appliances trading company acquires units of LCD TVs on a monthly basis. Using the data given in the following table, determine which valuation system will provide higher Ending inventory.

Date		No. of Units
1-Oct	Buy LCD TVs @ \$300	600
8-Oct	Buy LCD TVs @ \$370	450
22-Oct	Buy LCD TVs @ \$400	250
30-Oct	Sold LCD TVs	800

- A. FIFO Ending Inventory of \$192,500
- B. LIFO Ending Inventory of \$150,000
- C. FIFO Ending Inventory of \$150,000

The correct answer is **A.**

The situation described is an inflationary environment. During a period of increasing prices, the LIFO COGS will be higher than FIFO COGS and LIFO Ending Inventory will be lower than FIFO Ending inventory. Therefore, FIFO will result in a higher inventory of \$192,500 while LIFO Ending inventory will be \$150,000 (Using the following table)

LIFO	No. of Units	Dollar Value
Sold @\$400	250	\$100,000
Sold @\$370	450	\$166,500
Sold @\$300	100	\$30,000
COGS	800	\$296,500
Ending Inventory @\$300	500	\$150,000

  

FIFO	No. of Units	Dollar Value
Sold @\$300	600	\$180,000
Sold @\$370	200	\$74,000
COGS	800	\$254,000
Ending Inventory @\$370	250	\$92,500
Ending Inventory @\$400	250	\$100,000
Total Ending Inventory	500	\$192,500

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Q.2181 A toys company based in Dubai purchases its inventory weekly. On July 1st, the firm purchased 100 units of goods for \$120 and, on July 8th, the firm purchased another 80 units of goods for \$125. Assuming that the firm sold 120 units of goods for \$130/unit, and its operating expenses are \$200, the gross profit under the FIFO inventory method is *closest to*?

- A. \$400
- B. \$1,100
- C. \$1,200

The correct answer is **B**.

$$\begin{aligned}\text{COGS for 120 units under FIFO} &= [(100 \text{ units} \times \$120 \text{ per unit}) + (20 \text{ units} \times \$125 \text{ per unit})] \\ &= \$14,500\end{aligned}$$

$$\begin{aligned}\text{Revenue generated from sales} &= 120 \text{ units} \times \$130 \\ &= \$15,600\end{aligned}$$

$$\begin{aligned}\text{Gross Profit} &= \text{Revenues} - \text{COGS} \\ &= \$15,600 - \$14,500 \\ &= \$1,100\end{aligned}$$

**Points to note:**

The FIFO method assumes that inventory purchased or manufactured first is sold first and newer inventory remains unsold. Thus, the COGS are computed using the oldest costs.

Although a total of 180 units have been purchased, only 120 have been sold. Thus, we should compute our profit as per the number of units sold; the profit for 120 units.

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Q.2185 A US-based firm supplies small quantities of fuel for generators of small businesses in remote areas. Considering the recent increase in oil prices, the impact on the firm's working capital, if the firm uses the FIFO method, is *most likely*?

- A. Working capital will be lower.
- B. Working capital will be higher.
- C. Working capital will remain unchanged.

The correct answer is **B**.

When a US-based firm that supplies small quantities of fuel for generators of small businesses in remote areas faces an increase in oil prices, the impact on the firm's working capital, if the firm uses the FIFO (First-In, First-Out) method, is significant. The FIFO method assumes that the costs of the earliest goods purchased are the first to be recognized in determining the cost of goods sold. During periods of inflation or rising prices, the FIFO method results in lower cost of goods sold and higher remaining inventory values compared to other inventory valuation methods. This is because the older, lower-cost items are recorded as sold first, leaving the newer, higher-cost items in inventory. Consequently, the ending inventory value is higher, which directly affects the firm's working capital.

Working capital is calculated as current assets minus current liabilities. A higher ending inventory value, as a result of using the FIFO method during a period of rising prices, increases the firm's current assets. This increase in current assets leads to an increase in working capital. Therefore, in the context of rising oil prices, a firm using the FIFO method would most likely experience an increase in working capital due to the higher valuation of its inventory.

**A is incorrect.** The FIFO method, by accounting for the cost of goods sold based on the oldest (and typically lower) prices, results in a higher ending inventory value. This increase in inventory value contributes to an increase, not a decrease, in working capital. Therefore, this option does not accurately reflect the impact of the FIFO method on working capital in the scenario of rising oil prices.

**C is incorrect.** However, the FIFO method's impact on inventory valuation during periods of inflation directly influences working capital. As prices rise, the cost of newer inventory increases, but the FIFO method leads to the recognition of older, lower-cost inventory as the cost of goods sold. This results in a higher ending inventory value, which increases current assets and, consequently, working capital. This option fails to account for the dynamic nature of inventory valuation and its effects on working capital.

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Q.2186 Which of the following conditions will *most likely* result in the highest net cash flow from operating activities during the period of rising prices?

- A. LIFO method during rising prices.
- B. FIFO method during rising prices.
- C. Cash flows will be the same under both methods.

The correct answer is **B**.

When considering the impact of inventory accounting methods on net cash flow from operating activities during periods of rising prices, the FIFO (First-In, First-Out) method is likely to result in higher net cash flows compared to the LIFO (Last-In, First-Out) method. This outcome is primarily due to the differences in how each method accounts for the cost of goods sold (COGS).

Under the FIFO method, the oldest inventory items are considered sold first. During periods of rising prices, these older items typically have a lower cost compared to the more recently acquired inventory. As a result, the FIFO method reports lower COGS and, consequently, higher gross profits. Since net cash flow from operating activities is positively influenced by higher profits (due to the reduction in taxable income and thus, taxes paid), companies using the FIFO method generally report higher net cash flows in such economic conditions.

**A is incorrect.** The cost of the more recently acquired inventory (which is higher in a rising price environment) is recognized earlier. Additionally, the LIFO method can lead to a phenomenon known as LIFO liquidation, which can further complicate financial analysis and tax planning.

**C is incorrect.** The assertion that cash flows will be the same under both methods overlooks the fundamental differences in how the FIFO and LIFO methods calculate COGS and, by extension, gross profit. The impact of inventory accounting methods on cash flows is particularly pronounced in periods of significant price changes, making the claim that cash flows remain unaffected under both methods inaccurate.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 6: Analysis of Inventories, LOS 6b: calculate and explain how inflation and deflation of inventory costs affect the financial statements and ratios of companies that use different inventory valuation methods.***

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Q.2187 Identify the relationships that are *least likely* to hold during deflationary periods.

- I. LIFO COGS > FIFO COGS
- II. LIFO Inventory > FIFO Inventory
- III. LIFO Net Income > FIFO Net Income
- IV. LIFO Taxes < FIFO Taxes

A. I & IV

B. II & III

C. III & IV

The correct answer is A.

During deflationary periods, the relationship between inventory costing methods and their impact on financial statements becomes particularly pronounced. The Last In, First Out (LIFO) and First In, First Out (FIFO) methods yield different results in terms of Cost of Goods Sold (COGS), inventory valuation, net income, and taxes due to the changes in the prices of goods.

This means that LIFO COGS will be lower than FIFO COGS because LIFO will be selling off the cheaper, more recently acquired goods first. As a result, LIFO will report higher net income and, consequently, higher taxes than FIFO. This is because lower COGS under LIFO leads to higher profits before taxes, which in turn leads to higher tax expenses. Therefore, statements I and IV accurately reflect the relationships that are least likely to hold during deflationary periods.

**B is incorrect.** Under LIFO, the more expensive, earlier acquired goods remain in inventory, leading to a higher inventory valuation compared to FIFO, where the cheaper, more recently acquired goods are left in inventory.

**C is incorrect.** As explained, during deflationary periods, LIFO COGS will be lower due to the sale of more recently acquired, cheaper goods.

In summary, the key distinctions between LIFO and FIFO during deflationary periods revolve around how the timing of cost recognition affects COGS, net income, and taxes. LIFO's approach of selling the most recently acquired (and during deflation, cheaper) inventory first results in lower COGS, higher net income, and higher taxes compared to FIFO, which sells the oldest (and during deflation, more expensive) inventory first.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 6: Analysis of Inventories, LOS 6b: calculate and explain how inflation and deflation of inventory costs affect the financial statements and ratios of companies that use different inventory valuation methods.***

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Q.2190 Avant-Gard Company is based in the US and reports under US GAAP. However, most of its operations have recently shifted to the European market. Assuming that the company has converted from LIFO to FIFO, determine the changes in the cash balance for the fiscal year that ended in 2016.

### Balance Sheet

	2017	2016	2015
LIFO Inventory	\$97,000	\$89,000	
Cash	\$276,000	\$225,000	
Current Liabilities	\$73,000	\$84,000	
Loans	\$100,000	\$50,000	
Equity	\$200,000	\$180,000	

### Income Statement

	2017	2016	2015
Sales	\$410,000	\$375,000	
COGS	\$230,000	\$215,000	
Gross Profit	\$180,000	\$160,000	
Operating Exp.	\$80,000	\$75,000	
EBIT	\$100,000	\$85,000	
Taxes (30%)	\$30,000	\$25,500	
Net Income	\$70,000	\$59,500	
LIFO Reserves	\$19,500	\$13,000	\$10,500

- A. Cash will increase by \$750.
- B. Cash will decrease by \$750.
- C. Cash will remain unchanged.

The correct answer is **B**.

If the firm converts its LIFO COGS to FIFO COGS, its Net Income and Taxes will increase.

$$\begin{aligned}
 \text{FIFO COGS for 2016} &= \text{COGS} - [\text{Ending Reserve} - \text{Beginning LIFO Reserve}] \\
 &= \$215,000 - \$13,000 - \$10,500 \\
 &= \$212,500
 \end{aligned}$$

Therefore, Taxable Income (EBIT) for the year is \$87,500 and Taxes are increased by \$750 i.e., (FIFO Taxes \$26,250 – LIFO Taxes \$25,500).

Hence, additional Taxes will decrease Cash by \$750.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 6: Analysis of Inventories, LOS 6a: describe the measurement of inventory at the lower of cost and net realisable value and its implications for financial statements and ratios.***

Q.2191 Avant-Gard Company is based in the US and reports under US GAAP. However, most of its operations have recently shifted to the European market. Assuming that the company has converted from LIFO to FIFO, the current ratio for the fiscal year that ended in 2016 is *most likely*?

#### Balance Sheet

	2017	2016	2015
LIFO Inventory	\$97,000	\$89,000	
Cash	\$276,000	\$225,000	
Current Liabilities	\$73,000	\$84,000	
Loans	\$100,000	\$50,000	
Equity	\$200,000	\$180,000	

#### Income Statement

	2017	2016	2015
Sales	\$410,000	\$375,000	
COGS	\$230,000	\$215,000	
Gross Profit	\$180,000	\$160,000	
Operating Exp.	\$80,000	\$75,000	
EBIT	\$100,000	\$85,000	
Taxes (30%)	\$30,000	\$25,500	
Net Income	\$70,000	\$59,500	
LIFO Reserves	\$19,500	\$13,000	\$10,500

- A. \$3.7
- B. \$3.88
- C. \$4.14

The correct answer is **B**.

If the firm converts its LIFO COGS to FIFO COGS, its Net Income and Taxes will Increase.

$$\begin{aligned}
 \text{FIFO COGS for 2016} &= \text{COGS} - [\text{Ending Reserve} - \text{Beginning LIFO Reserve}] \\
 &= \$215,000 - \$13,000 - \$10,500 \\
 &= \$212,500
 \end{aligned}$$

Therefore, Taxable Income (EBIT) for the year is \$87,500 and Taxes increase by \$750 = (FIFO Taxes) \$26,250 - (LIFO Taxes) \$25,500.

Hence, additional Taxes will decrease Cash by \$750.

To convert LIFO Inventory to FIFO, LIFO reserve is added.

$$\begin{aligned}
 \text{FIFO Inventory} &= \text{Inventory} + \text{Reserve} \\
 &= \$89,000 + \$13,000 \\
 &= \$102,000 \\
 &\quad (\$102,000 + \$224,250) \\
 \text{Current ratio under FIFO} &= \frac{\$102,000}{\$84,000} \\
 &= 3.88
 \end{aligned}$$

Note: \$224,250 comes from \$225,000 (Cash) – \$750 (Increase in Cash Taxes).

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 6: Analysis of Inventories, LOS 6a: describe the measurement of inventory at the lower of cost and net realisable value and its implications for financial statements and ratios.**

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Q.2192 Avant-Gard Company is based in the US and reports under US GAAP. However, most of its operations have recently shifted to the European market. Assuming that the company has converted from LIFO to FIFO, calculate the percentage change in net profit margin for the fiscal year that ended in 2017.

Balance Sheet

	2017	2016	2015
LIFO Inventory	\$97,000	\$89,000	
Cash	\$276,000	\$225,000	
Current Liabilities	\$73,000	\$84,000	
Loans	\$100,000	\$50,000	
Equity	\$200,000	\$180,000	

Income Statement

	2017	2016	2015
Sales	\$410,000	\$375,000	
COGS	\$230,000	\$215,000	
Gross Profit	\$180,000	\$160,000	
Operating Exp.	\$80,000	\$75,000	
EBIT	\$100,000	\$85,000	
Taxes (30%)	\$30,000	\$25,500	
Net Income	\$70,000	\$59,500	
LIFO Reserves	\$19,500	\$13,000	\$10,500

- A. 1.11%
- B. 6.5%
- C. 17.07%

The correct answer is **B**.

$$\begin{aligned}\text{The LIFO Profit Margin for 2017} &= \frac{\text{Net Income}}{\text{Sales}} \\ &= \frac{\$70,000}{\$410,000} \\ &= 17.07\%\end{aligned}$$

$$\begin{aligned}\text{FIFO COGS} &= \text{LIFO COGS} - [\text{Ending LIFO Reserve} - \text{Ending FIFO Reserve}] \\ &= \$230,000 - [\$19,500 - \$13,000] \\ &= \$223,500\end{aligned}$$

$$\begin{aligned}\text{Net Income} &= [\text{Sales} - \text{FIFO COGS} - \text{Operating exp}] \times (1 - 30\%) \\ &= [410,000 - 223,500 - \$80,000] \times (1 - 30\%) \\ &= \$74,550 \\ \text{Profit margin} &= \frac{74,550}{410,000} \\ &= 18.18\%\end{aligned}$$

The question asks for the percentage change in net profit margin;

$$\frac{(18.18\% - 17.07\%)}{17.07\%} = 6.5\%$$

*CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 6: Analysis of Inventories, LOS 6a: describe the measurement of inventory at the lower of cost and net realisable value and its implications for financial statements and ratios.*

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Q.2193 Estimate the impact on the inventory turnover ratio if a firm converts its inventory valuation method from LIFO to the FIFO during a period of rising prices.

- A. The Inventory turnover ratio increases.
- B. The Inventory turnover ratio decreases.
- C. The Inventory turnover ratio remains unchanged.

The correct answer is **B**.

When a firm switches its inventory valuation method from LIFO (Last In, First Out) to FIFO (First In, First Out) during a period of rising prices, the inventory turnover ratio is expected to decrease. This outcome is due to the nature of how each inventory valuation method accounts for the cost of goods sold (COGS) and ending inventory. Under FIFO, the oldest inventory costs are assigned to COGS, which, in a period of rising prices, are typically lower than the more recent costs. Consequently, COGS reported under FIFO will be lower compared to LIFO, where the newest inventory costs are used. Additionally, the ending inventory balance under FIFO will be higher because it reflects the most recent, higher inventory costs. The inventory turnover ratio, calculated as COGS divided by average inventory, will decrease because the denominator (average inventory) increases while the numerator (COGS) decreases or remains relatively lower.

**A is incorrect.** The ratio's denominator (average inventory) increases, leading to a lower turnover ratio, contrary to what option A suggests.

**C is incorrect.** While it might seem intuitive to some that changing inventory valuation methods would not affect the inventory turnover ratio, this is not the case. The inventory turnover ratio is sensitive to changes in both COGS and ending inventory values, both of which are directly impacted by the inventory valuation method used. Switching from LIFO to FIFO in a period of rising prices leads to a decrease in COGS and an increase in ending inventory values, thereby affecting the inventory turnover ratio. This demonstrates that the inventory turnover ratio does indeed change with a change in inventory valuation methods, refuting the notion that it remains unchanged.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 6: Analysis of Inventories, LOS 6b: calculate and explain how inflation and deflation of inventory costs affect the financial statements and ratios of companies that use different inventory valuation methods.***

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Q.2195 Compare the fixed asset turnover ratio under the FIFO and the LIFO methods of inventory valuation.

- A. The Fixed asset turnover ratio is lower under FIFO.
- B. The Fixed asset turnover ratio is higher under FIFO.
- C. The Fixed asset turnover ratio is the same under FIFO and LIFO.

The correct answer is C.

The Fixed Asset Turnover (FAT) ratio is a key performance metric that measures a company's efficiency in generating sales from its fixed assets. It is calculated by dividing the net sales by the average fixed assets for a period. The choice of inventory valuation method, whether FIFO (First-In, First-Out) or LIFO (Last-In, First-Out), primarily affects the inventory and cost of goods sold but does not directly impact the calculation of the Fixed Asset Turnover ratio. This is because the FAT ratio focuses on fixed assets, which include property, plant, and equipment, and excludes current assets like inventory. Therefore, regardless of whether a company uses FIFO or LIFO for inventory valuation, the outcome on the FAT ratio remains unchanged.

**A is incorrect.** The FAT ratio is concerned with how effectively a company uses its fixed assets to generate sales, and since fixed assets are not influenced by inventory accounting methods, the choice between FIFO and LIFO does not alter the FAT ratio. The misconception might arise from confusing the impact of inventory valuation methods on profitability and liquidity ratios with their non-existent impact on asset turnover ratios.

**B is incorrect.** As previously explained, the FAT ratio is calculated independently of inventory valuation methods. The ratio assesses the efficiency of fixed assets in generating sales, and since fixed assets are distinct from inventory, the FIFO or LIFO choice has no bearing on the FAT ratio. This option fails to recognize that the FAT ratio's purpose is to evaluate the productivity of long-term assets rather than the effects of inventory management strategies on operational efficiency.

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 6: Analysis of Inventories, LOS 6b: calculate and explain how inflation and deflation of inventory costs affect the financial statements and ratios of companies that use different inventory valuation methods.**

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Q.2196 Estimate the impact on the debt-to-equity ratio due to a conversion from the LIFO inventory system to the FIFO inventory system in a period of rising prices.

- A. The Debt-to-equity ratio increases under FIFO.
- B. The Debt-to-equity ratio decreases under FIFO.
- C. The Debt-to-equity ratio remains unchanged under FIFO.

The correct answer is **B**.

Converting from the Last In, First Out (LIFO) inventory system to the First In, First Out (FIFO) system in a period of rising prices has a significant impact on a company's financial ratios, including the debt-to-equity ratio. Under FIFO, the cost of goods sold (COGS) is based on the prices of the earliest goods purchased, which, in a period of rising prices, are lower than the prices of goods purchased more recently. This results in a higher reported net income and, consequently, a higher ending inventory value on the balance sheet compared to LIFO.

The increase in ending inventory value leads to an increase in total assets, which, assuming equity increases by the same amount (net income is added to retained earnings, a component of equity), results in an increase in total equity. The debt-to-equity ratio is calculated as total liabilities divided by total equity.

**A is incorrect.** It suggests that the debt-to-equity ratio increases under FIFO, which contradicts the effects of FIFO accounting in a period of rising prices. Under FIFO, the higher ending inventory value increases total assets and equity, assuming no change in liabilities, which leads to a decrease, not an increase, in the debt-to-equity ratio. This misunderstanding might arise from not considering the impact of FIFO on net income and subsequently on equity.

**C is incorrect.** It implies that the choice of inventory accounting method (LIFO vs. FIFO) does not affect the debt-to-equity ratio. This overlooks the fact that the inventory valuation method directly influences the cost of goods sold, net income, and ending inventory value, all of which affect a company's balance sheet and, consequently, its financial ratios. The assumption that the debt-to-equity ratio remains unchanged under FIFO fails to account for the increase in equity resulting from the higher net income and ending inventory value reported under FIFO in a period of rising prices.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 6: Analysis of Inventories, LOS 6b: calculate and explain how inflation and deflation of inventory costs affect the financial statements and ratios of companies that use different inventory valuation methods.***

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Q.3783 An artifact collecting company wrote down the value of a pottery vessel from \$ 220,000 to \$100,000. It later discovered that the pottery vessel was supposed to be valued at \$ 1,000,000. Determine the amount reported on the balance sheet if the company uses IFRS to report its financial statements?

- A. \$100,000
- B. \$220,000
- C. \$1,000,000

The correct answer is **B**.

Under International Financial Reporting Standards (IFRS), companies are allowed to reverse write-downs if the net realizable value of an asset increases after the write-down. This means that if an asset's value was previously written down, and later evidence suggests that the value has increased, the company can reverse some or all of the write-down, but only up to the amount of the original write-down.

In the case of the artifact collecting company, the pottery vessel was initially valued at \$220,000, then written down to \$100,000. Upon discovering that the vessel should be valued at \$1,000,000, the company can reverse the write-down.

However, according to IFRS, the reversal cannot exceed the amount of the original write-down. Therefore, the maximum amount that can be added back to the asset's carrying amount is \$120,000 (the difference between the original value of \$220,000 and the written-down value of \$100,000), bringing the reported value on the balance sheet to \$220,000.

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Q.3784 Consider the table below.

	Purchases	Sales
1st January	4,000 units at \$5 per unit	
2nd March		3,700 units at \$10 per unit
20th March	3,000 units at \$10 per unit	
28th March		2,700 units at \$15 per unit
Total	7,000 units	6,400 units

Calculate the company's cost of sales on 28th March if it uses the perpetual weighted average cost method.

- A. \$18,500
- B. \$25, 785
- C. \$40,500

The correct answer is **B**.

$$\text{Weighted Average Cost} = \frac{\text{Total Cost of goods available for sale}}{\text{Total units available for sale}}$$

Before March 2<sup>nd</sup> sale:

$$\text{Weighted Average Cost} = \frac{4,000 \times 5}{4,000} = \$5/\text{unit}$$

Before 28<sup>th</sup> March sale:

$$\text{Weighted Average Cost} = \frac{\{(4,000 - 3,700)\} \times 5 + (3,000 \times 10)}{3300} = \$9.55/\text{unit}$$

The cost of sales for the 28<sup>th</sup> March sale is, therefore,  $2,700 \times 9.55 = 25,785$

**A is incorrect.** It represents the cost of sales for 2<sup>nd</sup> March.

**C is incorrect.** It represents the sales for 28<sup>th</sup> March and not the weighted average cost of sales.

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 6: Analysis of Inventories, LOS 6a: compare the financial reporting of the following types of intangible assets: purchased, internally developed, and acquired in a business combination.**

Q.3786 The table below summarizes the purchases and sales of a company during the second quarter of its current financial year.

1 May	Purchased 43,000 units at \$ 15 per unit
7 May	Sold 30,000 units at \$ 23 per unit
15 June	Purchased 47,000 units at \$ 17 per unit
3 July	Sold 40,000 units at \$ 25 per unit

Based on the table above, determine the difference between the company's ending inventory under FIFO and perpetual LIFO.

- A. \$314,000
- B. \$26,000
- C. \$340,000

The correct answer is **B**.

To calculate the difference between the company's ending inventory under FIFO (First-In, First-Out) and perpetual LIFO (Last-In, First-Out), we first need to calculate the ending inventory under both methods.

#### **FIFO:**

Under FIFO, the first goods purchased are the first ones to be sold. So, the ending inventory consists of the most recently purchased goods.

- 43,000 units were purchased on May 1 at \$15/unit.
- 30,000 of these units were sold on May 7, leaving 13,000 units from the May 1 purchase.
- 47,000 units were purchased on June 15 at \$17/unit.
- 40,000 units were sold on July 3. Since we're using FIFO, the 13,000 units remaining from the May 1 purchase will be sold first, and then 27,000 out of the 47,000 units from the June 15 purchase will be sold. This leaves 20,000 units from the June 15 purchase.

So, the ending inventory under FIFO is 20,000 units at \$17/unit = \$340,000.

#### **Perpetual LIFO:**

Under perpetual LIFO, the last goods purchased are the first ones to be sold. So, the ending inventory consists of the earliest purchased goods.

- 43,000 units were purchased on May 1 at \$15/unit.
- 30,000 of these units were sold on May 7, leaving 13,000 units from the May 1 purchase.
- 47,000 units were purchased on June 15 at \$17/unit.
- 40,000 units were sold on July 3. Since we're using LIFO, 40,000 units of the 47,000 units purchased on June 15 will be sold first, leaving the firm with a balance of 7,000 units. Total ending inventory will be this 7,000 units in addition to the earlier 13,000 units that were remaining from the previous sale.

So, the ending inventory under LIFO is 7,000 units at \$17/unit = \$1190,000 plus 13,000 units at \$15/unit. Giving a total value of \$314,000.

The difference between the ending inventory under FIFO and perpetual LIFO is \$340,000 - \$314,000 = \$26,000.

**A is incorrect.** It represents the ending inventory under perpetual LIFO

**C is incorrect.** It represents the ending inventory under FIFO.

*CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 6: Analysis of Inventories, LOS 6a: compare the financial reporting of the following types of intangible assets: purchased, internally developed, and acquired in a business combination.*

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Q.3787 ABC Company values its inventory using the LIFO method. In its 2018 financial statement, ABC company had inventory worth \$500 Million. The company's LIFO reserve for 2018 is 80 million. Suppose the company had used FIFO instead of LIFO, its reported inventory would have been *closest to*:

- A. \$420,000,000
- B. \$500,000,000
- C. \$580,000,000

The correct answer is **C**.

$$\begin{aligned}\text{Inventory value using the FIFO method} &= \text{Inventory value using the LIFO method} \\ &\quad + \text{LIFO Reserve}\end{aligned}$$

$$\begin{aligned}\text{Inventory using the FIFO method} &= \$500,000,000 + \$80,000,000 \\ &= \$580,000,000\end{aligned}$$

**B is incorrect.** It is the inventory value using the LIFO method

**A is incorrect.** The LIFO reserve has been incorrectly added to the inventory value using LIFO. It should be subtracted.

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Q.4785 Under IFRS, when the net realizable value of inventory increases after a previous write-down, the reversal is limited to what amount?

- A. The amount of the original write-down.
- B. There is no limit to the amount of the reversal.
- C. The difference between the current market value and the previous carrying amount.

The correct answer is **A**.

The reversal of a previous write-down under IFRS is limited to the amount of the original write-down.

**B is incorrect.** Under IFRS, the reversal of a write-down is limited to the amount of the original write-down to prevent the carrying amount from exceeding the amount that would have been determined had no write-down occurred.

**C is incorrect:** The question specifically relates to the limitations on the amount that can be reversed under IFRS. The difference between the current market value and the previous carrying amount is not the criterion used to determine the reversal limit; it is the amount of the original write-down.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 6: Analysis of Inventories, LOS 6a: describe the measurement of inventory at the lower of cost and net realisable value and its implications for financial statements and ratios***

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Q.4786 Which of the following best describes the measurement of inventory under US GAAP after December 15, 2016, for companies not using the LIFO or retail inventory methods?

- A. Lower of cost or historical cost
- B. Lower of cost or net realizable value
- C. Lower of cost or market, where market is the current replacement cost

The correct answer is **B**.

For fiscal years beginning after December 15, 2016, US GAAP requires inventory to be measured at the lower of cost or net realizable value for companies not using LIFO or retail inventory methods.

**A is incorrect.** The reference to "lower of cost or historical cost" is misleading because the historical cost is typically the basis for the "cost" in "lower of cost or net realizable value." It does not represent a separate measure from cost under US GAAP.

**C is incorrect.** This option refers to the older method of inventory valuation under US GAAP, where inventory could be measured at the lower of cost or market, with the market often interpreted as the current replacement cost. This method was superseded by the rule change.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 6: Analysis of Inventories, LOS 6a: describe the measurement of inventory at the lower of cost and net realisable value and its implications for financial statements and ratios***

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Q.4787 DarkMatter Technologies, a hypothetical company, uses the FIFO inventory method and prepares its financial statements in accordance with IFRS. In 2019, they reported a significant decline in market demand for their products, leading to substantial inventory write-downs. In 2020, market conditions improved, leading to a partial recovery of the previously written-down inventory values. How should DarkMatter Technologies reflect this recovery in their 2020 financial statements?

- A. Recognize the recovery as revenue in the income statement.
- B. No entry is required as the recovery of inventory values is not recognized under IFRS.
- C. Reverse the write-down up to the amount of the original write-down as a reduction in the cost of goods sold.

The correct answer is C.

Under IFRS, DarkMatter Technologies can reverse the inventory write-down, but only up to the amount of the original write-down, reflecting this as a reduction in the cost of goods sold.

**A is incorrect.** Recognizing the recovery as revenue would be inappropriate and incorrect according to IFRS, which specifies that such recoveries should adjust the cost of sales.

**B is incorrect.** This answer suggests no entry is required, which is incorrect. IFRS allows and requires the reversal of a previous write-down to be recognized, but only up to the amount of the original write-down, as a reduction in the cost of sales.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 6: Analysis of Inventories, LOS 6a: describe the measurement of inventory at the lower of cost and net realisable value and its implications for financial statements and ratios***

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Q.4788 During periods of deflation, how does the choice between FIFO and LIFO affect the company's net income, assuming a consistent decrease in inventory unit costs and constant sales prices?

- A. FIFO results in higher net income than LIFO.
- B. LIFO results in higher net income than FIFO.
- C. FIFO and LIFO result in the same net income.

The correct answer is **B**.

When inventory unit costs decline, LIFO allocates a lower amount of the total cost of goods available for sale to the cost of sales on the income statement and a higher amount to ending inventory on the balance sheet. Therefore, a company's gross profit, operating profit, and income before taxes will be higher.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 6: Analysis of Inventories, LOS 6b: calculate and explain how inflation and deflation of inventory costs affect the financial statements and ratios of companies that use different inventory valuation methods***

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Q.4789 In comparing companies that use FIFO and LIFO during a period of inflation, which statement is most accurate regarding their reported net income, and what implications does this have for analysts?

- A. Both companies will report similar net income.
- B. The company using LIFO will report higher net income, reflecting lower historical costs in COGS.
- C. The company using FIFO will report higher net income, reflecting current lower costs in COGS.

The correct answer is C.

FIFO results in lower COGS and higher net income because it assumes the oldest (and typically lower) costs are sold first. This increases gross profit and net income in times of rising prices. For analysts, this means FIFO companies may appear more profitable during inflationary periods, but their financial statements might not reflect the current cost pressures as accurately as those using LIFO.

**A and B are incorrect:** LIFO results in higher COGS and lower net income during inflation.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 6: Analysis of Inventories, LOS 6b: calculate and explain how inflation and deflation of inventory costs affect the financial statements and ratios of companies that use different inventory valuation methods.***

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Q.4790 When analyzing a company's inventory disclosures under IFRS, which aspect of the disclosures would provide the most direct insight into potential issues with inventory obsolescence?

- A. The total carrying amount of inventories.
- B. The amount of any reversal of any write-down recognized in the period.
- C. The carrying amount of inventories pledged as security for liabilities.

The correct answer is **B**.

Reversals of write-downs provide detailed insights into how much inventory was previously considered obsolete but later regained value. This information is crucial for understanding how management views inventory valuation changes in response to market conditions, indicating possible improvements in market demand or corrections of overly conservative write-downs.

**A is incorrect.** The total carrying amount gives an overall figure but does not detail specific issues like obsolescence. It shows the total value of inventories but lacks insight into their condition.

**C is incorrect.** Pledged inventories provide collateral information but not on obsolescence. This disclosure helps assess financial flexibility but not inventory quality.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 6: Analysis of Inventories, LOS 6c: describe the presentation and disclosures relating to inventories and explain issues that analysts should consider when examining a company's inventory disclosures and other sources of information***

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Q.4791 In a manufacturing company, a consistently large proportion of inventory classified as work in progress (WIP) could *most likely* signal which of the following potential issues?

- A. Strong demand for the company's products.
- B. Bottlenecks or inefficiencies in the production process.
- C. High efficiency in converting raw materials to finished goods.

The correct answer is **B**.

A large proportion of WIP indicates that items are getting stuck in the production process, pointing to bottlenecks, delays, or inefficiencies. This could be due to machinery breakdowns, labor shortages, or inefficient production planning, which analysts should investigate further.

**A is incorrect.** Strong demand should reduce WIP as goods are produced and sold quickly. High WIP would suggest the opposite.

**C is incorrect.** High efficiency would typically result in lower WIP as items quickly move to finished goods. Large WIP implies slower conversion rates.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 6: Analysis of Inventories, LOS 6c: describe the presentation and disclosures relating to inventories and explain issues that analysts should consider when examining a company's inventory disclosures and other sources of information.***

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Q.4792 Under IFRS, which of the following disclosures would *most likely* be crucial for understanding the reversibility of inventory write-downs, and why is this important for analysts?

- A. The total carrying amount of inventories.
- B. The carrying amount of inventories pledged as security for liabilities.
- C. The circumstances that led to the reversal of any inventory write-downs.

The correct answer is C.

Disclosing the circumstances of write-down reversals helps analysts understand the reasons behind inventory revaluation. This is important as it indicates improvements in market conditions, correction of previous valuation errors, or changes in the company's operational efficiency. Understanding these factors helps analysts evaluate the reliability of current inventory values and the potential for future adjustments.

**A is incorrect.** While important, it does not detail write-down reversals.

**B is incorrect.** This provides collateral information, not insights into write-down reversals.

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Q.4793 Which of the following is a potential red flag for analysts if they observe a company with an exceptionally high inventory turnover ratio combined with a significant increase in inventory write-downs?

- A. Efficient inventory management and strong sales.
- B. Reflects a strategy of maintaining low inventory levels to minimize storage costs.
- C. Potential manipulation of inventory values and overstatement of financial performance.

The correct answer is C.

A high turnover ratio should ideally indicate efficient inventory management and strong sales. However, if this is accompanied by significant inventory write-downs, it could indicate that the company is selling off inventory at lower prices or possibly manipulating inventory values to inflate turnover ratios. This discrepancy is a red flag for analysts, suggesting a potential overstatement of financial performance and mismanagement of inventory.

**A is incorrect.** High write-downs contradict the notion of efficient management.

**B is incorrect.** While low inventory levels are good, significant write-downs indicate deeper issues.

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