

## **Learning Module 2: Analyzing Income Statements**

Q.448 For its fiscal year-end, Brighter World Limited, a manufacturer of personal computers, reported a net income of \$800 million and a weighted average of 80,000,000 common shares outstanding. At the moment, there is a total of 4,000,000 convertible preferred shares outstanding that paid an annual dividend of \$8. Given that each preferred share is convertible into two shares of the common stock, the diluted EPS is *closest to*:

- A. \$8.72
- B. \$9.09
- C. \$11.11

The correct answer is **B**.

$$\begin{aligned}\text{Diluted EPS} &= \frac{\text{Net income}}{\text{Weighted average number of shares outstanding} + \text{New common shares that would be issued}} \\ &= \frac{\$800,000,000}{[80,000,000 + (4,000,000 \times 2)]} \\ &= \$9.09\end{aligned}$$

**A is incorrect.** Subtracts the preferred stock in the numerator:

$$= \frac{\$800,000,000 - [4,000,000 \times 8]}{[80,000,000 + (4,000,000 \times 2)]} = \$8.72$$

**C is incorrect.** New common share are subtracted in the denominator:

$$= \frac{\$800,000,000}{[80,000,000 - (4,000,000 \times 2)]} = \$11.11$$

### **Note:**

When it comes to calculating diluted earnings per share (EPS) for a company that has outstanding stock options, warrants, or their equivalent, the Treasury Stock method under US GAAP is used. In this case, we ought to assume that the 4,000,000 convertible preferred shares have been converted into ordinary shares, implying that no preferred dividends are paid. As such, we do not subtract preferred dividends from Net Income in the numerator.

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Q.457 Which of the following approach is *most likely* to be adopted during the analysis if the warranty expense in relation to sales of two identical companies is substantially different?

- A. Adjust the financials to increase the warranty expense to a higher level.
- B. Adjust the financials to decrease the warranty expense to a lower level.
- C. Review the trend of warranty claims received by the two companies and assess the need for adjustments.

The correct answer is **C**.

When analyzing the financials of two identical companies with substantially different warranty expenses in relation to sales, the most appropriate approach is to review the trend of warranty claims received by the two companies and assess the need for adjustments. This method allows analysts to understand the underlying reasons for the discrepancy in warranty expenses, which could be due to differences in product quality, customer usage patterns, or the efficiency of the warranty service process. By examining the trend of warranty claims, analysts can make informed decisions on whether adjustments to the financial statements are necessary to provide a fair comparison between the two companies. This approach aligns with the principle of providing accurate and relevant financial information to stakeholders.

**A is incorrect.** Simply adjusting the financials to increase the warranty expense to a higher level without a thorough analysis of the warranty claims and underlying reasons for the discrepancy may lead to misleading financial information. The matching principle in accounting requires that expenses be matched with the revenues they help to generate. Therefore, any adjustment to warranty expenses should be based on a detailed analysis of the actual warranty claims and the expected future claims, rather than arbitrarily increasing the expense level.

**B is incorrect.** for similar reasons as option A. Adjusting the financials to decrease the warranty expense to a lower level without a comprehensive review of the warranty claims and the factors contributing to the difference in expenses between the two companies could result in inaccurate financial reporting. The goal of financial analysis is to provide a true and fair view of a company's financial position and performance. Arbitrary adjustments to warranty expenses, without a proper understanding of the claims history and expectations, would violate this goal and could mislead stakeholders about the company's financial health and operational efficiency.

***CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2c: describe the financial reporting treatment and analysis of non-recurring items (including discontinued operations, unusual or infrequent items) and changes in accounting policies***

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Q.1786 Which of the following accounts is *most likely* to be reported in the statement of comprehensive income?

- A. Dividends paid.
- B. Secondary issuance.
- C. Gains on available-for-sales securities.

The correct answer is C.

Gains on available securities are an item that impacts the owners' equity but not the result of shareholder transactions.

**A and B are incorrect:** The statement of comprehensive income reports all items that affect the owner's equity except the result of shareholder transactions (e.g., issuance, share repurchase, and paying dividends).

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Q.1923 Which of the following statements is *most likely* accurate?

- A. Under the accrual method of accounting, revenues are recognized when earned, and expenses are recognized when paid.
- B. Under the accrual method of accounting, revenues are recognized when received, and expenses are recognized when paid.
- C. Under the accrual method of accounting, revenues are recognized when earned, and expenses are recognized when incurred.

The correct answer is **C**.

Under the accrual method of accounting, revenues are recognized when they are earned, and expenses are recognized when they are incurred, regardless of when the cash transactions occur. This approach provides a more accurate picture of a company's financial position and performance by matching revenues to the periods in which they are earned and matching expenses to the periods in which they are incurred. This method adheres to the matching principle, a fundamental concept in accounting that aims to match revenues with the related expenses in the period in which the revenue was earned. This principle ensures that financial statements reflect the true income of a company during a specific period, providing stakeholders with more relevant and reliable information for decision-making.

**A is incorrect.** It inaccurately states that under the accrual method of accounting, expenses are recognized when paid. This is a misunderstanding of the accrual method, which actually recognizes expenses when they are incurred, not when they are paid. This option confuses the accrual method with the cash basis of accounting, where revenues and expenses are recognized only when cash is received or paid. The accrual method, by contrast, recognizes revenues and expenses based on the economic events that trigger them, irrespective of the timing of cash flows.

**B is incorrect.** It suggests that under the accrual method, revenues are recognized when received, and expenses are recognized when paid. This description aligns more closely with the cash basis of accounting rather than the accrual method. The accrual method recognizes revenues when they are earned, which may not necessarily coincide with when the cash is received. Similarly, expenses are recognized when they are incurred, not necessarily when they are paid. This option fails to capture the essence of the accrual method, which aims to provide a more accurate representation of a company's financial performance by recognizing economic events as they occur, regardless of the timing of the associated cash transactions.

***CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2a: describe general principles of revenue recognition, specific revenue recognition applications, and implications of revenue recognition choices for financial analysis***

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Q.1930 DADA Engineering is a construction firm based in India that has undertaken a long-term contract to build a conveyer belt for a client in 4 years for \$10 million. The total cost of the

project is \$6 million, as given in the following table 1.

Table 1

Year 1	\$2,000,000
Year 2	\$1,500,000
Year 3	\$500,000
Year 4	\$2,000,000

The net income for the 1st year of the project is *closest to*:

- A. \$1.33 million
- B. \$3.33 million
- C. \$4 million

The correct answer is **A**.

To calculate the net income for the first year of the project for DADA Engineering, we need to apply the percentage-of-completion method, which is commonly used in accounting for long-term construction contracts. This method allows revenue and expenses to be recognized based on the progress of the project. The progress is measured as the percentage of total costs incurred to date relative to the total estimated costs of the project. This approach aligns with the principle of matching revenues with expenses in the period in which they are incurred, providing a more accurate representation of the company's financial performance during the project.

The total cost of the project is given as \$6 million, and the revenue from the project upon completion is expected to be \$10 million. In the first year, the costs incurred are \$2 million. Therefore, the percentage of completion in the first year can be calculated as follows:

$$\text{Percentage of Completion} = \frac{\text{Costs Incurred in Year 1}}{\text{Total Project Costs}} = \frac{2,000,000}{6,000,000} = \frac{1}{3}$$

Using this percentage, we can calculate the revenue recognized in the first year:

$$\text{Revenue for Year 1} = \text{Total Project Revenue} \times \text{Percentage of Completion} = 10,000,000 \times \frac{1}{3} = 3.33$$

Given that the cost of the project for the first year is \$2 million, we can now calculate the net income for the first year:

$$\text{Net Income for Year 1} = \text{Revenue for Year 1} - \text{Costs Incurred in Year 1} = 3.33 \text{ million} - 2 \text{ million} =$$

**B is incorrect.** It represents the revenue recognized in the first year, not the net income. The net income is calculated by subtracting the costs incurred from the recognized revenue, which

results in \$1.33 million, not \$3.33 million.

**C is incorrect.** It does not accurately reflect the net income for any specific year of the project. The option seems to confuse the total revenue expected from the project upon completion with the net income for a particular year. The net income for the first year, after accounting for the costs incurred, is \$1.33 million.

**CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2b: describe general principles of expense recognition, specific expense recognition applications, implications of expense recognition choices for financial analysis and contrast costs that are capitalized versus those that are expensed in the period in which they are incurred**

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Q.1957 Baku Mart, a chain of hypermarkets, reported a net income of \$400,000 and paid cash dividends of \$260,000 to preferred stockholders for the year 2016. At the beginning of 2016, Baku had 8,000 shares of common stock outstanding, but the firm issued 3,000 new shares on November 1st, 2016. Given this information, the basic EPS of Baku Mart is *closest to*:

- A. \$12.73
- B. \$16.47
- C. \$48.06

The correct answer is **B**.

To accurately calculate the basic Earnings Per Share (EPS) for Baku Mart, it is essential to understand the formula and its components. The basic EPS is a measure of the portion of a company's profit allocated to each outstanding share of common stock, serving as an indicator of the company's profitability. The formula for calculating basic EPS is:

$$\text{Basic EPS} = \frac{\text{(Net Income} - \text{Preferred Dividend)}}{\text{Weighted avg. shares of common stock}}$$

In this scenario, Baku Mart reported a net income of \$400,000 and paid cash dividends of \$260,000 to preferred stockholders in 2016. The company had 8,000 shares of common stock outstanding at the beginning of the year and issued an additional 3,000 shares on November 1st, 2016. To find the weighted average shares of common stock, we account for the fact that the 3,000 new shares were only outstanding for 2 months of the year:

$$\text{Weighted average shares of common stock} = \frac{[(8,000 \times 12) + (3,000 \times 2)]}{12} = 8,500$$

Substituting the values into the basic EPS formula gives:

$$\text{Basic EPS} = \frac{(400,000 - 260,000)}{8,500} = \$16.47$$

**A is incorrect.** It does not correctly calculate the weighted average shares of common stock.

**C is incorrect.** It overlooks the subtraction of preferred dividends from the net income before dividing by the weighted average shares of common stock. This calculation erroneously inflates the EPS by not accounting for the preferred dividends, which are a priority distribution that must be subtracted from the net income to determine the earnings available to common shareholders.

***CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2d: describe how earnings per share is calculated and calculate and interpret a company's basic and diluted earnings per share for companies with simple and complex capital structures including those with antidilutive securities***

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Q.1959 AHZ Corp. has had a net income of \$150,000 for the year 2016. The company had an average of 100,000 common shares and 1,500 preferred shares outstanding for the entire year. Assuming that each share of preferred stock is convertible into 20 shares of common stock, the diluted EPS is *closest to*:

- A. \$1.15.
- B. \$1.50.
- C. \$2.14.

The correct answer is A.

To calculate the diluted earnings per share (EPS), it is essential to consider all potential common shares that could dilute the EPS if they were converted to common stock. The formula for diluted EPS is:

$$\text{Diluted EPS} = \frac{\text{Net income}}{(\text{Weighted average number of shares outstanding} + \text{New common shares that would be issued from the conversion of preferred shares})}$$

In the case of AHZ Corp., the net income for the year 2016 is \$150,000. The company had an average of 100,000 common shares and 1,500 preferred shares outstanding for the entire year. Each preferred share is convertible into 20 common shares, which means the potential additional common shares from the conversion of preferred shares would be  $1,500 \times 20 = 30,000$  shares. Therefore, the total number of shares for the diluted EPS calculation would be  $100,000 + 30,000 = 130,000$  shares.

$$\text{Diluted EPS} = \frac{\$150,000}{130,000 \text{ shares}} = \$1.15 \text{ per share}$$

**B is incorrect.** It only considers the net income divided by the original number of common shares without accounting for the dilutive effect of the convertible preferred shares. The calculation provided in option B ignores the potential increase in the number of common shares due to the conversion of preferred shares, which leads to an overestimated EPS of \$1.50 per share. This does not accurately reflect the diluted EPS, which should consider all potential shares that could dilute the EPS.

**C is incorrect.** It suggests an incorrect method of calculating diluted EPS. The calculation provided subtracts the convertible shares from the outstanding shares, which is not how diluted EPS is calculated. Diluted EPS should account for the increase in the number of shares due to the conversion of preferred shares, not a subtraction.

**CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2d: describe how earnings per share is calculated and calculate and interpret a company's basic and diluted earnings per share for companies with simple and complex capital structures including those with antidilutive securities**

Q.1960 AHZ Corp. has a net income of \$150,000 and paid preferred dividends of \$30,000. The firm had 100,000 common shares and 1,500 preferred shares outstanding for the entire year. Assuming that each share of preferred stock is converted into 20 shares of common stock, which of the following statements is most accurate regarding the earnings per share of AHZ Corp.?

- A. The EPS is dilutive because the EPS after the conversion is less than the basic EPS.
- B. The EPS is dilutive because the EPS after the conversion is greater than the basic EPS.
- C. The EPS is anti-dilutive because the EPS after the conversion is greater than the basic EPS.

The correct answer is **A**.

To determine whether the earnings per share (EPS) is dilutive or anti-dilutive, we must first calculate the basic EPS and then compare it to the diluted EPS after the hypothetical conversion of preferred shares into common shares. The basic EPS is calculated by subtracting preferred dividends from net income and then dividing by the number of common shares outstanding. In this case, AHZ Corp. has a net income of \$150,000 and paid preferred dividends of \$30,000. With 100,000 common shares outstanding, the basic EPS can be calculated as follows:

$$\text{Basic EPS} = \frac{(\$150,000 - \$30,000)}{100,000 \text{ shares}} = \$1.20/\text{share}$$

If the preferred shares are converted to common shares, each preferred share converts into 20 common shares, resulting in an additional  $1,500 \times 20 = 30,000$  common shares. This increases the total number of common shares to  $100,000 + 30,000 = 130,000$  shares. The diluted EPS, assuming all preferred shares are converted, is calculated by dividing the net income available to common shareholders by the total number of shares after conversion:

$$\text{Diluted EPS} = \frac{\$150,000}{130,000 \text{ shares}} = \$1.15/\text{share}$$

Since the diluted EPS of \$1.15 is less than the basic EPS of \$1.20, the conversion of preferred shares into common shares would result in a decrease in EPS, indicating that the EPS is dilutive.

**B is incorrect.** It incorrectly states that the EPS is dilutive when the EPS after conversion is greater than the basic EPS. In this scenario, the EPS after conversion is actually less than the basic EPS, making the statement false.

**C is incorrect.** The EPS after the conversion is greater than the basic EPS, which contradicts the actual calculation showing a decrease in EPS after conversion. Anti-dilutive securities would result in an increase in EPS upon conversion, which is not the case here.

**Analyzing Income Statements, LOS 2d: describe how earnings per share is calculated and calculate and interpret a company's basic and diluted earnings per share for companies with simple and complex capital structures including those with antidilutive securities**

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Q.3754 At the beginning of 2019, ABC Company issued 120,000 common shares. If it issued an additional 30,000 shares on March 1<sup>st</sup> and did a 2 for 1 stock split on Aguust 1<sup>st</sup>, the weighted average number of shares outstanding is *closest to*:

- A. 145,000
- B. 207,500
- C. 290,000

The correct answer is C.

To calculate the weighted average number of shares outstanding for ABC Company, we must consider the timing and impact of share issuances and stock splits throughout the year. Initially, ABC Company had 120,000 common shares at the beginning of 2019. On March 1st, an additional 30,000 shares were issued, increasing the total shares to 150,000. Then, on August 1st, a 2 for 1 stock split occurred, effectively doubling the number of shares to 300,000 for the remainder of the year. The calculation of the weighted average number of shares outstanding takes into account these changes over the different periods of the year.

The calculation is as follows:

From January 1st to March 1st (2 months), the company had 120,000 shares outstanding. This period accounts for  $\frac{2}{12}$  of the year. From March 1st to August 1st (5 months), the company had 150,000 shares outstanding, accounting for  $\frac{5}{12}$  of the year. After the stock split on August 1st, the company had 300,000 shares outstanding for the remaining 5 months of the year, also  $\frac{5}{12}$  of the year. The weighted average before considering the stock split is calculated as  $120,000 \times \frac{2}{12} + 150,000 \times \frac{10}{12} = 145,000$ . However, since the stock split is treated retrospectively for the entire year, the final weighted average number of shares outstanding is  $145,000 \times 2 = 290,000$ .

**A is incorrect.** It represents the weighted average before considering the stock split but does not account for the doubling effect of the stock split.

**B is incorrect.** It seems to misinterpret the calculation or the effect of the stock split.

**CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2d: describe how earnings per share is calculated and calculate and interpret a company's basic and diluted earnings per share for companies with simple and complex capital structures including those with antidilutive securities**

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Q.3756 Two companies, A and B, recorded the below information.

	Company A	Company B
Sales	\$10.1 million	\$13.4 million
Cost of goods sold	\$4.6 million	\$6.6 million
Administration costs	\$0.8 million	\$0.6 million
Rent expense	\$0.1 million	\$0.2 million
Research expense	\$0.4 million	\$0.3 million

The information above *suggests* that:

- A. Company B has a higher gross margin as compared to company A.
- B. Company B has a gross margin of 51%, while company A has an operating margin of 42%.
- C. Company A has an operating margin of 43%, while Company B has an operating margin of 41%.

The correct answer is **B**.

We use common size statements to compare the margin performance of the two companies.

	Company A	Company B	Comparison
Sales	100%	100%	
Cost of goods	46%	49%	
Gross margin	54%	51%	A has a higher gross margin
Administration costs	8%	4%	
Rent expense	1%	1%	
Research expense	4%	2%	
Operating margin	42%	43%	B has a higher operating margin

**A is incorrect.** As shown above, the company with the highest gross margin is company A.

**C is incorrect.** Company A's operating margin is 42%, while company B's operating margin is 43%.

**CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2e: evaluate a company's financial performance using common-size income statements and financial ratios based on the income statement**

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Q.3760 During 2018, ABC Company had 1,000,000 average outstanding common shares and 150,000 outstanding options. The options had a strike price of \$10 each. The average stock price of ABC Company during the year was \$20. The number of shares used in the denominator for the calculation of ABC's diluted EPS is *closest to*:

- A. 1,000,000
- B. 1,075,000
- C. 1,150,000

The correct answer is **B**.

To calculate the diluted earnings per share (EPS), it is essential to consider all potential sources of dilution, including options. In the case of ABC Company, the options provide a means for additional shares to be introduced into the market, which can dilute the EPS. The calculation involves determining how many shares could be purchased with the proceeds from exercising the options and adjusting the total number of shares accordingly.

The options are exercisable at \$10 each, which means the total proceeds from exercising all 150,000 options would be  $150,000 \times \$10 = \$1,500,000$ . With an average stock price of \$20, these proceeds could repurchase  $\frac{1,500,000}{20} = 75,000$  shares from the market. Therefore, instead of adding the full 150,000 shares from the options to the outstanding shares, only the net increase in shares (150,000 options - 75,000 repurchased shares = 75,000 additional shares) should be considered. This results in a new total of  $1,000,000 + 75,000 = 1,075,000$  shares for the purpose of calculating diluted EPS.

**A is incorrect.** This option does not account for the dilutive effect of the options. It accurately reflects the adjusted number of shares after considering the dilutive effect of the options. By accounting for the proceeds from the exercised options and the repurchase of shares at the market price, it provides a more accurate denominator for calculating diluted EPS, which is 1,075,000 shares.

**C is incorrect.** It overestimates the dilutive effect by not accounting for the reduction in shares that occurs when the company uses the option proceeds to buy back shares from the market.

***CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2d: describe how earnings per share is calculated and calculate and interpret a company's basic and diluted earnings per share for companies with simple and complex capital structures including those with antidilutive securities***

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Q.3762 In 2019, MMU Actuaries reported a net income of \$35 million, a weighted average of 2,000,000 common shares outstanding, and 200,000 options outstanding with an average exercise price of \$10. The company paid \$5 million in preferred dividends. The company's average share price over the year was \$25. The company's diluted EPS (using the treasury stock method) is *closest to*:

- A. 14.15
- B. 15.00
- C. 16.51

The correct answer is **A**.

$$\text{Diluted EPS} = \frac{\text{(Net income- Preferred dividends paid)}}{\text{[The weighted average number of shares outstanding}} \\ \text{+ (New shares, that would have been issued at option exercise)} \\ \text{– Shares that would have been purchased with cash received upon exercise)} \\ \text{× (Proportion of the Year during which the financial instruments were outstanding)}}$$

$$\text{Numerator} = 35,000,000 - 5,000,000 = 30,000,000$$

#### Denominator

Underlying assumption: Outstanding options are exercised. The money obtained from the issuance of new shares is used to buy back the outstanding shares.

$$\text{Options are exercised at \$10 per option} = 200,000 \times 10 = \$ 2,000,000$$

The 2,000,000 proceeds from the option exercise are used to repurchase outstanding shares at the current market price:  $\frac{2,000,000}{25} = 80,000$  80,000 of the 200,000 outstanding shares are repurchased by the company (200,000 shares that were converted from options).

The new number of outstanding shares is, therefore,

$$(2,000,000 + 120,000) = 2,120,000$$

. Therefore, the diluted EPS of MMU Actuaries will be equal to:

$$\frac{30,000,000}{2,120,000} = 14.15$$

**Please Note:** Incremental shares will only be time weighed if the options were issued during the year. They will not be time-weighted if the options were issued at the beginning of the year.

**B is incorrect.** It represents Basic EPS.

**C is incorrect.** The preference dividends were not subtracted from the net income.

**CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2d: describe how earnings per share is calculated**

***and calculate and interpret a company's basic and diluted earnings per share for companies with simple and complex capital structures including those with antidilutive securities***

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Q.3763 ABC Company's gross, operating, and net profit margin for 2015 was 61.5%, 25%, and 16.51%. For the year 2016, use the financial data below to determine the profitability ratio that had the largest absolute increase.

Metric	Current year (%)
Revenue	100
Cost of goods sold	37.2
Interest expense	4.4
Research expense	5.3
Selling and general expenses	31.7
Income tax rate	22

- A. Net profit margin.
- B. Gross profit margin.
- C. Operating profit margin.

The correct answer is **B**.

Metric	Current year (2016) as %	Prior year (2015) as %	Change
Revenue	100.0		
Cost of goods sold	37.20		
Gross profit margin	62.80	61.50	+1.30
Research expense	5.30		
Selling and general expense	31.70		
Operating profit margin	25.80	25.00	+0.80
Interest expense	4.40		
Earnings before tax	21.40		
Minus Income tax expense	$22\% \times 21.4 = 4.71$		
Net profit margin	16.69	16.51	+0.18

**A and C are incorrect.** The operating and net profit margin increased by 0.80 and 0.18, respectively. Both these values are lower as compared to the increase seen with the gross profit value (1.30).

**CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2e: evaluate a company's financial performance using common-size income statements and financial ratios based on the income statement**

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Q.3764 A sales agent receives a commission of 30% for any items sold. If he sold items worth \$3,000,000 in 2019, how much revenue should he report on his income Statement?

- A. \$900,000
- B. \$2,100,000
- C. \$3,000,000

The correct answer is **A**.

This is calculated based on the commission rate of 30% applied to the total sales amount of \$3,000,000. The calculation is straightforward and follows the formula for determining commission-based income: Commission = Total Sales × Commission Rate. In this case, the commission is  $\$3,000,000 \times 0.30 = \$900,000$ . This represents the revenue the sales agent earns from the sales transaction, which is the portion of the total sales attributed to his efforts and is rightfully reported as his income.

**B is incorrect.** This figure represents the remaining amount after the sales agent's commission has been deducted from the total sales (\$3,000,000 - \$900,000). However, this amount is not the sales agent's income but rather the revenue that would be reported by the company for which the sales were made, after paying out the commission. The sales agent's income is solely the commission earned from the sales, not the total sales amount minus the commission.

**C is incorrect.** The total sales amount represents the gross sales value of the items sold, not the income earned by the sales agent. The sales agent's income is determined by the commission rate applied to these sales, not the total value of the goods sold. Reporting the total sales as the sales agent's income would inaccurately inflate his reported earnings, as it does not account for the fact that the majority of this amount does not constitute his earnings but rather the gross sales before commissions are calculated.

***CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2a: describe general principles of revenue recognition, specific revenue recognition applications, and implications of revenue recognition choices for financial analysis***

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Q.3768 The table below represents the information available on a company for the year 2019.

Net Income	\$2,000,000
The average number of common shares outstanding	200,000
Convertible preferred shares outstanding	4,000
Dividend/Share	\$20
Convertible bonds, \$100 face value per bond	\$100,000

The bond coupon and the corporate tax rate are 8% and 40%, respectively. Each preferred share is converted into 50 common shares and each bond into 30 common shares. The company's

diluted EPS is *closest to*:

- A. 4.66
- B. 5.00
- C. 8.37

The correct answer is A.

The diluted EPS will be the lowest possible value because of converting both the preference shares and the bonds to common shares.

For convertible preferred shares:

$$\text{Diluted EPS for convertible preferred shares} = \frac{\text{Net Income}}{[\text{Weighted Average Number of shares outstanding} + \text{new common shares that would have been issued}]}$$

$$\text{Diluted EPS for convertible bond} = \frac{(\text{Net Income} + \text{After-tax interest on the convertible debt} - \text{Preferred Dividends})}{[\text{Weighted Average Number of shares outstanding} + \text{Additional common shares that would have been issued at conversion price}]} \quad (\text{Net Income} + \text{After-tax interest on the convertible debt} - \text{Preferred Dividends})$$

We will use a table to show a side-by-side comparison of the EPS in various scenarios.

	Diluted EPS: Preferred Shares Converted	Diluted EPS: Bonds Converted	Diluted EPS: Both Converted
Net Income	\$2,000,000	\$2,000,000	\$2,000,000
Preferred Dividends	0	(80,000)	0
After-tax interest		$8\% \times 100,000 \times (1 - 0.40) = \$4,800$	$8\% \times 100,000 \times (1 - 0.40) = \$4,800$
Numerator	2,000,000	1,924,800	2,004,800
Average common shares outstanding	200,000	200,000	200,000
Preferred Converted	$4000 \times 50 = 200,000$	0	$4000 \times 50 = 200,000$
Bond Converted		$\frac{\$100,000}{\$100} \times 30 = 30,000$	$\frac{\$100,000}{\$100} \times 30 = 30,000$
Denominator	400,000	230,000	430,000
EPS	$\frac{2,000,000}{400,000} = 5$	$\frac{1,924,800}{230,000} = 8.37$	$\frac{2,004,800}{430,000} = 4.66$

**B is incorrect.** It represents the diluted EPS when preferred shares are converted to common shares.

**C is incorrect.** It represents the diluted EPS when Bonds are converted.

***CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2d: describe how earnings per share is calculated and calculate and interpret a company's basic and diluted earnings per share for companies with simple and complex capital structures including those with antidilutive securities***

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Q.3769 In 2018, XYZ Corporation recorded a net income of \$30 million. It paid its preference shareholders a dividend of \$15 million. The Corporation had 300,000 outstanding common shares and 100,000 outstanding preference shares at the end of the year. Assume that each preferred share is convertible to 4 common shares. The diluted EPS of XYZ Corporation is *closest to*:

- A. 21.43
- B. 42.85
- C. 50

The correct answer is **B**.

To get the diluted earnings per share:

$$\begin{aligned}\text{Diluted EPS} &= \frac{\text{Net Income}}{(\text{Weighted Average Number of Shares Outstanding} \\ &\quad + \text{New Common Shares that would have been issued at conversion})} \\ &= \frac{30,000,000}{300,000 + (100,000 \times 4)} = 42.85 \\ &= 42.85/\text{share}\end{aligned}$$

**A is incorrect.** The numerator in A has been incorrectly calculated. Preferred Dividends have been subtracted from net income, which is not the case when calculating diluted EPS when a company has convertible preferred stock outstanding.

**C is incorrect.** It represents the basic EPS and not the diluted earnings per share.

$$\begin{aligned}\text{Basic EPS} &= \frac{\text{Net Income} - \text{Preferred Dividends}}{\text{Weighted Average Number of Common Shares Outstanding}} \\ &= \frac{30,000,000 - 15,000,000}{300,000} = 50\end{aligned}$$

**CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2d: describe how earnings per share is calculated and calculate and interpret a company's basic and diluted earnings per share for companies with simple and complex capital structures including those with antidilutive securities**

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Q.3838 Which of the following financial assets is *least likely* measured at cost or amortized cost?

- A. Unquoted equity instruments.
- B. Held-to-maturity instruments.
- C. Derivatives, whether stand-alone or embedded in non-derivative instruments.

The correct answer is C.

Unquoted equity instruments, held-to-maturity instruments, and loans and receivables from another company are measured at cost or amortized cost. Financial assets held for trading, available-for-sale financial assets, derivatives whether stand-alone or embedded in non-derivative instruments and non-derivative instruments are measured at fair value

***CFA Level 1, Volume 3 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2c: explain the financial reporting and disclosures related to financial instruments***

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Q.3841 Consider the following information on Charlie's Company, for the year ended December 31st, 2015:

Outstanding shares January 1st, 2015	5,000,000	
Stock options outstanding January 1st, 2015	150,000	Exercise price : \$10.00
Shares issued March 1st, 2015	450,000	
Shares repurchased July 1st, 2015	120,000	
Average market price of common shares		\$42/shares
Net income (2015)		\$5,500,000

Charlie's diluted EPS is *closest to*:

- A. 0.99
- B. 1.00
- C. 1.01

The correct answer is C.

$$\begin{aligned}
 \text{Incremental shares issued stock option exercise} &= 150,000 - \frac{150,000 \times 10}{42} = 114,286 \\
 \text{Weighted average shares} &= 5,000,000 + 114,286 + \frac{450,000 \times 10 \text{ months}}{12 \text{ months}} \\
 &= 5,429,286 \\
 \Rightarrow \text{Diluted EPS} &= \frac{\text{Net income}}{\text{Weighted average shares}} = \frac{5,500,000}{5,429,286} = 1.01\$/sha
 \end{aligned}$$

**A is incorrect.** The shares repurchased July 1st, 2015, is added while calculating the weighted average shares instead of deducting them so that:

$$\begin{aligned}
 \text{Weighted average shares} &= 5,000,000 + 114,286 + \frac{450,000 \times 10 \text{ months}}{12 \text{ months}} + \frac{120,000 \times 6 \text{ months}}{12 \text{ months}} \\
 &= 5,549,286 \\
 \Rightarrow \text{Diluted EPS} &= \frac{\text{Net income}}{\text{Weighted average shares}} = \frac{5,500,000}{5,549,286} = 0.99\$/share
 \end{aligned}$$

**B is incorrect:** Stock options are not considered in calculating the weighted average shares so that:

$$\begin{aligned}
 \text{Weighted average shares} &= 5,000,000 + 114,286 + \frac{450,000 \times 10 \text{ months}}{12 \text{ months}} \\
 &= 5,489,286 \\
 \Rightarrow \text{Diluted EPS} &= \frac{\text{Net income}}{\text{Weighted average shares}} = \frac{5,500,000}{5,489,286} \approx 1.00\$/share
 \end{aligned}$$

**CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2d: describe how earnings per share is calculated and calculate and interpret a company's basic and diluted earnings per share for companies with simple and complex capital structures including those with antidilutive securities**

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Q.4613 A company enters into a contract to sell a software license to a customer. The contract stipulates that the company will provide ongoing updates and support for the software. According to IFRS 15, the company should recognize revenue from the software license:

- A. at the point in time when the license is transferred to the customer.
- B. over the term of the license as the updates and support are provided.
- C. in full when the contract is signed, regardless of future updates and support.

The correct answer is **B**.

According to IFRS 15, revenue should be recognized over time for licenses that are coupled with ongoing obligations, such as updates and support, which are essential to the functionality of the software. This approach ensures that revenue is recognized as the company fulfills its performance obligations under the contract, providing a more accurate reflection of the company's earnings.

**A is incorrect.** Immediate recognition of revenue is not appropriate when the company has ongoing performance obligations that are essential to the functionality of the software. Recognizing revenue at the point of transfer would not accurately reflect the company's ongoing obligations.

**C is incorrect.** It disregards the company's performance obligations related to updates and support. Revenue recognition must align with the fulfillment of these obligations to accurately depict the company's financial performance.

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Q.4619 A manufacturing company enters into a long-term contract to build a specialized asset for a customer. The asset cannot be repurposed for use by another customer. Under IFRS 15, the company should recognize revenue:

- A. over time as the asset is constructed.
- B. in full at the commencement of the contract.
- C. only upon completion and delivery of the asset.

The correct answer is **A**.

Under IFRS 15, revenue is recognized over time for contracts where the customer receives and consumes the benefits of the company's performance as the asset is constructed, particularly when the asset is specialized and cannot be repurposed. This method aligns revenue recognition with the transfer of control and the ongoing performance of the company.

**B is incorrect.** Recognizing revenue at the commencement of the contract does not reflect the ongoing nature of the company's performance obligations or the gradual transfer of control to the customer.

**C is incorrect.** Waiting until completion and delivery to recognize revenue would not accurately reflect the continuous transfer of control and the value provided to the customer throughout the construction process.

***CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS a: describe general principles of revenue recognition, specific revenue recognition applications, and implications of revenue recognition choices for financial analysis***

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Q.4620 A manufacturing company enters into a long-term contract to build a specialized asset for a customer. The asset cannot be repurposed for use by another customer. Under IFRS 15, the company should recognize revenue:

- A. over time as the asset is constructed.
- B. in full at the commencement of the contract.
- C. only upon completion and delivery of the asset.

The correct answer is **A**.

Under IFRS 15, revenue is recognized over time for contracts where the customer receives and consumes the benefits of the company's performance as the asset is constructed, particularly when the asset is specialized and cannot be repurposed. This method aligns revenue recognition with the transfer of control and the ongoing performance of the company.

**B is incorrect.** Recognizing revenue at the commencement of the contract does not reflect the ongoing nature of the company's performance obligations or the gradual transfer of control to the customer.

**C is incorrect.** Waiting until completion and delivery to recognize revenue would not accurately reflect the continuous transfer of control and the value provided to the customer throughout the construction process.

***CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS a: describe general principles of revenue recognition, specific revenue recognition applications, and implications of revenue recognition choices for financial analysis***

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Q.4621 In a "bill and hold" arrangement, a company can recognize revenue before the customer takes physical possession of the goods. Under IFRS 15, which of the following conditions is *least likely* required for revenue recognition in a "bill and hold" arrangement?

- A. The goods are ready for immediate delivery.
- B. The customer has requested the arrangement.
- C. The company has received full payment for the goods.

The correct answer is **C**.

Full payment is not a prerequisite for revenue recognition in a "bill and hold" arrangement under IFRS 15. The key criteria for recognizing revenue in such arrangements include the customer's request for the arrangement, the identification of the goods as belonging to the customer, and the readiness of the goods for delivery.

**A is incorrect.** The goods must be ready for delivery, even if physical delivery is deferred. This readiness indicates that the company has fulfilled its obligations and the customer has control over the goods.

**B is incorrect.** Bill and hold arrangement must indeed be initiated by the customer to ensure that the revenue recognition is based on the customer's needs and not the company's convenience.

***CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS a: describe general principles of revenue recognition, specific revenue recognition applications, and implications of revenue recognition choices for financial analysis***

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Q.4622 A company operates as both a principal and an agent in different transactions. When assessing the company's revenue for analytical purposes, an analyst should:

- A. combine the revenue from principal and agent transactions to evaluate overall margins.
- B. assess the relative proportion of principal versus agent sales to evaluate and forecast overall margins.
- C. ignore the revenue from agent transactions as it does not contribute to the company's gross margin.

The correct answer is **B**.

Evaluating the relative proportion of principal versus agent sales is crucial for understanding the company's revenue composition and forecasting its margins. Principal transactions are recorded on a gross basis, reflecting the total transaction value, while agent transactions are recorded on a net basis, reflecting only the commission or fee earned. This distinction affects the company's gross margin and overall financial performance.

**A is incorrect.** Merely combining the revenue from principal and agent transactions without considering their different nature can lead to a misleading assessment of the company's profitability and operational efficiency.

**C is incorrect.** Even though agent transactions are recorded on a net basis, they still contribute to the company's revenue and should be considered when analyzing the company's financial performance. Ignoring this revenue could lead to an incomplete understanding of the company's operations.

***CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS a: describe general principles of revenue recognition, specific revenue recognition applications, and implications of revenue recognition choices for financial analysis***

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Q.4623 A construction company enters into a 3-year contract to build a bridge for USD 150 million. The estimated total cost to complete the project is USD 90 million. In the first year, the company incurs costs of USD 30 million. Using the percentage-of-completion method, how much revenue and profit should the company recognize in the first year?

- A. Revenue: USD 50 million; Profit: USD 20 million
- B. Revenue: USD 45 million; Profit: USD 15 million
- C. Revenue: USD 30 million; Profit: USD 0 million

The correct answer is **A**.

The percentage of completion is calculated as the costs incurred in the first year divided by the estimated total costs, which is  $\text{USD } 30 \text{ million} / \text{USD } 90 \text{ million} = 1/3$  or 33.33%. The revenue recognized in the first year is then 33.33% of the total contract value, which is  $33.33\% \times \text{USD } 150 \text{ million} = \text{USD } 50 \text{ million}$ . The profit recognized is the revenue recognized minus the costs incurred in the first year, which is  $\text{USD } 50 \text{ million} - \text{USD } 30 \text{ million} = \text{USD } 20 \text{ million}$ .

***CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS a: describe general principles of revenue recognition, specific revenue recognition applications, and implications of revenue recognition choices for financial analysis***

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Q.4624 Company X purchases a piece of machinery for EUR 500,000, which has a useful life of five years and a salvage value of EUR 0. If Company X chooses to capitalize the machinery and depreciate it using the straight-line method, what will be the *most likely* impact on its return on equity (ROE) compared to expensing the machinery immediately?

- A. ROE will be higher in the first year if the machinery is capitalized.
- B. ROE will be higher in the first year if the machinery is expensed immediately.
- C. ROE will be unaffected by the choice between capitalizing and expensing the machinery.

The correct answer is **A**.

Capitalizing the machinery and depreciating it using the straight-line method will result in a higher net income in the first year compared to expensing the machinery immediately. This is because the depreciation expense will be lower than the full cost of the machinery. A higher net income, in turn, will lead to a higher return on equity (ROE) in the first year.

**B is incorrect.** The choice between capitalizing and expensing the machinery will have an impact on net income and, consequently, on ROE.

**C is incorrect.** Expensing the machinery immediately will result in a lower net income in the first year compared to capitalizing and depreciating it, leading to a lower ROE in the first year.

***CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS b: describe general principles of expense recognition, specific expense recognition applications, implications of expense recognition choices for financial analysis and contrast costs that are capitalized versus those that are expensed in the period in which they are incurred***

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Q.4625 A company adopts a new accounting policy that results in the capitalization of certain costs that were previously expensed. What is the *most likely* impact of this change on the company's financial statements in the first year of adoption?

- A. Increase in net income and decrease in total assets.
- B. Increase in net income and increase in total assets.
- C. Decrease in net income and decrease in total assets.

The correct answer is **B**.

When a company shifts from expensing costs to capitalizing them, the costs are recorded as assets on the balance sheet, leading to an increase in total assets. In the income statement, the expense is spread out over the useful life of the asset as depreciation or amortization, resulting in a lower expense in the first year compared to immediate expensing. This leads to an increase in net income for that year.

**A is incorrect.** As explained above, capitalizing costs leads to an increase, not a decrease, in total assets.

**C is incorrect.** The change from expensing to capitalizing costs results in an increase, not a decrease, in net income in the first year of adoption.

*CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2b: describe general principles of expense recognition, specific expense recognition applications, implications of expense recognition choices for financial analysis and contrast costs that are capitalized versus those that are expensed in the period in which they are incurred*

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Q.4626 A company capitalizes interest costs associated with the construction of a building. How does this treatment affect the company's cash flow from operations (CFO) in the year the interest is capitalized?

- A. CFO is unaffected because interest costs are included in investing cash flows.
- B. CFO decreases because capitalized interest is treated as an operating expense.
- C. CFO increases because interest costs are not expensed in the income statement.

The correct answer is **C**.

When interest costs are capitalized, they are not expensed in the income statement, which leads to a higher net income for the year. Since cash flow from operations (CFO) is typically calculated starting with net income, a higher net income results in a higher CFO. The capitalized interest is reflected in the cash flow from investing activities, but it increases the CFO by not reducing net income.

**A is incorrect** because while the capitalized interest does affect investing cash flows, it also impacts the CFO by increasing net income.

**B is incorrect** because capitalized interest is not treated as an operating expense in the year it is capitalized, so it does not decrease CFO.

*CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2b: describe general principles of expense recognition, specific expense recognition applications, implications of expense recognition choices for financial analysis and contrast costs that are capitalized versus those that are expensed in the period in which they are incurred*

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Q.4627 In a period of rising inventory costs, how would this *most likely* affect the company's gross margin compared to immediate expensing of inventory costs?

- A. Gross margin would be lower under the matching principle.
- B. Gross margin would be higher under the matching principle.
- C. Gross margin would be unaffected by the choice of expense recognition method.

The correct answer is **A**.

The matching principle requires that the cost of goods sold (COGS) be matched with the revenue generated from the sale of those goods. In a period of rising inventory costs, the COGS would include the higher costs of more recent inventory purchases, resulting in a higher COGS and, consequently, a lower gross margin compared to immediate expensing, where older, lower-cost inventory might be expensed first.

**B is incorrect.** The matching principle would result in a higher COGS and lower gross margin in a period of rising inventory costs, not a higher gross margin.

**C is incorrect.** The choice of expense recognition method does affect the gross margin, particularly in a period of rising inventory costs.

***CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2b: describe general principles of expense recognition, specific expense recognition applications, implications of expense recognition choices for financial analysis and contrast costs that are capitalized versus those that are expensed in the period in which they are incurred***

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Q.4628 BrightStar Corporation (BSC), a retail company, acquires inventory throughout the year to sell. At the beginning of 20X3, BSC had no inventory in stock. During 20X3, BSC made the following inventory purchases:

Quarter	Units	Cost per Unit
First quarter	3,000	USD 25
Second quarter	2,500	USD 28
Third quarter	3,500	USD 30
Fourth quarter	4,000	USD 32

Throughout the year, BSC sold 10,000 units at USD 40 each, receiving payment in cash. BSC determined that 3,000 units of inventory were left over, with 2,000 units specifically identified as being bought in the fourth quarter and 1,000 units acquired in the third quarter. The gross profit for BSC in 20X3, assuming no product returns is *closest to*:

- A. 116,000

B. 284,000

C. 516,000

The correct answer is **A.**

Calculate Revenue:

$$\begin{aligned}\text{Revenue} &= \text{Units sold} \times \text{Selling price per unit} \\ &= 10,000 \text{ units} \times \text{USD } 40 \\ &= \text{USD}400,000\end{aligned}$$

Calculate Cost of Goods Sold (COGS):

$$\text{COGS} = (\text{Units sold from each quarter} \times \text{Cost per unit for that quarter})$$

From the first quarter:

$$= 3,000 \text{ units} \times \text{USD } 25 = \text{USD } 75,000$$

From the second quarter:

$$= 2,500 \text{ units} \times \text{USD } 28 = \text{USD } 70,000$$

From the third quarter:

$$\begin{aligned}= 2,500 \text{ units} \times \text{USD } 30 \text{ (Note: Only 2,500 units sold from this quarter, as 1,000 units are left in)} \\ = \text{USD } 75,000\end{aligned}$$

From the fourth quarter:

$$\begin{aligned}= 2,000 \text{ units} \times \text{USD } 32 \text{ (Note: Only 2,000 units sold from this quarter, as 2,000 units are left in)} \\ = \text{USD } 64,000\end{aligned}$$

$$\begin{aligned}\text{Total COGS} &= \text{USD } 75,000 + \text{USD } 70,000 + \text{USD } 75,000 + \text{USD } 64,000 \\ &= \text{USD}284,000\end{aligned}$$

Calculate Gross Profit:

$$\begin{aligned}\text{Gross Profit} &= \text{Revenue} - \text{COGS} \\ &= \text{USD } 400,000 - \text{USD } 284,000 \\ &= \text{USD } 116,000\end{aligned}$$

***CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2b: describe general principles of expense***

***recognition, specific expense recognition applications, implications of expense recognition choices for financial analysis and contrast costs that are capitalized versus those that are expensed in the period in which they are incurred***

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Q.4630 A company decides to discontinue a segment of its business. In its income statement, the results of this discontinued operation should be:

- A. included in the revenue from continuing operations.
- B. reported separately at the bottom of the income statement.
- C. combined with unusual or infrequent items within continuing operations.

The correct answer is **B**.

Discontinued operations are reported separately at the bottom of the income statement to provide a clear distinction between the financial performance of ongoing operations and the results of the segment that is being discontinued. This separate reporting allows investors and analysts to assess the company's continuing operations without the noise of the discontinued segment's performance, providing a more accurate view of the company's future earnings potential.

**A is incorrect.** Including the results of the discontinued operation in the revenue from continuing operations would mislead users of the financial statements by inflating the revenue and profitability of the ongoing business. This would not provide a true representation of the company's continuing operations and could lead to incorrect investment decisions.

**C is incorrect.** Discontinued operations are not the same as unusual or infrequent items. While both are reported separately from continuing operations, they represent different aspects of the business. Unusual or infrequent items are part of ongoing operations but are not expected to recur regularly, whereas discontinued operations represent a segment of the business that the company has ceased or plans to cease.

***CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2c: describe the financial reporting treatment and analysis of non-recurring items (including discontinued operations, unusual or infrequent items) and changes in accounting policies***

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Q.4631 When a company acquires a significant business segment during the fiscal year, the financial statements should:

- A. Exclude the results of the acquired segment until the next fiscal year.
- B. Consolidate the results of the acquired segment from the acquisition's closing date.
- C. Consolidate the results of the acquired segment from the beginning of the fiscal year.

The correct answer is **B**.

The financial statements should consolidate the results of the acquired segment from the acquisition's closing date because this is the point in time when the acquirer gains control over the acquired entity. Consolidating from the closing date ensures that the financial statements accurately reflect the period during which the acquirer has had control and the financial impact of the acquired segment on the acquirer's operations.

**A is incorrect.** Excluding the results of the acquired segment until the next fiscal year would fail to reflect the impact of the acquisition on the acquirer's financial performance for the current year. This would not provide a complete and accurate picture of the company's financial position and results of operations.

**C is incorrect.** Consolidating from the beginning of the fiscal year would include the results of the acquired segment for a period when the acquirer did not have control over it. This would distort the financial performance of the acquirer by including results for which it was not responsible.

***CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2c: describe the financial reporting treatment and analysis of non-recurring items (including discontinued operations, unusual or infrequent items) and changes in accounting policies***

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Q.4632 If a company needs to change an accounting policy due to a new standard, the change should be applied:

- A. Prospectively, affecting only future periods.
- B. Only to the current period, without restating prior periods.
- C. Retrospectively, restating prior periods as if the new policy had always been in place.

The correct answer is **C**.

Retrospective application of a change in accounting policy due to a new standard is generally preferred unless it is impractical to do so. This approach involves restating prior periods as if the new policy had always been in place, which provides consistency and comparability across financial periods. It ensures that users of the financial statements can make meaningful comparisons between periods and assess trends accurately.

**A is incorrect.** Prospective application, which affects only future periods, does not provide the same level of comparability and consistency as retrospective application. It may be used in certain cases where retrospective application is impractical, but it is not the preferred approach.

**B is incorrect.** Applying the change only to the current period without restating prior periods would result in a lack of comparability between the current and prior periods. This could mislead users of the financial statements and make it difficult to assess the company's financial performance over time.

***CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2c: describe the financial reporting treatment and analysis of non-recurring items (including discontinued operations, unusual or infrequent items) and changes in accounting policies***

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Q.4633 When a company corrects an error from a previous period, the correction should be:

- A. reflected in the income statement of the current period.
- B. treated as a change in accounting estimate and applied prospectively.
- C. applied retrospectively by restating the financial statements of the prior periods presented.

The correct answer is C.

Errors from previous periods should be corrected by restating the financial statements of the prior periods presented. This approach ensures that the financial statements provide a true and fair view of the company's financial position and performance as if the error had never occurred. It allows users of the financial statements to make accurate comparisons between periods and to rely on the financial information presented.

**A is incorrect.** Reflecting the correction in the current period's income statement would not address the error in the period in which it occurred. It would also distort the financial performance of the current period by including the impact of a past error.

**B is incorrect.** Errors are not the same as changes in accounting estimates. Errors are mistakes or omissions that need to be corrected retrospectively, while changes in accounting estimates are adjustments based on new information or changes in circumstances and are applied prospectively.

***CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2c: describe the financial reporting treatment and analysis of non-recurring items (including discontinued operations, unusual or infrequent items) and changes in accounting policies***

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Q.4634 In assessing a company's future financial performance, an analyst should:

- A. include the results of discontinued operations in their projections
- B. exclude the results of discontinued operations from their projections.
- C. include only the unusual items from discontinued operations in their projections.

The correct answer is **B**.

Analysts should exclude the results of discontinued operations from their projections of a company's future financial performance. Discontinued operations represent parts of the business that the company has ceased or plans to cease, and they will not contribute to the company's earnings or cash flow in the future. Excluding these results provides a clearer view of the ongoing operations and the company's future earnings potential.

**A is incorrect.** Including the results of discontinued operations would not provide an accurate reflection of the company's ongoing business performance. It could lead to an overestimation or underestimation of the company's future financial performance, depending on the profitability of the discontinued operations.

**C is incorrect.** Even the unusual items from discontinued operations should be excluded from future projections. These items are part of the operations that the company has discontinued or plans to discontinue and are not indicative of the future performance of the ongoing business.

***CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2c: describe the financial reporting treatment and analysis of non-recurring items (including discontinued operations, unusual or infrequent items) and changes in accounting policies***

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Q.4635 For the fiscal year ending December 31, 2023, a company reported a net income of USD 4,800,000. The company declared and paid USD 400,000 in dividends on preferred stock. During the year, the company's common stock share information is as follows:

- Shares outstanding on January 1, 2023: 1,600,000
- Shares issued on April 1, 2023: 400,000
- Shares repurchased on October 1, 2023: (200,000)
- Shares outstanding on December 31, 2023: 1,800,000

The company's basic earnings per share (EPS) for the year is *closest* to:

- A. 2.38
- B. 2.89
- C. 3.00

The correct answer is **A**.

Basic EPS is calculated as:

$$\begin{aligned}\text{Basic EPS} &= \frac{\text{Net income} - \text{Preferred dividends}}{\text{Weighted average number of shares outstanding}} \\ &= \frac{\text{USD } 4,800,000 - \text{USD } 400,000}{1,850,000} \\ &= \text{USD } 2.38\end{aligned}$$

**CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2c: describe the financial reporting treatment and analysis of non-recurring items (including discontinued operations, unusual or infrequent items) and changes in accounting policies**

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Q.4637 On December 31, 2023, a company reported a net income of USD 1,200,000. It had an average of 500,000 shares of common stock outstanding and 10,000 shares of convertible preferred stock. Each share of preferred stock pays an annual dividend of USD 10 and is convertible into 4 shares of the company's common stock. The company's diluted earnings per share (EPS) using the if-converted method is *closest to*:

- A. 2.22
- B. 2.40
- C. 2.50

The correct answer is **A**.

Diluted EPS is calculated using the if-converted method as:

$$\begin{aligned}\text{Diluted EPS} &= \frac{\text{Net income}}{\text{Weighted average number of outstanding shares} + \text{New common shares that would be issued}} \\ &= \frac{\text{USD } 1,200,000}{500,000 + 40,000} \\ &= \text{USD } 2.22\end{aligned}$$

***CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2c: describe the financial reporting treatment and analysis of non-recurring items (including discontinued operations, unusual or infrequent items) and changes in accounting policies***

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Q.4640 XYZ Corporation reported a net income of USD 2,000,000 for the fiscal year ending December 31, 2023. The company had an average of 800,000 shares of common stock outstanding during the year. Additionally, XYZ Corporation had 50,000 stock options outstanding with an exercise price of USD 25 per option. The average market price of the company's stock during the year was USD 40 per share. There are no preferred dividends. The company's diluted earnings per share (EPS) using the treasury stock method is *closest to*:

- A. 2.38
- B. 2.44
- C. 2.62

The correct answer is **B**.

First, we calculate the number of shares that could be purchased with the cash received from the

exercise of the stock options:

$$\begin{aligned}\text{Cash received from exercise} &= \text{Number of options} \times \text{Exercise price} \\ &= 50,000 \times \text{USD } 25 \\ &= \text{USD } 1,250,000\end{aligned}$$

$$\begin{aligned}\text{Shares that could be repurchased with this cash} &= \frac{\text{Cash received}}{\text{Average market price}} \\ &= \frac{\text{USD } 1,250,000}{\text{USD } 40} \\ &= 31,250 \text{ shares}\end{aligned}$$

$$\begin{aligned}\text{Net increase in shares from exercise of options} &= \text{Number of options} - \text{Shares repurchased} \\ &= 50,000 - 31,250 \\ &= 18,750 \text{ shares}\end{aligned}$$

Now, we calculate the diluted EPS using the treasury stock method:

$$\begin{aligned}\text{Diluted EPS} &= \frac{\text{Net Income}}{\text{Weighted Average Number of Outstanding Shares} + \text{Net Increase in Shares from Exercise of Options}} \\ &= \frac{\text{USD } 2,000,000}{800,000 + 18,750} \\ &= \frac{\text{USD } 2,000,000}{818,750} \\ &= \text{USD } 2.44\end{aligned}$$

However, due to rounding, the diluted EPS appears as USD 2.50 when rounded to two decimal places.

**CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2c: describe the financial reporting treatment and analysis of non-recurring items (including discontinued operations, unusual or infrequent items) and changes in accounting policies**

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Q.4641 A company's income statement for the year ended December 31, 2023, shows the following:

Revenue	\$4,000,000
Cost of Goods Sold	\$2,400,000
Net Income	\$800,000

The company's gross profit margin for the year 2023 is closest to:

- A. 40%
- B. 50%
- C. 60%

The correct answer is **A**.

The gross profit margin is calculated as:

$$\begin{aligned}\text{Gross Profit Margin} &= \frac{\text{Gross Profit}}{\text{Revenue}} \\ &= \frac{\text{Revenue} - \text{Cost of Goods Sold}}{\text{Revenue}} \\ &= \frac{\$4,000,000 - \$2,400,000}{\$4,000,000} \\ &= \frac{\$1,600,000}{\$4,000,000} \\ &= 40\%\end{aligned}$$

**CFA Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2e: evaluate a company's financial performance using common-size income statements and financial ratios based on the income statement**

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Q.4642 Which statement *best* describes the significance of analyzing both net profit margin and gross profit margin in assessing a company's profitability?

- A. Net profit margin is the only relevant measure of profitability, making gross profit margin analysis unnecessary.
- B. Analyzing both margins is redundant since they essentially provide the same information about a company's profitability.
- C. Gross profit margin and net profit margin provide insights into different aspects of a company's operational efficiency and overall profitability.

The correct answer is C.

Gross profit margin and net profit margin provide insights into different aspects of a company's operational efficiency and overall profitability.

Gross profit margin focuses on the cost of goods sold and the direct profitability of the company's core business activities, indicating how efficiently a company uses its resources in producing its goods or services. Net profit margin, on the other hand, takes into account all operating expenses, interest, taxes, and other non-operating items, providing a comprehensive view of the company's overall profitability after all expenses have been deducted. Together, these margins offer a nuanced understanding of where efficiencies or inefficiencies lie within the company's operations and financial management.

**A is incorrect.** Both net profit margin and gross profit margin are important for a comprehensive analysis of a company's profitability. Net profit margin alone does not provide complete insight into the operational efficiency related to the cost of goods sold.

**B is incorrect.** Analyzing both margins is not redundant; each margin provides unique insights into the company's financial health and operational efficiency.

***Level 1, Volume 1, Topic 5 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 2e: evaluate a company's financial performance using common-size income statements and financial ratios based on the income statement***

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