

# **Level I of the CFA® 2025 Exam**

Questions with Answers - Financial Statements Analysis

Offered by AnalystPrep

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## **Learning Module 1: Introduction to Financial Statement Analysis**

Q.245 The management interpretation of the financial data can *best* be found in the:

- A. supplementary information.
- B. financial statement footnotes.
- C. management discussions and analysis.

The correct answer is **C**.

The management's interpretation of the financial data is most comprehensively and effectively communicated through the Management's Discussion and Analysis (MD&A) section of a company's annual report. The MD&A is designed to provide shareholders and potential investors with a narrative explanation, from the management's perspective, of the financial results and condition of the company. It includes discussions on the company's operations, its financial performance, and its future outlook. This section is particularly valuable because it offers insights that go beyond the numbers presented in the financial statements, providing context and management's perspective on what has driven those numbers, the challenges the company has faced, the strategies it has implemented, and its future plans. The MD&A allows management to discuss key performance indicators, risks, and uncertainties in a more detailed and narrative form, which can be crucial for investors making informed decisions.

**A is incorrect.** Supplementary information can indeed include a wide range of additional reports and disclosures that accompany the core financial statements, such as the auditor's report, governance reports, and corporate responsibility reports. However, while this information is valuable for providing a fuller picture of a company's activities and governance, it does not specifically focus on the management's interpretation of the financial data. Supplementary information supports the financial statements but does not offer the same depth of insight into management's perspective on the company's performance and outlook as the MD&A does.

**B is incorrect.** Financial statement footnotes are essential for understanding the financial statements as they provide detailed information on the accounting policies, methods, and estimates used in preparing the financial statements. They can also offer insights into the company's financial commitments, contingencies, and potential risks. However, the footnotes are more technical and focus on explaining the numbers in the financial statements rather than offering a narrative interpretation of those numbers. While footnotes are crucial for a deep understanding of the financial statements, they do not serve the same purpose as the MD&A in terms of providing management's discussion and analysis of the financial condition and results of operations.

***CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1c: describe the importance of regulatory filings, financial statement notes and supplementary information, management's commentary, and audit reports.***

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Q.343 The methods and estimates used in the preparation of financial statements are *most likely* mentioned in

- A. The auditor's report.
- B. The management commentary.
- C. The notes to the financial statements.

The correct answer is **C**.

The methods and estimates used in the preparation of financial statements are most accurately detailed in the notes to the financial statements. These notes are an integral part of a company's financial reporting, providing essential context and clarification for the figures presented in the primary financial statements, such as the balance sheet, income statement, and cash flow statement. The notes to the financial statements are crucial for users of financial information because they include detailed explanations of the accounting policies, methods, and estimates used by management in preparing the financial statements. This information is vital for understanding the basis on which the financial statements have been prepared and for making informed decisions based on those statements.

**A is incorrect.** The auditor's report is indeed an important component of a company's annual financial report. Still, its primary purpose is to provide an opinion on whether the financial statements are prepared, in all material respects, in accordance with the applicable financial reporting framework. The auditor's report assesses the fairness and accuracy of the financial statements but does not delve into the specific accounting methods and estimates used by the company. While the auditor's report may reference the accounting policies if they significantly impact the auditor's opinion, the detailed discussion of these policies and estimates is found in the notes to the financial statements, not in the auditor's report itself.

**B is incorrect.** The management commentary, or Management's Discussion and Analysis (MD&A), is a section of a company's annual report where management discusses the company's financial condition, changes in financial condition, and results of operations. While the MD&A provides valuable insights into the company's performance, strategies, and future outlook, it is more focused on qualitative analysis and narrative explanations of the financial results. The MD&A may reference certain accounting policies or estimates to provide context for the discussion, but the comprehensive and detailed disclosure of these accounting methods and estimates is contained within the notes to the financial statements. The notes are specifically designed to provide this level of detail, making them the most appropriate source for information on the methods and estimates used in the preparation of the financial statements.

**CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1c: describe the importance of regulatory filings, financial statement notes and supplementary information, management's commentary, and audit reports.**

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Q.344 Contractual commitments and off-balance-sheet obligations are most likely described in

- A. The proxy statement.
- B. The income statement.
- C. The management's discussion and analysis.

The correct answer is C.

Management's Discussion and Analysis (MD&A) is the section in a company's annual report or quarterly filings where the management discusses various aspects of the company's operations, financial condition, and future outlook. This section is crucial for investors and analysts as it provides a narrative explanation of the financial statements, offering insights that are not readily apparent from the numbers alone. One of the key components of MD&A is the discussion of contractual commitments and off-balance-sheet obligations. These may include long-term lease obligations, purchase commitments, and other significant financial commitments that could impact the company's future financial position but are not directly reflected on the balance sheet. By disclosing these commitments, the company provides a more comprehensive view of its financial health and potential risks.

**A is incorrect.** The proxy statement is a document that a publicly traded company is required to file with the Securities and Exchange Commission (SEC) ahead of its annual meeting. This document contains information about the company's board of directors, executive compensation, and any shareholder proposals. While it provides valuable information about the governance and management of the company, it does not typically include detailed discussions of contractual commitments and off-balance-sheet obligations.

**B is incorrect.** The income statement, also known as the profit and loss statement, summarizes the company's revenues, expenses, and profits or losses over a specific period. It provides a snapshot of the company's operational performance but does not include detailed information about contractual commitments or off-balance-sheet obligations. These items are more relevant to the company's future financial obligations and risk exposure rather than its past performance, and, therefore, are not typically disclosed in the income statement.

***CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1c: describe the importance of regulatory filings, financial statement notes and supplementary information, management's commentary, and audit reports.***

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Q.347 Accounting policies adopted by a company to record depreciation would *most likely* be specified in the

- A. income statement.
- B. management commentary.
- C. notes to the financial statements.

The correct answer is **C**.

Accounting policies, including those related to depreciation, are detailed in the notes to the financial statements. The notes serve as an integral part of a company's financial disclosures, providing additional context, detail, and explanation for the figures presented in the primary financial statements. These notes are essential for users of financial statements, such as investors and analysts, as they offer transparency and insight into the company's accounting methodologies and assumptions. Specifically, the notes to the financial statements will disclose the method of depreciation used (e.g., straight-line, declining balance), the useful lives of assets, and any changes in accounting estimates. This information is crucial for understanding how the company allocates the cost of its tangible assets over their useful lives, which in turn affects the company's reported earnings and asset values.

**A is incorrect.** The income statement reports a company's financial performance over a specific period, including revenues, expenses, and net income. While depreciation expense is reported on the income statement, the specific accounting policies adopted by the company to record depreciation, such as the method and useful life of assets, are not detailed here. The income statement's primary purpose is to show the results of operations, not to provide detailed disclosures about accounting policies.

**B is incorrect.** Management commentary, or management's discussion and analysis (MD&A), provides an overview of the company's performance, future outlook, and significant risks and uncertainties. It is a narrative explanation from management that accompanies the financial statements. Although the MD&A might discuss the impact of certain accounting policies on the company's financial performance, it does not serve as the official disclosure of accounting policies. Detailed disclosures about specific accounting policies, including those related to depreciation, are found in the notes to the financial statements, not in the management commentary.

***CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1c: describe the importance of regulatory filings, financial statement notes and supplementary information, management's commentary, and audit reports.***

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Q.352 Which of the following is *most likely* an external source of information when analyzing a company's reports?

- A. Auditor's report.
- B. Management commentary.
- C. Financial analyses of peer companies.

The correct answer is **C**.

When analyzing a company's financial reports, it is crucial to consider both internal and external sources of information to gain a comprehensive understanding of the company's financial health and market position. An external source of information, such as financial analyses of peer companies, provides valuable insights into the industry standards, competitive landscape, and relative performance of the company in question. This comparative analysis is essential for identifying strengths, weaknesses, opportunities, and threats in a broader market context, thereby enabling more informed investment decisions.

**A is incorrect.** The auditor's report, although an essential component of a company's financial statements, is considered an internal source of information. It is prepared by an independent external auditor but is part of the company's annual report. The auditor's report provides an opinion on the fairness and accuracy of the financial statements, ensuring they are free from material misstatement and comply with accounting standards. However, it does not offer the broader market perspective that external analyses do.

**B is incorrect.** Management commentary, also known as the management's discussion and analysis (MD&A), is another internal source of information. It is prepared by the company's management and provides context to the financial statements, explaining the financial and operational results, significant trends, and risks facing the company. While the MD&A offers valuable insights into the company's performance from the management's perspective, it lacks the external viewpoint necessary for a comprehensive analysis. It is subjective and may reflect the management's biases or intentions to present the company in a favorable light.

***CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1e: describe information sources that analysts use in financial statement analysis besides annual and interim financial reports***

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Q.353 Which of these statements is *least likely* accurate regarding financial statement analysis?

- A. Relative performance can be measured through the preparation of common-size financial statements.
- B. Analysts should not make any adjustments to the financial statements for financial statement analysis.
- C. The industry situation and the inflation are important factors to be considered for financial statement analysis.

The correct answer is **B**.

Option B is the least accurate statement regarding financial statement analysis because it suggests that analysts should not make any adjustments to the financial statements for analysis purposes. This perspective overlooks the critical need for adjustments in many scenarios to ensure comparability and accuracy in financial analysis. Financial statements from different companies may not be directly comparable due to differences in accounting policies, fiscal years, or operational structures. Adjustments are often necessary to normalize these differences, allowing for a more accurate comparison and analysis. For instance, companies operating in different countries may adopt different accounting standards (such as GAAP in the United States and IFRS internationally). Analysts frequently adjust financial statements to a common standard to facilitate meaningful comparisons. Additionally, adjustments for non-recurring items, different depreciation methods, or inventory valuation methods can be crucial for analyzing the underlying operational performance of companies.

**A is incorrect.** The preparation of common-size financial statements is a valid and widely used method for measuring relative performance. By expressing each line item as a percentage of a common base (such as total assets in the balance sheet or sales in the income statement), common-size statements allow for the comparison of financial data across companies of different sizes or across different periods for the same company. This standardization helps analysts identify trends and anomalies in financial performance and structure, making it a valuable tool in financial statement analysis.

**C is incorrect.** Considering the industry situation and inflation is indeed crucial for financial statement analysis. The industry context can significantly influence a company's financial performance and position. For example, companies in a rapidly growing industry may exhibit different financial characteristics than those in a mature or declining sector. Similarly, inflation can distort the real value of financial statement items over time, affecting the comparability of financial data across periods. Analysts often adjust financial statements for inflation to evaluate a company's performance in real terms. Understanding both the industry dynamics and the impact of inflation is essential for conducting a thorough and accurate financial analysis.

***CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1b: describe the roles of financial statement analysis***

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Q.354 An equity analyst's report will *least likely* include:

- A. the historical performance.
- B. the industry and competitive analysis.
- C. the opinion on the fairness of financial statements.

The correct answer is **C**.

The opinion on the fairness of financial statements is typically outside the scope of an equity analyst's report. This responsibility falls to auditors, who examine the financial statements to ensure they are prepared according to the applicable accounting standards and reflect the company's financial position accurately. While equity analysts do analyze financial statements to assess a company's financial health and performance, they do not provide opinions on the fairness of these statements. Their focus is on using the information in the financial statements, along with other qualitative and quantitative analyses, to evaluate the company's future earnings potential and investment attractiveness.

**A is incorrect.** The historical performance of a company is a fundamental component of an equity analyst's report. Analyzing historical performance allows the analyst to identify trends in revenue, profit margins, and other key financial metrics. This information is vital for projecting future performance and making investment recommendations. Without this analysis, it would be challenging to assess the potential growth or decline of the company in question.

**B is incorrect.** The industry and competitive analysis are essential parts of an equity analyst's report. Understanding the industry dynamics, including the level of competition, regulatory environment, and market growth, is crucial for evaluating a company's potential for success. Additionally, analyzing a company's competitive position, such as its market share, product differentiation, and operational efficiency, helps in determining its strengths and weaknesses relative to its competitors. This analysis provides valuable insights into the company's ability to generate future earnings and sustain its competitive advantage.

***CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1c: describe the importance of regulatory filings, financial statement notes and supplementary information, management's commentary, and audit reports.***

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Q.1790 An analyst is reviewing the consolidated income statement of a company. He is unable to understand the reporting of the disposal of land. Which of the following will the analyst *most likely* find details regarding this disposal?

- A. Balance sheet.
- B. Financial statement notes.
- C. Cash flow statement.

The correct answer is **B**.

The financial statement notes are an essential part of a company's annual report, providing detailed information and clarification about the figures presented in the main financial statements. When an analyst is looking into the specifics of the disposal of land by a company, the financial statement notes are the most likely place where they can find comprehensive details regarding this transaction. These notes often include information on the method of disposal, the financial impact of the transaction, any related taxes or fees, and how the disposal affects the company's financial position and performance. By reviewing the financial statement notes, the analyst can gain a deeper understanding of the context and implications of land disposal, which might not be immediately apparent from the figures presented in the income statement or balance sheet.

**A is incorrect.** The balance sheet provides a snapshot of a company's financial position at a specific point in time, detailing its assets, liabilities, and equity. While the balance sheet might reflect the overall impact of the disposal of land in terms of changes in the company's assets and possibly its equity, it does not typically offer detailed information about specific transactions. The balance sheet's primary purpose is to present the financial position rather than to delve into the specifics of individual transactions, which are more thoroughly covered in the financial statement notes.

**C is incorrect.** The cash flow statement provides information about a company's cash inflows and outflows over a period of time. While it may show the cash received from the disposal of land under investing activities, it does not provide detailed information about the transaction. .

***CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1c: describe the importance of regulatory filings, financial statement notes and supplementary information, management's commentary, and audit reports.***

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Q.1792 Which of the following statements is *least likely* part of the standard auditor's opinion?

- A. Generally accepted principles were followed, thus providing reasonable assurance.
- B. Whereas we prepared the financial statements, the managers have performed an independent review.
- C. Auditors are satisfied that the statement is prepared in accordance with generally accepted principles and contains reasonable estimates.

The correct answer is **B**.

It is not the auditors' responsibility to prepare financial statements. It should be stated as "Whereas financial statements are prepared, the auditors have performed an independent review."

**A and C are incorrect.** "Generally accepted principles were followed, thus providing reasonable assurance" and "Auditors are satisfied that the statement is prepared in accordance with generally accepted principles and contains reasonable estimates" are typical audit opinions.

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Q.1798 Which of the following *best* describes the interim reports released by a company?

- A. They are four qualified basic financial reports and condensed notes issued on semiannually or quarterly.
- B. They are four unqualified basic financial reports and condensed notes issued on a semiannually or quarterly basis.
- C. They are four unaudited basic financial reports and condensed notes issued on a semiannually or quarterly basis.

The correct answer is C.

Interim reports are essential tools for investors, analysts, and other stakeholders to assess a company's financial health and performance during the fiscal year. These reports are typically issued on a semiannual or quarterly basis and include four basic financial statements: the statement of financial position, statement of comprehensive income, statement of changes in equity, and statement of cash flows. Alongside these statements, condensed notes are provided to offer insights into the accounting policies, estimates, and any significant events that have occurred during the interim period. Unlike annual financial reports, interim reports are usually unaudited, meaning they have not undergone the same level of scrutiny and verification by external auditors. This does not diminish their value but rather indicates a faster reporting process to ensure timely dissemination of financial information. The unaudited nature of these reports is crucial for understanding the level of assurance provided with the financial information presented.

**A is incorrect.** It suggests that interim reports are qualified basic financial reports. The term "qualified" refers to a type of audit opinion where the auditor has reservations about certain aspects of the financial statements. However, interim reports are typically unaudited, making the qualification of the reports irrelevant in this context. Furthermore, the description fails to accurately reflect the unaudited status of these reports, which is a key characteristic distinguishing them from annual financial statements that usually undergo an audit process.

**B is incorrect.** It suggests that interim reports undergo the same audit process as annual financial statements, which is not the case. Interim reports are generally unaudited, and thus, they do not receive audit opinions—qualified or unqualified. The use of "unqualified" in this context does not accurately represent the nature of interim financial reporting and the level of assurance (or lack thereof) provided with these reports.

**CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1c: describe the importance of regulatory filings, financial statement notes and supplementary information, management's commentary, and audit reports.**

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Q.1803 Which of the following is *least likely* to be reviewed by independent outside auditors?

- A. Corporate press releases.
- B. Internal controls of a company.
- C. Management Discussion and Analysis (MD&A).

The correct answer is **A**.

Corporate press releases are the least likely to be reviewed by independent outside auditors. Press releases are typically used by companies to communicate with the public and stakeholders about various matters, including financial performance, new product launches, or other significant events. These documents are prepared by the company's management or public relations team and are primarily intended for marketing or informational purposes. Unlike financial statements or other formal reports, press releases do not undergo the same level of scrutiny and verification by independent auditors. The primary role of independent auditors is to examine the financial records and internal controls of a company to ensure the accuracy and reliability of its financial statements. Since corporate press releases are not considered formal financial documents and are not used by investors and creditors in the same way that financial statements are, they do not typically fall within the scope of an independent audit.

**B is incorrect.** Independent outside auditors do review the internal controls of a company. This review is a critical part of the audit process, as effective internal controls are essential for the accuracy and reliability of a company's financial reporting. In jurisdictions like the United States, auditors are required by law to evaluate and report on the effectiveness of a company's internal controls over financial reporting. This requirement is part of the Sarbanes-Oxley Act of 2002, which was enacted to enhance corporate governance and financial disclosure following several high-profile corporate scandals. The review of internal controls helps auditors assess the risk of material misstatement in the financial statements and provides investors with assurance about the company's operational efficiency and financial integrity.

**C is incorrect.** It helps investors understand the context in which the financial statements should be interpreted and provides additional insights into the company's performance and strategic direction.

***CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1c: describe the importance of regulatory filings, financial statement notes and supplementary information, management's commentary, and audit reports.***

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Q.1811 Which of the following statements is *most likely* accurate?

- A. The Management Discussion and Analysis (MD&A) is provided as a separate supplement.
- B. The Management Discussion and Analysis (MD&A) provides detailed numerical information regarding cash inflows and outflows of the firm.
- C. In the U.S., the Securities and Exchange Commission (SEC) requires the Management Discussion and Analysis (MD&A) to discuss trends and uncertainties.

The correct answer is **C**.

This requirement is part of the SEC's efforts to ensure that investors have access to comprehensive information that could affect a company's financial condition or results of operations. The MD&A section is a critical component of a company's annual report and filings, providing management's perspective on the financial health, results of operations, and future outlook of the company. It includes discussions on the company's liquidity, capital resources, results of operations, and what is driving changes in its financial statements. By discussing trends, uncertainties, and significant events, the MD&A helps investors understand the company's performance beyond what can be derived from purely quantitative financial statements.

**A is incorrect.** The Management Discussion and Analysis (MD&A) is not provided as a separate supplement; it is an integral part of a company's annual and quarterly reports filed with the SEC. The MD&A section is designed to provide investors and other stakeholders with a narrative explanation, through the eyes of management, of how the company performed during the period being reported, including its financial condition, operational results, and future prospects. This narrative is meant to complement and provide context to the quantitative financial statements, not to stand alone as a separate document.

**B is incorrect.** , while the Management Discussion and Analysis (MD&A) does discuss financial performance and may touch on aspects of cash flows, it is not primarily focused on providing detailed numerical information regarding cash inflows and outflows. That level of detail is found in the statement of cash flows, one of the core financial statements required in annual and quarterly reports. The statement of cash flows directly reports a company's cash inflows and outflows from operating, investing, and financing activities, providing a detailed view of the company's cash generation and usage over the reporting period. In contrast, the MD&A offers a narrative explanation of the factors influencing financial performance, including but not limited to cash flow issues.

**CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1c: describe the importance of regulatory filings, financial statement notes and supplementary information, management's commentary, and audit reports.**

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Q.1814 Andrew Anderson is an auditor for SRS Corp. While reviewing all of the income statements, he found some instances of accounts materially nonconforming to accounting standards. Which of the following is *most likely* the suitable opinion that Andrew should give regarding the SRS income statement?

- A. A qualified opinion.
- B. An adverse opinion.
- C. An unqualified opinion.

The correct answer is **B**.

An adverse opinion is the most suitable audit opinion that Andrew Anderson should give regarding the SRS income statement. This type of opinion is issued when the auditor concludes that the financial statements of a company are materially misstated and do not accurately reflect the company's financial position, results of operations, or cash flows in accordance with generally accepted accounting principles (GAAP). The issuance of an adverse opinion indicates that the discrepancies and non-conformities found in the financial statements are not only present but are also significant enough to mislead the users of these financial statements. Therefore, an adverse opinion essentially warns the users that the financial statements cannot be relied upon to make informed decisions.

**A is incorrect.** It indicates that the issues identified are limited and do not affect the financial statements as a whole. Since Andrew found instances of accounts materially nonconforming to accounting standards, a qualified opinion would not fully capture the extent of the discrepancies found in the SRS Corp's income statements.

**C is incorrect.** An unqualified opinion, also known as a clean opinion, is issued when the auditor concludes that the financial statements are presented fairly, in all material respects, in accordance with the applicable financial reporting framework. This opinion is given when the auditor does not find any material misstatements or non-conformities within the financial statements. Given that Andrew discovered material non-conformities in the income statements of SRS Corp, issuing an unqualified opinion would be inappropriate and misleading, as it would imply that the financial statements are free from material misstatements, which is not the case.

**CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1c: describe the importance of regulatory filings, financial statement notes and supplementary information, management's commentary, and audit reports.**

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Q.4568 In the context of the financial statement analysis framework, which step is primarily concerned with establishing the scope and objectives of the analysis?

- A. Collect Data
- B. Analyze and Interpret the Data
- C. Articulate the Purpose and Context of the Analysis

The correct answer is **C**.

In the "Articulate the Purpose and Context of the Analysis" step, the analyst defines the target audience, end product, timeframe, and specific questions to be answered by the analysis. It sets the foundation for the entire analysis process by clarifying the purpose and context, guiding further decisions about the approach, tools, data sources, and final report format. It also includes identifying the requisite resources and any constraints that might affect the analysis.

**A is incorrect.** The "Collect Data" step focuses on gathering the necessary data to answer the specific questions compiled in the first step. It involves collecting financial statements, industry data, and other relevant information but does not deal with defining the scope and objectives of the analysis.

**B is incorrect.** The "Analyze and Interpret the Data" involves assessing the processed data to support conclusions or recommendations. This step is about interpreting the results of the analysis rather than setting its scope and objectives.

***CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1a: describe the steps in the financial statement analysis framework.***

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Q.4570 Which step of the financial statement analysis framework *most likely* involves assessing the impact of resource constraints on the analysis?

- A. Follow-up
- B. Collect Data
- C. Articulate the Purpose and Context of the Analysis

The correct answer is **C**.

In the "**Articulate the Purpose and Context of the Analysis**" step, the analyst considers various factors that will shape the analysis, including resource constraints. This involves identifying the resources available for the analysis and any limitations that might impact the approach, such as time or budget constraints. By assessing these constraints early on, the analyst can plan the analysis more effectively and set realistic expectations.

**A is incorrect.** The "Follow-up" step is concerned with periodically reviewing the conclusions and recommendations of the analysis to ensure their continued validity. It does not involve assessing resource constraints, which is part of the initial planning and scoping of the analysis.

**B is incorrect.** The "Collect Data" step is focused on gathering the necessary information for the analysis. While resource constraints may indirectly affect data collection, this step does not specifically involve assessing the impact of those constraints on the analysis.

**CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1a: describe the steps in the financial statement analysis framework.**

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Q.4572 During which step of the financial statement analysis framework would an analyst *most likely* prepare forecasts and valuations based on the analyzed data?

- A. Process Data
- B. Analyze and Interpret the Data
- C. Develop and Communicate Conclusions and Recommendations

The correct answer is **B**.

Analyze and Interpret the Data is the stage where the analyst assesses the processed data to draw conclusions and make informed decisions. This step involves a deeper analysis of the financial information, where the analyst looks for trends, patterns, and anomalies within the data. It is during this phase that the analyst would use the processed data to prepare forecasts and valuations. Forecasts involve predicting future financial performance based on historical data, while valuations determine the value of a company or its assets. This step is crucial for making investment decisions, assessing the company's financial health, and providing recommendations.

**A is incorrect.** The "Process Data" step focuses on organizing and structuring the data collected in the previous step. It involves cleaning the data, computing financial ratios, creating common-size statements, and other preliminary analyses to make the data more manageable and understandable. While this step is essential for preparing the data for analysis, it does not involve the actual preparation of forecasts or valuations.

**C is incorrect.** Develop and Communicate Conclusions and Recommendations is also incorrect because this step comes after the analysis and interpretation of the data. It involves summarizing the findings from the analysis, formulating conclusions, and making recommendations based on those conclusions. While this step is important for communicating the results of the analysis to stakeholders, it is not the step where forecasts and valuations are prepared.

***CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1a: describe the steps in the financial statement analysis framework.***

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Q.4574 Which of the following is *most likely* a primary objective of financial statement analysis?

- A. To predict the exact future stock price of a company.
- B. To determine the precise date of a company's bankruptcy.
- C. To assess a company's ability to generate positive cash flows continuously.

The correct answer is **C**.

One of the primary objectives of financial statement analysis is to evaluate a company's financial health and operational efficiency. Assessing a company's ability to generate positive cash flows continuously is crucial in determining its financial stability, liquidity, and long-term viability. Positive cash flows indicate that a company can meet its financial obligations, invest in growth opportunities, and provide returns to shareholders. Financial statement analysis involves examining cash flow statements, income statements, and balance sheets to assess a company's cash flow generation capabilities.

**A is incorrect.** Financial statement analysis does not aim to predict the exact future stock price of a company. While analysts may use financial statement analysis to make informed predictions about a company's future performance, which can influence stock prices, the analysis itself does not provide an exact prediction of stock prices. Stock prices are influenced by a variety of factors, including market conditions, investor sentiment, and external economic factors, which are not solely determined by a company's financial statements.

**B is incorrect.** Financial statement analysis is not used to determine the precise date of a company's bankruptcy. While analysis can help identify financial distress and potential risks that may lead to bankruptcy, it does not provide a specific date for such an event. Bankruptcy is a complex process influenced by various legal, financial, and operational factors, and predicting the exact date is not a direct objective of financial statement analysis.

***CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1b: describe the roles of financial statement analysis.***

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Q.4575 Which of the following statements *best* describes the role of the International Organization of Securities Commissions (IOSCO)?

- A. IOSCO is a regulatory authority that directly oversees all global financial markets.
- B. IOSCO is responsible for enforcing securities laws and regulations in each of its member countries.
- C. IOSCO provides a platform for its members to develop and promote adherence to internationally recognized standards for securities regulation.

The correct answer is **C**.

IOSCO's primary role is to provide a platform for its members, which include securities regulators from various countries, to develop, promote, and adhere to internationally recognized standards for securities regulation. This helps ensure a consistent approach to securities regulation across different jurisdictions.

**A is incorrect.** IOSCO is not a regulatory authority with direct oversight over global financial markets. Instead, it is an international body that brings together the world's securities regulators to collaborate and develop global standards for securities regulation.

**B is incorrect.** IOSCO itself does not enforce securities laws and regulations in member countries. Enforcement is the responsibility of individual member regulators within their respective jurisdictions.

***CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1c: describe the importance of regulatory filings, financial statement notes and supplementary information, management's commentary, and audit reports.***

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Q.4576 Which of the following is *least likely* a core objective of securities regulation as defined by IOSCO's principles?

- A. Systemic risk reduction.
- B. Maximization of shareholder profits.
- C. Ensuring a fair, efficient, and transparent market.

The correct answer is **B**.

Maximization of shareholder profits is not listed as a core objective of securities regulation by IOSCO. While securities regulation aims to create an environment where investors can make informed decisions and potentially earn profits, the primary focus is on market integrity, investor protection, and risk reduction, rather than directly maximizing profits.

**A is incorrect.** Systemic risk reduction is indeed one of the core objectives of securities regulation according to IOSCO. This objective aims to minimize the risk of a breakdown in the financial system that could have widespread implications.

**C is incorrect.** Ensuring a fair, efficient, and transparent market is a core objective of securities regulation as defined by IOSCO. This objective aims to promote investor confidence and market integrity by ensuring that markets operate in a transparent and fair manner.

***CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1c: describe the importance of regulatory filings, financial statement notes and supplementary information, management's commentary, and audit reports.***

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Q.4577 In the context of the US Securities and Exchange Commission (SEC), which of the following acts *most likely* established the Public Company Accounting Oversight Board (PCAOB) to oversee auditors?

- A. Securities Act of 1933.
- B. Sarbanes-Oxley Act of 2002.
- C. Securities Exchange Act of 1934.

The correct answer is **B**.

The Sarbanes-Oxley Act of 2002 was enacted in response to financial scandals and aimed to enhance corporate governance and financial reporting. One of the key provisions of the act was the establishment of the PCAOB to oversee the audits of public companies, ensuring the integrity and quality of financial reporting.

**A is incorrect.** Securities Act of 1933 primarily focused on regulating the initial offering and sale of securities to the public, requiring disclosure of financial information but not establishing the PCAOB.

**C is incorrect.** The Securities Exchange Act of 1934 established the SEC and granted it regulatory authority over the securities industry, but it did not create the PCAOB.

***CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1c: describe the importance of regulatory filings, financial statement notes and supplementary information, management's commentary, and audit reports.***

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Q.4578 Which of the following forms is *least likely* typically filed annually with the SEC by companies with publicly traded securities?

A. Form 10-K.

B. Form 8-K.

C. Form 20-F

The correct answer is **B**.

Form 8-K, also known as the "current report," is used to report significant events or corporate changes as they occur, rather than on an annual basis. These events could include mergers, acquisitions, changes in leadership, or other material developments.

**A is incorrect.** Form 10-K is an annual report filed by US registrants with the SEC, providing a comprehensive overview of the company's financial performance.

**C is incorrect.** Form 20-F is an annual report filed by foreign registrants with the SEC, similar to Form 10-K for US companies. It provides information about the company's financial performance, risks, and business operations.

***CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1c: describe the importance of regulatory filings, financial statement notes and supplementary information, management's commentary, and audit reports.***

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Q.4579 According to business and geographic segment reporting, which of the following is *most likely* the threshold for a segment to be considered reportable? If the segment accounts for:

- A. 5 percent or more of the combined operating segments' revenue, assets, or profit.
- B. 10 percent or more of the combined operating segments' revenue, assets, or profit.
- C. 15 percent or more of the combined operating segments' revenue, assets, or profit.

The correct answer is **B**.

According to IFRS and US GAAP guidelines, a segment must be reported separately if it accounts for 10 percent or more of the combined revenue, assets, or profit of all operating segments. This threshold is set to ensure that significant segments are individually disclosed, providing a clearer picture of the company's performance and risks.

**A is incorrect.** The threshold for a segment to be considered reportable is not 5 percent, but rather 10 percent of the combined operating segments' revenue, assets, or profit.

**C is incorrect.** The threshold is not 15 percent but 10 percent. Setting the threshold at 10 percent strikes a balance between providing detailed information and avoiding excessive segmentation that could complicate the financial statements.

***CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1c: describe the importance of regulatory filings, financial statement notes and supplementary information, management's commentary, and audit reports.***

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Q.4580 Which of the following is *most likely* a significant difference between US GAAP and IFRS regarding inventory valuation?

- A. Both US GAAP and IFRS prohibit the LIFO method.
- B. IFRS allows the LIFO method, while US GAAP does not.
- C. US GAAP allows the LIFO method, while IFRS does not.

The correct answer is **C**.

US GAAP allows the use of the LIFO (Last In, First Out) method for inventory valuation, while IFRS does not permit the LIFO method and primarily uses the FIFO (First In, First Out) and Weighted Average methods.

**A is incorrect.** US GAAP does allow the LIFO method, unlike IFRS.

**B is incorrect.** IFRS does not allow the LIFO method, which is a significant difference from US GAAP.

***CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1d: describe the importance of regulatory filings, financial statement notes and supplementary information, management's commentary, and audit reports.***

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Q.4581 In the context of financial reporting standards, which of the following statements is *most likely* true regarding the treatment of development costs?

- A. IFRS requires development costs to be expensed.
- B. US GAAP requires development costs to be capitalized.
- C. IFRS allows for the capitalization of development costs if certain criteria are met.

The correct answer is **C**.

IFRS allows for the capitalization of development costs if they meet specific criteria for capitalization, such as demonstrating that the project will generate future economic benefits.

**A is incorrect.** US GAAP generally requires development costs to be expensed as incurred.

**B is incorrect.** IFRS allows for the capitalization of development costs under certain conditions.

***CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1d: describe the importance of regulatory filings, financial statement notes and supplementary information, management's commentary, and audit reports.***

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Q.4582 Which of the following is *most likely* a reason why it is challenging for analysts to compare financial statements prepared under different accounting standards?

- A. IFRS and US GAAP have fully converged, leaving no differences.
- B. Reconciliation disclosures between IFRS and US GAAP are always required.
- C. There are areas where accounting standards have not converged, and specific adjustments may be difficult without sufficient information.

The correct answer is **C**.

It is often challenging to make specific adjustments necessary to achieve comparability between financial statements prepared under different accounting standards, such as IFRS and US GAAP, without sufficient information, especially in areas where the standards have not converged.

**A is incorrect.** IFRS and US GAAP have not fully converged, and there are still significant differences.

**B is incorrect.** Reconciliation disclosures between IFRS and US GAAP are not always required, which can make comparisons more difficult.

***CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1d: describe the importance of regulatory filings, financial statement notes and supplementary information, management's commentary, and audit reports.***

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Q.4583 Which of the following is *most likely* the primary reason analysts should monitor developments in financial reporting standards?

- A. C. To prepare financial statements accurately.
- B. A. To ensure compliance with legal requirements.
- C. B. To understand the effect of these developments on financial reports.

The correct answer is **C**.

Analysts should monitor developments in financial reporting standards primarily from a user perspective to understand the effect of these developments on financial reports, which can impact company performance and security valuations.

**A is incorrect.** Preparing financial statements accurately is the responsibility of the preparers, not analysts. Analysts focus on understanding the financial reports for analysis and decision-making.

**B is incorrect.** Ensuring compliance with legal requirements is more relevant for preparers of financial statements, not analysts.

***CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1d: describe the importance of regulatory filings, financial statement notes and supplementary information, management's commentary, and audit reports.***

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Q.4586 Which of the following is *most likely* an example of an issuer source of information for financial statement analysis?

- A. Free analyst reports.
- B. Earnings calls hosted by the company.
- C. Data from government economic indicators.

The correct answer is **B**.

Earnings calls hosted by the company are an issuer source of information, where issuers discuss financial results, and analysts can ask questions to understand past actions and results.

**A is incorrect.** Free analyst reports are an example of public third-party sources.

**C is incorrect.** Data from government economic indicators is also a public third-party source.

**CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1e: describe information sources that analysts use in financial statement analysis besides annual and interim financial reports**

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Q.4587 Which of the following is *most likely* considered a proprietary third-party source of information for financial statement analysis?

- A. Social media platforms.
- B. Press releases issued by the company.
- C. Analyst communications and reports from platforms such as FactSet.

The correct answer is **C**.

Analyst communications and reports from platforms such as FactSet are considered proprietary third-party sources, as they are provided by entities other than the issuer and may require a subscription or payment.

**A is incorrect.** Social media platforms are considered public third-party sources.

**B is incorrect.** Press releases issued by the company are an issuer source of information.

**CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1e: describe information sources that analysts use in financial statement analysis besides annual and interim financial reports**

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Q.4588 Which of the following is *most likely* the primary purpose of using information from sources outside the company in financial statement analysis?

- A. To verify the accuracy of the company's financial statements.
- B. To reduce the reliance on the company's audited financial statements.
- C. To put the company's financial performance and prospects in perspective.

The correct answer is **C**.

The primary purpose of using information from sources outside the company is to put the company's financial performance and prospects in perspective by comparing it with economic, industry, and peer company information.

**A is incorrect.** The accuracy of the company's financial statements is primarily verified through an independent audit, not external sources.

**B is incorrect.** External sources complement, rather than reduce reliance on, the company's audited financial statements.

***CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1e: describe information sources that analysts use in financial statement analysis besides annual and interim financial reports***

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Q.4589 Which of the following is *least likely* a typical way for analysts to gather information for financial statement analysis?

- A. Monitoring industry-specific news outlets.
- B. Speaking with company management and investor relations.
- C. Relying solely on the company's annual financial statements.

The correct answer is **C**.

Relying solely on the company's annual financial statements is not a typical way for analysts to gather information, as they also use other sources to get a comprehensive view of the company's financial position and performance.

**A is incorrect.** Monitoring industry-specific news outlets is another way analysts gather information for analysis.

**B is incorrect.** Speaking with company management and investor relations is a common way for analysts to gather information.

***CFA Level 1, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 1 - Introduction to Financial Statement Analysis, LOS 1e: describe information sources that analysts use in financial statement analysis besides annual and interim financial reports***

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## 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**.

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

**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 conveyor 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:

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

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.

**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.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 August 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**.

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

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

#### Denominator

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

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

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**

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:  $\text{Commission} = \text{Total Sales} \times \text{Commission Rate}$ . 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:

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

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

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% × 100,000 × (1 – 0.40) = \$4,800	8% × 100,000 × (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 × 50 = 200,000	0	4000 × 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, Topic 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.

$$\begin{aligned}
\text{Incremental shares issued stock option exercise} &= 150,000 - \frac{150,000 \times 10}{42} = 114,286 \\
\text{Weighted average shares} &= 5,000,000 + 114,286 + \frac{450,000 \times 10 \text{ months}}{12 \text{ months}} - \frac{120,000 \times 6 \text{ months}}{12 \text{ months}} \\
&= 5,429,286 \\
\Rightarrow \text{Diluted EPS} &= \frac{\text{Net income}}{\text{Weighted average shares}} = \frac{5,500,000}{5,429,286} = 1.01\$/\text{share}
\end{aligned}$$

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

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

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

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

**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:

$$\begin{aligned}\text{Diluted EPS} &= \frac{\text{Net income}}{\text{Weighted average number of outstanding shares} + \text{New common shares that would have been outstanding if the convertible preferred stock had been converted}} \\ &= \frac{\text{USD } 1,200,000}{500,000 + 40,000} \\ &= \text{USD } 2.22\end{aligned}$$

***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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### **Learning Module 3: Analyzing Balance Sheet**

Q.348 A company's ability to meet short-term obligations is *most likely* termed as

- A. solvency.
- B. liquidity.
- C. profitability.

The correct answer is **B**.

A company's ability to meet short-term obligations is most accurately described by its liquidity. Liquidity refers to the ease with which a company can convert its assets into cash to pay off its short-term liabilities without significant loss in value. This is a critical measure of financial health, as it indicates a company's capability to handle its immediate financial responsibilities, such as paying suppliers, employees, and other operational expenses. High liquidity levels suggest that a company can easily meet its short-term obligations, thereby reducing the risk of financial distress. Liquidity is often assessed using ratios such as the current ratio and the quick ratio, which compare a company's current assets to its current liabilities.

**A is incorrect.** Solvency refers to a company's ability to meet its long-term financial commitments and obligations. It is a measure of financial stability and endurance, indicating whether a company can sustain its operations and growth over the long term. Solvency is assessed through ratios such as the debt-to-equity ratio and the interest coverage ratio, which evaluate a company's long-term debt levels and its ability to service this debt.

**C is incorrect.** Profitability refers to a company's ability to generate earnings relative to its revenue, assets, or equity over time. It is an indicator of a company's efficiency in using its resources to produce a return. Common measures of profitability include the net profit margin, return on assets (ROA), and return on equity (ROE). While profitability is essential for assessing a company's financial performance and its potential to generate wealth for shareholders, it does not directly measure the company's capacity to meet short-term financial obligations.

***CFA Level 1, Volume 2, Topic 3 - Financial Statement Analysis, Learning Module 3 - Analyzing Balance Sheets, LOS 3e: calculate and interpret common-size balance sheets and related financial ratios***

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Q.1974 Which of the following is the *most appropriate* statement regarding deferred tax assets?

- A. Deferred tax assets are created when the amount of tax expense exceeds the amount of taxes payable.
- B. Deferred tax assets are created when the amount of taxes payable exceeds the amount of tax expense in the income statement.
- C. Deferred tax assets are created when the amount of taxes payable is equal to the amount of taxes expense in the income statement.

The correct answer is **B**.

Deferred tax assets are recognized in situations where the amount of taxes payable exceeds the tax expense reported in the income statement. This discrepancy usually arises due to differences in accounting methods used for financial reporting purposes and those used for tax calculations (known as temporary differences). Deferred tax assets indicate that a company has either prepaid taxes or has certain tax carryforwards, which can be used to offset future tax liabilities. Essentially, it represents an amount that the company is expected to recover in future periods through lower tax payments.

**A is incorrect.** It inaccurately describes the creation of deferred tax assets. Deferred tax assets are not generated when tax expense on the income statement exceeds taxes payable. Instead, this scenario typically leads to the recognition of a deferred tax liability, not an asset. A deferred tax liability indicates that the company will owe more taxes in the future than what is currently reported on the income statement, due to temporary differences between the accounting and tax treatments of certain items.

**C is incorrect.** It suggests that deferred tax assets are created when the amount of taxes payable is equal to the tax expense in the income statement. This statement is fundamentally flawed as deferred tax assets (or liabilities) arise due to differences between the tax base of assets or liabilities and their carrying amount in the financial statements. When the taxes payable are equal to the tax expense, it indicates that there are no temporary differences, and thus, no deferred tax assets or liabilities would typically be recognized under this scenario.

***CFA Level 1, Volume 2, Topic 3 - Financial Statement Analysis, Learning Module 3 - Analyzing Balance Sheets, LOS 3d: explain the financial reporting and disclosures related to non-current liabilities***

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Q.1978 Everest Bank is analysing D-Corp to measure its ability to pay off a long-term debt that D-Corp has recently applied for. Which of the following analyses will serve this purpose?

- A. Solvency analysis.
- B. Liquidity analysis.
- C. Profitability analysis.

The correct answer is **A**.

The solvency analysis is used to measure the ability of a company to meet its long-term obligations.

**B is incorrect.** Liquidity analysis is used to measure the ability of a company to meet short-term obligations.

**C is incorrect.** Profitability analysis is used to measure the ability of a company to generate profit on capital invested.

***CFA Level 1, Volume 2, Topic 3 - Financial Statement Analysis, Learning Module 3 - Analyzing Balance Sheets, LOS 3e: calculate and interpret common-size balance sheets and related financial ratios***

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Q.1981 Trance Inc. purchased outstanding stocks of Deep House Corp for \$450 million. The following table is an excerpt of Deep House's balance sheet., calculate the amount of goodwill or the amount of gain on the purchase of Deep House's stocks if the fair value of the assets of Deep House is equal to its book value.

Account	Amount (in million \$)
Cash	200
Inventory	50
Property, Plant and Equipment	480
Short-term Liabilities	80
Long-term Liabilities	150
Common Equity	500

If Deep House's fair value is equal to its book value, the amount of goodwill or the amount of gain on the purchase of Deep House's stocks is *closest to*:

- A. Goodwill of \$50 million is recognized on the balance sheet.
- B. A loss of \$50 million is recognized in the income statement.
- C. A gain of \$50 million is recognized in the income statement.

The correct answer is **C**.

$$\begin{aligned} \text{Net Assets Value} &= \$200 \text{ million (Cash)} + \$50 \text{ million (Inventory)} + \$480 \text{ million (Plant)} \\ &- \$80 \text{ million (Short-term liabilities)} - \$150 \text{ million (Long-term liabilities)} = \$500 \text{ million} \end{aligned}$$

The price paid for the purchase of Deep House stocks is \$450 million, which is less than the fair value of the net assets of \$500 million. Therefore, a \$50 million gain on the purchase of the assets is to be recognized.

**A is incorrect.** Goodwill is the excess of the purchase price of an acquired company over the fair value of the identifiable net assets acquired. If the purchase price is less than the fair value of net assets, then again is recognized in the acquirer's income statement.

**B is incorrect.** Contradicts option C.

**CFA Level 1, Volume 2, Topic 3 - Financial Statement Analysis, Learning Module 2 - Analyzing Income Statements, LOS 3a: 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.1992 Simon Belfast, an equity analyst, analyzes two market leaders (Sun Corp. & Moon Inc.) in the automotive industry. As such, he collected the following data.

	Sun Corp.	Moon Inc.
Cash	250,000	410,000
Marketable securities	380,000	240,000
Inventory	220,000	550,000
PP&E	650,000	1,300,000
Short-term liabilities	300,000	300,000
Long-term liabilities	700,000	400,000
Common equity	500,000	1,800,000

The Sun Corp's cash ratio is *closest to*:

A. 0.63

B. 2.10

C. 2.83

The correct answer is **B**.

$$\begin{aligned}\text{Cash ratio} &= \frac{\text{Cash} + \text{Marketable securities}}{\text{Current liabilities}} \\ &= \frac{250,000 + 380,000}{300,000} = 2.1\end{aligned}$$

Note: The cash ratio looks at the company's most liquid short-term assets, which are those that can be used most easily to pay off current obligations. **A is incorrect.** Uses long-term liabilities to calculate cash ratio:

$$\text{Cash ratio} = \frac{(250,000 + 380,000)}{(300,000 + 700,000)} = 0.63$$

. **C is incorrect.** Included inventory in the numerator of the cash ratio:

$$\text{Cash ratio} = \frac{(250,000 + 380,000 + 220,000)}{300,000} = 2.83$$

**CFA Level 1, Volume 2, Topic 3 - Financial Statement Analysis, Learning Module 3 - Analyzing Balance Sheets, LOS 3e: calculate and interpret common-size balance sheets and related financial ratios**

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Q.1993 Simon Belfast, an equity analyst, is analyzing two market leaders (Sun Corp. & Moon Inc.) in the automotive industry. Using the data given in the following table, Moon Inc's debt-to-asset ratio is *closest to*:

	Sun Corp.	Moon Inc.
Cash	250,000	410,000
Marketable securities	380,000	240,000
Inventory	220,000	550,000
PP&E	650,000	1,300,000
Short-term liabilities	300,000	300,000
Long-term liabilities	700,000	400,000
Common equity	500,000	1,800,000

A. 0.16

B. 0.28

C. 0.48

The correct answer is **B**.

$$\begin{aligned}\text{Debt-to-asset ratio} &= \frac{\text{Total debt}}{\text{Total assets}} \\ \text{Total debt} &= \text{short-term liabilities} + \text{long-term liabilities} \\ &= 400,000 + 300,000 = 700,000 \\ \text{Total Assets} &= \text{Cash} + \text{Marketable securities} + \text{Inventory} + \text{PPE} \\ &= 410,000 + 240,000 + 550,000 + 1,300,000 = 2,500,000 \\ \text{Debt ratio} &= \frac{700,000}{2,500,000} = 0.28\end{aligned}$$

Note: The debt-to-asset ratio is a financial ratio that indicates the percentage of a company's assets that are provided through debt.

**A is incorrect.** Includes common equity as debt.

**C is incorrect.** Includes common equity as an asset.

**CFA Level 1, Volume 2, Topic 3 - Financial Statement Analysis, Learning Module 3 - Analyzing Balance Sheets, LOS 3e: calculate and interpret common-size balance sheets and related financial ratios**

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Q.1994 Simon Belfast, an equity analyst, is analyzing two market leaders (Sun Corp. & Moon Inc.) in the automotive industry. Using the data given in the following table, determine which firm is more liquid based on current ratios.

	Sun Corp.	Moon Inc.
Cash	250,000	410,000
Marketable securities	380,000	240,000
Inventory	220,000	550,000
PP&E	650,000	1,300,000
Short-term liabilities	300,000	300,000
Long-term liabilities	700,000	400,000
Common equity	500,000	1,800,000

A. Sun Corp is more liquid because its current ratio is 2.83.

B. Moon Inc. is more liquid because its current Ratio is 4.

C. Moon Inc. is more liquid because its current ratio is 2.83.

The correct answer is **B**.

$$\begin{aligned}\text{Current ratio} &= \frac{\text{Current assets}}{\text{Current liabilities}} \\ \text{Sun Corp's current ratio} &= \frac{250,000 + 380,000 + 220,000}{300,000} = 2.83 \\ \text{Moon Inc's current ratio} &= \frac{410,000 + 240,000 + 550,000}{300,000} = 4\end{aligned}$$

Therefore, Moon Inc. is more liquid than Sun Corp.

**B is incorrect.** Sun Corp cannot be more liquid than Moon Inc. since it has a lower current ratio.

**C is incorrect.** The current ratio of Moon Inc. is 4.

**CFA Level 1, Volume 2, Topic 3 - Financial Statement Analysis, Learning Module 3 - Analyzing Balance Sheets, LOS 3e: calculate and interpret common-size balance sheets and related financial ratios**

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Q.1995 Which of the following is *most likely* a conservative liquidity ratio?

A. Cash Ratio.

B. Quick Ratio.



### C. Current Ratio.

The correct answer is **A**.

The cash ratio is the most stringent and conservative of the three short-term liquidity ratios (current, quick, and cash). It only looks at the most liquid short-term assets of the company, which are those that can be used most easily to pay off current obligations. Formally, cash ratio is defined as:

$$\text{Cash ratio} = \frac{\text{Cash} + \text{Marketable securities}}{\text{Current liabilities}}$$

**B is incorrect.** The quick ratio is more conservative than the current ratio because it includes only the more liquid current assets in relation to current liabilities. Quick ratio is defined as:

$$\text{Quick Ratio} = \frac{\text{Cash} + \text{Short term marketable investments} + \text{Receivables}}{\text{Current liabilities}}$$

**C is incorrect.** Current ratio is defined as:

$$\text{Current Ratio} = \frac{(\text{Current assets})}{(\text{Current liabilities})}$$

Intuitively, the current ratio is less conservative compared with the cash ratio.

### More Information

The cash ratio is a liquidity ratio that measures a company's ability to pay its short-term obligations with its most liquid assets, which are cash and cash equivalents. This ratio is considered to be the most stringent and conservative measure of a company's liquidity because it only takes into account the most liquid assets, which are easily convertible into cash. The quick ratio, also known as the acid-test ratio, is similar to the cash ratio, but it also includes short-term investments that can be easily sold for cash within 90 days.

The current ratio is a more comprehensive measure of a company's liquidity that takes into account both its current assets and current liabilities. This ratio provides a more comprehensive view of a company's financial position, but it is not as stringent as the cash ratio. In conclusion, the cash ratio is considered to be the most conservative liquidity ratio because it only takes into account the most liquid assets, which provides a more stringent measure of a company's ability to meet its short-term obligations.

***CFA Level 1, Volume 2, Topic 3 - Financial Statement Analysis, Learning Module 3 - Analyzing Balance Sheets, LOS 3e: calculate and interpret common-size balance sheets and related financial ratios***

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Q.3811 In 2018, the cash, quick and current ratios of a company were 2.09, 3.10, and 2.29 respectively. Below is select information from the balance sheet of the Company in 2019. Determine the ratio that *most likely* decreased.

	Amount in Millions
Cash and Cash Equivalents	102.0
Marketable Securities	369.5
Accounts Receivables	13.5
Other Current Assets	123
Total Current Assets	608
Accrued Interests and Expenses	92.0
Other Current Liabilities	103.0
Total Current Liabilities	195.0

- A. Cash Ratio.
- B. Quick Ratio,
- C. Current Ratio.

The correct answer is **B**.

$$\begin{aligned}\text{Cash Ratio} &= \frac{\text{Cash} + \text{Marketable Securities}}{\text{Current Liabilities}} \\ \text{Quick Ratio} &= \frac{\text{Cash} + \text{Marketable Securities} + \text{Accounts Receivables}}{\text{Current Liabilities}} \\ \text{Current Ratio} &= \frac{\text{Current Assets}}{\text{Current Liabilities}}\end{aligned}$$

	Current Year	Previous Year	Change
Cash Ratio	2.42	2.09	+0.33
Quick Ratio	2.49	3.10	-0.61
Current Ratio	3.12	2.29	+0.83

**A is incorrect.** The current ratio has increased by 0.83.

**C is incorrect.** The cash ratio has increased by 0.33.

**CFA Level 1, Volume 2, Topic 3 - Financial Statement Analysis, Learning Module 3 - Analyzing Balance Sheets, LOS 3e: calculate and interpret common-size balance sheets and related financial ratios**

Q.3812 Calculate the financial leverage of a company based on the data below.

Working Capital	\$ 70 Million
Non-Current Assets	\$245 Million
Equity	\$180 Million
Current Ratio	2.0

A. 0.78

B. 1.36

C. 2.14

The correct answer is **C**.

$$\begin{aligned}
 \text{Current Ratio} &= \frac{\text{Current Assets}}{\text{Current Liabilities}} \\
 \text{Working Capital} &= \text{Current Assets} - \text{Current Liabilities} \\
 \text{Current Ratio} &= \frac{\text{Current Assets}}{\text{Current Liabilities}} = 2.00 \\
 \text{Current Liabilities} &= \frac{\text{Current Assets}}{2.00} \\
 \text{Working Capital} &= \text{Current Assets} - \text{Current Liabilities} \\
 70 &= \text{Current Assets} - \frac{\text{Current Assets}}{2} \\
 \text{Current Assets} &= 140 \\
 \text{Current Liabilities} &= 140 - 70 = 70 \text{ or } \text{Current Liabilities} = \frac{140}{2.00} = 70 \\
 \text{Financial Leverage} &= \frac{\text{Total Assets}}{\text{Total Equity}} \\
 \text{Financial Leverage} &= \frac{140 + 245}{180} = 2.14
 \end{aligned}$$

**A is incorrect.** Current assets have been used in place of total assets to calculate the financial leverage of the Company.

**C is incorrect.** It has used non-current assets instead of total assets to calculate financial leverage.

**CFA Level 1, Volume 2, Topic 3 - Financial Statement Analysis, Learning Module 3 - Analyzing Balance Sheets, LOS 3e: calculate and interpret common-size balance sheets and related financial ratios**

Q.3814 Select information from a company's 2018 balance sheet is as follows:

Cash and cash equivalents	\$ 500 Million
Marketable Securities	\$ 200 Million
Accounts Receivables	\$ 100 Million
Inventories	\$ 400 Million
Goodwill	\$ 800 Million
Long Term Debt	\$ 700 Million
Total Current Liabilities	\$ 900 Million

If the current ratio of the company in 2017 was 1.50, its ability to meet its short-term obligations has *most likely*?

- A. Increased.
- B. Decreased.
- C. Remained the same.

The correct answer is **B**.

$$\begin{aligned}\text{Current Ratio} &= \frac{\text{Current Assets}}{\text{Current Liabilities}} \\ \text{Current ratio} &= \frac{1200}{900} = 1.33\end{aligned}$$

The current ratio of the Company has dropped from 1.50 in 2018 to 1.33 in 2019. A decrease in the current ratio indicates a lower level of liquidity and, therefore, a reduced ability to meet short-term obligations.

**A and C is incorrect.** They contradict option B.

***CFA Level 1, Volume 2, Topic 3 - Financial Statement Analysis, Learning Module 3 - Analyzing Balance Sheets, LOS 3e: calculate and interpret common-size balance sheets and related financial ratios***

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Q.3817 Consider the following information of a hypothetical company:

- Long-Term Debt - \$30 Million
- Current Liabilities - \$20 Million
- Total Equity - \$50 Million
- Current Assets - \$35 Million
- Non-Current Assets - \$65 Million

The financial leverage is *closest to* :

- A. 0.6
- B. 1.0
- C. 2.0

The correct answer is **C**.

Recall that,

$$\text{Financial Leverage} = \frac{\text{Total Assets}}{\text{Total Equity}} = \frac{100}{50} = 2.0$$

***CFA Level 1, Volume 2, Topic 3 - Financial Statement Analysis, Learning Module 3 - Analyzing Balance Sheets, LOS 3e: calculate and interpret common-size balance sheets and related financial ratios***

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Q.4653 Under IFRS, the revaluation model for intangible assets can be used if:

- A. the asset is internally generated.
- B. the asset has a finite useful life.
- C. there is a readily determinable market value for the asset.

The correct answer is **C**.

The revaluation model allows an intangible asset to be carried at a revalued amount, which is its fair value at the date of revaluation, less any subsequent accumulated amortization and any subsequent accumulated impairment losses. This model can only be applied if there is an active market for the asset, providing a readily determinable market value.

**A is incorrect.** The revaluation model is typically not applicable to internally generated intangible assets, as it is often challenging to determine a fair value for these assets due to the lack of an active market.

**B is incorrect** The choice of the revaluation model is not dependent on whether the intangible asset has a finite or indefinite useful life. Both types of assets can be revalued if there is an active market.

***CFA Level 1, Volume 2, Topic 3 - Financial Statement Analysis, Learning Module 3 - Analyzing Balance Sheets, LOS 3a: explain the financial reporting and disclosures related to intangible assets***

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Q.4654 Under US GAAP, which of the following costs associated with internally generated intangible assets is capitalized?

- A. Advertising expenses.
- B. Research phase expenses.
- C. Both research phases and advertising expenses are not capitalized.

The correct answer is **C**.

Under US GAAP, costs incurred during the research phase and the development phase of an internally generated intangible asset are typically expensed as incurred. Capitalizing such costs is prohibited.

**A is incorrect.** Advertising expenses are also expensed under US GAAP and are not capitalized as part of internally generated intangible assets.

**B is incorrect.** Research phase expenses are expensed as incurred under US GAAP and are not capitalized.

***CFA Level 1, Volume 2, Topic 3 - Financial Statement Analysis, Learning Module 3 - Analyzing Balance Sheets, LOS 3a: explain the financial reporting and disclosures related to intangible assets***

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Q.4655 The impairment testing for intangible assets with an indefinite useful life is conducted:

- A. at least annually.
- B. only at the time of acquisition.
- C. on a systematic basis over the asset's useful life.

The correct answer is **A**.

At least annually. Intangible assets with an indefinite useful life are not amortized but are required to be tested for impairment at least annually or more frequently if events or changes in circumstances indicate that the asset might be impaired.

**B is incorrect.** While an initial impairment test may be conducted at the time of acquisition, ongoing impairment testing for intangible assets with an indefinite useful life is required at least annually.

**C is incorrect.** Systematic amortization is not applicable to intangible assets with an indefinite useful life; therefore, impairment testing is not conducted on a systematic basis over the asset's useful life.

***CFA Level 1, Volume 2, Topic 3 - Financial Statement Analysis, Learning Module 3 - Analyzing Balance Sheets, LOS 3a: explain the financial reporting and disclosures related to intangible assets***

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Q.4656 Under IFRS, the initial recognition of an internally generated intangible asset in the development phase requires all of the following *except*:

- A. demonstration of the technical feasibility of completing the asset.
- B. evidence of market research confirming the demand for the asset.
- C. ability to measure reliably the expenditure attributable to the asset during its development.

The correct answer is **B**.

While market research may be important for business decision-making, it is not one of the criteria listed in IAS 38 for capitalizing costs incurred in the development phase of an internally generated intangible asset.

**A is incorrect.** Demonstrating the technical feasibility of completing the intangible asset is one of the criteria required for capitalizing development costs under IFRS.

**C is incorrect.** The ability to measure reliably the expenditure attributable to the intangible asset during its development is also a required criterion for capitalizing development costs under IFRS.

***CFA Level 1, Volume 2, Topic 3 - Financial Statement Analysis, Learning Module 3 - Analyzing Balance Sheets, LOS 3a: explain the financial reporting and disclosures related to intangible assets***

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Q.4657 Which of the following factors is *least likely* to be considered in the valuation of economic goodwill?

- A. Customer loyalty.
- B. Management expertise.
- C. Book value of tangible assets.

The correct answer is **C**.

Economic goodwill pertains to intangible aspects that enhance a business's value beyond its tangible assets and liabilities. While customer loyalty and management expertise are intangible factors contributing to economic goodwill, the book value of tangible assets is not directly related to the valuation of economic goodwill.

**A is incorrect.** Customer loyalty is an intangible factor that contributes to a business's ability to generate future profits, making it a key component of economic goodwill.

**B is incorrect.** Management expertise is another intangible factor that can enhance a business's value by improving operational efficiency and strategic decision-making, thus contributing to economic goodwill.

***CFA Level 1, Volume 2, Topic 3 - Financial Statement Analysis, Learning Module 3 - Analyzing Balance Sheets, LOS 3b: explain the financial reporting and disclosures related to goodwill.***

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Q.4658 In the context of goodwill impairment testing, which of the following statements is *most accurate*?

- A. Goodwill impairment losses are amortized over the remaining useful life of the asset.
- B. Goodwill impairment is tested by comparing the carrying amount of the reporting unit to its recoverable amount.
- C. Goodwill impairment testing is performed only when there is a significant decline in the market value of the company.

The correct answer is **B**.

Goodwill impairment is tested by comparing the carrying amount of the reporting unit to its recoverable amount. Under both IFRS and US GAAP, the impairment test involves comparing the carrying amount of the reporting unit, including goodwill, to its recoverable amount (the higher of its fair value, less costs to sell, and its value in use). If the carrying amount exceeds the recoverable amount, an impairment loss is recognized.

**A is incorrect.** Goodwill impairment losses are not amortized. Once recognized, an impairment loss reduces the carrying amount of goodwill and is not subsequently reversed.

**C is incorrect.** While a decline in market value may trigger an impairment test, goodwill impairment testing is required annually, regardless of changes in market value. It may also be performed more frequently if there are indications of impairment.

***CFA Level 1, Volume 3, Topic 3 - Financial Statement Analysis, Learning Module 3 - Analyzing Balance Sheets, LOS 3b: explain the financial reporting and disclosures related to goodwill.***

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Q.4659 When assessing the fair value of net identifiable assets in a business combination, which of the following is *least likely* to be included?

- A. Contingent liabilities.
- B. Future revenue projections.
- C. Recognized intangible assets.

The correct answer is **B**.

In a business combination, the fair value of net identifiable assets includes recognized tangible and intangible assets and liabilities, including contingent liabilities. However, future revenue projections are not considered identifiable assets and are not included in the fair value assessment.

**A is incorrect.** Contingent liabilities, such as potential legal settlements, are assessed at their fair value and included in the measurement of net identifiable assets in a business combination.

**C is incorrect.** Recognized intangible assets, such as patents and trademarks, are included in the fair value measurement of net identifiable assets in a business combination.

***CFA Level 1, Volume 2, Topic 3 - Financial Statement Analysis, Learning Module 3 - Analyzing Balance Sheets, LOS 3b: explain the financial reporting and disclosures related to goodwill.***

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Q.4660 Which of the following is *least likely* a reason for analysts to exclude goodwill from balance sheet data when adjusting financial statements?

- A. To simplify the calculation of financial ratios.
- B. To eliminate the effects of non-cash expenses related to goodwill impairment.
- C. To assess the company's financial position based on its tangible assets and equity.

The correct answer is **B**.

When analysts exclude goodwill from balance sheet data, it is typically to analyze the company's financial position and performance based on its tangible assets and equity, not to address non-cash expenses. Non-cash expenses related to goodwill impairment are more relevant to adjustments made to income data, not balance sheet data.

**A is incorrect.** Simplifying the calculation of financial ratios is not the primary reason for excluding goodwill from balance sheet data. The main purpose is to gain insights into the company's financial position based on tangible assets.

**C is incorrect.** Excluding goodwill from balance sheet data is often done to focus the analysis on the company's tangible assets and equity, providing a clearer picture of its financial position.

***CFA Level 1, Volume 2, Topic 3 - Financial Statement Analysis, Learning Module 3 - Analyzing Balance Sheets, LOS 3b: explain the financial reporting and disclosures related to goodwill.***

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Q.4662 In the context of IFRS, which of the following *best* describes the measurement basis for a derivative instrument?

- A. Fair value, with changes recognized in profit or loss.
- B. Amortized cost, adjusted for changes in the entity's credit risk.
- C. Fair value, with changes recognized in other comprehensive income.

The correct answer is **A**.

Derivative financial instruments are typically measured at fair value, with changes in fair value recognized in the income statement. This treatment reflects the volatile nature of derivatives and their potential impact on the entity's financial position and performance.

**B is incorrect.** Amortized cost is not a suitable measurement basis for derivatives, as it does not capture changes in their fair value. Additionally, adjustments for changes in the entity's credit risk are more relevant to the fair value measurement of non-derivative financial liabilities.

**C is incorrect.** While some financial instruments can be measured at fair value through other comprehensive income, derivative financial instruments are generally not eligible for this treatment under IFRS due to their speculative nature and the need for timely recognition of fair value changes.

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

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Q.4663 Which of the following scenarios would *most likely* result in a financial asset being reclassified from measured at fair value through profit or loss to measured at amortized cost under IFRS?

- A. The financial asset is a derivative instrument used for hedging purposes.
- B. The financial asset is an equity instrument, and the entity decides to hold it for long-term strategic purposes.
- C. The financial asset is a debt instrument, and the business model changes to holding the asset to collect contractual cash flows until maturity.

The correct answer is **C**.

Under IFRS, a debt instrument can be reclassified from fair value through profit or loss to amortized cost if there is a change in the business model for managing the financial asset. This reclassification reflects the entity's revised intention and strategy for the asset.

**A is incorrect.** Derivative instruments used for hedging purposes are subject to specific hedge accounting rules under IFRS, which differ from the measurement categories of fair value through profit or loss and amortized cost.

**B is incorrect.** Equity instruments are generally not reclassified from fair value through profit or loss to amortized cost under IFRS, as the fair value measurement provides more relevant information for equity investments that are subject to market price fluctuations.

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

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Q.4665 Under US GAAP, which of the following statements about the classification of financial assets is *most accurate*?

- A. Debt securities intended to be held to maturity are classified as trading securities.
- B. Equity investments that provide significant influence are measured at fair value through profit or loss.
- C. Trading securities are acquired with the intention of selling them in the near term and are measured at fair value through profit or loss.

The correct answer is **C**.

Trading securities are acquired with the intention of selling them in the near term and are measured at fair value through profit or loss. This classification is for both debt and equity securities that are bought and held primarily for sale in the short term. Unrealized gains or losses on trading securities are recognized in the income statement.

**A is incorrect.** Debt securities intended to be held to maturity are classified as "held-to-maturity" securities under US GAAP, not as trading securities. They are measured at amortized cost.

**B is incorrect.** Equity investments that provide significant influence over the investee are generally not measured at fair value through profit or loss.

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

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Q.4666 How does the issuance of a bond at par value affect the company's financial statements over the life of the bond?

- A. The carrying amount of the bond liability remains constant throughout its life.
- B. The interest expense decreases over time due to the amortization of the discount.
- C. The carrying amount of the bond liability fluctuates based on changes in market interest rates.

The correct answer is **A**.

The carrying amount of the bond liability remains constant throughout its life. When a bond is issued at par value, there is no discount or premium to amortize, so the carrying amount (amortized cost) of the bond remains equal to its face value from issuance to maturity.

**B is incorrect.** Since the bond is issued at par value, there is no discount to amortize, and the interest expense remains constant over the life of the bond, based on the stated interest rate and the face value.

**C is incorrect.** For bonds reported at amortized cost, the carrying amount does not fluctuate based on changes in market interest rates. This characteristic is more applicable to bonds reported at fair value.

***CFA Level 1, Volume 2, Topic 3 - Financial Statement Analysis, Learning Module 3 - Analyzing Balance Sheets, LOS 3d: explain the financial reporting and disclosures related to non-current liabilities***

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Q.4667 In the context of deferred tax liabilities, which of the following situations is *most likely* to result in a larger deferred tax liability over time?

- A. A company consistently reports higher taxable income than accounting income.
- B. A company recognizes revenue in the same period for both tax and financial reporting purposes.
- C. A company applies straight-line depreciation for tax purposes and accelerated depreciation for financial reporting purposes.

The correct answer is **C**.

A company applies straight-line depreciation for tax purposes and accelerated depreciation for financial reporting purposes. This situation leads to lower taxable income compared to accounting income in the early years, resulting in deferred tax liabilities that grow over time until the depreciation methods converge.

**A is incorrect.** Consistently reporting higher taxable income than accounting income would generally lead to deferred tax assets, not liabilities.

**B is incorrect.** Recognizing revenue in the same period for both tax and financial reporting purposes would not create significant temporary differences and, thus, would not likely result in a large, deferred tax liability.

***CFA Level 1, Volume 2, Topic 3 - Financial Statement Analysis, Learning Module 3 - Analyzing Balance Sheets, LOS 3d: explain the financial reporting and disclosures related to non-current liabilities***

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Q.4668 Which of the following scenarios would *least likely* result in the creation of a deferred tax liability?

- A. A company uses different methods for inventory valuation for tax and financial reporting purposes.
- B. A company recognizes dividends from a subsidiary in its financial statements only when they are received.
- C. A company incurs expenses that are deductible for tax purposes in a different period than they are recognized for financial reporting purposes.

The correct answer is **B**.

When a company recognizes dividends from a subsidiary in its financial statements only when they are received, it may result in a deferred tax asset if the dividends are taxable before they are recognized in the financial statements.

**A is incorrect.** Using different methods for inventory valuation for tax and financial reporting purposes can create temporary differences that lead to deferred tax liabilities.

**C is incorrect.** Incurring expenses that are deductible for tax purposes in a different period than they are recognized for financial reporting purposes can also create temporary differences that result in deferred tax liabilities.

***CFA Level 1, Volume 2, Topic 3 - Financial Statement Analysis, Learning Module 3 - Analyzing Balance Sheets, LOS 3d: explain the financial reporting and disclosures related to non-current liabilities***

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## **Learning Module 4: Analyzing Statements of Cash Flows 1**

Q.474 Which of the following statements is *least likely* accurate?

- A. US GAAP allows the recognition of interest expenses as operating or financing expenses.
- B. IFRS allows the recognition of interest expenses as operating or financing expenses.
- C. Interest expenses are always classified as operating activity under US GAAP.

The correct answer is **A**.

Interest expenses are always classified as operating expenses under US GAAP. However, they can be classified as either operating or financing expenses under IFRS.

### **Further information:**

#### **IFRS Requirements**

- Interest received may be classified as either an operating activity or investing activity.
- Interest paid may be classified as either an operating activity or financing activity.
- Dividends received may be classified as either an operating activity or investing activity.
- Dividends paid may be classified as either an operating activity or a financing activity.
- Income tax expense is generally classified as an operating activity, but a portion may be allocated to investing or financing activities if it is specifically identifiable with those activities.
- Bank overdrafts are classified as part of 'cash and cash equivalents.'
- Either the direct or indirect method may be used for reporting cash flow from operating activities, although the direct method is encouraged.

#### **US GAAP Requirements**

- Interest received must be classified as an operating activity.
- Interest paid must be classified as an operating activity.
- Dividends received must be classified as an operating activity.
- Dividends paid must be classified as a financing activity.
- Income tax expense must be classified as an operating activity.
- Bank overdrafts are not considered a part of 'cash and cash equivalents' but instead classified as financing activities.
- Either the direct or indirect method may be used for reporting cash flow from operating activities, although the direct method is encouraged. Unlike under IFRS, however, a reconciliation of net income to cash flow from operating activities must be provided regardless of the method used.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows, LOS 4d: contrast cash flow statements prepared under International Financial Reporting Standards (IFRS) and US generally accepted accounting principles (US GAAP)***

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Q.477 The accountant of a small firm has recorded the following information for the year 2016:

Book value of plant, property and equipment (PPE) at the beginning of the year:	\$100,000
Book value of plant, property and equipment (PPE) at the end of the year:	\$130,000
Sale of a plant during the year	\$8,000
The book value of the plant on the date of the sale	\$15,000
Depreciation charged during the year:	\$20,000

From the given data, the cash flow from investing activities is *closest to* a:

- A. cash inflow of \$8,000.
- B. cash inflow of \$15,000.
- C. cash outflow of \$57,000.

The correct answer is **C**.

$$\begin{aligned}\text{Cash flow} &= \text{Cash received from the sale of the plant} - \text{Cash paid on the purchase} \\ \text{Cash paid on the purchase} &= \text{Closing book value} + \text{The book value of the plant on the date of the sale} \\ &= \$130,000 + \$15,000 + \$20,000 - \$100,000 = \$65,000 \\ \text{Cash flow} &= \$8,000 - \$65,000 = -\$57,000\end{aligned}$$

**A is incorrect.** Considers only the sale of the plant.

**B is incorrect.** Contradicts option C.

**CFA Level I, Volume 2, Topic 5 - Financial Statement Analysis, Learning Module 4: Analyzing Statements of Cash Flows 1, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data**

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Q.2062 Firm A reports under US GAAP, and Firm B follows IFRS. Both firms sell identical assets held for investment purposes for the same price of \$2.5 million. Assuming that the income tax on the sale of the investment is \$275,000, which firm is *most likely* to report lower cash flows from operating activities?

A. Firm A.

B. Firm B.

C. Both firms will always have identical cash flows from operations.

The correct answer is **A**.

Firm A, which reports under US GAAP, is more likely to report lower cash flows from operating activities compared to Firm B, which follows IFRS. This difference arises from the distinct accounting treatments under US GAAP and IFRS regarding the classification of income taxes related to the sale of investment assets. Under US GAAP, firms are required to classify the cash flows related to income taxes as operating activities. This means that the income tax expense of \$275,000 from the sale of the investment would reduce the cash flows from operating activities reported by Firm A. In contrast, IFRS provides firms with the flexibility to classify cash flows related to income taxes as either operating or investing activities, depending on the nature of the underlying transaction. Therefore, Firm B has the option to report the income tax expense under investing activities, potentially leaving its cash flows from operating activities unaffected by this tax expense. This flexibility under IFRS can lead to a higher reported cash flow from operating activities for Firm B when compared to Firm A, which does not have this option under US GAAP.

**B is incorrect.** It suggests that Firm B is more likely to report lower cash flows from operating activities. However, given the flexibility under IFRS to classify income tax cash flows related to the sale of investment assets as either operating or investing activities, Firm B may not necessarily report lower cash flows from operating activities compared to Firm A. This flexibility allows Firm B to potentially report higher operating cash flows by classifying the tax expense under investing activities.

**C is incorrect.** It suggests that both firms will always have identical cash flows from operations. This overlooks the significant impact of the different accounting standards (US GAAP and IFRS) on the classification of income tax cash flows. As explained, US GAAP requires all income tax cash flows to be reported as operating activities, while IFRS allows for flexibility in classification. This difference can lead to variations in the reported cash flows from operating activities between firms reporting under these two different frameworks, especially in scenarios involving the sale of investment assets and the associated tax expenses.

***CFA Level I, Topic 4 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows 1. LOS d: contrast cash flow statements prepared under International Financial Reporting Standards (IFRS) and US generally accepted accounting principles (US GAAP)***

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Q.2063 Which of the following is *least likely* accurate regarding the presentation of cash flow statements?

- A. In the direct method, we start by listing cash payments and receipts.
- B. Under the direct method, adjustments related to depreciation and amortization are necessary.
- C. The starting point of the indirect method of presenting the statement of cash flows is "Net income."

The correct answer is **B**.

In reality, the direct method focuses on the actual cash flows from operating activities, including cash received from customers and cash paid to suppliers and employees. It does not require adjustments for non-cash items like depreciation and amortization because it reports the cash transactions directly, without starting from net income or any other accrual-based measure. This is a fundamental distinction from the indirect method, which starts with net income and then adjusts for non-cash transactions, including depreciation and amortization, to arrive at the cash flow from operating activities.

**A is incorrect.** It accurately describes the direct method of cash flow presentation. The direct method involves listing the major categories of gross cash receipts and gross cash payments. This method provides information that may be useful in estimating future cash flows and is considered more intuitive as it shows the actual cash flows associated with operating activities. This includes cash received from customers, cash paid to suppliers, cash paid for salaries, and other operating cash payments. The direct method offers a clearer picture of how operating activities impact the cash position of a company.

**C is incorrect.** It links the cash flow statement to the income statement and balance sheet, providing a comprehensive view of a company's financial health.

***CFA Level I, Volume 2, Topic 4 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows 1. LOS b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data***

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Q.2068 Petrobras, an oil shipping company, reported interest expense of \$24 million and taxes of \$10 million. Interest payable increased by \$8 million, while taxes payable decreased by \$3 million over the period. How much cash did the company pay for interest and taxes?

- A. \$16 million for interest and \$7 million for taxes.
- B. \$16 million for interest and \$13 million for taxes.
- C. \$32 million for interest and \$13 million for taxes.

The correct answer is **B**.

Note that if interest payable increases (decreases) during the year, then interest expense on an accrual basis will be higher (lower) than the amount of cash paid for interest. Thus, in this case:

$$\begin{aligned}\text{Interest paid} &= \text{Interest expense} - \text{Increase in interest payable} \\ &= \$24 - \$8 = \$16\end{aligned}$$

Moreover, if taxes payable or deferred tax liabilities increase (decrease) during the year, income tax expense on a cash basis will be lower (higher) than on an accrual basis. Thus, in this case:

$$\begin{aligned}\text{Taxes paid} &= \text{Tax expense} + \text{decrease in taxes payable} \\ &= \$10 + \$3 = \$13\end{aligned}$$

***CFA Level I, Volume 2, Topic 4 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows 1, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data***

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Q.2069 Assume, for this question, that Alaska Tex recently changed its accounting standard from US GAAP to IFRS and earned \$500,000 in net income in 2016. The interest expenses are related to financing activity. Using the accounts given in the following table, calculate the cash flow from operations using the indirect method after making appropriate adjustments to net income.

	2016	2015
Depreciation Exp.	100,000	80,000
Gain on Sale of Land	55,000	
Interest Exp.	37,000	22,000
Plant	450,000	370,000
Accounts Receivable	170,000	135,000
Inventory	90,000	115,000
Wages Payable	87,000	69,000
Taxes Payable	85,000	63,000

A. \$538,000

B. \$590,000

C. \$612,000

The correct answer is **C**.

To calculate CFO using the indirect method, we need to adjust Net Income for non-cash charges and non-operating activities and, since we are assuming that Alaska reports under IFRS, we need to add back Interest expense related to financing activities to the Net Income and subtract the same interest expense from cash flow from financing activities.

Net Income to be used for the calculation of CFO = \$500,000 + \$100,000 - \$55,000 + \$37,000 = \$582,000.

Then:

Net Income	500,000
Depreciation Expense	100,000
Gain on Sale of Land	(55,000)
Interest Expenses	37,000
Increase in Accounts Receivable	(35,000)
Decrease in Inventory	25,000
Increase in Wages Payable	18,000
Increases i Taxes Payable	22,000
Total CFO	612,000

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows 1, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data**

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Q.2070 Atlas Corp. is a fast-moving consumers firm based in Italy whose financial data is provided in the following table. For this question only, assume that Loss on the sale of land is \$5 million.

(In million \$)	2005	2004
Accounts Receivable	96	85
Inventory	75	65
Gross Land	85	96
Gross Plant	46	31
Accumulated Depreciation	11	6
Net Plant	35	25

The cash from the sale of land using the given data is *closest to*:

- A. -\$16 million.
- B. \$6 million.
- C. \$16 million.

The correct answer is **B**.

To determine the cash received from the sale of land for Atlas Corp., we need to analyze the change in the gross land value from the financial data provided and account for the loss on the sale of land. The gross land value decreased from \$96 million in 2004 to \$85 million in 2005, indicating a decrease of \$11 million. This decrease represents the book value of the land that was sold. Additionally, it is given that there was a loss on the sale of land amounting to \$5 million. The loss on sale indicates that the land was sold for less than its book value. To find the actual cash received from the sale, we subtract the loss from the decrease in the book value of the land:

$$\text{Cash from sale of Land} = \$11 (\text{Decrease in Land}) - \$5 (\text{Loss on sale of Land}) = \$6 \text{ million}$$

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows 1, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data***

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Q.2071 Atlas Corp. is a fast-moving consumers firm based in Italy whose financial data is provided in the following table. For this question only, assume that Loss on the sale of Land is \$5 million. Calculate the cash flow from investing activities using the given data.

(In million \$)	2005	2004
Accounts Receivable	96	85
Inventory	75	65
Gross Land	85	96
Gross Plant	46	31
Accumulated Depreciation	11	6
Net Plant	35	25

A. \$-9 million.

B. \$-1 million.

C. \$6 million.

The correct answer is **A**.

Cash flow from investing activities is calculated by determining the change in gross assets accounts. First, we will calculate the cash received from the sale of Land.

$$\text{Cash from sale of Land} = \$11 \text{ (Decrease in Land)} - \$5 \text{ (Loss on sale of Land)} = \$6 \text{ million}$$

Secondly, we will calculate:

$$\begin{aligned} \text{Cash paid for the new plant} &= \$46 \text{ million (Ending gross Plant)} + \$0 \text{ (Gross cost of the old asset sold)} \\ &\quad - \$31 \text{ million (Beginning gross assets)} = \$15 \text{ million} \end{aligned}$$

Therefore,

$$\text{Total Cash flow from Investing activities} = \$6 \text{ million (Cash received from the sale of land)} - \$15 \text{ million (Cash paid for the new plant)} = \$-9 \text{ million}$$

Notes: Accounts receivable and inventory are ignored in the calculation of investing activities as they are part of operating activities. Also, only the gross asset values are used, not net assets values.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows 1, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data***

Q.2073 A firm recently adjusted its capital structure, and some of the accounts related to its balance sheet are given in the following table:

Year	2015	2014
Dividends Payable	\$69,000	\$24,000
Bonds	\$160,000	\$90,000
Common Shares	\$250,000	\$300,000

Assuming that the company recently paid dividends of \$100,000, the cash flow from financing activities is *closest to*:

A. -\$35,000.

B. \$15,000.

C. \$70,000.

The correct answer is **A**.

To calculate the cash flow from financing activities we need to calculate the net cash effect of dividends, bonds, and shares.

#### Step 1

$$\text{Cash dividends} = \$45,000(\text{Increase in Dividends payable}) - \$100,000 = -\$55,000$$

#### Step 2

$$\text{Cash from the issuance of the bond} = \$160,000(\text{Ending Bonds payable}) + 0(\text{Bond repaid}) - \$90,000$$

#### Step 3

$$\text{Cash paid for repurchase of stock} = \$300,000(\text{Beginning shares}) + \$0(\text{Shares issued}) - \$250,000$$

#### Step 4

$$\text{Total Cash flow from financing activities (using the following table)} = -\$35,000$$

Cash Dividends	(55,000)
Cash Received from Sale of Bond	70,000
Cash Paid for Repurchase of Shares	(50,000)
Cash Flow from Financing Activities	(35,000)

**B is incorrect.** It does not consider cash paid for the repurchase of shares.

**C is incorrect.** It is the cash from the issuance of the bond.

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows 1, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data**

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Q.2074 Which of the following transactions is *most likely* considered an investing activity under IFRS?

- A. Interest received.
- B. Dividend paid on shares.
- C. Increase in accounts receivables.

The correct answer is **A**.

Under International Financial Reporting Standards (IFRS), interest received is classified as either an operating activity or an investing activity, depending on the nature of the income and the company's operations. This classification flexibility allows companies to align the presentation of their cash flows with the nature of their business. In many cases, interest received is considered an investing activity because it represents returns on investments such as loans, debt securities, or other financial assets.

**B is incorrect.** Dividend paid on shares is typically classified under financing activities, not investing activities. Financing activities involve transactions with shareholders and creditors that affect the equity and debt structure of the company. Dividends paid to shareholders are distributions of profit and represent cash outflows related to financing activities.

**C is incorrect.** An increase in accounts receivables is considered an operating activity, not an investing activity. Operating activities are the principal revenue-producing activities of the entity and other activities that are not investing or financing activities. An increase in accounts receivables typically results from sales on credit, which are part of the company's day-to-day operations. This reflects the principle that operating activities involve the cash effects of transactions that enter into the determination of net profit or loss.

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows 1, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data**

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Q.2075 Which of the following financing activity is *most likely* considered an operating activity under IFRS?

- A. Issuance of corporate debt.
- B. Cash paid for reacquiring preferred shares.
- C. Interest paid on a long-term corporate bond.

The correct answer is **C**.

Dividend payments and interest payments can be considered operating or financing activities under IFRS.

**A and B are incorrect.** Issuance of debt and repurchase on stocks are only financing activities under US GAAP and IFRS.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows 1, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data***

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Q.2080 Beverly Drinks reported the cost of goods sold of \$120 million for the current year. Total assets increased by \$75 million while inventory declined by \$26 million. Also, total liabilities increased by \$65 million while accounts payable increased by \$2 million. The amount of purchases made during the year is *closest* to:

- A. \$92 million.
- B. \$94 million
- C. \$146 million

The correct answer is **B**.

The amount of purchases is calculated as the cost of goods sold less decrease in inventory.

In this case, we have:

$$\begin{aligned}\text{Amount of purchases} &= \text{Cost of goods sold less (plus) decrease (increase) in inventory} \\ &= \$120 \text{ million} - \$26 \text{ million} \\ &= \$94 \text{ million}\end{aligned}$$

**A is incorrect.** It represents the cash paid to the supplier (Purchases from suppliers, \$94 million less increase in accounts payable).

**C is incorrect.** Contradicts option B. It adds a decrease in the inventory to the cost of goods sold.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows 1, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data***

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Q.2081 An analyst gathered the following information from a company's 2018 financial statements (in \$ millions):

Balances as of Year Ended 31 Dec	2017	2018
Retained Earnings	150	175
Accounts Receivable	68	73
Inventory	75	78
Accounts Payable	66	59

In 2018, the company paid cash dividends of \$40 million and recorded \$55 million in depreciation expense. The company considers dividends paid a financing activity. Given this information, the company's 2018 cash flow from operations (in \$ millions) was *closest to*:

- A. \$105
- B. \$110
- C. \$112

The correct answer is **A**.

$$\begin{aligned}\text{Net income for 2018} &= \text{Increase in retained earnings} + \text{Dividends paid} \\ &= \$25 + \$40 = \$65\end{aligned}$$

Depreciation of \$55 is a non-cash expense and is added back to net income.

Increases in accounts receivable, \$5, and in inventory, \$3, are uses of cash. Thus, they ought to be subtracted from net income.

The decrease in accounts payable is also a use of cash and, therefore, a subtraction from net income.

Thus, cash flow from operations is:

$$\$65 + \$55 - \$5 - \$3 - \$7 = \$105$$

**B is incorrect.** Adds the increase in accounts receivable to the net income.

**C is incorrect.** Adds the accounts payable to the net income.

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows 1, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data**

Q.2082 Under IFRS, dividends received is *most likely* classified as:

- A. either financing or investing activities.
- B. either operating or financing activities.
- C. either operating or investing activities.

The correct answer is C.

Under International Financial Reporting Standards (IFRS), dividends received by a company can be classified as either operating or investing activities. This classification flexibility allows companies to align the presentation of dividends received with the nature of their business operations. For instance, if a company receives dividends from investments that are integral to its main business operations, it might classify these dividends as operating activities. Conversely, if the dividends are received from investments that are not central to the company's primary business, they might be classified as investing activities.

**A is incorrect.** This option suggests that dividends received can be classified as either financing or investing activities under IFRS. However, this is not accurate. Financing activities typically involve changes in the size and composition of the contributed equity and borrowings of the entity. Dividends received are not related to these financing activities but are instead returns on investments in other entities.

**B is incorrect.** This option proposes that dividends received can be classified as either operating or financing activities. As previously explained, financing activities are related to transactions and other events that change the equity and debt structure of the company. Dividends received are returns on investments and do not affect the company's equity and debt structure directly. Therefore, classifying dividends received as financing activities does not align with the definitions and classifications provided by IFRS.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows 1, LOS 4d: contrast cash flow statements prepared under International Financial Reporting Standards (IFRS) and US generally accepted accounting principles (US GAAP)***

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Q.2085 Mavi Inc. is a male fashion brand based in Italy. Ahmed is an analyst working on the cash flow statement of Mavi using the direct method.

Sales	150
COGS	90
Interest Expenses	30
Dep. Expenses	25
Decrease in Acc. Rec.	10
Increase in Acc. Pay.	20
Increase in Int. Pay.	20

Using the financial data provided in the table above, the value of Mavi's Cash Interest that should be used when calculating cash flow from operating activities is *closest to*:

A. \$10

B. \$30

C. \$70

The correct answer is **A**.

Under the direct method of calculating cash flow from operations, we calculate the cash interest.

$$\text{Mavi's Cash interest} = \$30 \text{ (Interest expense)} - \$20 \text{ (Increase in interest payable)} = \$10$$

### **Insights**

**Cash collections from customers** consist of sales made for cash (cash sales) and cash collected from credit customers. The activity in the accounts receivable and sales accounts is used to determine the cash collections from customers as follows:

$$\text{Cash collections from customers} = \text{Sales} + \text{decrease in Acc Receivables} \text{ Or, } \text{Sales} - \text{increase in Acc. Receivables}$$

**Cash payments to suppliers** represent the amount paid by the company for merchandise it plans to sell to its customers. It is determined using the following two steps:

**Step 1:** Establish the cost of purchases, where;

$$\text{Cost of purchases} = \text{COGS} + \text{Increase in inventory} \text{ Or, } \text{COGS} - \text{decrease in inventory}$$

.

**Step 2:** Establish the cash payment to suppliers, where;.

$$\text{Cash payment to suppliers} = \text{Cost of purchases} + \text{decrease in accounts payable} \text{ Or, } \text{Cost of purchase} - \text{increase in accounts payable}$$

.

In this case, we have no inventory. Thus, cost of purchases = COGS

**Cash paid for interest** represents amounts paid by the company for interest. The amount is calculated by taking interest expense and increasing it by the amount of any decrease in the balance of the interest payable account or decreasing it by the amount of an increase in the balance of the interest payable account:.

Cash paid for interest/Cash interest = Interest expense + decrease in interest payable Or, Interest – increase in interest payable

**B is incorrect.** It represents the interest expense.

**C is incorrect.** It adds the increase in interest payable to the interest expense..

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows 1, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data***

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Q.2086 Mavi Inc. is a male fashion brand based in Italy. Ahmed is an analyst working on the cash flow statement of Mavi using the direct method. Using the financial data provided in the following table, Mavi's cash flow from operating activities *closest to*:

Sales	150
COGS	90
Interest Expenses	30
Dep. Expenses	25
Decrease in Acc. Rec.	10
Increase in Acc. Pay.	20
Increase in Int. Pay.	20

A. \$50

B. \$80

C. \$135

The correct answer is **B**.

Under the direct method of cash flow from operations, we will add all cash receipts and payments. In the example, we will add Cash collection, less Cash paid to supplier and Cash interest.

Mavi's Cash flow from Operation = \$110 (Using the following table). Note: We do not consider Depreciation expense in the direct method of calculating cash flow from operating activities.

Cash Collection (Sales + Decrease in Acc. Rec.)	160
Cash Paid to Suppliers (COGS - Increase in Acc. Pay.)	(70)
Cash Interest (Int Exp. - Increase Int. Pay.)	(10)
Cash Flow from Operating Activities	80

## **Insights**

**Cash collections from customers** consist of sales made for cash (cash sales) and cash collected from credit customers. The activity in the accounts receivable and sales accounts is used to determine the cash collections from customers as follows:

$$\text{Cash collections from customers} = \text{Sales} + \text{decrease in Acc Receivables Or, Sales} \\ - \text{increase in Acc. Receivables}$$

**Cash payments to suppliers** represent the amount paid by the company for merchandise it plans to sell to its customers. It is determined using the following two steps:

**Step 1:** Establish the cost of purchases, where;

$$\text{Cost of purchases} = \text{COGS} + \text{Increase in inventory Or, COGS} - \text{decrease in inventory}$$

**Step 2:** Establish the cash payment to suppliers, where;

$$\text{Cash payment to suppliers} = \text{Cost of purchases} + \text{decrease in accounts payable Or, Cost of purcha} \\ - \text{increase in accounts payable}$$

In this case, we have no inventory. Thus, cost of purchases = COGS

**Cash paid for interest** represents amounts paid by the company for interest. The amount is calculated by taking interest expense and increasing it by the amount of any decrease in the balance of the interest payable account or decreasing it by the amount of an increase in the balance of the interest payable account:

$$\text{Cash paid for interest/Cash interest} = \text{Interest expense} + \text{decrease in interest payable Or, Interest} \\ - \text{increase in interest payable}$$

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows 1, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data***

Q.3803 Consider the information given below.

	2019	2018
Accounts Receivables	\$75 Million	\$100 Million
Revenues	\$50 Million	\$60 Million

Based solely on the information above, the amount of cash received from clients in 2019 is *closest to*:

- A. \$75 Million
- B. \$85 Million
- C. \$150 Million

The correct answer is **A**.

$$\begin{aligned}\text{Cash received} &= \text{Beginning Accounts Receivables} + \text{Revenues} \\ &\quad - \text{Ending Accounts Receivables} \\ &= \$100 + \$50 - \$75 = \$75\end{aligned}$$

The cash received from clients in 2019 is \$ 75 Million.

A decrease in accounts receivable implies that the cash collected during that period exceeded the revenue on an accrual basis. In this case, the \$75 million cash collected exceeded the \$50 Million Revenue for that period.

**B is incorrect.** The ending accounts receivable has been left out.

**C is incorrect.** The Revenue for 2018 has been used in place of the Revenue for 2019.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows 1, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data***

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Q.3804 At its fiscal year-end 2019, a company reported \$120 million in revenue, \$90 Million in expenses. If the company equally reported a \$20 million increase in its accounts receivable, the cash received from its customers for that fiscal year is *closest to*:

- A. \$100 million.
- B. \$120 million.
- C. \$140 million.

The correct answer is **A**.

The accounts receivable has increased. This implies that the company collected less cash, than it reported as, from its customers.

To determine the cash received, we subtract the increase in accounts receivable from the revenues collected for that period.

$$\begin{array}{rcl} & \text{Revenue} & \\ \text{Cash received from customers} = & \text{less (plus) increase (decrease)} & \\ & \text{in accounts receivable} & \end{array}$$

$$\$120 - \$20 = \$100 \text{ Million}$$

**B is incorrect.** It is the revenue and not the cash collected from customers.

**C is incorrect.** The increase in accounts receivable has been added to revenue instead of being subtracted.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows 1, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data***

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Q.3807 Below is a company's financial performance for the year 2018.

Revenue	\$235,000,000
Cost of goods sold	\$100,000,000
Operating expenses	\$35,000,000
Other expenses	\$10,000,000

The company maintained its revenue and operating costs in 2019 due to long-term contracts with its suppliers and customers. Its other expenses, however, increased by 15%. The company's gross profit for the year 2019 is *closest to*:

- A. \$88,500,000
- B. \$100,000,000
- C. \$135,000,000

The correct answer is **C**.

$$\begin{aligned}\text{Gross profit} &= \text{Revenue} - \text{Cost of goods sold} \\ \$235,000,000 - \$100,000,000 &= \$135,000,000\end{aligned}$$

We do not take into account expenses when we are calculating gross profit. Operating expenses will be considered when calculating the operating profit. All expenses will be considered when calculating the net income.

**A is incorrect.** It represents the net income.

$$\begin{aligned}\text{Net Income} &= \text{Revenue} - \text{Cost of goods sold} - \text{All expenses} \\ \text{Net Income} &= 235,000,000 - 100,000,000 - 35,000,000 - \left(\frac{115}{100} \times 10,000,000\right) \\ &= 88,500,000\end{aligned}$$

**B is incorrect.** It is the net income for 2018 as it has not factored in the 15% increase in other expenses that were seen in 2019.

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Q.3808 A company that is compliant with the US GAAP reports its cash flows using the indirect method. In 2019, the company reported a net income of \$300,000 and revenue of \$700,000. The company's income tax payable decreased by \$70,000, while its interest expenses payable increased by \$80,000. If the company reported using the direct method, the amount of cash paid for operating expenses is *closest to*:

- A. \$390,000
- B. \$410,000
- C. \$690,000

The correct answer is **A**.

To convert cash from indirect to direct method when there are no non-cash expenses/revenues, we first determine the total operating expenses, then we increase and reduce the operating expenses as per the formula:

$$\begin{aligned}\text{Total cash operating expenses} &= \text{Total operating expenses} + \text{Decrease in income tax payable} \\ &\quad - \text{Increase in interest expense payable.} \\ \text{Total operating expenses} &= \text{Total Revenue} - \text{Net Income} \\ \text{Total operating expenses} &= \$700,000 - \$300,000 = \$400,000 \\ \text{Total cash operating expenses} &= \$400,000 + \$70,000 - \$80,000 = \$390,000\end{aligned}$$

**B is incorrect.** The signs in the equations have been mixed up.

**C is incorrect.** Revenue has been used, instead of total operating expenses to calculate the total cash operating expenses.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows 1, LOS 4c: demonstrate the conversion of cash flows from the indirect to direct method***

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Q.3851 A provision for doubtful accounts was created by Alpha LLC for the year 2014. What is the *most appropriate* treatment for doubtful accounts while preparing operating cash flows under the indirect method?

- A. Added to net income.
- B. Deducted from net income.
- C. Neither added nor deducted from net income.

The correct answer is **A**.

When preparing operating cash flows under the indirect method, a provision for doubtful accounts, being a non-cash expense, should be added back to net income. This adjustment is necessary because the provision for doubtful accounts reduces net income on the income statement, but it does not involve an actual outflow of cash in the period it is recognized. The indirect method starts with net income and then adjusts for all non-cash transactions, changes in working capital, and other items to arrive at cash flow from operating activities.

**B is incorrect.** Deducting the provision for doubtful accounts from net income would be double-counting the expense, as it has already been accounted for in the calculation of net income.

**C is incorrect.** This option suggests that the provision for doubtful accounts should neither be added nor deducted from net income, which is not accurate. Ignoring the provision for doubtful accounts in the calculation of cash flows from operating activities would result in an inaccurate representation of the company's cash operations.

***CFA Level I, Volume 2, Topic 4 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows 1, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data***

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Q.4673 When considering the relationship between current assets and operating activities, how does an increase in prepaid expenses *most likely* affect the cash flow statement?

- A. Indicates a cash inflow from operations.
- B. Represents a cash outflow from operations.
- C. Has no impact on the cash flow statement.

The correct answer is **B**.

An increase in prepaid expenses is an outflow of cash in the operating section of the cash flow statement. This is because prepaid expenses involve paying for services or goods that will benefit future periods, thus reducing the cash available for current operations.

**A is incorrect.** Prepaid expenses require an outlay of cash, and thus, it is a cash outflow, not an inflow.

**C is incorrect.** Prepaid expenses are current assets, and an increase definitely affects the cash flow statement by showing the cash that has been used in advance for future expenses.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows, LOS 4a: describe how the cash flow statement is linked to the income statement and the balance sheet***

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Q.4674 Considering the accrual basis of accounting, what does an increase in accounts payable *most likely* suggest about a company's cash outflows?

- A. The company is paying off suppliers quickly.
- B. The company is delaying payments to suppliers.
- C. The company's expenses are lower than in previous periods.

The correct answer is **B**.

An increase in accounts payable usually indicates that a company is delaying payments to its suppliers. This suggests that the company is conserving cash, as the expenses are recorded but the cash outflow is deferred to a later period.

**A is incorrect.** If the company were paying off suppliers quicker, accounts payable would decrease rather than increase.

**C is incorrect.** An increase in accounts payable does not necessarily reflect a decrease in total expenses. It primarily indicates the timing of cash payments related to accrued expenses.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows, LOS 4a: describe how the cash flow statement is linked to the income statement and the balance sheet***

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Q.4675 Which of the following is *most likely* an impact of recognizing revenue on an accrual basis when it exceeds the actual cash collected from customers?

- A. Increases accounts receivable balance.
- B. Leads to an increase in cash balance.
- C. Decreases accounts receivable balance.

The correct answer is **A**.

Recognizing revenue on an accrual basis that exceeds cash collections results in an increase in accounts receivable. This indicates that the company has earned revenues for which it has not yet received payment.

**B is incorrect.** An increase in revenue recognition without corresponding cash inflows does not increase the actual cash balance; it increases the accounts receivable.

**C is incorrect.** Recognizing revenue without an equivalent cash collection increases the accounts receivable balance, not decreases it.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows, LOS 4a: describe how the cash flow statement is linked to the income statement and the balance sheet***

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Q.4677 Which of the following *most likely* details how the ending retained earnings balance is determined on the balance sheet?

- A. By subtracting net income from dividends paid.
- B. By adding net income to the beginning retained earnings and then subtracting dividends paid.
- C. By adding dividends paid to the beginning retained earnings and then subtracting net income.

The correct answer is **B**.

Ending retained earnings is determined by adding net income to the beginning retained earnings balance and then subtracting any dividends paid during the period.

**A is incorrect.** Retained earnings are not derived by subtracting net income from dividends; it's the net income that contributes to an increase in retained earnings.

**C is incorrect.** Dividends paid are subtracted from the sum of the beginning retained earnings and net income to arrive at the ending balance and are not added.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows, LOS 4a: describe how the cash flow statement is linked to the income statement and the balance sheet***

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Q.4678 When a company receives advance payments for services or products to be delivered in the future, how is this reported in the financial statements? As an increase in:

- A. assets and expenses.
- B. liabilities and revenue.
- C. assets and liabilities.

The correct answer is **C**.

When a company receives payments in advance for future services or products, it records the cash as an increase in assets (specifically as cash or cash equivalents) and also recognizes a liability (deferred revenue) for the obligation to deliver those services or products.

**A is incorrect.** Advance payments do not immediately increase expenses. The expense is recognized when the service is rendered, or the product is delivered.

**B is incorrect.** Although a liability is indeed increased (deferred revenue), revenue is not recognized until the service is performed or the goods are delivered; thus, there is no immediate increase in revenue.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows, LOS 4a: describe how the cash flow statement is linked to the income statement and the balance sheet***

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Q.4679 Kenya Tea Development Agency (KTDA) reported an increase in inventory of USD 169,000 and a cost of goods sold (COGS) of USD 11,345,000. If the beginning inventory was USD 3,856,000, the cash paid to suppliers, assuming the increase in accounts payable was USD 300,000 is *closest to*:

A. USD 11,846,000

B. USD 11,514,000

C. USD 11,214,000

The correct answer is C.

Cash paid to suppliers is calculated by adjusting the purchases, which are COGS plus the increase in inventory, by the increase in accounts payable.

$$\begin{aligned}\text{Purchases from suppliers} &= \text{COGS} + \text{Increase in inventory} \\ &= \text{USD } 11,345,000 + \text{USD } 169,000 \\ &= \text{USD } 11,514,000\end{aligned}$$

Therefore,

$$\begin{aligned}\text{Cash paid to suppliers} &= \text{Purchases from suppliers} - \text{Increase in accounts payable} \\ &= \text{USD } 11,514,000 - \text{USD } 300,000 \\ &= \text{USD } 11,214,000\end{aligned}$$

**A is incorrect.** It suggests an addition of accounts payable to purchases, which is not the correct treatment in the cash flow statement.

**B is incorrect.** It only represents the purchases from suppliers without adjusting for the change in accounts payable.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data***

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Q.4680 A company's net income for the year ended December 31, 2023, is USD 3,521,000. If depreciation expense is USD 1,100,000 and there's a gain on sale of equipment of USD 220,000, the net cash from operating activities using the indirect method, considering there are no other adjustments is *closest to*:

A. USD 3,401,000

B. USD 4,401,000

C. USD 4,543,000

The correct answer is **B**.

Under the indirect method, net cash from operating activities starts with net income, then adds back non-cash expenses like depreciation, and subtracts gains from the sale of assets.

Net cash from operating activities = Net income + Depreciation expense  
– Gain on sale of equipment  
Net cash from operating activities  
= USD 3,521,000 + USD 1,100,000 - USD 220,000  
= USD 4,401,000

**A is incorrect.** It underestimates the impact of non-cash depreciation expense, which must be added back to net income.

**C is incorrect.** It does not account for the gain on the sale of equipment as a deduction from net income.

**opic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data**

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Q.4681 If a company has beginning retained earnings of USD 3,305,000 and an ending retained earnings of USD 4,106,000, the amount of dividends that the company paid during the year if the net income was USD 3,521,000 is *closest to*:

A. USD 2,720,000

B. USD 2,800,000

C. USD 3,000,000

The correct answer is **A**.

Dividends paid can be calculated using the change in retained earnings and net income.

$$\begin{aligned}\text{Dividends paid} &= \text{Beginning retained earnings} + \text{Net income} - \text{Ending retained earnings} \\ &= \text{USD } 3,305,000 + \text{USD } 3,521,000 - \text{USD } 4,106,000 \\ &= \text{USD } 2,720,000\end{aligned}$$

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data***

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Q.4682 Consider a company whose accounts receivable increased by USD 39,000 during the year, and the revenue reported was USD 25,456,000. The amount that the company received from its customers is *closest to*:

A. USD 25,417,000

B. USD 25,495,000

C. USD 25,380,000

The correct answer is **A**.

Cash received from customers is calculated by adjusting the revenue for the change in accounts receivable.

$$\begin{aligned}\text{Cash received from customers} &= \text{Revenue} - \text{Increase in accounts receivable} \\ &= \text{USD } 25,456,000 - \text{USD } 39,000 \\ &= \text{USD } 25,417,000\end{aligned}$$

**B is incorrect.** It suggests an incorrect calculation, possibly adding the increase in accounts receivable to the revenue, which is not how cash received from customers is calculated.

**C is incorrect.** It suggests a different value that does not correlate with the provided figures for revenue and the increase in accounts receivable.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data***

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Q.4683 Consider the following snippet of the income statement of a hypothetical company, Atlas Energy Group.

Atlas Energy Group Income Statement Year Ended 31 December 2023 (in thousands)	
Revenue	\$75,000
Cost of Goods Sold	\$35,000
Research and Development	\$5,000
Selling and Administrative Expenses	\$8,000
Depreciation Expense	\$4,500
Interest Expense	\$2,500
Income Tax Expense	\$6,000
Net Income	\$14,000

If Atlas Energy Group had an increase in inventory of \$3 million, a decrease in accounts receivable of \$1.5 million, and depreciation is the only non-cash expense, what was the net cash from operating activities using the indirect method?

- A. \$15 million
- B. \$17 million
- C. \$18 million

The correct answer is **B**.

To calculate the net cash from operating activities using the indirect method, we start with the net income and adjust for non-cash expenses and changes in working capital components.

$$\begin{aligned}\text{Net Cash from Operating Activities} &= \text{Net Income} + \text{Depreciation Expense} \\ &\quad + \text{Decrease in Accounts Receivable} - (\text{Increase in Inventory}) \\ &= 14 + 4.5 + 1.5 - 3 = \$17 \text{ million}\end{aligned}$$

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data***

Q.4684 Consider the following snippet of the income statement of a hypothetical company, Nova Innovations'.

Nova Innovations Balance Sheet as of 31 December 2023 (in thousands)		
Assets	2023	2022
Cash and Cash Equivalents	\$15,000	\$10,000
Accounts Receivable, net	\$18,000	\$20,000
Inventory	\$12,000	\$10,000
Prepaid Expenses	\$2,000	\$1,500
Property, Plant and Equipment, net	\$45,000	\$40,000
Intangible Assets, net	\$8,000	\$8,500
Total Assets	\$100,000	\$90,000
Liabilities and Shareholders' Equity		
Accounts Payable	\$11,000	\$9,000
Accrued Liabilities	\$7,000	\$8,000
Long-term Debt	\$25,000	\$30,000
Shareholders' Equity	\$57,000	\$43,000
Total Liabilities and Shareholders' Equity	\$100,000	\$90,000

Considering the changes in Nova Innovations' balance sheet from 2022 to 2023, if the only investments were capital expenditures of \$10.5 million and there were no sales of the total cash used in investing activities is *closest to*:

- A. 5.5 million
- B. 9.0 million
- C. 10.5 million

The correct answer is **A**.

The total cash used in investing activities can be calculated from the changes in property, plant, and equipment, as well as from capital expenditures and any sales of assets. Given no assets were sold:

Cash Used in Investing Activities = Capital Expenditures – (Increase in Property, Plant, and Equip

However, note that:

$$\begin{aligned}
 \text{Increase in Property, Plant, and Equipment, net} &= \text{Ending PPE, net} - \text{Beginning PPE, net} \\
 &= 45 \text{ million} - 40 \text{ million} \\
 &= \$5 \text{ million}
 \end{aligned}$$

Therefore,

$$\text{Cash Used in Investing Activities} = \$10 \text{ million} - \$5 \text{ million} = \$5.5 \text{ million}$$

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data***

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Q.4685 Which of the following *most likely* explains how depreciation expense is treated in the calculation of net cash flow from operating activities using the indirect method?

- A. Added back to net income.
- B. Subtracted from net income.
- C. Ignored because it does not affect cash flow.

The correct answer is **A**.

Depreciation expense is a non-cash charge against income, which means it reduces net income but does not affect cash flow. Therefore, in the indirect method of calculating cash flows from operating activities, depreciation expense must be added back to net income.

**B is incorrect.** Subtracting depreciation would doubly reduce the cash flow, which is not representative of actual cash outflows.

**C is incorrect.** Even though depreciation does not directly affect cash flow, it impacts the reported net income and thus must be adjusted for in the cash flow statement.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data***

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Q.4686 If a company reports an increase in inventory, which of the following is most likely the effect on the cash flow from operating activities using the indirect method? The cash flow from operating activities:

- A. increases
- B. decreases
- C. remains constant.

The correct answer is **B**.

An increase in inventory represents an investment in working capital, which is a use of cash. In the indirect method, an increase in inventory is subtracted from net income because it represents cash that has been tied up in inventory and not available for other uses.

**A is incorrect.** An increase in inventory reduces, not increases, the cash available from operating activities.

**C is incorrect.** Changes in inventory levels directly affect cash flow from operations; it is a critical component of working capital changes that must be accounted for in the cash flow statement.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows, LOS 4b: describe the steps in the preparation of direct and indirect cash flow statements, including how cash flows can be computed using income statement and balance sheet data***

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Q.4687 Which of the following *most likely* explains why it is necessary to add back depreciation expense when calculating cash flow using the indirect method?

- A. Depreciation represents an outflow of cash that must be replenished.
- B. Depreciation increases cash flow directly and must be accounted for.
- C. Depreciation does not affect cash flow; thus, it is added to reconcile net income with actual cash flow.

The correct answer is **C**.

Depreciation does not affect cash flow thus it is added to reconcile net income with actual cash flow. Depreciation is a non-cash accounting entry that reduces reported earnings but does not impact cash; therefore, it needs to be added back to net income in the cash flow statement.

**A is incorrect.** Depreciation does not represent an actual cash outflow, so there is no cash that needs to be "replenished". It is an accounting mechanism for allocating the cost of a tangible asset over its expected life.

**B is incorrect.** Depreciation does not increase cash flow directly; it is purely an accounting entry meant to spread the cost of an asset over its useful life. It does not involve the movement of cash.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows, LOS 4c: demonstrate the conversion of cash flows from the indirect to direct method.***

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Q.4688 In 2023, Apex Ventures reported a net income of USD 50 million. An excerpt of its balance sheet is given below.

Apex Ventures Balance Sheet Summary	31 Dec 2022	31 Dec 2023	Change
Common Stock	USD 200 million	USD 210 million	USD 10 million
Additional Paid-in Capital	USD 150 million	USD 200 million	USD 50 million
Retained Earnings	USD 120 million	USD 150 million	USD 30 million
Total Stockholders' Equity	USD 470 million	USD 560 million	USD 90 million

The amount of common stock and dividends reported in the statement of cash flows for the year 2023 are *closest to*:

- A. Issuance of common stock totaling USD 60 million; dividends of USD 20 million.
- B. Issuance of common stock totaling USD 60 million; dividends of USD 10 million.
- C. Issuance of common stock totaling USD 60 million; dividends of USD 30 million.

The correct answer is **A**.

To calculate the total issuance of common stock, we add an increase in common stock and additional paid-in capital, which signifies an equity issuance during the year:

$$\text{USD 10 million (Common Stock)} + \text{USD 50 million (Additional Paid-in Capital)} = \text{USD 60 million.}$$

To calculate dividends paid, consider the following:

$$\begin{aligned} \text{Dividends Paid} &= \text{Beginning Retained Earnings} + \text{Net Income} - \text{Ending Retained Earnings} \\ &= \text{USD 120 million} + \text{USD 50 million} - \text{USD 150 million} \\ &= \text{USD 20 million} \end{aligned}$$

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows, LOS 4c: demonstrate the conversion of cash flows from the indirect to direct method.***

Q.4689 In 2023, a technology company operating under US GAAP reported the following cash payments and other relevant financial data in (millions):

	2022	2023
Revenue	\$65	\$60
Cost of goods sold	\$25	\$23
Inventory	\$20	\$25
Accounts receivable	\$15	\$12
Accounts payable	\$10	\$9

Other cash payments for the year 2023 included:

- Salaries: USD 10 million
- Interest expense: USD 4 million
- Income taxes: USD 6 million

Based only on the information in Exhibit 2, the company's operating cash flow for 2023 is *closest to*:

- A. USD 14 million.
- B. USD 17 million.
- C. USD 26 million.

The correct answer is **A**.

Recall that:

$$\begin{aligned}\text{Operating cash flows} &= \text{Cash received from customers} - (\text{Cash paid to suppliers} \\ &\quad + \text{Cash paid to employees} + \text{Cash paid for other operating expenses} \\ &\quad + \text{Cash paid for interest} + \text{Cash paid for income taxes})\end{aligned}$$

We need to calculate each of the above variables:

$$\begin{aligned}\text{Cash received from customers} &= \text{Revenue} + \text{Decrease in accounts receivable} \\ &= \text{USD } 60 + (\text{USD } 15 - \text{USD } 12) \\ &= \text{USD } 63 \text{ million}\end{aligned}$$

$$\begin{aligned}\text{Cash paid to suppliers} &= \text{Cost of goods sold} + \text{Increase in inventory} \\ &\quad + \text{Decrease in accounts payable} \\ &= \text{USD } 23 + (\text{USD } 25 - \text{USD } 20) - (\text{USD } 10 - \text{USD } 9) \\ &= \text{USD } 29 \text{ million}\end{aligned}$$

Therefore,

$$\begin{aligned}
\text{Operating cash flows} &= \text{Cash received from customers} - (\text{Cash paid to suppliers} \\
&\quad + \text{Cash paid to employees} + \text{Cash paid for other operating expenses} \\
&\quad + \text{Cash paid for interest} + \text{Cash paid for income taxes}) \\
&= 63 - 29 - 10 - 4 - 6 \\
&= 14 \text{ million}
\end{aligned}$$

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows, LOS 4c: demonstrate the conversion of cash flows from the indirect to direct method.***

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Q.4690 Which classification option for interest received is available under IFRS but not under US GAAP?

- A. Operating activity only.
- B. Operating or investing activity
- C. Financing activity.

The correct answer is **B**.

Under IFRS, interest received can be classified as either an operating or investing activity, offering flexibility based on the nature of the business. Under US GAAP, interest received must always be classified as an operating activity.

**A is incorrect.** Both IFRS and US GAAP allow the classification of interest received as an operating activity.

**C is incorrect.** Neither IFRS nor US GAAP allows interest received to be classified as a financing activity.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows, LOS 4d: contrast cash flow statements prepared under International Financial Reporting Standards (IFRS) and US generally accepted accounting principles (US GAAP)***

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Q.4691 Under IFRS, dividends paid is *most likely* classified on the cash flow statement as:

- A. a financing activity.
- B. an operating or financing activity.
- C. an investing or financing activity.

The correct answer is **B**.

IFRS provides flexibility in classifying dividends paid, allowing it to be considered either an operating or financing activity, depending on the company's policy and the nature of the dividends.

**A is incorrect.** It is too restrictive and does not reflect the flexibility IFRS offers.

**C is incorrect.** There is no option under IFRS to classify dividends paid as an investing activity.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows, LOS 4d: contrast cash flow statements prepared under International Financial Reporting Standards (IFRS) and US generally accepted accounting principles (US GAAP)***

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Q.4692 Which of the following is *most likely* a significant difference in how bank overdrafts are classified under IFRS and US GAAP?

- A. Both standards treat them as financing activities.
- B. IFRS includes them in cash and cash equivalents, while US GAAP treats them as financing activities.
- C. IFRS treats them as financing activities, while US GAAP treats them as part of cash and cash equivalents.

The correct answer is **B**.

Under IFRS, bank overdrafts can be considered part of cash and cash equivalents if they are an integral part of the company's cash management. Under US GAAP, bank overdrafts are not considered cash equivalents and are treated as financing activities.

**A is incorrect.** It does not correctly reflect the treatment under IFRS.

**C is incorrect.** It reverses the classifications.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows, LOS 4d: contrast cash flow statements prepared under International Financial Reporting Standards (IFRS) and US generally accepted accounting principles (US GAAP)***

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Q.4693 How does US GAAP require income tax expense to be classified on the cash flow statement?

- A. Always as a financing activity.
- B. Always as an operating activity.
- C. As an operating, investing, or financing activity based on the tax's nature.

The correct answer is **B**.

Under US GAAP, income tax expense is consistently classified as an operating activity regardless of its connection to investing or financing activities.

**A is incorrect.** It describes the IFRS approach, not US GAAP.

**C is incorrect.** Income tax expense is not classified as a financing activity under US GAAP.

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows, LOS 4d: contrast cash flow statements prepared under International Financial Reporting Standards (IFRS) and US generally accepted accounting principles (US GAAP)**

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Q.4694 Which of the following statements is *most likely* true regarding the direct method of reporting cash flow from operating activities in both IFRS and US GAAP? The direct method is:

- A. required under both standards.
- B. discouraged under both standards.
- C. encouraged but not required under both standards.

The correct answer is **C**.

Both IFRS and US GAAP encourage the direct method for reporting cash flows from operating activities because it provides more useful information to users. However, neither standard mandates its use.

**A is incorrect.** Neither standard requires the direct method.

**B is incorrect.** Neither standard discourages its use; they both encourage it.

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 4: Analyzing Statements of Cash Flows, LOS 4d: contrast cash flow statements prepared under International Financial Reporting Standards (IFRS) and US generally accepted accounting principles (US GAAP)**

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## **Learning Module 5: Analyzing Statements of Cash Flows 2**

Q.476 Which of the following is *most likely* a coverage ratio?

- A. Reinvestment ratio.
- B. Cash to income ratio.
- C. Cash return on assets.

The correct answer is **B**.

Coverage ratios are financial metrics used to evaluate a company's ability to service its debt and meet its financial obligations. Among the options provided, the Cash to income ratio is most closely aligned with the concept of a coverage ratio. This ratio specifically measures the company's ability to cover its obligations with its operating cash flows, making it a direct indicator of financial health and stability in terms of covering debts and other obligations.

**A is incorrect.** The Reinvestment ratio, while important for understanding a company's growth and sustainability by indicating how much of its cash flow is reinvested back into the business, does not directly measure the company's ability to cover its debt or financial obligations. It is more closely related to growth and capital allocation strategies rather than coverage capabilities. Therefore, it does not fit the definition of a coverage ratio as well as the Cash to income ratio does.

**C is incorrect.** The Cash return on assets ratio measures the efficiency with which a company generates cash flow from its assets. While this is an important indicator of operational efficiency and can indirectly affect a company's ability to cover its debts by generating more cash, it is not a direct measure of the company's ability to meet its financial obligations. Coverage ratios specifically assess the ability to pay interest, principal, or other obligations, making the Cash return on assets ratio less relevant in this context compared to the Cash to income ratio.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 5: Analyzing Statements of Cash Flows II, LOS 5a: analyze and interpret both reported and common-size cash flow statements***

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Q.2088 Free cash flow for the firm (FCFF) is *most likely* available to:

- A. debt holders.
- B. equity holders.
- C. debt holders and equity holders.

The correct answer is **C**.

Free Cash Flow to the Firm (FCFF) represents the cash that a company generates after accounting for cash outflows to support operations and maintain its capital assets. This metric is crucial as it indicates the amount of cash available to return to the company's capital providers, which include both debt holders and equity holders. FCFF is an important measure because it provides a clear picture of a company's financial health and its ability to generate cash from its operations after making necessary investments in the business. It is a key indicator used by investors to assess the value of a company and its ability to generate cash that can be used to pay dividends, buy back shares, or reduce debt.

**A is incorrect.** While debt holders are indeed entitled to a portion of the FCFF in the form of interest payments and principal repayments, they are not the sole beneficiaries. FCFF is a broader measure that encompasses the cash available to all capital providers, including both debt and equity holders. Limiting the availability of FCFF to only debt holders overlooks the fact that equity holders are also entitled to the company's residual cash flows after meeting its debt obligations.

**B is incorrect.** This perspective neglects the priority claim that debt holders have on a company's cash flows. Before equity holders can lay claim to any of the company's cash flows, the company must first meet its obligations to debt holders, such as interest payments and principal repayments. Therefore, stating that FCFF is available only to equity holders does not accurately reflect the distribution hierarchy of a company's cash flows. FCFF is meant to represent the total pool of cash that can be distributed among all capital providers, not just equity holders.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 5: Analyzing Statements of Cash Flows II, LOS 5a: analyze and interpret both reported and common-size cash flow statements***

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Q.2089 Which of the following is the *most appropriate* equation for calculating Free Cash flow to the Equity (FCFE)?

- A.  $FCFE = CFO - \text{Fixed capital expenditure} + \text{Net borrowing}$
- B.  $FCFE = CFO + \text{Interest} \times (1 - \text{Tax rate}) - \text{Fixed Capital Expenditure}$
- C.  $FCFE = CFO + \text{Interest} \times (1 - \text{Tax rate}) - \text{Fixed capital expenditure} + \text{Net borrowing}$

The correct answer is **A**.

Free Cash Flow to Equity (FCFE) is a measure of how much cash is available to the equity shareholders of a company after all expenses, reinvestment, and debt repayments have been taken care of. It is calculated as follows:

$$FCFE = CFO - \text{Fixed capital expenditure} + \text{Net borrowing}$$

Or,

$$FCFE = \text{Net income} + \text{Depreciation} - \text{Working capital expenditure} - \text{Fixed capital expenditure} + \text{Net borrowing}$$

#### **Further information:**

If net borrowing is negative, this means that the company's debt repayments have exceeded its receipt of borrowed funds. In this case:

$$FCFE = CFO - FCInv - \text{Net debt repayment}$$

Where:

$FCInv = \text{Capital expenditures}$

$CFO = \text{cash flow from operating activities}$  in the case where the interest paid is included as an operating activity.

A positive FCFE implies that the company has more operating cash flow than it needs to cover capital expenditures and the repayment of the debt, and therefore has cash available for distribution to shareholders.

**B is incorrect.** It gives the equation for the cash flow to the firm.

**C is incorrect.** It includes net borrowing, which should be there.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 5: Analyzing Statements of Cash Flows II, LOS 5a: analyze and interpret both reported and common-size cash flow statements***

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Q.2090 The financial data of a hypothetical firm is provided below.

Net Income	700
Depreciation Expense	57
Decrease in Acc. Rec.	49
Increase in Inventory	36
Interest Expense	100
Increase in Capital Expenditure	180
Debt Issued	450
Debt Repaid	330

Assuming a tax rate of 40%, the Free Cash Flow for the Firm (FCFF) using the cash flow from operating activities equation is *closest to*:

A. \$650

B. \$690

C. \$770

The correct answer is **A**.

Cash flow from operating activities = \$700 (Net income) + \$57 (Depreciation) + \$49 (Decrease in  
– \$36 (Increase in Inventory) = \$770

So that:

$$\begin{aligned}\text{FCFF} &= \text{CFO} + \text{Int. Exp} \times (1 - \text{Tax rate}) - \text{Fixed Capital investment} \\ &= \$770 + \$100 \times (60\%) - \$180 = \$650\end{aligned}$$

**B is incorrect.** It does not consider the tax rate.

**C is incorrect.** It represents the cash flow from operating activities.

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 5: Analyzing Statements of Cash Flows II, LOS 5a: analyze and interpret both reported and common-size cash flow statements**

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Q.2094 A firm has recently repaid its long-term debt obligations. Using the data given below, based on cash flow from operations the debt payment ratio is *closed to*:

Net Income	700
Depreciation Expense	57
Decrease in Acc. Rec.	49
Increase in Inventory	36
Interest Expense	100
Increase in Capital Expenditure	180
Debt Issued	450
Debt Repaid	330

A. 0.99

B. 1.77

C. 2.33

The correct answer is **C**.

Cash flow from operating activities of a firm = \$700 (Net income) + \$57 (Depreciation) + \$49 (De  
–\$36 (Increase in inventory)  
= \$770

Therefore,

$$\begin{aligned}\text{Debt Payment ratio} &= \frac{\text{CFO}}{\text{Debt paid}} \\ &= \frac{\$770}{\$330} = 2.33\end{aligned}$$

**A is incorrect.** It divides the CFO with the sum of debt issued and the debt paid.

$$\text{Debt Payment ratio} = \frac{\text{CFO}}{\text{Debt paid} + \text{Debt Issued}} = \frac{\$770}{\$330 + \$450} = 0.99$$

**B is incorrect.** It divides the CFO with the debt issued.

$$\text{Debt Payment ratio} = \frac{\text{CFO}}{\text{Debt Issued}} = \frac{\$770}{\$450} = 1.71$$

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 5: Analyzing Statements of Cash Flows II, LOS 5b: calculate and interpret free cash flow to the firm, free cash flow to equity, and performance and coverage cash flow ratios**

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Q.2096 Grand Co. is a laptop distributor firm whose financial data is provided in the following table. Using the given data, the FCFF of Grand Co. is *closest to*:

Net Income	200,000
Depreciation	70,000
Interest Expense (Net of Taxes)	37,000
Fixed Capital Expenditure	110,000
Working Capital Expenditure	77,000
Net Borrowing	65,000
Tax Rate	30%
Interest Rate	8%

A. \$108,000

B. \$120,000

C. \$200,000

The correct answer is **B**.

The FCFF of Grand Co. is calculated by using the FCFF equation:

$$\begin{aligned} \text{FCFF} = & \text{Net Income} + \text{Depreciation} + \text{Interest expense}(1 - \text{Tax rate}) \\ & - \text{Working capital expenditure} - \text{Fixed capital expenditure} \end{aligned}$$

Therefore,

$$\begin{aligned} \text{FCFF} = & \$200,000 \text{ (Net Income)} + \$70,000 \text{ (Depreciation)} \\ & + \$37,000 \text{ (Interest expense} \times (1 - \text{Tax rate})) \\ & - \$77,000 \text{ (Working capital expenditure)} \\ & - \$110,000 \text{ (Fixed capital expenditure)} \\ = & \$120,000 \end{aligned}$$

Notes:

1. Since Interest expenses are given as net of taxes, we do not need to adjust the interest expense.
2. Net borrowing is only considered in the calculation of FCFE.

**A is incorrect.** Includes tax rate in calculation.

$$\begin{aligned} \text{FCFF} = & \$200,000 \text{ (Net Income)} + \$70,000 \text{ (Depreciation)} \\ & + \$37,000 (1 - 30\%) - \$77,000 \text{ (Working capital expenditure)} \\ & - \$110,000 \text{ (Fixed capital expenditure)} \\ = & \$108,900 \end{aligned}$$

**C is incorrect.** It represents the net income.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 5: Analyzing Statements of Cash Flows II, LOS 5a: analyze and interpret both reported and common-size cash flow statements***

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Q.3801 A company reported the following information:

Net income	\$323 Million
Cash flow from Investing Activities	\$13 Million
Cash flow from Financing Activities	\$40 Million
Cash flow from Operating Activities	\$62 Million
Total Cash Flows	\$115 Million
Assets at the beginning of the period	\$100 Million
Assets at the end of the period	\$143 Million

The company's cash return on asset ratio is *closed to*:

A. 0.1069

B. 0.5102

C. 0.9465

The correct answer is **B**.

Recall that:

$$\begin{aligned}\text{Cash Return on Assets} &= \frac{\text{Cash Flows from Operations}}{\text{Average Total Assets}} \\ &= \frac{62,000,000}{\frac{1}{2} \times (100,000,000 + 143,000,000)} = 51.02\%\end{aligned}$$

**A is incorrect.** It has used cash flow from investing activities.

$$= \frac{13,000,000}{\frac{1}{2} \times (100,000,000 + 143,000,000)} = 10.69\%$$

**C is incorrect.** It has used total cash flows.

$$= \frac{115,000,000}{\frac{1}{2} \times (100,000,000 + 143,000,000)} = 94.65\%$$

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 5: Analyzing Statements of Cash Flows II, LOS 5b: calculate and interpret free cash flow to the firm, free cash flow to equity, and performance and coverage cash flow ratios**

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Q.3802 Determine the cash flow debt coverage ratio of a company based on the information provided below.

Cash Flow Metrics From Investing Activities: \$ 15 Million From Financing Activities: \$ 13 Million From Operating Activities: \$ 90 Million Total Cash Flows: \$ 118 Million Total Debt: \$ 270 Million

A. 0.333

B. 0.437

C. 0.556

The correct answer is **A**.

Recall that:

$$\begin{aligned}\text{Cash Flow Debt Coverage Ratio} &= \frac{\text{Cash Flow from Operating Activities}}{\text{Total Debt}} \\ &= \frac{\$90 \text{ Million}}{\$270 \text{ Million}} = 0.3333 \text{ or } 33.33\%\end{aligned}$$

**B is incorrect.** Total cash flows have been used in place of cash flows from operating activities to calculate the cash flow debt coverage ratio.

**C is incorrect.** Cash flows from investing activities have been used in place of the cash flows from operating activities.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 5: Analyzing Statements of Cash Flows II, LOS 5b: calculate and interpret free cash flow to the firm, free cash flow to equity, and performance and coverage cash flow ratios***

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Q.4734 A company in its growth phase shows a persistent negative operating cash flow over several years despite increasing net income annually. Which of the following implications is most concerning for the company's long-term financial health?

- A. The company's inventory management is highly efficient.
- B. The company's depreciation methods are likely too aggressive.
- C. The company may need to seek external financing to support its operations continuously.

The correct answer is **C**.

Persistent negative operating cash flow in the context of increasing net income typically indicates that the company's reported earnings do not reflect actual cash generation, which can be unsustainable over the long term. This situation may force the company to rely on external financing, such as debt or equity issuance, to fund its operations, a risky strategy that could jeopardize its financial stability.

**A is incorrect.** Efficient inventory management would generally positively impact operating cash flows by reducing cash tied up in inventory, contrary to the scenario described.

**B is incorrect.** Depreciation methods affect accounting earnings but do not impact cash flows directly. The concern here is not about the aggressiveness of depreciation but the sustainability of the cash flows.

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 5: Analyzing Statements of Cash Flows II, LOS 5a: analyze and interpret both reported and common-size cash flow statements**

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Q.4735 Which of the following statements is *most accurate* about the role of common-size cash flow statements in financial analysis?

- A. They help compare the cash flow structures of companies of different sizes.
- B. They primarily assist in assessing the profitability of a company's investments.
- C. They are most useful for determining the exact dollar amounts of cash inflows and outflows.

The correct answer is **A**.

Common-size cash flow statements convert each line item into a percentage of a total (either total inflows or total outflows), which helps compare companies of different sizes by providing a proportional analysis of where cash comes from and where it goes, making size discrepancies between companies less misleading.

**B is incorrect.** Common-size statements focus not on assessing profitability but on the structure and proportions of cash flows.

**C is incorrect.** The common-size analysis does not focus on exact dollar amounts but rather on the proportions that these amounts represent relative to total cash inflows or outflows.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 5: Analyzing Statements of Cash Flows II, LOS 5a: analyze and interpret both reported and common-size cash flow statements***

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Q.4736 Which of the following statements is *most* accurate?

- A. For mature companies, financing activities would be preferable as the primary source of cash flows.
- B. If a company has a significant net income despite its negative operating cash flow, this may indicate poor earnings quality.
- C. One approach to the common-size analysis of the cash flow statement involves expressing each cash flow (inflows and outflows) as a percentage of total cash inflows.

The correct answer is **B**.

If a company has a negative operating cash flow and still has a significant net income, this is a manifestation of the poor quality of the company's earnings.

**A is incorrect.** For a mature company, operating activities, not financing activities, should be the primary source of cash flows.

**C is incorrect.** Common-sizing the cash flow statement entails the expression of each line item of cash inflow as a percentage of total cash inflows and each cash outflow as a percentage of total cash outflow.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 5: Analyzing Statements of Cash Flows II, LOS 5a: analyze and interpret both reported and common-size cash flow statements***

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Q.4737 A company reported the following figures for the fiscal year:

- Net income: \$120,000
- Depreciation and amortization: \$30,000
- Interest Expense: \$20,000
- Tax Rate: 40%
- Capital Expenditures: \$50,000
- Increase in Working Capital: \$10,000

The Free Cash Flow to the Firm (FCFF) is *closest to*:

- A. \$74,000
- B. \$86,000
- C. \$102,000

The correct answer is **C**.

$$\begin{aligned}\text{FCFF} &= \text{NI} + \text{NCC} + \text{Int}(1 - \text{Tax Rate}) - \text{FCInv} - \text{WCInv} \\ &= \$120,000 + \$30,000 + \$20,000 \times (1 - 0.40) - \$50,000 - \$10,000 \\ &= \$120,000 + \$30,000 + \$12,000 - \$50,000 - \$10,000 = \$102,000\end{aligned}$$

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 5: Analyzing Statements of Cash Flows II, LOS 5a: analyze and interpret both reported and common-size cash flow statements***

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Q.4738 Consider the following data from a company's financial statements for the year 2023:

- CFO (Cash from Operations): \$400,000
- Interest Paid (post-tax): \$24,000
- Dividends Paid: \$30,000
- Long-term Asset Purchases: \$100,000

The Cash Flow Coverage ratio for dividends is *closest to*:

- A. 10.35
- B. 15.25
- C. 13.33

The correct answer is **C**.

Recall that:

$$\begin{aligned}\text{Dividend Payment Coverage} &= \frac{\text{CFO}}{\text{Dividends Paid}} \\ &= \frac{\$400,000}{\$30,000} \\ &= 13.33\end{aligned}$$

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 5: Analyzing Statements of Cash Flows II, LOS 5a: analyze and interpret both reported and common-size cash flow statements***

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Q.4739 Which of the following best describes the implications of a consistently decreasing Free Cash Flow to the Firm (FCFF) over several years for a company not experiencing significant investments?

- A. It may indicate increased efficiency in asset utilization.
- B. It reflects an intentional strategy of leveraging for growth.
- C. It suggests potential challenges in sustaining operations without external financing.

The correct answer is **C**.

A consistently decreasing FCFF suggests potential challenges in sustaining operations without external financing, highlighting possible inefficiencies or declining profitability. This can necessitate external funds to maintain operations.

**A is incorrect.** Decreasing FCFF generally indicates less efficient asset utilization, implying the company is generating less cash relative to its operations and investments.

**B is incorrect.** A decrease in FCFF is generally not a result of a strategic choice to leverage for growth but rather an indicator of potential financial stress or declining operational efficiency.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 5: Analyzing Statements of Cash Flows II, LOS 5a: analyze and interpret both reported and common-size cash flow statements***

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Q.4740 Consider a scenario where a company's Free Cash Flow to Equity (FCFE) is significantly higher than its Free Cash Flow to the Firm (FCFF). What does this suggest about the company's financial strategy?

- A. The company is likely reducing its debt load aggressively.
- B. The company is maintaining a high level of reinvestment in fixed assets.
- C. The company potentially increases its leverage, resulting in higher net borrowing.

The correct answer is **C**.

Higher FCFE than FCFF typically indicates increased leverage, as net borrowing boosts FCFE. This suggests a strategic increase in debt to finance operations or growth, which could raise financial risks.

**A is incorrect.** Reducing debt would decrease net borrowing, thus reducing FCFE relative to FCFF, not increasing it.

**B is incorrect.** Reinvestment in fixed assets would be captured similarly in FCFF and FCFE calculations and thus would not explain a discrepancy between the two measures.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 5: Analyzing Statements of Cash Flows II, LOS 5a: analyze and interpret both reported and common-size cash flow statements***

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Q.4741 A high cash return on assets ratio is observed in a company with relatively stable revenue but significantly fluctuating net income. What could this *most likely* indicate about the company's earnings?

- A. The company has made several large, one-time sales of assets.
- B. The company might be involved in aggressive earnings management.
- C. The company is experiencing substantial non-cash expenses like depreciation or amortization.

The correct answer is **C**.

Significant non-cash expenses such as depreciation or amortization could explain why net income fluctuates despite stable revenue, as these expenses reduce net income but do not impact cash flow.

**A is incorrect.** One-time sales of assets would typically increase, not decrease, net income in the short term and would be irregular, affecting cash flows and not explaining consistently high Cash Return on Assets.

**B is incorrect.** While earnings management could cause fluctuations, it does not directly relate to a stable revenue scenario affecting the Cash Return on Assets.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 5: Analyzing Statements of Cash Flows II, LOS 5b: calculate and interpret free cash flow to the firm, free cash flow to equity, and performance and coverage cash flow ratios***

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Q.4742 What does a declining debt payment coverage ratio over time generally *most likely* indicate about a company's financial health?

- A. The company opts to refinance its existing debts rather than pay them down.
- B. The company increasingly uses its cash flow for investment rather than debt repayment.
- C. The company's operational cash flow is deteriorating relative to its long-term debt obligations.

The correct answer is **C**.

Recall that the debt payment coverage ratio is calculated as:

$$\text{Debt coverage ratio} = \frac{\text{Cash flow from operations}}{\text{Total debt}}$$

A declining Debt Payment Coverage ratio suggests the company's cash flow from operations is insufficient to cover its debt obligations, indicating potential financial distress or inefficiency.

**A is incorrect.** Refinancing debt generally wouldn't directly cause a decline in this ratio unless it involves unfavorable terms that increase the debt burden or payment schedules.

**B is incorrect.** Using cash for investment would typically not lead to a decline in this ratio unless these investments fail to generate sufficient returns or cash flow.

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 5: Analyzing Statements of Cash Flows II, LOS 5b: calculate and interpret free cash flow to the firm, free cash flow to equity, and performance and coverage cash flow ratios**

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Q.4743 Suppose a company shows a consistently high cash flow to revenue ratio while its net income to revenue ratio is declining. What might this *most likely* indicate about its operational practices?

- A. The company may be realizing high non-operating revenues.
- B. The company is effectively controlling its operational cash expenditures.
- C. The company is likely facing increasing non-cash charges impacting profitability.

The correct answer is **C**.

Increasing non-cash charges like depreciation or amortization would reduce net income while not affecting cash flow. This could explain the high Cash Flow to Revenue ratio alongside a declining Net Income to Revenue ratio.

**A is incorrect.** Non-operating revenues would affect cash flow and net income similarly, thus not explaining a divergence between these ratios.

**B is incorrect.** Effective cash expenditure control would generally support high cash flow and net income ratios.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 5: Analyzing Statements of Cash Flows II, LOS 5b: calculate and interpret free cash flow to the firm, free cash flow to equity, and performance and coverage cash flow ratios***

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## **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**.

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

***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.

***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.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.

***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.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.

**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.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.

***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.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.

***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.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.

**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.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  $\$8,000 - \$6,500 = \$1,500$ .

***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.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.

***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.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.

***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.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.

***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.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.

***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.2179 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;

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

***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.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

***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.***

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**.

$$\begin{aligned}\text{COGS for 120 units under FIFO} &= [(100 \text{ units} \times \$120 \text{ per unit}) + (20 \text{ units} \times \$125 \text{ per unit})] \\ &= \$14,500 \\ \text{Revenue generated from sales} &= 120 \text{ units} \times \$130 \\ &= \$15,600 \\ \text{Gross Profit} &= \text{Revenues} - \text{COGS} \\ &= \$15,600 - \$14,500 \\ &= \$1,100\end{aligned}$$

**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.

***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.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.

***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.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.

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

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**.

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

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

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

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**.

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

**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.

***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.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.

***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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## **Learning Module 7: Analysis of Long Term Assets**

Q.531 Arithma Co. exchanged a spare forklift purchased one year ago in return for an ambulance to be used in its factory. The company reports under US GAAP and does not have any idea of the fair value of the ambulance. Arithma Co. should *most likely* record the value of the ambulance in its financial statements as:

- A. The fair value of the forklift.
- B. The historical cost of the forklift.
- C. The carrying value of the forklift.

The correct answer is **A**.

When Arithma Co. This approach is based on the principle that in an exchange transaction where the fair value of the acquired asset is not readily determinable, the asset received should be recorded at the fair value of the asset given up. This method ensures that the transaction reflects the most accurate and current valuation of the exchanged assets in the financial statements, providing a clear and fair representation of the company's financial position.

**B is incorrect.** Suggesting that the ambulance should be recorded at the historical cost of the forklift overlooks the fundamental accounting principle of fair value measurement in asset exchanges. The historical cost of the forklift may not represent its current market value, leading to a misrepresentation of the value of the ambulance in the financial statements. Historical cost is the original monetary value of an asset at the time of its acquisition and does not reflect any subsequent changes in market value. Therefore, using the historical cost of the forklift would not provide an accurate valuation of the ambulance received in the exchange.

**C is incorrect.** Recording the ambulance at the carrying value of the forklift also fails to adhere to the fair value measurement principle. The carrying value, or book value, of an asset is its historical cost adjusted for any accumulated depreciation or impairment losses. While closer to a current value than historical cost, the carrying value may still not accurately reflect the market value of the forklift at the time of the exchange. Consequently, using the carrying value to record the ambulance could result in a valuation that does not truly represent the economic realities of the transaction. The fair value approach, on the other hand, ensures that the assets involved in the exchange are recorded at values that are reflective of current market conditions, thereby providing a more accurate and relevant depiction of the company's financial status.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 6b: explain and evaluate how impairment and derecognition of property, plant, and equipment, and intangible assets affect the financial statements and ratios.***

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Q.2251 The capitalization of interests accruing during the construction of an asset is allowed in which of the following?

- A. IFRS.
- B. US GAAP.
- C. IFRS & US GAAP.

The correct answer is **C**.

When a firm constructs an asset for personal use or a resale, the interest accruing from the construction cost during the construction period is capitalized under IFRS and US GAAP. The treatment of capitalized interests is the same under both IFRS and US GAAP.

**A is incorrect.** IFRS allows capitalization of interest accruing during the construction of an asset.

**B is incorrect.** US GAAP allows the capitalization of interest accruing during the construction of an asset.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, 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.2253 Which of the following is *most likely* an unidentifiable intangible asset?

- A. Patent.
- B. Goodwill.
- C. Copyrights.

The correct answer is **B**.

Not all intangible assets are identifiable. Some intangible assets are unidentifiable because they can not be acquired separately. An example of an unidentifiable intangible asset is goodwill, which is the excess of the purchase price over the fair value of the identifiable assets (net of liabilities).

**A is incorrect.** Identifiable intangible assets are those that can be separated from other assets and can even be sold by the company, e.g., patents.

**C is incorrect.** Identifiable intangible assets include intellectual property, copyrights, trademarks, and trade names.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, 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.2254 A German tech firm reporting under IFRS has incurred the following expenditures during the year 2016:

SG&A	\$1,200
Research Cost	\$400
Depreciation	\$300
Interest Expense	\$600
Development Cost	\$800

Given the information presented and all IFRS criteria are met, the total operating expenses of the firm is *closest to*:

A. \$1,900.

B. \$2,700.

C. \$3,300.

The correct answer is **A**.

Under International Financial Reporting Standards (IFRS), the treatment of research and development costs is distinct. Research costs are expensed in the period they are incurred, reflecting the uncertainty of future economic benefits. Conversely, development costs can be capitalized if certain criteria are met, indicating that the expenditure will likely result in future economic benefits. This distinction is crucial for accurately calculating a firm's total operating expenses.

Given the information for the German tech firm, the total operating expenses can be calculated by summing the Selling, General, and Administrative (SG&A) expenses, Research costs, and Depreciation expenses. The Interest Expense and Development Cost are not included in the operating expenses calculation under IFRS. The Interest Expense is considered a financing activity, and the Development Cost, under the provided conditions, is capitalized and not expensed in the period incurred.

$$\begin{aligned}\text{Total Operating Expenses} &= \text{SG\&A} + \text{Research Cost} + \text{Depreciation} \\ &= \$1,200 + \$400 + \$300 \\ &= \$1,900\end{aligned}$$

**B is incorrect.** Under IFRS, development costs are capitalized if they meet certain criteria, indicating that the expenditure is expected to generate future economic benefits and is not expensed in the period incurred.

**C is incorrect.** Interest Expense is related to financing activities and should not be included in operating expenses. Including both the Development Cost and Interest Expense results in a significantly overstated total operating expenses figure, which does not accurately reflect the firm's operational costs as per IFRS guidelines.

Q.2255 Smart-Sun Corp. purchased a solar panel plant from Solar World Inc. in a business transaction of \$700 million. Assuming that the fair value of the identifiable assets related to the solar panel plant of Solar World is \$1,500 million with liabilities of \$830 million, the goodwill to be reported on Smart Sun's balance sheet is *closest to*:

- A. \$30 million.
- B. \$130 million.
- C. \$800 million.

The correct answer is **A**.

First, we need to find the Net value of assets related to the solar panel plant.

$$\begin{aligned}\text{Net Value of Assets} &= \text{Assets} - \text{Liabilities} \\ &= \$1,500 \text{ million} - \$830 \text{ million} \\ &= \$670 \text{ million}\end{aligned}$$

Goodwill is calculated as the excess of the purchase price over the fair value of the identifiable assets.

$$\begin{aligned}\text{Goodwill to be reported on Smart Sun's balance sheet} &= \text{Purchase Price} - \text{Fair value of net assets} \\ &= \$700 \text{ million} - \$670 \text{ million} \\ &= \$30 \text{ million}\end{aligned}$$

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, 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.2256 If a hypothetical firm capitalizes its expenditures rather than expensing them, then determine the *most likely* impact on its net income in subsequent years compared to a firm that expenses out its expenditures.

- A. The capitalizing firm will have a lower net income in subsequent years.
- B. The capitalizing firm will have a higher net income in subsequent years.
- C. The capitalizing firm will have an equal net income as the expensing firm in subsequent years.

The correct answer is **A**.

Compared to an expensing firm, a firm that capitalizes its expenditures will have a higher net income in the first years. The capitalizing firm will have a lower net income in the subsequent years since it will have higher depreciation expenses.

**B is incorrect.** Capitalizing will affect net income after the first year once the firm begins recognizing depreciation expense.

**C is incorrect.** Capitalizing and expensing will have different net incomes as expensing will reduce net income in the first year, and capitalizing will reduce net income in the subsequent years.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, 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.2263 Identify the *most likely* effects on ratios of a firm that capitalizes the cost of assets.

- A. Higher Interest coverage, higher Equity and lower Income variability
- B. Lower Interest coverage, higher Equity and lower Income variability
- C. Higher Interest coverage, lower Equity and lower Income variability

The correct answer is **A**.

Since the net income is higher undercapitalized costs, the interest coverage ratio and equity (retained earnings) are also higher. Also, when the costs are capitalized, they flow through the income statement over the asset's useful life as depreciation. Therefore, the Income variability is lower.

**B is incorrect** Interest coverage ratio calculated as (EBIT/Interest expense) will be lower under expensing as EBIT will be lower because of the deduction of the asset's costs when computing EBIT.

**C is incorrect.** Income variability will be higher under expensing as there will be a large expense deducted from gross income, while undercapitalization will have a lower variability as the asset's cost (depreciation) will be spread over the asset's life.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, 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.2264 Which of the following is *least likely* a criterion of identifiable intangible assets under IFRS?

- A. The assets should provide future economic benefits.
- B. The firm should have control and legal rights over the asset.
- C. The assets should be capable of being inseparable from the firm.

The correct answer is **C**.

For an intangible asset to be considered identifiable, it must be capable of being separated from the firm or arise from contractual or other legal rights, regardless of whether those rights are separable. This means that if an intangible asset can be sold, transferred, licensed, rented, or exchanged independently of the firm, it meets the separability criterion, making it an identifiable intangible asset. This criterion distinguishes identifiable intangible assets from goodwill, which is an unidentifiable intangible asset because it cannot be separated from the firm. The separability criterion ensures that identifiable intangible assets are distinct enough to be recognized separately on the balance sheet, providing more accurate and detailed information about the firm's resources.

**A is incorrect.** The requirement that assets should provide future economic benefits is a fundamental criterion for the recognition of identifiable intangible assets under IFRS. This criterion ensures that only assets expected to contribute to future cash flows are recognized on the balance sheet. It reflects the economic reality of the asset's value to the firm, ensuring that the financial statements provide useful information to investors and other stakeholders about the resources controlled by the firm that will generate future economic benefits.

**B is incorrect.** Having control and legal rights over an asset is crucial for its recognition as an identifiable intangible asset under IFRS. Control over an asset implies that the firm can direct the use of the asset and obtain the economic benefits that flow from it. Legal rights, which can be enforceable by law, provide evidence of control. This criterion ensures that the firm can prevent others from benefiting from the asset, thereby securing the future economic benefits that the asset is expected to generate. The emphasis on control and legal rights ensures that the assets recognized on the balance sheet are those over which the firm has both the ability and the right to derive economic benefits.

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, 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.2275 York Corp. purchased a plant for \$45 million with a useful life of 8 years and a salvage value of \$5 million. At the beginning of the 4th year, York decided to decrease the salvage value to \$3.2 million. The depreciation expense for the 4th year if York uses the Straight-line method of depreciation is *closest to*:

A. \$4.36 million.

B. \$5.00 million.

C. \$5.36 million.

The correct answer is C.

For the first three years,

$$\begin{aligned}\text{Depreciation expense} &= \frac{\text{Cost} - \text{Salvage value}}{\text{Useful Life}} \\ &= \frac{(\$45 \text{ million} - \$5 \text{ million})}{8 \text{ years}} \\ &= \$5 \text{ million}\end{aligned}$$

At the beginning of the 4th year,

$$\begin{aligned}\text{Depreciation expense} &= \frac{\text{Book value} - \text{Salvage cost}}{\text{Remaining useful life}} \\ &= \frac{45 - (3 \times 5) - 3.2}{8 - 3} = \$5.36 \text{ million}\end{aligned}$$

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, 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.2276 Intangible assets with finite useful lives mostly differ from intangible assets with infinite useful lives with respect to the accounting treatment of:

- A. Costs.
- B. Revaluation.
- C. Amortization.

The correct answer is **C**.

Whereas an intangible asset with a finite useful life is amortized, an intangible asset with an indefinite useful life is not.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, 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.2279 An accountant is analyzing the accounts of a Belgian chocolate firm. The information regarding the cost of its ice cream plant is given in the following table. Calculate the amount of impairment loss if the Belgian firm reports under IFRS.

Book Value of Plant	\$400,000
Acc. Depreciation	\$25,000
Fair Value	\$370,000
Selling Cost	\$15,000
Value in Use	\$360,000
Expected Future Cash Flow	\$350,000

A. \$15,000

B. \$25,000

C. \$40,000

The correct answer is **A**.

The question is about determining the impairment loss for a Belgian chocolate firm under IFRS. Here's how you can work it out:

1. **Carrying Amount:** This is calculated as the Book Value of the Plant minus Accumulated Depreciation. So,  $\$400,000 - \$25,000 = \$375,000$ .
2. **Fair Value Less Costs to Sell:** This is calculated as the Fair Value minus Selling Cost. So,  $\$370,000 - \$15,000 = \$355,000$ .
3. **Recoverable Amount:** Under IFRS, the recoverable amount is the higher of an asset's fair value, less costs to sell, and its value in use. In this case, the value in use (\$360,000) is higher than the fair value less costs to sell (\$355,000), so we use the value in use as the recoverable amount.
4. **Impairment Loss:** This is calculated as the Carrying Amount minus the Recoverable Amount. So,  $\$375,000 - \$360,000 = \$15,000$ .

Therefore, the impairment loss would be **\$15,000**.

*CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7b: explain and evaluate how impairment and derecognition of property, plant, and equipment, and intangible assets affect the financial statements and ratios.*

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Q.2280 An accountant is analyzing the financial reports of an American chocolate firm. The information regarding the cost of its ice cream plant is given in the following table:

Book Value of Plant	\$400,000
Acc. Depreciation	\$25,000
Fair Value	\$370,000
Selling Cost	\$15,000
Value in Use	\$360,000
Expected Future Cash Flow	\$350,000

If the American firm reports under US GAAP, the new balance sheet value of the asset is *closest to*:

- A. \$350,000.
- B. \$360,000.
- C. \$370,000.

The correct answer is **C**.

The question is about determining the new balance sheet value of an asset under US GAAP. Here's how you can work it out:

1. **Carrying Amount:** This is calculated as the Book Value of the Plant minus Accumulated Depreciation. So,  $\$400,000 - \$25,000 = \$375,000$ .
2. **Undiscounted Expected Future Cash Flows:** This is given as \$350,000.

Under US GAAP, an impairment loss is recognized when the carrying amount exceeds the undiscounted expected future cash flows. In this case, the carrying amount (\$375,000) is greater than the expected future cash flows (\$350,000), so there is an impairment.

3. **Impairment Loss:** This is calculated as the Carrying Amount minus Fair Value. So,  $\$375,000 - \$370,000 = \$5,000$ .

Therefore, the new balance sheet value after recognizing the impairment loss would be the Fair Value, which is **\$370,000**.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7b: explain and evaluate how impairment and derecognition of property, plant, and equipment, and intangible assets affect the financial statements and ratios.***

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Q.2281 An accountant is analyzing the accounts of a Belgian chocolate firm. The information regarding the cost of its ice cream plant is given in the following table. Assuming that the firm abandoned the plant, calculate the value of the loss recognized in the Income statement.

Book Value of Plant	\$400,000
Acc. Depreciation	\$25,000
Fair Value	\$370,000
Selling Cost	\$15,000
Value in Use	\$360,000
Expected Future Cash Flow	\$350,000

- A. \$370,000
- B. \$375,000
- C. \$400,000

The correct answer is **B**.

When a Belgian chocolate firm decides to abandon its ice cream plant, the financial implications of this decision must be accurately reflected in the company's income statement. The loss recognized in the income statement is a critical figure that represents the financial impact of this abandonment. To calculate this loss, it is essential to understand the components involved in the calculation, which include the book value of the plant, accumulated depreciation, fair value, selling cost, value in use, and expected future cash flows.

Since the plant is abandoned, the company will not recover any value through sale or continued use, meaning the recovered value is \$0. The formula to calculate the loss is as follows:

$$\text{Loss} = (\text{Book Value} - \text{Accumulated Depreciation}) - \text{Recovered Value}$$

Substituting the given values:

$$\text{Loss} = (\$400,000 - \$25,000) - \$0 = \$375,000$$

**A is incorrect.** The plant is abandoned, and no recovery through sale is expected.

**C is incorrect.** It indicates a loss of \$400,000, which ignores the effect of accumulated depreciation on the carrying amount of the plant. The book value of the plant before considering depreciation is \$400,000, but the accumulated depreciation reduces the carrying amount that should be considered in calculating the loss.

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7b: explain and evaluate how impairment and derecognition of property, plant, and equipment, and intangible assets affect the financial statements and ratios.**

Q.2282 Which of the following is *most likely* an impact of impairment? If an asset is impaired the:

- A. return on asset, return on equity, and profit margins decrease.
- B. return on asset and return on equity increase, but the profit margins decrease.
- C. return on asset ratio and profit margins decrease, but the return on equity increases.

The correct answer is **A**.

When an asset is impaired, it means its carrying amount exceeds its recoverable amount. This results in the recognition of impairment losses, which directly affects the income statement. As a consequence, The return on asset (ROA) decreases because the impaired asset's carrying amount is reduced, leading to a lower net income in the denominator. Return on equity (RoE) decreases because net income, which is the numerator in the RoE calculation, decreases due to impairment losses. Profit margins decrease because impaired assets result in lower net income, leading to a lower numerator in the profit margin formula.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7b: explain and evaluate how impairment and derecognition of property, plant, and equipment, and intangible assets affect the financial statements and ratios.***

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Q.2283 Which of the following is the *most likely* impact of an impairment loss on a firm's cash flow statement?

- A. Total cash flow increases.
- B. Total cash flow decreases.
- C. Total cash flow remains unchanged.

The correct answer is **C**.

An impairment loss is an accounting adjustment that reflects a decrease in the recoverable value of an asset, bringing its book value in line with its current fair market value when the latter is lower. This adjustment is recognized in the income statement as an expense, which reduces the net income for the period. However, it is crucial to understand that an impairment loss is a non-cash expense. It does not involve any actual outflow of cash at the time it is recognized.

**A is incorrect.** Suggesting that total cash flow increases due to an impairment loss misunderstands the nature of cash flow and impairment losses. Since impairment losses are non-cash charges, they do not result in any cash inflow or increase in cash flow. The cash flow statement is primarily concerned with actual cash inflows and outflows, and since an impairment loss does not involve a cash transaction, it does not increase the total cash flow.

**B is incorrect.** While an impairment loss does reduce net income on the income statement, it is important to differentiate between cash-based transactions and non-cash adjustments. The cash flow statement adjusts for non-cash expenses, such as depreciation and impairment losses, by adding them back to net income in the operating activities section. Therefore, an impairment loss does not decrease the total cash flow, as it does not represent a cash outflow.

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7b: explain and evaluate how impairment and derecognition of property, plant, and equipment, and intangible assets affect the financial statements and ratios.**

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Q.2284 An asset has a gross book value of \$60 million and accumulated depreciation of \$22 million. Calculate the approximate remaining life of the asset if the depreciation expense is \$3.8 million.

- A. 6 years.
- B. 10 years.
- C. 16 years.

The correct answer is **B**.

$$\begin{aligned}\text{The remaining life of the asset} &= \frac{(\text{Gross book value} - \text{Acc. Dep})}{\text{Depreciation Exp.}} \\ &= \frac{(\$60 \text{ million} - \$22 \text{ million})}{\$3.8 \text{ million}} \\ &= 10 \text{ years}\end{aligned}$$

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7c: analyze and interpret financial statement disclosures regarding property, plant, and equipment and intangible assets***

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Q.3842 A local investor has recently acquired a franchise of an online ticketing website, whose components and useful lives are given in the following table:

Assets	Value	Useful life
Patent	\$25,000	20
Copyrights	\$12,000	12
Trademark	\$8,800	5
Goodwill	\$7,000	–
Physical servers	\$15,000	15

Assuming that the salvage value of the patent is \$3,000 and that the trademark can be renewed every 5th year for \$1,500, the total amortization expense for the first year using the straight-line method is *closest to*:

- A. 2100
- B. 3860
- C. 4860

The correct answer is **A**.

Amortization is identical to depreciation, but it only amortizes intangible assets with finite lives. Since the question only asks for amortization expenses, we will ignore the tangible assets (physical servers) and intangible assets with indefinite lives, such as goodwill and trademark, that can be renewed every 5th year for nominal fees.

$$\text{Amortization expense for Patent} = \frac{(\$25,000 - \$3,000)}{20} = \$1,100$$

$$\text{Amortization expense for Copyrights} = \frac{(\$12,000 - \$0)}{12 \text{ years}} = \$1,000$$

$$\text{Total amortization expense} = \$1,100 + \$1,000 = \$2,100$$

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7a: 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.3845 A firm's financial statements show that the value of plant, property & equipment is \$4.5 million, land is \$2.5 million, and accumulated depreciation is \$1.8 million. If the depreciation expense for the year is \$0.15 million, then the average age of the firm's PPE is *closest to*:

- A. 12 years.
- B. 18 years.
- C. 34.67 years.

The correct answer is **A**.

Since land is not a depreciable asset, we can only calculate the average age of plant, property & equipment.

$$\begin{aligned}\text{Average age of PPE} &= \frac{\text{Accumulated depreciation}}{\text{Depreciation expense}} \\ &= \frac{\$1.8 \text{ million}}{\$0.15 \text{ million}} \\ &= 12 \text{ years}\end{aligned}$$

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7c: analyze and interpret financial statement disclosures regarding property, plant, and equipment and intangible assets***

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Q.4815 Which of the following is *least likely* a criterion for an identifiable intangible asset under IFRS? The asset must:

- A. be separable from the company.
- B. arise from contractual or legal rights.
- C. be developed through internal research and development.

The correct answer is **C**.

For an intangible asset to be considered identifiable under IFRS, it must be separable (capable of being separated from the company) or arise from contractual or legal rights. The development of the asset through internal research and development is not a requirement for it to be considered identifiable.

**A is incorrect.** The requirement that the asset must be separable is a fundamental criterion for recognizing identifiable intangible assets under IFRS.

**B is incorrect.** The requirement that the asset must arise from contractual or legal rights is also a fundamental criterion for recognizing identifiable intangible assets under IFRS.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7a: 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.4816 Which of the following is *least likely* a criterion for recognizing an internally developed intangible asset under IFRS?

- A. The asset must demonstrate technical feasibility.
- B. The asset must have a cost that cannot be reliably measured.
- C. The asset must be expected to provide future economic benefits.

The correct answer is **B**.

For an internally developed intangible asset to be recognized under IFRS, it must demonstrate technical feasibility and be expected to provide future economic benefits. The cost of the asset must also be reliably measurable. If the cost cannot be reliably measured, it cannot be recognized.

**A is incorrect.** Demonstrating technical feasibility is a criterion for recognizing internally developed intangible assets under IFRS.

**C is incorrect.** The expectation of future economic benefits is a criterion for recognizing internally developed intangible assets under IFRS.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7a: 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.4817 Which of the following is *least likely* considered an identifiable intangible asset under IFRS?

- A. A trademark acquired from another company
- B. Goodwill arising from the acquisition of a company.
- C. A patent developed internally and meeting capitalization criteria.

The correct answer is **B**.

Goodwill is not considered an identifiable intangible asset under IFRS because it cannot be separated from the business itself and does not arise from contractual or legal rights. It is recognized as an intangible asset only in the context of a business combination.

**A is incorrect.** A trademark acquired from another company is considered an identifiable intangible asset under IFRS.

**C is incorrect.** A patent developed internally and meeting capitalization criteria is considered an identifiable intangible asset under IFRS.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7a: 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.4818 Which of the following statements is *least likely* true regarding the treatment of intangible assets under IFRS and US GAAP?

- A. Both IFRS and US GAAP expense research costs when incurred.
- B. Under IFRS, development costs can be capitalized if certain criteria are met, whereas under US GAAP, all development costs are expensed.
- C. Under US GAAP, software development costs for internal use can be capitalized once feasibility is established, while under IFRS, they are expensed.

The correct answer is **B**.

Under both IFRS and US GAAP, research costs are expensed when incurred. Under IFRS, development costs can be capitalized if certain criteria are met. Under US GAAP, certain software development costs can be capitalized once technological feasibility is established, and similar criteria apply to all internally developed intangible assets.

**A is incorrect.** Both IFRS and US GAAP require research costs to be expensed when incurred.

**C is incorrect.** Under US GAAP, software development costs for internal use can indeed be capitalized once feasibility is established, aligning with similar criteria under IFRS.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7a: 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.4819 Which of the following is *least likely* a factor that impacts the financial statement presentation of intangible assets?

- A. The physical substance of the intangible asset.
- B. The expected useful life of the intangible asset.
- C. The method of acquisition of the intangible asset.

The correct answer is **A**.

By definition, intangible assets lack physical substance. The method of acquisition (e.g., purchase, internal development) and the expected useful life impact how intangible assets are recognized and amortized in the financial statements.

**B is incorrect.** The expected useful life of the intangible asset impacts its amortization and financial statement presentation.

**C is incorrect.** The method of acquisition impacts the financial statement presentation of intangible assets.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7a: 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.4820 Which of the following is *least likely* to be a correct statement about the accounting treatment for intangible assets acquired in a business combination under IFRS?

- A. Any excess amount over the identifiable net assets' value is recorded as goodwill.
- B. All intangible assets acquired in a business combination are expensed immediately.
- C. The acquiring company must allocate the purchase price to the acquired assets and assumed liabilities at their fair values.

The correct answer is **B**.

Under IFRS, intangible assets acquired in a business combination are recognized at their fair values and not expensed immediately. Any excess of the purchase price over the identifiable net assets is recorded as goodwill.

**A is incorrect.** Any excess amount over the identifiable net assets' value is recorded as goodwill.

**C is incorrect.** The acquiring company must allocate the purchase price to the acquired assets and assumed liabilities at their fair values.

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7a: 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.4821 Which of the following is *most likely* a criterion for recognizing internally developed software costs as intangible assets under US GAAP?

- A. The software must be intended for internal use.
- B. The costs must be incurred during the research phase of the project.
- C. The costs must be incurred after the project reaches technological feasibility.

The correct answer is **C**.

Under US GAAP, research costs are expensed when incurred, including those related to software development. Costs incurred after technological feasibility is established and intended for internal use can be capitalized.

**A is incorrect.** Software intended for internal use can have its development costs capitalized after technological feasibility is reached.

**B is incorrect.** Costs incurred during the research phase of the project are expensed when incurred.

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Q.4822 Which of the following is *least likely* a criterion for recognizing an impairment loss under IFRS?

- A. The carrying amount of the asset exceeds its recoverable amount.
- B. The asset must be classified as held for sale to recognize an impairment loss.
- C. The recoverable amount is the higher of fair value, less costs to sell, and value in use.

The correct answer is **B**.

Under IFRS, an impairment loss is recognized when the carrying amount of an asset exceeds its recoverable amount, which is the higher of its fair value, less costs to sell, and its value in use. This can apply to any long-lived asset, not just those held for sale. Classifying the asset as held for sale is not required to recognize an impairment loss.

**A is incorrect.** This is a correct criterion for recognizing an impairment loss under IFRS.

**C is incorrect.** The recoverable amount being the higher of fair value, less costs to sell, and value in use is a fundamental concept in IFRS impairment testing.

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7b: Explain and Evaluate How Impairment and Derecognition of Property, Plant, and Equipment, and Intangible Assets Affect the Financial Statements and Ratios.**

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Q.4824 Which of the following is *least likely* a reason for the derecognition of a long-lived asset? The asset is:

- A. sold.
- B. abandoned.
- C. fully depreciated.

The correct answer is **C**.

Derecognition occurs when an asset is sold, abandoned, exchanged, or otherwise disposed of. Being fully depreciated does not in itself lead to derecognition. An asset can be fully depreciated but still in use.

**A is incorrect.** Selling an asset leads to its derecognition.

**B is incorrect.** Abandoning an asset leads to its derecognition.

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Q.4825 Which of the following is *least likely* true about the treatment of intangible assets with finite lives? They are:

- A. tested for impairment annually.
- B. amortized over their useful lives.
- C. tested for impairment when significant events indicate potential impairment.

The correct answer is **A**.

Intangible assets with finite lives are amortized over their useful lives and tested for impairment only when there are indicators of impairment, not annually.

**B is incorrect.** Intangible assets with finite lives are amortized over their useful lives.

**C is incorrect.** These assets are tested for impairment when significant events indicate potential impairment.

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7b: Explain and Evaluate How Impairment and Derecognition of Property, Plant, and Equipment, and Intangible Assets Affect the Financial Statements and Ratios.**

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Q.4826 Arbor Industries, a hypothetical company, is assessing the impairment of a finite-life intangible asset with the following details:

Parameter	Value
Carrying Amount	USD 500,000
Present Value of Expected Future Cash Flows	USD 400,000
Fair Value if Sold	USD 450,000
Undiscounted future cash flows	USD 440,000
Costs to Sell	USD 50,000

The impairment loss under IFRS and US GAAP is closest to:

- A. 

IFRS	US GAAP
USD 100,000	USD 100,000
- B. 

IFRS	US GAAP
USD 50,000	USD 100,000



C.	IFRS	US GAAP
	USD 100,000	USD 50,000

The correct answer is C.

#### Under IFRS:

The recoverable amount is the higher of fair value less costs to sell and value in use.

$$\begin{aligned}
 \text{Fair Value less Costs to Sell} &= \text{USD } 450,000 - \text{USD } 50,000 = \text{USD } 400,000 \\
 \text{Value in Use} &= \text{USD } 400,000 \\
 \text{Recoverable Amount} &= \max(\text{USD } 400,000, \text{USD } 400,000) = \text{USD } 400,000 \\
 \text{Impairment Loss} &= \text{Carrying Amount} - \text{Recoverable Amount} \\
 &= \text{USD } 500,000 - \text{USD } 400,000 = \text{USD } 100,000
 \end{aligned}$$

#### Under US GAAP:

First, assess recoverability by comparing the carrying amount to the undiscounted expected future cash flows.

Since the carrying amount (USD 500,000) is greater than the undiscounted expected future cash flows (USD 440,000), the asset is impaired.

The impairment loss is the difference between the carrying amount and the fair value.

$$\text{Impairment Loss} = \text{Carrying Amount} - \text{Fair Value} = \text{USD } 500,000 - \text{USD } 450,000 = \text{USD } 50,000$$

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7b: Explain and Evaluate How Impairment and Derecognition of Property, Plant, and Equipment, and Intangible Assets Affect the Financial Statements and Ratios.***

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Q.4827 Which of the following is *most likely* a key disclosure requirement for intangible assets with indefinite useful lives under IFRS?

- A. The amortization expense for the period.
- B. The residual value of the intangible asset.
- C. The rationale for classifying the useful life as indefinite.

The correct answer is **C**.

Under IFRS, for intangible assets with indefinite useful lives, companies must disclose the rationale for classifying the useful life as indefinite. This includes explaining why the asset is expected to generate cash flows indefinitely.

**A is incorrect.** Intangible assets with indefinite useful lives are not amortized hence there is no amortization expense.

**B is incorrect.** While the residual value might be relevant for finite-lived assets, it is not a key disclosure for indefinite-lived intangible assets.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7b: explain and evaluate how impairment and derecognition of property, plant, and equipment, and intangible assets affect the financial statements and ratios.***

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Q.4828 Assuming that the historical cost of PPE for companies ABC and XYZ are the same, and the companies use the same depreciation method, consider the following information on their PPE:

Estimates	Company ABC	Company XYZ
Estimated total useful life (years)	10.4	21.3
Estimated age (years)	5.7	11.0
Estimated remaining life (years)	4.7	9.4

Which of the following statements is the *least accurate*?

- A. The estimates suggest over 50% of each company's useful life has passed.
- B. The estimated age of the equipment suggests that company ABC has newer PPE than company XYZ.
- C. The estimated total useful life suggests that company XYZ depreciates PPE over a much shorter period than company ABC.

The correct answer is **C**.

The estimated total useful life suggests that company ABC depreciates PPE over a much longer period than company XYZ, not shorter. The estimated total useful life is derived from the historical cost divided by the annual depreciation expense. Since both companies have the same historical cost and use the same depreciation method, a longer useful life indicates a lower annual depreciation expense, implying a longer depreciation period for company ABC.

**A is incorrect.** Over 50% of each company's useful life has passed (5.7/10.4 for ABC and 11.0/21.3 for XYZ).

**B is incorrect.** The estimated age of the equipment suggests that company ABC has newer PPE than company XYZ (5.7 years vs. 11.0 years).

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7c: analyze and interpret financial statement disclosures regarding property, plant, and equipment and intangible**

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Q.4829 XYZ company follows a straight-line depreciation method and reports the information below for its production machines:

Parameter	Value
Annual depreciation expense	\$50,000
Accumulated depreciation expense	\$200,000
Carrying value	\$650,000

The machines' estimated remaining useful life, and the time the company held them are *closest to*:

- A. The remaining useful life is five years, and the company has held the machines for three years.
- B. The remaining useful life is eight years, and the company has held the machines for four years.
- C. The remaining useful life is 13 years, and the company has held the machines for four years.

The correct answer is C.

The remaining useful life is calculated by dividing the carrying value by the annual depreciation expense.

$$\text{Remaining useful life} = \frac{\text{Carrying value}}{\text{Annual depreciation expense}} = \frac{\$650,000}{\$50,000} = 13 \text{ years}$$

The period the company has held the machines is calculated by dividing the accumulated depreciation expense by the annual depreciation expense.

$$\text{Asset's holding period} = \frac{\text{Accumulated depreciation expense}}{\text{Annual depreciation expense}} = \frac{\$200,000}{\$50,000} = 4 \text{ years}$$

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7c: analyze and interpret financial statement disclosures regarding property, plant, and equipment and intangible***

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Q.4830 Under IFRS, which of the following disclosures is *least likely* required for each class of property, plant, and equipment?

- A. The basis of measurement.
- B. The expected residual value.
- C. The depreciation methods used.

The correct answer is **B**.

IFRS requires disclosures for each class of property, plant, and equipment including the basis of measurement, depreciation methods, useful lives or depreciation rates, gross carrying amounts, and accumulated depreciation at the start and end of the period. The expected residual value is not a required disclosure.

**A is incorrect.** The basis of measurement is required to be disclosed.

**C is incorrect.** The depreciation methods used are required to be disclosed.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7c: analyze and interpret financial statement disclosures regarding property, plant, and equipment and intangible***

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Q.4831 Which of the following is *least likely* to be disclosed under US GAAP for intangible assets?

- A. The fair value of intangible assets with indefinite lives.
- B. The expected amortization expense for the next five fiscal years.
- C. The gross carrying amounts and accumulated amortization by major class.

The correct answer is **A**.

US GAAP requires the disclosure of gross carrying amounts and accumulated amortization by major class, as well as the expected amortization expense for the next five fiscal years. The fair value of intangible assets with indefinite lives is not typically required to be disclosed under US GAAP.

**B is incorrect.** The expected amortization expense for the next five fiscal years must be disclosed.

**C is incorrect.** The gross carrying amounts and accumulated amortization by major class are required disclosures.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7c: analyze and interpret financial statement disclosures regarding property, plant, and equipment and intangible***

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Q.4832 A company discloses the following information for its intangible assets:

Parameter	Value
Gross carrying amount	\$1,000,000
Accumulated amortization	\$400,000
Annual amortization expense	\$100,000

The average remaining useful life of the intangible assets is *closest to*:

- A. 3 years.
- B. 6 years.
- C. 10 years.

The correct answer is **B**.

The average remaining useful life is calculated by dividing the net carrying amount by the annual amortization expense.

$$\begin{aligned}\text{Net Carrying Amount} &= \text{Gross Carrying Amount} - \text{Accumulated Amortization} \\ &= \$1,000,000 - \$400,000 = \$600,000 \\ \text{Average Remaining Useful Life} &= \frac{\text{Net Carrying Amount}}{\text{Annual Amortization Expense}} \\ &= \frac{\$600,000}{\$100,000} = 6 \text{ years}\end{aligned}$$

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7c: analyze and interpret financial statement disclosures regarding property, plant, and equipment and intangible***

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Q.4833 A company follows a straight-line depreciation method and reports the following for its equipment:

Parameter	Value
Historical cost	\$500,000
Annual depreciation expense	\$50,000
Accumulated depreciation	\$200,000

The total useful life, the age of the equipment, and the remaining useful life are *closest to*:

A.	Total useful life	Age of the equipment	Remaining useful life
	10 years	4 years	6 years
B.	Total useful life	Age of the equipment	Remaining useful life
	10 years	5 years	5 years
C.	Total useful life	Age of the equipment	Remaining useful life
	12 years	4 years	8 years

The correct answer is **A**.

The total useful life is calculated by dividing the historical cost by the annual depreciation expense.

$$\text{Total Useful Life} = \frac{\text{Historical Cost}}{\text{Annual Depreciation Expense}} = \frac{\$500,000}{\$50,000} = 10 \text{ years}$$

The age of the equipment is calculated by dividing the accumulated depreciation by the annual depreciation expense.

$$\text{Age} = \frac{\text{Accumulated Depreciation}}{\text{Annual Depreciation Expense}} = \frac{\$200,000}{\$50,000} = 4 \text{ years}$$

The remaining useful life is the total useful life minus the age.

$$\text{Remaining Useful Life} = \text{Total Useful Life} - \text{Age} = 10 \text{ years} - 4 \text{ years} = 6 \text{ years}$$

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7c: analyze and interpret financial statement disclosures regarding property, plant, and equipment and intangible***



Q.4834 Which of the following is *most likely* to be disclosed for intangible assets with finite useful lives under IFRS?

- A. The method used to estimate the residual value.
- B. The expected increase in future revenue from the assets.
- C. The carrying amount at the beginning and end of the period.

The correct answer is **C**.

For intangible assets with finite useful lives, IFRS requires disclosure of the carrying amount at the beginning and end of the period, along with other details such as amortization methods and rates.

**A is incorrect.** While the method to estimate residual value might be relevant, it is not specifically required for disclosure under IFRS.

**B is incorrect.** Expected increases in future revenue are not typically disclosed for intangible assets.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7c: analyze and interpret financial statement disclosures regarding property, plant, and equipment and intangible***

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Q.4835 Which of the following is *most likely* required to be disclosed for intangible assets with indefinite useful lives under IFRS, assuming the revaluation model is not used?

- A. The estimated fair value of the assets.
- B. The rationale for classifying the useful life as indefinite.
- C. The estimated amortization expense over the next five years.

The correct answer is **B**.

For intangible assets with indefinite useful lives, IFRS requires disclosure of the rationale for classifying the useful life as indefinite.

**A is incorrect.** The estimated fair value is not typically required for disclosure unless the revaluation model is adopted.

**C is incorrect.** Intangible assets with indefinite useful lives are not amortized, so there would be no amortization expense to disclose.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 7: Analysis of Long-Term Assets, LOS 7c: analyze and interpret financial statement disclosures regarding property, plant, and equipment and intangible***

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## **Learning Module 8: Topics in Long-Term Liabilities and Equity**

Q.288 A hypothetical high-tech industry is composed of three companies. Some notes regarding the three companies are given below:

Company A: Low leverage, low coverage ratio

Company B: Low leverage, high coverage ratio

Company C: High leverage, high coverage ratio

Taking into account both ratios, the most solvent company is *most likely*:

A. Company A.

B. Company B.

C. Company C.

The correct answer is **B**.

Low leverage: Relatively small debt.

High coverage ratio: The firm can easily cover its interest payments with earnings.

Therefore, Company B is the most solvent.

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Q.545 Which of the following cases would *most likely* result in the creation of a net pension asset?

A. Carrying value of the pension trust's assets: \$240 million  
Fair value of the pension trust's assets: \$167 million  
Present value of pension obligations: \$196 million

B. Carrying value of the pension trust's assets: \$240 million  
Fair value of the pension trust's assets: \$267 million  
Present value of pension obligations: \$196 million

C. Carrying value of the pension trust's assets: \$240 million  
Fair value of the pension trust's assets: \$267 million  
Present value of pension obligations: \$296 million

The correct answer is **B**.

The creation of a net pension asset occurs when the fair value of the pension trust's assets exceeds the present value of the pension obligations. This situation indicates that the pension plan is overfunded, meaning it has more assets than needed to meet its future obligations to retirees. This is a positive scenario for the pension plan as it suggests financial stability and the ability to meet future pension payments without additional funding.

**A is incorrect.** In this scenario, the fair value of the pension trust's assets is \$167 million, which is less than the present value of the pension obligations at \$196 million. This situation indicates an underfunded pension plan, where the assets available are not sufficient to cover the future obligations. Therefore, instead of creating a net pension asset, this scenario would result in a net pension liability, reflecting the shortfall between the assets and the obligations.

**C is incorrect.** In this case, the fair value of the pension trust's assets is \$267 million, while the present value of the pension obligations is \$296 million. Despite the high value of assets, they are still less than the obligations, resulting in a \$29 million shortfall. This scenario would lead to a net pension liability rather than a net pension asset, as the plan does not have sufficient assets to cover its future obligations, indicating an underfunded status.

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8b: explain the financial reporting of defined contribution, defined benefit, and stock-based compensation plans**

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Q.547 According to US GAAP, interests incurred on a capital lease are *most likely* classified under:

- A. cash flow from financing activities.
- B. cash flow from operating activities.
- C. either cash flow from operating or financing activities.

The correct answer is **B**.

An interest expense is classified as a cash outflow from operating activities under US GAAP.

**A and C are incorrect.** IFRS allows the option to classify it either as a financing activity or an operating activity.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8a: explain the financial reporting of leases from the perspectives of the lessors and lessees***

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Q.548 Company A gives a car on a 'sales-type lease' to Company B. Company A is involved in the sale and purchase of furniture. Under which would the lease principal be recognized by company A under US GAAP?

- A. Cash flow from investing activities.
- B. Cash flow from operating activities.
- C. Either operating or investing (management's choice).

The correct answer is **A**.

Under US GAAP, when Company A gives a car on a 'sales-type lease' to Company B, the lease principal received by Company A should be recognized under cash flow from investing activities. This classification is consistent with the accounting treatment of the receipt of principal amounts from investments, which are considered investing activities. The rationale behind this classification is that the lease transaction, in essence, represents an investment made by the lessor (Company A) in the leased asset (the car). The return of the principal amount is akin to the return of investment, thus justifying its classification under investing activities.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8a: explain the financial reporting of leases from the perspectives of the lessors and lessees***

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Q.2353 A lumber company leased lumber cutting equipment for five years with an end-yearly payment of \$20,000 at an interest rate of 7%. What are the nature and the beginning value of the lease that the firm will report if the equipment's economic life is only five years?

- A. The firm will report the lease as an operating lease with no liability on its balance sheet.
- B. The firm will report the lease as a finance lease with a beginning lease liability of \$67,744.
- C. The firm will report the lease as a finance lease with a beginning lease liability of \$82,004.

The correct answer is **C**.

Since the lease period is the same as the economic life of the lease, the lease is reported as a finance lease and the beginning lease value is \$82,004. (Calculated using the financial calculator as N=5; I=7%; PMT=20,000; FV=0; CPT->PV). Therefore, \$82,004 is recognized as an asset and a liability in the accounts of the lumber company (as given in the following table).

Year	Beginning Book Value (Lease Liability)	Interest Expense at 7%	Annual Lease Payment	Ending Lease Liability (Beginning Lease Liability + Int. Exp. -) Lease Payment	Book Value Asset (Beginning Book Value - Dep. Exp)
1	\$82,003.90	\$5,740.27	\$20,000	\$67,744.17	\$65,603.12
2	\$67,744.17	\$4,742.09	\$20,000	\$52,486.27	\$49,202.32
3	\$52,486.27	\$3,674.04	\$20,000	\$36,160.30	\$32,801.52
4	\$36,160.30	\$2,531.22	\$20,000	\$18,691.51	\$16,400.72
5	\$18,691.52	\$1,308.41	\$20,000	-\$0.07	-\$0.08

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8a: explain the financial reporting of leases from the perspectives of the lessors and lessees***

Q.2354 A lumber company leased lumber cutting equipment for 5 years with the annual payment of \$20,000 at the interest rate of 7%. Determine the amount of interest or rent expense that the firm will report in the first year if the leased asset is transferred to the lumber company at the end of the lease.

- A. Rent expense of \$3,674.
- B. Interest expense \$5,740.
- C. Interest expense of \$4,752.

The correct answer is **B**.

Since the leased asset is transferred to the lumber firm (lessee), the lease is classified as a finance lease. At the lease initiation, the lessee reports the asset and liability of the amount equal to the beginning book value of the liability (or the present value of periodic lease payments). During the asset's life, the lessee will reduce the lease liability by the amount of principal repayment (Lease payment minus Interest expense) and will reduce the book value of the asset by the straight-line depreciation amount.

Using the financial calculator:

$N = 5$ ;  $I/Y = 7$ ;  $PMT = 20,000$ ;  $FV = 0$ ;  $CPT \Rightarrow PV = -82,004$

The interest expense for the first year is simply the present value of liability multiplied by the interest rate:

$$\begin{aligned}\text{Interest expense} &= \text{Beginning lease liability} \times \text{Interest} \\ &= \$82,004 \times 7\% \\ &= \$5,740\end{aligned}$$

Note that the amortization schedule is also given in the following table:

Year	Beginning Book Value (Lease Liability)	Interest Expense at 7%	Annual Lease Payment	Ending Lease Liability (Beginning Lease Liability + Int. Exp. -) Lease Payment	Book Value Asset (Beginning Book Value - Dep. Exp)
1	\$82,003.90	\$5,740.27	\$20,000	\$67,744.17	\$67,744.17
2	\$67,744.17	\$4,742.09	\$20,000	\$52,486.27	\$49,202.32
3	\$52,486.27	\$3,674.04	\$20,000	\$36,160.30	\$32,801.52
4	\$36,160.30	\$2,531.22	\$20,000	\$18,691.51	\$16,400.72
5	\$18,691.52	\$1,308.41	\$20,000	-\$0.07	-\$0.08

Q.2360 A plastic moulding company promised its employee five years ago that it would provide specific benefits upon retirement. . Today, the pension fund's assets are greater than the pension obligations. Determine the *most appropriate* status of the fund.

- A. Overfunded defined benefits pension plan.
- B. Overfunded defined contribution pension plan.
- C. Underfunded defined contribution pension plan.

The correct answer is **A**.

When a company promises its employees specific benefits upon retirement, it is referring to a defined benefit pension plan. This type of plan specifies the benefits that employees will receive upon retirement, which are usually based on factors such as salary history and years of service. The company is responsible for ensuring that there are enough funds in the plan to meet these obligations. In this scenario, since the pension fund's assets exceed the pension obligations, the plan is considered overfunded. This means that the fund has more assets than needed to meet the future pension obligations to its employees. An overfunded status is generally favorable as it indicates financial health and stability of the pension plan, ensuring that the promised benefits can be provided to the employees upon retirement.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8b: explain the financial reporting of defined contribution, defined benefit, and stock-based compensation plans***

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Q.2361 Under IFRS, the actuarial gains and losses due to remeasurement are reported under:

- A. the income statement.
- B. liabilities on the balance sheet.
- C. other comprehensive income on the balance sheet.

The correct answer is **C**.

The presentation of defined benefits plans is different under IFRS and US GAAP. Under IFRS, the actuarial gains and losses due to remeasurement are reported in the equity side of the balance sheet under other comprehensive income (OCI).

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8b: explain the financial reporting of defined contribution, defined benefit, and stock-based compensation plans***

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Q.4850 Which of the following is *least likely* a criterion for a contract to be classified as a lease under IFRS?

- A. Identify a specific underlying asset.
- B. The asset must be separable from the company.
- C. Give the customer the ability to direct how the asset is used.

The correct answer is **B**.

For a contract to be classified as a lease under IFRS, it must identify a specific underlying asset and allow the customer to direct how and for what purpose the asset is used. Separability from the company is not a requirement.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8a: explain the financial reporting of leases from the perspectives of the lessors and lessees***

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Q.4851 Which of the following is *least likely* to be considered a benefit of leasing an asset compared to purchasing it?

- A. Lower upfront cash outflow.
- B. Lower overall cost of financing.
- C. Reduced risk of obsolescence.

The correct answer is **B**.

Leasing often results in a lower effective interest rate compared to unsecured loans or bonds, making it a cost-effective financing option, but it might not always result in a lower overall cost of financing.

**A is incorrect.** Leasing usually requires little to no down payment, resulting in lower upfront cash outflow.

**C is incorrect.** Leasing mitigates risks such as obsolescence by allowing the lessee to avoid ownership, making it easier to upgrade to newer technology.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8a: explain the financial reporting of leases from the perspectives of the lessors and lessees***

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Q.4852 Which of the following statements is *most accurate* regarding the classification of leases under IFRS?

- A. A lease term covering a minor part of the asset's useful life is classified as a finance lease.
- B. The present value of the lease payments equaling the asset's fair value classifies the lease as an operating lease.
- C. A lease transferring ownership to the lessee by the end of the lease term is classified as a finance lease.

The correct answer is **C**.

One of the criteria for classifying a lease as a finance lease under IFRS is that the lease transfers ownership of the underlying asset to the lessee by the end of the lease term.

**A is incorrect.** A lease term covering a minor part of the asset's useful life would typically be classified as an operating lease.

**B is incorrect.** If the present value of the lease payments equals the asset's fair value, it indicates a finance lease, not an operating lease.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8a: explain the financial reporting of leases from the perspectives of the lessors and lessees***

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Q.4853 For a lease to be classified as a finance lease under US GAAP, which of the following criteria must be met?

- A. The lease term must cover a minor part of the asset's useful life.
- B. The present value of the lease payments must be insignificant compared to the asset's fair value.
- C. The lease must transfer ownership of the underlying asset to the lessee by the end of the lease term.

The correct answer is **C**.

One of the criteria for a finance lease under US GAAP is that the lease must transfer ownership of the underlying asset to the lessee by the end of the lease term.

**A is incorrect.** For a finance lease to be classified as a finance lease, the lease term must cover a major part of the asset's useful life.

**B is incorrect.** For finance lease classification, the present value of the lease payments must be significant compared to the asset's fair value.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8a: explain the financial reporting of leases from the perspectives of the lessors and lessees***

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Q.4854 Which of the following statements about lessor accounting under IFRS is *most accurate*?

- A. In an operating lease, the lessor recognizes a lease receivable.
- B. In a finance lease, the lessor continues to recognize the leased asset on the balance sheet.
- C. In a finance lease, the lessor recognizes interest income based on the lease receivable.

The correct answer is **C**.

In a finance lease, the lessor recognizes interest income based on the lease receivable. This reflects the financing nature of the transaction.

**A is incorrect.** In an operating lease, the lessor retains the asset on its balance sheet and recognizes lease revenue, not a lease receivable.

**B is incorrect.** In a finance lease, the lessor removes the leased asset from its balance sheet and recognizes a lease receivable.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8a: explain the financial reporting of leases from the perspectives of the lessors and lessees***

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Q.4855 Under US GAAP, which of the following *best* describes the accounting treatment for a lessee in an operating lease?

- A. The lessee records a lease liability and a right-of-use asset.
- B. The lessee recognizes interest expense and amortization expense separately.
- C. The entire lease payment is reported as a financing activity in the statement of cash flows.

The correct answer is **A**.

Under US GAAP, the lessee records both a lease liability and a right-of-use asset for operating leases. This reflects the lessee's obligation to make lease payments and the right to use the leased asset.

**B is incorrect.** In an operating lease, the lessee does not separately recognize interest and amortization expense; instead, a single lease expense is recognized.

**C is incorrect.** The entire lease payment is reported as an operating activity in the statement of cash flows.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8a: explain the financial reporting of leases from the perspectives of the lessors and lessees***

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Q.4856 ABC Ltd. enters into a lease agreement with an annual lease payment of \$50,000, a lease term of 3 years, and a discount rate of 5%. The lease liability recorded at the inception of the lease is *closest to*:

- A. \$135,750
- B. \$136,160
- C. \$137,450

The correct answer is **B**.

To calculate the lease liability using a BA II Plus calculator:

- $N = 3$  (number of periods)
- $I/Y = 5$  (interest rate)
- $PMT = 50000$  (annual lease payment)
- $FV = 0$  (future value)

Compute the present value by pressing `CPT` `PV`. The calculator will display the present value (PV) as approximately \$136,160.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8a: explain the financial reporting of leases from the perspectives of the lessors and lessees***

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Q.4857 In the context of lease accounting under US GAAP, which of the following is *least likely* to be considered a finance lease criterion?

- A. The lease term covers a significant portion of the asset's remaining economic life.
- B. The asset can be used by the lessor after the lease term ends without significant modification.
- C. The present value of the lease payments equals or exceeds substantially the fair value of the asset.

The correct answer is **B**.

The asset having no alternative use to the lessor after the lease term is a finance lease criterion, not that it can be used without significant modification.

**A is incorrect.** The lease term covering a significant portion of the asset's economic life is a finance lease criterion.

**C is incorrect.** The present value of the lease payments equaling or exceeding the fair value is a finance lease criterion.

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8a: explain the financial reporting of leases from the perspectives of the lessors and lessees**

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Q.4858 XYZ Corporation enters into a lease agreement with DEF Leasing for a piece of equipment. The terms of the lease are as follows: Annual lease payments of \$150,000, payable at the end of each year for five years.

- The interest rate implicit in the lease is 7%.
- At the end of the lease term, the equipment will be returned to DEF Leasing.
- The lease does not include a purchase option.
- The equipment has an estimated useful life of eight years.
- The fair value of the equipment at the inception of the lease is \$620,000.

Assuming that the corporation reports under IFRS, determine whether this lease should be classified as a finance lease or an operating lease and calculate the impact on XYZ Corporation's balance sheet at the inception of the lease.

- A. Finance lease, recognize a lease liability only.

B. Operating lease, recognize lease expense only.

C. Finance lease, recognize a right-of-use asset and a lease liability.

The correct answer is **C**.

For a lease to be classified as a finance lease under IFRS, it must meet at least one of the following criteria:

1. The lease transfers ownership of the asset to the lessee by the end of the lease term.
2. The lease contains a purchase option that the lessee is reasonably certain to exercise.
3. The lease term is for the major part of the asset's economic life.
4. The present value of the lease payments equals or exceeds substantially all of the fair value of the asset.
5. The asset is of such a specialized nature that only the lessee can use it without major modifications.

Given the details:

- The lease does not transfer ownership.
- There is no purchase option.
- The lease term (5 years) is less than the major part of the asset's useful life (8 years).
- The equipment is not of such a specialized nature that only the lessee can use it.

Calculate the present value of the lease payments:  $N = 5$ ,  $I/Y = 7$ ,  $PMT = 150000$ ,  $FV = 0$ , CPT PV.

The present value (PV) is approximately \$610,000, which is 98.4% of the fair value of the asset (\$620,000), meaning it meets the finance lease criterion of substantially all the fair value.

Regarding the impact on the balance sheet, recognize a right-of-use (ROU) asset and recognize a lease liability of \$610,000

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8a: explain the financial reporting of leases from the perspectives of the lessors and lessees***

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Q.4859 Which of the following statements is *most likely* correct regarding the financial reporting of defined benefit pension plans under IFRS?

- A. The service cost component includes interest income on plan assets.
- B. Actuarial gains and losses are recognized as pension expenses over time.
- C. The net pension asset or liability changes have three components recognized on the income statement.

The correct answer is **C**.

Under IFRS, the change in the net pension asset or liability each period is generally viewed as having three components, two of which (service costs and net interest expense or income) are recognized as pension expense on the income statement. The third component, remeasurements, is recognized in other comprehensive income and is not amortized into profit or loss over time.

**A is incorrect.** The service cost component does not include interest income on plan assets. Instead, it represents the present value of the increase in pension benefits earned by employees during the current period.

**B is incorrect.** Under IFRS, actuarial gains and losses (part of remeasurements) are recognized immediately in other comprehensive income, not as pension expenses over time.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8b: explain the financial reporting of defined contribution, defined benefit, and stock-based compensation plans***

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Q.4860 Which of the following is *least likely* a component of the pension expense recognized on the income statement under US GAAP?

- A. Actuarial gains and losses.
- B. Service cost for the period.
- C. Interest expense on the pension obligation.

The correct answer is **A**.

Under US GAAP, actuarial gains and losses are initially recognized in other comprehensive income and then amortized over time into pension expense, permitting companies to “smooth” the impact on pension expense over time for these elements.

**B is incorrect.** Service cost for the period is a component of the pension expense recognized on the income statement.

**C is incorrect.** Interest expense on the pension obligation is also a component of the pension expense recognized on the income statement.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8b: explain the financial reporting of defined contribution, defined benefit, and stock-based compensation plans***

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Q.4861 Which of the following *best* describes the accounting treatment for defined contribution plans?

- A. The employer records a liability for the estimated future pension benefits.
- B. The employer's obligation is limited to the contributions it has agreed to make.
- C. The employer must make assumptions about future salary levels and years of service.

The correct answer is **B**.

In a defined contribution plan, the employer's obligation is limited to the contributions it has agreed to make to the plan. The employer records an expense for the amount of its contribution in each period and does not have further obligations regarding the amount that will be available to employees upon retirement.

**A is incorrect.** The employer does not record a liability for the estimated future pension benefits in a defined contribution plan.

**C is incorrect.** The employer does not need to make assumptions about future salary levels and years of service in a defined contribution plan.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8b: explain the financial reporting of defined contribution, defined benefit, and stock-based compensation plans***

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Q.4862 Which of the following is *most likely* true regarding share-based compensation?

- A. The compensation expense for stock options is recognized immediately at the grant date.
- B. The compensation expense for stock options is based on the fair value at the grant date.
- C. The compensation expense for stock options is based on the market price at the exercise date.

The correct answer is **B**.

Under both IFRS and US GAAP, the compensation expense for stock options is based on the fair value at the grant date and recognized over the vesting period.

**A is incorrect.** The compensation expense for stock options is not recognized immediately at the grant date but over the vesting period.

**C is incorrect.** The compensation expense for stock options is not based on the market price at the exercise date.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8b: explain the financial reporting of defined contribution, defined benefit, and stock-based compensation plans***

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Q.4863 Which of the following statements about defined benefit pension plans under IFRS is *most accurate*?

- A. Actuarial gains and losses are amortized into profit or loss over time.
- B. Net interest expense or income is recognized in other comprehensive income.
- C. Service costs and net interest expense are recognized as pension expense on the income statement.

The correct answer is **C**.

Under IFRS, service costs and net interest expense are recognized as pension expense on the income statement. Remeasurements, which include actuarial gains and losses, are recognized in other comprehensive income and are not amortized into profit or loss over time.

**A is incorrect.** Actuarial gains and losses are recognized in other comprehensive income and not amortized into profit or loss over time.

**B is incorrect.** Net interest expense or income is recognized on the income statement, not in other comprehensive income.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8b: explain the financial reporting of defined contribution, defined benefit, and stock-based compensation plans***

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Q.4864 Which of the following statements is *most accurate* regarding share-based compensation under IFRS and US GAAP?

- A. Changes in stock price after the grant date affect the compensation expense.
- B. Companies are required to use the Black-Scholes model for valuing stock options.
- C. The fair value of share-based compensation is estimated at the grant date and recognized over the vesting period.

The correct answer is **C**.

Under both IFRS and US GAAP, the fair value of share-based compensation is estimated at the grant date and recognized over the vesting period.

**A is incorrect.** Changes in stock price after the grant date do not affect the compensation expense.

**B is incorrect.** Companies are not required to use the Black-Scholes model specifically; they can choose any appropriate valuation model.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8b: explain the financial reporting of defined contribution, defined benefit, and stock-based compensation plans***

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Q.4865 Which of the following is *most likely* a disadvantage of share-based compensation?

- A. It requires a significant cash outlay.
- B. It can lead to excessive risk-taking by managers.
- C. It does not align employee interests with those of shareholders.

The correct answer is **B**.

Share-based compensation, particularly in the form of stock options, can lead to excessive risk-taking by managers, as options have skewed payouts that reward the upside while limiting the downside.

**A is incorrect.** Share-based compensation typically requires no cash outlay.

**C is incorrect.** Share-based compensation is designed to align employee interests with those of shareholders.

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8b: explain the financial reporting of defined contribution, defined benefit, and stock-based compensation plans**

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Q.4866 Which of the following *best* describes the accounting treatment for restricted stock grants? The compensation expense is:

- A. recognized immediately on the grant date.
- B. spread over the employee's service period.
- C. based on the market value at the exercise date.

The correct answer is **B**.

The compensation expense for restricted stock grants is measured as the fair value of the shares at the grant date and is allocated over the employee's service period.

**A is incorrect.** The expense is not recognized immediately on the grant date but over the service period.

**C is incorrect.** The expense is based on the market value at the grant date, not the exercise date.

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8b: explain the financial reporting of defined contribution, defined benefit, and stock-based compensation plans**

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Q.4867 Which of the following components of a defined benefit pension plan is *most likely* recognized in other comprehensive income under IFRS?

- A. Service cost.
- B. Net interest expense.
- C. Actuarial gains and losses.

The correct answer is **C**.

Under IFRS, actuarial gains and losses are recognized in other comprehensive income and are not amortized into profit or loss over time.

**A is incorrect.** Service cost is recognized on the income statement.

**B is incorrect.** Net interest expense is recognized on the income statement.

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Q.4868 Under US GAAP, which of the following components of a defined benefit pension plan is amortized into pension expense over time?

- A. Service cost
- B. Interest expense
- C. Past service costs

The correct answer is **C**.

Under US GAAP, past service costs are initially recognized in other comprehensive income and then amortized over time into pension expense.

**A is incorrect.** Service cost is recognized in the period incurred.

**B is incorrect.** Interest expense is recognized in the period incurred.

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Q.4869 Which of the following statements *best* describes the treatment of stock appreciation rights (SARs)?

- A. SARs dilute existing shareholders' ownership.
- B. SARs are a form of cash-settled share-based compensation.
- C. SARs require employees to hold the shares to benefit from share price appreciation.

The correct answer is **B**.

Stock appreciation rights (SARs) are a form of cash-settled share-based compensation that provides compensation based on the increase in the company's share price.

**A is incorrect.** SARs do not dilute existing shareholders' ownership.

**C is incorrect.** SARs do not require employees to hold the shares.

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Q.4870 Under IFRS 16, which of the following must be disclosed by lessees to provide a comprehensive understanding of their lease obligations?

- A. The fair value of right-of-use assets at the reporting date.
- B. The total expected future lease payments for the next ten years.
- C. The reconciliation of opening and closing balances of lease liabilities.

The correct answer is **C**.

Under IFRS 16, lessees must disclose a reconciliation of the opening and closing balances of lease liabilities, including changes during the reporting period. This provides detailed information on how lease liabilities have evolved.

**A is incorrect.** IFRS 16 does not require the fair value of right-of-use assets to be disclosed, but rather their carrying amounts and depreciation.

**B is incorrect.** Total expected future lease payments are disclosed, but not necessarily for the next ten years; a maturity analysis is typically required.

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8c: describe the financial statement presentation of and disclosures relating to long-term liabilities and share-based compensation**

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Q.4871 In the context of IFRS 16, which of the following would *most likely* require significant judgment and estimation by the lessee?

- A. Determining the discount rate for lease liabilities.
- B. Reporting the total lease payments made during the period.
- C. Calculating the depreciation expense on right-of-use assets.

The correct answer is **A**.

Determining the discount rate for lease liabilities often requires significant judgment and estimation, particularly when the rate implicit in the lease is not readily determinable, and the lessee must estimate its incremental borrowing rate.

**B is incorrect.** Reporting the total lease payments made during the period is a factual disclosure and does not involve significant judgment.

**C is incorrect.** Calculating depreciation expense is relatively straightforward compared to determining the discount rate.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8c: describe the financial statement presentation of and disclosures relating to long-term liabilities and share-based compensation***

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Q.4872 Which of the following *best* describes the required disclosure for share-based compensation under IFRS 2 in terms of valuation methods?

- A. The company must disclose the expected future value of the shares.
- B. The company must disclose the market price of the shares at the reporting date.
- C. The company must disclose the valuation model used to estimate the fair value of options granted.

The correct answer is **C**.

Under IFRS 2, companies must disclose the valuation model used to estimate the fair value of options granted, along with key assumptions and inputs used in the model. This helps users understand how the fair value was determined.

**A is incorrect.** Disclosing the expected future value of the shares is not required and would be speculative.

**B is incorrect.** Disclosing the market price of the shares at the reporting date is not required under IFRS 2 for valuation purposes.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 8: Analysis of Long-Term Assets, LOS 8c: describe the financial statement presentation of and disclosures relating to long-term liabilities and share-based compensation***

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## **Learning Module 9: Analysis of Income Taxes**

Q.282 Unused tax losses expected to be used in future periods will:

- A. increase deferred tax assets.
- B. increase deferred tax liabilities.
- C. have no impact on tax assets nor liabilities.

The correct answer is **A**.

Deferred tax assets represent the amount of taxes that can be recovered in future periods due to deductible temporary differences and unused tax losses. When a company has unused tax losses, it means that it has incurred losses that can be carried forward to offset taxable income in future periods. This potential future tax benefit is recognized as a deferred tax asset. Therefore, if a company expects to use these unused tax losses in future periods, it will increase its deferred tax assets.

**B is incorrect.** Deferred tax liabilities arise from taxable temporary differences, not from unused tax losses. A deferred tax liability is created when a company's taxable income is higher than its accounting income due to differences in the timing of income recognition for tax and accounting purposes. Unused tax losses, on the other hand, would reduce future taxable income, leading to an increase in deferred tax assets, not liabilities.

**C is incorrect.** Unused tax losses have a direct impact on deferred tax assets. As explained earlier, these losses can be used to offset future taxable income, which creates a future tax benefit for the company. This benefit is recognized as a deferred tax asset in the company's financial statements. Therefore, unused tax losses expected to be used in future periods do have an impact on tax assets.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis***

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Q.284 Deferred tax liabilities (DTL) *mostly* arise when:

- A. the income tax expense is the same as the payable taxes.
- B. the income tax expense is temporarily smaller than the payable taxes.
- C. the income tax expense is temporarily greater than the payable taxes.

The correct answer is **C**.

Deferred tax liabilities (DTL) primarily occur when the income tax expense reported on the company's income statement is temporarily higher than the taxes payable to the tax authorities. This discrepancy usually arises due to differences in accounting principles used for financial reporting and tax laws.

For instance, certain expenses might be recognized immediately according to accounting standards but are deductible over several years for tax purposes. This leads to higher income reported to shareholders and a higher income tax expense in the financial statements compared to the actual taxes paid to the government in the current period. Over time, as these differences reverse, the deferred tax liability will decrease as the company pays more in actual taxes than what is expensed on its income statement.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis***

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Q.285 A company has the following:

Income Tax Expense	\$60,000
Change in Deferred Tax Assets	+\$2,500
Change in Deferred Tax Liabilities	+\$3,000

What is the company's income tax payable?

- A. \$59,500
- B. \$60,000
- C. \$60,500

The correct answer is C.

To determine the company's income tax payable, we need to understand the relationship between income tax expense, deferred tax liabilities (DTL), and deferred tax assets (DTA). The formula to calculate income tax payable (ITP) is as follows:

$$\text{Income Tax Payable (ITP)} = \text{Income Tax Expense (ITE)} - \text{Change in Deferred Tax Assets (DTA)} + \text{Change in Deferred Tax Liabilities (DTL)}$$

Given the values:

- Income Tax Expense (ITE) = \$60,000
- Change in Deferred Tax Assets (DTA) = +\$2,500
- Change in Deferred Tax Liabilities (DTL) = +\$3,000

We can substitute these values into the formula:

$$\begin{aligned}\text{ITP} &= \$60,000 - \$2,500 + \$3,000 \\ &= \$63,000 - \$2,500 \\ &= \$60,500\end{aligned}$$

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis***

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Q.535 Which of the following may *least likely* result in a change in the carrying value of the deferred tax?

- A. Increase in COGS.
- B. A change in the tax rate.
- C. A redetermination of recoverability of the deferred tax asset.

The correct answer is **A**.

The question is about which of the given options may least likely result in a change in the carrying value of the deferred tax. Here's an explanation for each option:

1. **Increase in COGS (Cost of Goods Sold):** An increase in COGS would result in a decrease in pre-tax income, which could potentially decrease the firm's tax liability. However, this would not necessarily result in a change in the carrying value of the deferred tax asset or liability, as these are dependent on temporary differences between the tax base and carrying amount of assets and liabilities, not on the firm's actual tax expense for the year.
2. **A change in the tax rate:** A change in the tax rate would most likely result in a change in the carrying value of the deferred tax. This is because deferred tax assets and liabilities are measured using the enacted tax rate expected to apply to taxable income in the periods in which the deferred tax asset or liability is expected to be settled or realized. Therefore, a change in the tax rate would directly impact the measurement of deferred tax assets and liabilities.
3. **A redetermination of recoverability of the deferred tax asset:** A redetermination of the recoverability of the deferred tax asset would most likely result in a change in the carrying value of the deferred tax. If it is determined that it's less likely that the deferred tax asset will be realized, this could result in a valuation allowance being recorded against the deferred tax asset, reducing its carrying value.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis***

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Q.541 A company has net deferred tax assets amounting to \$2,250,000. Which of the following components of the financial statements would benefit from an increase in the statutory tax rate?

- A. The income statement will benefit, but not the balance sheet.
- B. The balance sheet will benefit, but not the income statement.
- C. Both the income statement and the balance sheet will benefit.

The correct answer is **B**.

An increase in the statutory tax rate would benefit the balance sheet of a company that has net deferred tax assets. Deferred tax assets are created due to timing differences between the accounting income and taxable income, which will result in future tax savings. When the statutory tax rate increases, the value of these future tax savings increases, thereby increasing the value of the deferred tax assets on the balance sheet. This is because the deferred tax assets are essentially the future tax benefits the company expects to receive, and these benefits are more valuable when tax rates are higher.

**A is incorrect.** While deferred tax assets are related to future tax savings, an increase in the statutory tax rate typically leads to higher current tax expenses. This increase in tax expense would negatively impact the net income reported on the income statement in the period the tax rate change occurs.

**C is incorrect.** While it's true that the balance sheet benefits from an increase in the value of deferred tax assets, as explained, the income statement typically suffers due to higher tax expenses in the short term. The immediate effect of an increased tax rate is an increase in tax expense, which reduces net income.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis***

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Q.542 What would be the result if accounting standards require the capitalization of an expenditure, whereas income tax laws require recording it as an expense?

- A. Deferred tax asset.
- B. Deferred tax liability.
- C. No deferred tax asset or liability.

The correct answer is **B**.

When accounting standards mandate the capitalization of an expenditure while income tax laws require it to be recorded as an expense, this creates a temporary difference between the book value of assets and their tax base. This discrepancy leads to the recognition of a deferred tax liability. The reason for this is that capitalizing an expenditure (as required by accounting standards) means that the expense will be recognized over time through depreciation, rather than immediately. This results in higher profits in the early years (since the expense is spread out) and, consequently, higher taxable income reported in the financial statements compared to what is reported for tax purposes (where the expense is deducted immediately).

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis***

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Q.2286 The tax-related expense that is recognized in a firm's income statement is *most likely* known as:

- A. Tax base.
- B. Tax payable.
- C. Tax expense.

The correct answer is **C**.

Tax expense is the amount of tax owed in a given period. It appears in the income statement.

Note: Tax payable is a liability account that reports the amount of taxes a company owes as of the balance sheet date.

Tax base is defined as the income or asset balance used to calculate a tax liability.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis***

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Q.2288 Which of the following is *most likely* the definition of a deferred tax liability? A balance sheet account that results in the excess of:

- A. tax payable over tax expense that a firm is liable to pay in the future.
- B. tax expense over tax payable that a firm is liable to pay in the future.
- C. tax expense over tax payable that a firm is expected to receive in the future.

The correct answer is **B**.

A deferred tax liability is a balance sheet account that represents the excess of tax expense over tax payable that a firm is liable to pay in the future. This situation typically arises when a company's accounting practices recognize income before it is taxable or recognize expenses after they are deductible for tax purposes. The recognition of deferred tax liabilities ensures that the financial statements reflect future tax consequences of current transactions, aligning the company's tax expense with its accounting income over time.

**A is incorrect.** In reality, a deferred tax liability occurs when the tax expense recognized in the financial statements exceeds the amount of taxes currently payable to the tax authorities. This discrepancy usually results from differences in the timing of income recognition or expense deduction between accounting standards and tax laws, not the other way around as suggested by option A.

**C is incorrect.** A deferred tax liability represents a future tax obligation due to temporary differences that will result in taxable amounts in the future, not an expected tax receivable. Deferred tax assets, on the other hand, arise when a company anticipates paying more taxes on its financial statements than it will owe in the future, potentially due to deductible temporary differences or carryforwards.

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis**

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Q.2290 Identify the condition that will *most likely* create a deferred tax liability (DTL).

- A. Revenue is recognized in the tax return for taxable income before it is recognized in the income statement.
- B. Expenses or tax-deductible charges are recognized for tax purposes before they are deducted from the income statement.
- C. Expenses or tax-deductible charges are recognized in the income statement before they are deducted from taxable income for tax purposes.

The correct answer is **B**.

A deferred tax liability (DTL) arises when there are temporary differences between the accounting income before taxes reported in the financial statements and the taxable income reported to the tax authorities. These differences can result from the timing of revenue recognition, expense deduction, and the utilization of tax credits. A DTL indicates that a company will pay more taxes in the future due to these temporary differences.

**A is incorrect.** It describes a scenario that would lead to the creation of a deferred tax asset (DTA), not a liability. When revenue is recognized in the tax return before it is recognized in the income statement, it means that the company has paid taxes on income that has not yet been reported as earned in its financial statements. This situation will likely result in paying less tax in the future when the revenue is recognized in the income statement, as the company has already paid taxes on it.

**C is incorrect.** It describes a scenario that would typically result in a deferred tax asset (DTA). When expenses or tax-deductible charges are recognized in the income statement before they are deducted from taxable income for tax purposes, it leads to higher taxable income in the current period compared to accounting income. This discrepancy means the company will pay more taxes now but will benefit from lower taxes in the future when these expenses are deducted for tax purposes. This anticipation of future tax savings creates a deferred tax asset.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis***

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Q.2293 A firm uses straight-line depreciation in its income statement for accounting purposes and uses double-declining depreciation for tax purposes. Determine the *most likely* result due to the difference in depreciation methods.

- A. A deferred tax asset is created.
- B. A deferred tax liability is created.
- C. Since the differences are in depreciation methods, no deferred tax assets or deferred tax liabilities are created.

The correct answer is **B**.

When a firm uses straight-line depreciation for accounting purposes and double-declining depreciation for tax purposes, it results in a timing difference between the accounting income and taxable income. This timing difference creates a deferred tax liability (DTL). The straight-line method spreads the cost of an asset evenly over its useful life, resulting in consistent depreciation expenses each year.

In contrast, the double-declining balance method accelerates depreciation in the early years of an asset's life, leading to higher depreciation expenses and lower taxable income in those years. Over time, the total depreciation expense recognized will be the same for both methods, but the timing of when these expenses are recognized differs.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis***

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Q.2295 Lex Corp uses straight-line depreciation to depreciate the \$550,000 cost of one of its assets for tax purposes. For reporting purposes, Lex Corp depreciates the same asset using the accelerated depreciation method. Calculate the tax base of the asset for the first year if its useful life is ten years.

- A. \$55,000
- B. \$440,000
- C. \$495,000

The correct answer is C.

The tax base is the amount or value of the asset or liability after deducting the depreciation that is used for tax reporting purposes. Since Lex uses straight-line depreciation for tax purposes, the tax base is calculated as follows:

$$\begin{aligned}\text{The tax base of the asset} &= \text{Cost of the asset} - \text{Straight line depreciation} \\ &= \$550,000 - \$55,000 \\ &= \$495,000\end{aligned}$$

**A is incorrect.** It is the amount of depreciation using straight-line depreciation for the first year.

**B is incorrect.** Uses accelerated method of depreciation to calculate the tax base:

$$\begin{aligned}\text{The carrying value of the asset in the income statement} &= \text{Cost of the asset} - \text{Accelerated depreciation} \\ &= \$550,000 - \$110,000 \\ &= \$440,000\end{aligned}$$

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis**

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Q.2296 In the income statement, a firm depreciates its assets of \$900,000 over five years using the straight-line method. If, for tax reporting purposes, the company depreciates the same asset over ten years using double-declining depreciation, which of the following *best* describes the accounting treatment for the first year?

- A. A deferred tax asset of \$180,000 is created.
- B. A deferred tax liability of \$180,000 is created.
- C. No deferred tax asset or deferred tax liability is created as there is no difference between tax expense and tax payable.

The correct answer is **C**.

No deferred tax asset or liability is created as there is no difference between tax expense and tax payable.

$$\begin{aligned}
 \text{The amount of tax expense using the straight line method} &= \frac{[\text{Cost of asset} - \text{Salvage value}]}{\text{Useful life}} \\
 &= \frac{[\$900,000 - \$0]}{5} \\
 &= \$180,000 \\
 \text{Amount of tax payable} &= \frac{2}{\text{Useful life}} \times \text{Cost of asset} \\
 &= \frac{2}{10} \times \$900,000 \\
 &= \$180,000
 \end{aligned}$$

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis***

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Q.2297 A textile company in Turkey purchased a T-shirt printing machine for \$1,200,000 with a salvage value of \$150,000. For reporting purposes, the textile company depreciates the asset over 6 years using the straight-line method and, for tax purposes, the company depreciates the printer over 8 years using accelerated depreciation. Assuming that the tax rate is 40%, and EBITDA is \$670,000 each year, which of the following is *most likely* the deferred tax asset or liability to be created in the first year?

- A. A deferred tax asset of \$40,000 is created.
- B. A deferred tax liability of \$50,000 is created.
- C. A deferred tax liability of \$125,000 is created.

The correct answer is **B**.

To solve this question, we need to calculate the depreciation schedule for reporting purposes (straight-line) and for tax purposes (accelerated depreciation)

Using the table below,

$$\begin{aligned}\text{Tax expense in the income statement for the first year} &= (\text{EBITDA} - \text{Depreciation Expenses}) \times \text{Tax Rate} \\ &= (\$670,000 - \$175,000) \times 40\% \\ &= \$198,000\end{aligned}$$

$$\begin{aligned}\text{Taxes payable for the first year} &= (\text{EBITDA} - \text{Depreciation Expense}) \times \text{Tax Rate} \\ &= (\$670,000 - \$300,000) \times 40\% \\ &= \$148,000\end{aligned}$$

Since tax expense (\$198,000) is greater than taxes payable (\$148,000), a Deferred Tax Liability of \$50,000 is created.

Year	Straight-line Dep	Accelerated Dep
1	$(1,200,000 - 150,000) / 6 = 175,000$	$(2/8 \times (1,200,000)) = 300,000$
2	$(1,200,000 - 150,000) / 6 = 175,000$	$(2/8 \times (1,200,000 - 300,000)) = 225,000$
3	$(1,200,000 - 150,000) / 6 = 175,000$	$(2/8 \times (900,000 - 225,000)) = 168,750$
4	$(1,200,000 - 150,000) / 6 = 175,000$	$(2/8 \times (675,000 - 168,750)) = 126,562$
5	$(1,200,000 - 150,000) / 6 = 175,000$	$(2/8 \times (506,250 - 126,562)) = 94,922$
6	$(1,200,000 - 150,000) / 6 = 175,000$	$(2/8 \times (379,688 - 94,922)) = 71,191$
7		$(2/8 \times (284,766 - 71,191)) = 53,394$
8		$(2/8 \times (213,575 - 150,000)) = 63,575$

Note:

Under accelerated (double-declining) depreciation,

$$\text{Depreciation amount} = \frac{2}{\text{useful life}} \times (\text{Cost} - \text{accumulated depreciation})$$

However, note that we can also write this down as:

$$\text{Depreciation amount} = \frac{2}{\text{useful life}} \times (\text{book value at beginning of previous year} - \text{depreciation amount})$$

Both approaches will lead to the correct answer.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis***

Q.2298 A textile company in Turkey purchased a T-shirt printing machine for \$1,200,000 with a salvage value of \$150,000. For reporting purposes, the textile company depreciates the asset over 6 years using the straight-line method and, for tax purposes, the company depreciates the printer over 8 years using accelerated depreciation. Assuming that the tax rate is 40% and EBIT is \$670,000 each year, calculate the tax base at the end of the 3rd year.

A. \$506,250

B. \$675,000

C. \$693,750

The correct answer is **A**.

The depreciation for tax purposes is calculated as follows:

Year	Straight-line Dep	Accelerated Dep
1	$(1,200,000 - 150,000) / 6 = 175,000$	$(2/8 \times (1,200,000)) = 300,000$
2	$(1,200,000 - 150,000) / 6 = 175,000$	$(2/8 \times (1,200,000 - 300,000)) = 225,000$
3	$(1,200,000 - 150,000) / 6 = 175,000$	$(2/8 \times (900,000 - 225,000)) = 168,750$
4	$(1,200,000 - 150,000) / 6 = 175,000$	$(2/8 \times (675,000 - 168,750)) = 126,562$
5	$(1,200,000 - 150,000) / 6 = 175,000$	$(2/8 \times (506,250 - 126,562)) = 94,922$
6	$(1,200,000 - 150,000) / 6 = 175,000$	$(2/8 \times (379,688 - 94,922)) = 71,191$
7		$(2/8 \times (284,766 - 71,191)) = 53,394$
8		$(160,180 - 150,000 = 10,180)$

Accumulated depreciation<sub>End of 3rd year</sub>

$$= \$300,000 + \$225,000 + \$168,750$$

$$= \$693,750$$

The tax base at the end of the 3rd year is calculated as the value of asset minus the Accumulated depreciation (for tax purposes)

$$\text{Tax base} = \$1,200,000 - \$693,750$$

$$= \$506,250$$

Note that under accelerated (double-declining balance) depreciation,

$$\text{Depreciation amount} = \frac{2}{\text{useful life}} \times (\text{Cost} - \text{accumulated depreciation})$$



However, note that we can also write this down as:

$$\text{Depreciation amount} = \frac{2}{\text{useful life}} \times (\text{book value at the beginning of the year})$$

Both approaches will lead to the correct answer.

Year	Depreciation Expense	Accum. Depreciation	Book Value at Year End
1	$1,200,000 \times 0.25 = 300,000$	300,000	900,000
2	$900,000 \times 0.25 = 225,000$	525,000	675,000
3	$675,000 \times 0.25 = 168,750$	693,750	506,250
4	$506,250 \times 0.25 = 126,562.50$	820,312.50	379,687.50
5	$379,687.50 \times 0.25 = 94,921.88$	915,234.38	284,765.63
6	$284,765.63 \times 0.25 = 71,191$	986,425.79	213,574.22
7	$213,574.22 \times 0.25 = 53,393.56$	1,039,819.34	160,180.67
8	$160,180.67 - 150,000 = 10,180.67$	1,050,000	150,000

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis***

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Q.2300 A textile company in Turkey purchased a T-shirt printing machine for \$1,200,000 with a salvage value of \$150,000. For reporting purposes, the textile company depreciates the asset over six years using the straight-line method. For tax purposes, the company depreciates the printer over eight years using accelerated depreciation. Assuming a tax rate of 40% and EBITDA of \$670,000 each year, calculate the pre-tax income for the 2nd year.

- A. \$320,000
- B. \$445,000
- C. \$495,000

The correct answer is C.

Since the pre-tax income is reported in the income statement, we need to calculate depreciation schedule for reporting purposes (straight line) given in the table below.

The textile company is earning EBITDA of \$670,000 every year.

The depreciation expense using straight-line depreciation is \$175,000 every year.

Pre-tax income in the 2nd year;

$$\text{EBITDA} - \text{Depreciation Expense} = \$670,000 - \$175,000 = \$495,000$$

Year	Straight-line Dep	Accelerated Dep
1	$(1,200,000 - 150,000) / 6 = 175,000$	$(2/8 \times (1,200,000)) = 300,000$
2	$(1,200,000 - 150,000) / 6 = 175,000$	$(2/8 \times (1,200,000 - 300,000)) = 225,000$
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6	$(1,200,000 - 150,000) / 6 = 175,000$	$(2/8 \times (379,688 - 94,922)) = 71,191$
7		$(2/8 \times (284,766 - 71,191)) = 53,394$
8		$(213,575 - 150,000 = 63,575)$

Q.2301 A textile company in Turkey purchased a T-shirt printing machine for \$1,200,000 with a salvage value of \$150,000. For reporting purposes, the textile company depreciates the asset over six years using the straight-line method. For tax purposes, the company depreciates the printer over eight years using accelerated depreciation. Assuming a tax rate of 40% and EBITDA of \$670,000 each year, the deferred tax asset or deferred tax liability created in the 6th year is *closest to*:

- A. a deferred tax asset of \$41,500 is created.
- B. a deferred tax asset of \$71,500 is created.

C. a deferred tax liability of \$41,500 is created.

The correct answer is **A**.

To solve this question we need to calculate the depreciation schedule for reporting purpose (straight line) and for tax return purposes (accelerated dep.) as given in the table below.

Tax expense in the income statement for the 6th year;

$$\begin{aligned} &= (\text{EBITDA} - \text{Depreciation Expense}) \times \text{Tax rate} \\ &= (\$670,000 - \$175,000) \times 40\% \\ &= \$198,000 \end{aligned}$$

Tax payable over taxable income for the 6th year;

$$\begin{aligned} &= (\text{EBITDA} - \text{Depreciation Expense}) \times \text{Tax rate} \\ &= (\$670,000 - \$71,191) \times 40\% \\ &= \$239,523 \end{aligned}$$

Since the tax expense (\$198,000) is smaller than taxes payable (\$239,523), a deferred tax asset of \$41,523.60 is created.

Year	Staight-line Dep	Accelerated Dep
1	$(1,200,000 - 150,000) / 6 = 175,000$	$(2/8 \times (1,200,000)) = 300,000$
2	$(1,200,000 - 150,000) / 6 = 175,000$	$(2/8 \times (1,200,000 - 300,000)) = 225,000$
3	$(1,200,000 - 150,000) / 6 = 175,000$	$(2/8 \times (900,000 - 225,000)) = 168,750$
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6	$(1,200,000 - 150,000) / 6 = 175,000$	$(2/8 \times (379,688 - 94,922)) = 71,191$
7		$(2/8 \times (284,766 - 71,191)) = 53,394$
8		$(213,575 - 150,000 = 63,575)$

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis***

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Q.2302 A Mexican supplier of copper sold 200 tons of copper wire for \$400,000 on credit. Due to uncertain market conditions, the supplier recorded receivables of \$400,000 and \$80,000 of allowance for bad debt expenses in its income statements. The tax rules of Mexico do not allow the deduction of bad debt expenses until the creditors default and receivables are deemed worthless. If the tax rate in Mexico is 28%, then the deferred tax asset or liability based on the tax base of receivables is *most likely* a:

- A. deferred tax asset (DTA) of \$22,400.
- B. deferred tax liability (DTL) of \$89,600.
- C. deferred tax asset (DTA) of \$112,000.

The correct answer is **A**.

$$\begin{aligned}\text{The carrying value of receivables in the income statement} &= \text{Receivables} - \text{Bad debts} \\ &= \$400,000 - \$80,000 \\ &= \$320,000\end{aligned}$$

$$\begin{aligned}\text{Tax expense based on the carrying value of receivables} &= \text{Carrying value of accounts receivable} \times \\ &= \$320,000 \times 28\% \\ &= \$89,600\end{aligned}$$

The tax base of accounts receivables for tax purposes is \$400,000 as the bad debt expenses are not tax deductible until receivables are deemed worthless.

$$\begin{aligned}\text{Tax payable} &= \text{Tax base of accounts receivable} \times \text{Tax rate} \\ &= \$400,000 \times 28\% \\ &= \$112,000\end{aligned}$$

Since the tax payable is greater than the tax expense, a deferred tax asset of \$22,400 is created.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis***

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Q.2306 The changes in deferred taxes for a company due to a change in tax rate from 45% to 35% in a specific jurisdiction are provided in the following table:

Change DTL	\$14,000
Change DTA	\$3,500
Tax Payable	\$15,000
Pretax Income	\$100,000

Given the information, the effective tax rate for the firm is *closest to*:

- A. 10.5%.
- B. 25.5%.
- C. 32.5%.

The correct answer is **B**.

$$\text{Effective tax rate} = \frac{\text{Income tax expense}}{\text{Pre-tax income}}$$

$$\begin{aligned}\text{Income tax expense} &= \text{Tax payable} + \text{Change in DTL} - \text{Change in DTA} \\ &= \$15,000 + \$14,000 - \$3,500 \\ &= \$25,500\end{aligned}$$

$$\begin{aligned}\text{Effective tax rate} &= \frac{\$25,500}{\$100,000} \\ &= 25.5\%\end{aligned}$$

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9c: calculate, interpret, and contrast an issuer’s effective tax rate, statutory tax rate, and cash tax rate***

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Q.2307 Which of the following will *most likely* result in a permanent difference between taxable income and pre-tax income?

- A. A firm enjoys tax credits on the imports of certain medicines.
- B. A firm uses different methods of depreciation for reporting purposes and tax purposes.
- C. A firm deducts warranty expenses from its income statement but does not deduct them from its tax statements until the receivables are deemed worthless.

The correct answer is **A**.

Option A) will most likely result in a permanent difference between pre-tax income and taxable income as the tax credits are not expected to reverse in the future. Warranty expenses and differences in depreciation methods result in temporary differences as they are expected to reverse in the future.

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Q.2310 A newly incorporated construction company reported revenue of \$690,000, cost of goods sold (COGS) of \$550,000, and operating expenses of \$210,000. Assuming a tax rate of 25%, the firm's should *most likely* report a:

- A. deferred tax assets of \$17,500.
- B. deferred tax assets of \$70,000.
- C. deferred tax liabilities of \$17,500.

The correct answer is **A**.

$$\begin{aligned}\text{Earnings} &= \text{Revenue} - \text{COGS} - \text{Operating expenses} \\ &= \$690,000 - \$550,000 - \$210,000 \\ &= -\$70,000\end{aligned}$$

That loss carryforward will result in a deferred tax asset equal to the amount of the loss multiplied by the tax rate.

$$\text{DTA} = \$70,000 \times 25\% = \$17,500$$

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis***

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Q.2314 A highly cyclical British company reports warranty expenses of \$30,000 in anticipation every year. However, during the current year, none of the customers claimed their 5-year warranties. Assuming a tax rate of 20%, the tax base of the warranty expense for the year is *closest to*:

- A. \$0
- B. \$6,000
- C. \$30,000

The correct answer is **A**.

The warranty expense is deducted from the income statement, but it is not deducted for tax purposes until the warranty is claimed. Therefore, the carrying value of the warranty is \$30,000.

The tax base of the warranty is calculated as the carrying value of the warranty minus the amount of warranty deductible in the future:

$$\begin{aligned}\text{Tax base of the warranty expense} &= \text{Carrying value of the warranty} - \text{Warranty expense deductible in the future} \\ &= \$30,000 - \$30,000 \\ &= \$0\end{aligned}$$

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis***

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Q.2316 ABC Company had a loss of \$100,000 in 2015. In 2016, the firm managed to earn a taxable income of \$180,000. If the tax rate is 26%, then calculate the firm's income tax expense for 2016.

A. \$20,800

B. \$26,000

C. \$46,800

The correct answer is **A**.

$$\begin{aligned}\text{DTA for 2015} &= \$100,000 \times 26\% \\ &= \$26,000 \\ \text{Tax payable for 2016} &= \$180,000 \times 26\% \\ &= \$46,800\end{aligned}$$

$$\begin{aligned}\text{Income tax expense} &= \text{Tax payable} + \text{Change in DTL} - \text{Change in DTA} \\ &= \$46,800 + \$0 - \$26,000 \\ &= \$20,800\end{aligned}$$

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis***

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Q.2317 Assuming inflationary environment, which of the following accounting activities will *most likely* result in a deferred tax liability?

- A. A firm receives payments in advance for goods to be delivered in two years.
- B. A firm expenses software development costs in its income statement but capitalizes software development costs for tax purposes.
- C. A firm uses the last-in, first-out (LIFO) inventory valuation method for tax purposes and the first-in, first-out (FIFO) method for reporting purposes.

The correct answer is C.

The inventory costing method a company uses directly affects the cost of goods sold, which is an expense. The higher the COGS, the lower the net income, and thus the lower the income tax liability. In general, the LIFO inventory costing method will produce a lower net income because COGS will comprise the newest (and most likely more expensive) items. This will, therefore, result in lower tax liability than the FIFO method. The pre-tax accounting income will be higher than taxable income, creating a deferred tax liability.

**A is incorrect.** Payments received in advance create a DTA. This is in line with the revenue principle, where revenue is recognized when earned, not when received. In this case, the pre-tax accounting income will be less than the taxable income. Note that the accounting entry in this scenario is a debit to the asset Cash for the amount received and a credit to the liability account such as Customer Advances or Unearned Revenues.

**B is incorrect.** If the firm expenses the costs in its income statement, the pre-tax income will be lower than the taxable income for tax purposes where the software development cost is not expensed but capitalized. Since the taxable income is greater than the pre-tax income, a DTA will be created.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis***

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Q.2318 Which of the following is *least likely* an effect of an increase in tax rates?

- A. An increase in tax rates will increase Tax payable.
- B. An increase in tax rates will decrease the EBIT margin.
- C. An increase in tax rates will increase Deferred Tax Liabilities.

The correct answer is **B**.

The EBIT margin is a measure of a firm's operating profitability as a percentage of its revenue, calculated before the impact of interest and taxes. This metric is used to assess a company's operational efficiency without the influence of financial structure, tax rates, and non-operating factors. Therefore, changes in tax rates do not directly impact the EBIT margin, as this financial metric is calculated before taxes are applied. The primary purpose of the EBIT margin is to provide insight into the company's operational performance, making it unaffected by tax rate changes.

**A is incorrect.** Tax payable is directly calculated based on the applicable tax rate on the taxable income. When the tax rate increases, the amount of tax owed to the government also increases, assuming the taxable income remains constant. This relationship between tax rates and tax payable is straightforward and reflects the immediate financial impact of changes in tax legislation on a company's cash flows.

**C is incorrect.** The future tax payments, based on the higher tax rate, will be larger when the temporary differences reverse. Therefore, an increase in tax rates is expected to increase a company's Deferred Tax Liabilities, reflecting the future tax consequences of current transactions and events.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis***

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Q.2324 Which of the following is the *most appropriate* definition of a deductible temporary difference? It is a temporary difference that:

- A. results in an expected increase in future taxable income.
- B. results in an expected decrease in future taxable income.
- C. will not increase nor decrease expected future taxable income.

The correct answer is **B**.

Temporary differences between pre-tax income and taxable income can be taxable temporary differences or deductible temporary differences. Deductible temporary differences are differences between pre-tax income and taxable income that will result in a lower expected taxable income in the future.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis***

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Q.3792 The following Exhibit will be used for questions 2 and 3.

EBIT	Financial Year 2019
USA	\$73,456
Foreign	\$92,345
Provisions for Income Taxes	
Current Income Taxes	
Federal	\$5,610
Foreign	\$3,424
Deferred Income Taxes	
Federal	(\$2345)
Foreign	\$340

The provision for income taxes recorded for 2019 was *closest to*:

- A. \$2,005
- B. \$7,029
- C. \$9,034

The correct answer is **B**.

The provision for income taxes for that year was \$ 7,029; obtained as shown below.

$$\begin{aligned}\text{Income tax expense} &= \text{Taxes payable plus} \\ &\quad \text{net increase in deferred tax liabilities} \\ &\quad \text{less} \\ &\quad \text{net increase in deferred tax assets} \\ &= \$ (5,610 + 3,424 - 2,345 + 340) = \$7,029\end{aligned}$$

The \$ 7,029 includes \$ 9,034 in current income taxes and (\$ 2,005) in deferred income taxes.

**A is incorrect.** It represents deferred income taxes. The calculation has left out current income taxes.

**C is incorrect.** It represents the current income taxes. The calculation has left out deferred income taxes.

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis**

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Q.3793 Consider the following financial information of a company:

EBIT	Financial Year 2019
USA	\$73,456
Foreign	\$92,345
Provisions for Income Taxes	
Current Income Taxes	
Federal	\$5,610
Foreign	\$3,424
Deferred Income Taxes	
Federal	(\$2,345)
Foreign	\$340

The company's effective tax rate for the year 2019 is *closest to*:

- A. 4.08%
- B. 4.24%
- C. 4.44%

The correct answer is **B**.

$$\text{Effective Tax Rate} = \frac{\text{Income Tax Expense}}{\text{Pre-tax Income}}$$

$$\text{Effective tax rate (2019)} = \frac{\$7,029}{\$ (73,456 + 92,345)} = 4.24\%$$

**A is incorrect.** It is the effective tax rate on foreign income.

$$\text{Effective tax rate (Foreign Income)} = \frac{(\$3,424 + \$340)}{\$92,345} = 4.08\%$$

**C is incorrect.** It is the effective tax rate on US Income.

$$\text{Effective US Tax Rate} = \frac{(\$5,610 - \$2,345)}{\$73,456} = 4.44\%$$

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9c: calculate, interpret, and contrast an issuer's effective tax rate, statutory tax rate, and cash tax rate**

Q.3854 Lex Corp. uses straight-line depreciation to depreciate the \$550,000 cost of one of its assets for tax purposes. For reporting purposes, Lex Corp. depreciates the same asset using the accelerated depreciation method. If the asset's useful life is ten years, the tax base of the asset for the first year is *closest to*:

- A. \$55,000
- B. \$440,000
- C. \$495,000

The correct answer is **C**.

The tax base is the asset or liability value after deducting the accumulated depreciation that is used for tax reporting purposes. Since Lex uses straight-line depreciation,

$$\begin{aligned}\text{The tax base of the asset} &= \text{Cost of the asset} - \text{Straight line depreciation} \\ &= \$550,000 - \$55,000 \\ &= \$495,000\end{aligned}$$

Note:

$$\begin{aligned}\text{The carrying value of the asset in the income statement} &= \text{Cost of the asset} - \text{Accelerated deprec.} \\ &= \$550,000 - \$110,000 \\ &= \$440,000\end{aligned}$$

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9c: calculate, interpret, and contrast an issuer's effective tax rate, statutory tax rate, and cash tax rate***

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Q.4897 Which of the following *best* describes a deductible temporary difference?

- A. It increases taxable income in future periods.
- B. It leads to the recognition of a deferred tax asset.
- C. It occurs when the carrying amount of an asset exceeds its tax base.

The correct answer is **B**.

A deductible temporary difference leads to the recognition of a deferred tax asset. This occurs when the tax base of an asset is higher than its carrying amount or when the carrying amount of a liability exceeds its tax base.

**A is incorrect.** Deductible temporary differences decrease taxable income in future periods, not increase it.

**C is incorrect.** Deductible temporary differences occur when the tax base of an asset exceeds its carrying amount, not the other way around.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9a: contrast accounting profit, taxable income, taxes payable, and income tax expense and temporary versus permanent differences between accounting profit and taxable income***

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Q.4898 Which of the following is an example of a permanent difference between accounting profit and taxable income?

- A. Tax loss carryforwards.
- B. Accelerated depreciation for tax purposes.
- C. Penalties and fines that are not tax-deductible.

The correct answer is **C**.

Penalties and fines that are not tax-deductible represent a permanent difference between accounting profit and taxable income. These expenses are recognized in financial reporting but are not permitted as deductions for tax purposes, leading to a lasting disparity between accounting profit and taxable income.

**A is incorrect** because tax loss carryforwards also create a temporary difference, allowing losses to be used to offset taxable income in future periods, eventually aligning accounting profit and taxable income.

**B is incorrect** because accelerated depreciation for tax purposes creates a temporary difference, where the timing of expense recognition differs between accounting and tax reporting, but it will equalize over time.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9a: contrast accounting profit, taxable income, taxes payable, and income tax expense and temporary versus permanent differences between accounting profit and taxable income***

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Q.4899 Which of the following *best* explains how tax loss carryforwards affect the financial statements of a company? They:

- A. create a deferred tax asset.
- B. increase current tax expense.
- C. result in a permanent difference.

The correct answer is **A**.

Tax loss carryforwards create a deferred tax asset because they can be used to reduce taxable income in future periods, thereby lowering future tax liabilities. This asset is recorded on the balance sheet, reflecting the future tax benefits that the company expects to realize.

**B is incorrect** because tax loss carryforwards do not increase current tax expense; instead, they provide a benefit by potentially reducing future taxable income.

**C is incorrect** because tax loss carryforwards result in temporary differences, which will reverse over time as the tax benefits are realized. They do not create permanent differences, which are differences between accounting and taxable income that do not reverse in future periods.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9a: contrast accounting profit, taxable income, taxes payable, and income tax expense and temporary versus permanent differences between accounting profit and taxable income***

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Q.4900 Which of the following *best* explains why deferred tax assets and liabilities are recognized on the balance sheet?

- A. To reflect differences in cash flows.
- B. To match tax expense with the accounting profit in the period it is earned.
- C. To account for permanent differences between accounting profit and taxable income.

The correct answer is **B**.

Deferred tax assets and liabilities are recognized on the balance sheet to match tax expense with the accounting profit in the period it is earned, adhering to the matching principle.

**A is incorrect.** Deferred tax assets and liabilities are not primarily about reflecting differences in cash flows but about timing differences in recognizing income and expenses for accounting and tax purposes.

**C is incorrect.** Deferred tax assets and liabilities arise from temporary differences, not permanent differences. Permanent differences do not lead to the recognition of deferred tax items.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9a: contrast accounting profit, taxable income, taxes payable, and income tax expense and temporary versus permanent differences between accounting profit and taxable income***

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Q.4901 In the current year, Michaels Company has a carrying amount of USD3,500,000 and a tax base of USD5,000,000 for accounts receivable. Michaels will *most likely* recognize:

- A. a deferred tax asset.
- B. a deferred tax liability.
- C. no deferred tax asset or liability.

The correct answer is **A**.

A deferred tax asset arises when the tax base of an asset is higher than its carrying amount, indicating that the company will benefit from lower taxable income in the future. In this case, Michaels Company will recognize a deferred tax asset because the tax base of the accounts receivable (USD5,000,000) is higher than the carrying amount (USD3,500,000).

**B is incorrect.** Deferred tax liabilities arise when the carrying amount of an asset exceeds its tax base.

**C is incorrect.** There is a temporary difference that results in the recognition of a deferred tax asset.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis.***

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Q.4902 Consider the following selected data below for a Company.

Year)	Year 3	Year 2	Year 1
Equipment value for accounting purposes (carrying amount)	7,000	8,000	9,000
Equipment value for tax purposes (tax base)	5,714	7,143	8,571

Assuming a 35 percent tax rate, the company's deferred tax liability in Year 3 is *closest to*:

- A. USD450.
- B. USD750.
- C. USD900.

The correct answer is **A**.

To calculate the deferred tax liability:

Determine the temporary difference:  
USD7,000 (carrying amount) - USD5,714 (tax base) = USD1,286

Then, apply the tax rate:  $\text{USD1,286} \times 35\% = \text{USD 450}$

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis.***

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Q.4903 Which of the following statements is the *least accurate*?

- A. Deferred tax assets and liabilities are recalculated at the end of each financial year.
- B. Deferred tax assets and liabilities are based on permanent differences, which result in a company paying an excess or deficit amount for taxes.
- C. A deferred tax asset or liability will not be created if there is no guarantee that future economic benefits will be derived from a temporary difference.

The correct answer is **B**.

Deferred tax assets and liabilities are based on temporary, not permanent, differences. Temporary differences result in differences between accounting profit and taxable income, whereas permanent differences do not lead to deferred tax.

**A is correct.** Deferred tax assets and liabilities are indeed recalculated at the end of each financial year.

**C is correct.** Deferred tax assets or liabilities are not recognized if there is no reasonable assurance of future economic benefits.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis.***

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Q.4904 Which of the following *best* explains how does a reduction in the statutory tax rate affect the value of deferred tax assets and liabilities? The value of deferred tax:

- A. assets decreases.
- B. liabilities increases.
- C. assets increases

The correct answer is **A**.

When the statutory tax rate decreases, the value of deferred tax assets also decreases because the future tax benefit is reduced. Similarly, the value of deferred tax liabilities decreases as the future tax obligation diminishes.

**B is incorrect.** The value of deferred tax liabilities decreases, not increases.

**C is incorrect.** The value of deferred tax assets decreases, not increases..

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis.***

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Q.4905 Which of the following tax rates is most relevant for analyzing a company's future cash flows?

- A. Cash tax rate.
- B. Effective tax rate.
- C. Statutory tax rate.

The correct answer is **A**.

The cash tax rate, which is the tax paid in cash during the period divided by pre-tax income, is most relevant for analyzing a company's future cash flows. This rate provides insight into the actual cash outflows related to taxes, which directly impact the company's liquidity and cash flow management.

**B is incorrect** because the effective tax rate is calculated by dividing the reported income tax expense by pre-tax income. This rate includes deferred taxes and other non-cash adjustments, making it less relevant for cash flow analysis compared to the cash tax rate.

**C is incorrect** because the statutory tax rate is the corporate income tax rate established by law in the country where the company is domiciled. While it indicates the nominal tax rate, it does not reflect the actual taxes paid after accounting for deductions, credits, and other tax planning strategies.

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9c: calculate, interpret, and contrast an issuer's effective tax rate, statutory tax rate, and cash tax rate**

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Q.4906 Consider the following information for a company operating in three countries.

Country	Pre-tax Income (USD)	Statutory Tax Rate
Country X	300,000	25%
Country Y	400,000	20%
Country Z	500,000	30%

The company's overall effective tax rate is *closest to*:

- A. 25.4%
- B. 26.5%
- C. 27.0%

The correct answer is **A**.

To calculate the overall effective tax rate:

$$\begin{aligned}\text{Total tax} &= (300,000 \times 25\%) + (400,000 \times 20\%) + (500,000 \times 30\%) \\ &= 75,000 + 80,000 + 150,000 = 305,000\end{aligned}$$

As such,

$$\begin{aligned}\text{Total pre-tax income} &= 300,000 + 400,000 + 500,000 = 1,200,000 \\ \Rightarrow \text{Effective tax rate} &= \frac{305,000}{1,200,000} = 25.42\%\end{aligned}$$

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9c: calculate, interpret, and contrast an issuer's effective tax rate, statutory tax rate, and cash tax rate***

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Q.4907 AlphaTech, a technology firm, operates in countries X and Y. Table 1 contains information on both countries' tax rates. In year one, both countries' earnings before tax (EBT) are the same

	Country X	Country Y	Total
EBT	300	300	600
Statutory tax rate	20%	35%	27.5%
Tax	60	105	165
Net profit	240	195	435



If earnings before tax for Country X increase by 15 percent per year while earnings before tax for Country Y remain the same for the next three years, the overall effective tax rate will:

- A. remain the same.
- B. gradually decline.
- C. gradually increase.

The correct answer is **B**.

Consider the following table:

Table 2: Tax Estimate Problem

Year	0	1	2	3
EBT, Country X	300	345	396.75	456.26
Growth rate		15%	15%	15%
EBT, Country Y	300	300	300	300
Growth rate		0%	0%	0%
Total EBT	600	645	696.75	756.26
Total tax	165	174	187.16	202.38
Total effective tax rate	27.5%	26.98%	26.46%	25.95%

The effective tax rate will gradually decline since a higher proportion of EBT is generated in the country with the lower tax rate.

The total effective tax rate for year 0 is calculated as:

$$\text{Effective tax rate} = \frac{60 + 105}{600} = 27.5\%$$

or year 1:

$$\text{Effective tax rate} = \frac{69 + 105}{645} = 26.98\%$$

For year 2:

$$\text{Effective tax rate} = \frac{79.35 + 105}{696.75} = 26.46\%$$

For year 3:

$$\text{Effective tax rate} = \frac{91.25 + 105}{756.26} = 25.95\%$$

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9c: calculate, interpret, and contrast an issuer's effective tax rate, statutory tax rate, and cash tax rate***

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Q.4908 What is *most likely* indicated by a significant reduction in the valuation allowance for deferred tax assets?

- A. An increase in deferred tax liabilities.
- B. Increased likelihood of future profitability.
- C. Decreased likelihood of future profitability.

The correct answer is **B**.

A significant reduction in the valuation allowance for deferred tax assets indicates an increased likelihood of future profitability. This adjustment suggests that the company expects to generate sufficient taxable income in future periods to utilize these deferred tax assets, thereby reducing the need for a valuation allowance.

**A is incorrect** because a reduction in the valuation allowance implies that the company is more confident in its future profitability, not less. It means the company anticipates enough taxable income to make use of the deferred tax assets.

**C is incorrect** because the valuation allowance pertains to deferred tax assets, which represent potential tax benefits from deductible temporary differences and carryforwards. It does not directly relate to deferred tax liabilities, which are obligations for future tax payments due to taxable temporary differences.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 9: Analysis of Income Taxes, LOS 9b: explain how deferred tax liabilities and assets are created and the factors that determine how a company's deferred tax liabilities and assets should be treated for the purposes of financial analysis.***

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## **Learning Module 10: Financial Reporting Quality**

Q.292 You see that a large company is recording all of its finance (capital) leases as operating leases. This company is trying to reduce its:

- A. leverage.
- B. expenses.
- C. capital expenditure.

The correct answer is **A**.

When a company records all of its finance (capital) leases as operating leases, it is attempting to reduce its leverage. Leverage, in financial terms, refers to the amount of debt used to finance a company's assets. A higher leverage ratio indicates that a company has more debt relative to its equity. By classifying finance leases as operating leases, a company does not have to report these leases as liabilities on its balance sheet. This accounting practice can make the company appear less leveraged than it actually is because operating leases do not require the recognition of a corresponding asset and liability. Instead, the lease payments are treated as rental expenses, which are deducted from the company's income statement. This approach can be appealing to companies looking to improve their financial ratios by minimizing reported debt levels, thereby potentially enhancing their attractiveness to investors and creditors.

**B is incorrect.** While it's true that the treatment of leases can affect the appearance of a company's financial statements, the primary impact of classifying a finance lease as an operating lease is on the balance sheet (reducing reported leverage), not on the income statement where expenses are reported. The total cash outflow remains the same; it's just accounted for differently.

**C is incorrect.** Capital expenditure, or CapEx, refers to the funds used by a company to acquire, upgrade, and maintain physical assets such as property, industrial buildings, or equipment. The decision to classify finance leases as operating leases does not directly reduce a company's capital expenditures. Instead, this accounting practice affects how the lease is represented on the balance sheet and income statement. By not recording the leased asset and corresponding liability, the company does not directly reduce its actual cash spent on capital expenditures but rather alters the presentation of its financial leverage.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 10h: describe accounting warning signs and methods for detecting manipulation of information in financial reports***

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Q.557 Which of the following is *most likely* applicable for a 'bill and hold' transaction?

- A. The inventory appears at its original value.
- B. The sale is not recognized until the product is delivered.
- C. The sale is recorded but the inventory value remains with the seller.

The correct answer is **C**.

In a 'bill and hold' transaction, the sale is recorded in the financial statements of the seller at the point of sale, but the inventory physically remains with the seller until it is shipped or delivered to the buyer at a later date. This practice allows the seller to recognize revenue earlier than it would in a traditional sales transaction where revenue recognition is tied to the delivery of goods. The rationale behind this method is that even though the goods have not been physically transferred, the significant risks and rewards of ownership have been transferred to the buyer, and the seller has done everything necessary to earn the revenue. This method of revenue recognition can be particularly useful in situations where the buyer requests goods to be held by the seller for a period, often for logistical reasons.

**A is incorrect.** Once the sale is recorded, the inventory is no longer reported at its original value on the balance sheet. Instead, the cost associated with the sold inventory is recognized as the cost of goods sold, and the inventory value is reduced accordingly. The key aspect of a 'bill and hold' transaction is the recognition of revenue and the corresponding impact on inventory valuation, not the maintenance of inventory at its original value.

**B is incorrect.** In a 'bill and hold' arrangement, the sale is recognized at the point of sale, not at the point of delivery. This early recognition of revenue is permissible under specific criteria that ensure the transaction reflects the true nature of the sale and the transfer of risks and rewards of ownership, even though the physical delivery of goods is delayed. The criteria typically include a buyer's substantive business purpose for the arrangement, a fixed delivery schedule, and the goods being ready for physical transfer and segregated from the seller's inventory.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 10g: describe accounting methods (choices and estimates) that could be used to manage earnings, cash flow, and balance sheet items***

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Q.561 Which of the following inventory valuation methods result in higher profits in the case of rising prices?

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

The correct answer is **A**.

In the context of rising prices, the First-In, First-Out (FIFO) inventory valuation method typically results in higher reported profits compared to other inventory valuation methods. This outcome is due to the FIFO method's assumption that the oldest inventory items are sold first, while the most recently acquired items remain in inventory. During periods of inflation or rising prices, the cost of goods sold (COGS) under FIFO reflects the cost of older, less expensive inventory.

**B is incorrect.** It reports lower profits; however, it does not result in higher profits as FIFO does.

**C is incorrect.** The weighted average method smooths out price fluctuations over the accounting period by calculating an average cost for all inventory items. This method does not specifically advantage periods of rising or falling prices in the way FIFO or LIFO do. In a rising price environment, the weighted average cost will be somewhere between the oldest (cheapest) and newest (most expensive) costs, leading to reported profits that are typically lower than FIFO but potentially higher than LIFO, depending on the specific price changes and timing of inventory purchases.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 10g: describe accounting methods (choices and estimates) that could be used to manage earnings, cash flow, and balance sheet items***

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Q.564 Which of the following factors is *least likely* conducive to the issuance of low-quality financial reports?

- A. Weak internal controls.
- B. Auditing requirements.
- C. Less transparent financial disclosures.

The correct answer is **B**.

Market regulators typically require the financial statements of licensees to be accompanied by an audit opinion attesting that the financial statements conform to the relevant set of accounting standards.

**A is incorrect.** Weak internal controls such as poor separation of duties, lack of supervision, and poor documentation of processes create an environment where a firm can produce low quality financial reports.

**C is incorrect.** Less transparent financial disclosures may provide an opportunity for employees to manipulate numbers.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 10e: describe mechanisms that discipline financial reporting quality and the potential limitations of those mechanisms***

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Q.566 Financial reporting quality is the same as:

- A. Earnings quality.
- B. earnings sustainability.
- C. Quality of information reported.

The correct answer is C.

Financial reporting quality refers to the overall quality and reliability of the information presented in a company's financial statements. This encompasses the accuracy, completeness, and transparency of the financial data, ensuring that it faithfully represents the company's financial position, performance, and cash flows. High-quality financial reporting is crucial for investors, creditors, and other stakeholders to make informed decisions. It involves adhering to accounting standards and principles, providing detailed disclosures, and avoiding manipulative practices that could mislead stakeholders.

**A is incorrect.** Earnings quality specifically focuses on the nature and sustainability of earnings reported by a company. While it is an important aspect of financial reporting quality, it does not encompass all elements of financial reporting. Earnings quality assesses whether reported earnings provide a true and fair view of the company's profitability and are indicative of its future earning potential. However, financial reporting quality is broader and includes considerations beyond earnings, such as the quality of balance sheet items, cash flow information, and disclosures.

**B is incorrect.** Earnings sustainability refers to the likelihood that a company can maintain or grow its earnings over time. It is a component of earnings quality and, by extension, a part of financial reporting quality. However, it does not equate to financial reporting quality as a whole. Earnings sustainability is concerned with the predictability and stability of earnings, which is crucial for assessing a company's long-term viability. Nonetheless, financial reporting quality encompasses a wider range of attributes, including the accuracy, transparency, and comprehensiveness of all financial information provided to stakeholders, not just earnings.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 10b: describe a spectrum for assessing financial reporting quality***

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Q.2184 After attending a seminar on the subject of inventory management, a student has summarized some core points regarding the three main approaches. Which of the following is the *least accurate* statement?

Statement I. During periods of inflation, the use of FIFO will result in the lowest estimate of the cost of goods sold among the three approaches and the highest net income.

Statement II. During periods of deflation, the use of LIFO will result in the highest estimate of the cost of goods sold among the three approaches and the lowest net income.

Statement III. During periods of inflation, the use of LIFO will result in the highest estimate of the cost of goods sold among the three approaches and the lowest net income.

A. Statement I

B. Statement II

C. Statement III

The correct answer is **B**.

Statement II is incorrect. During periods of **inflation**, the use of LIFO will result in the highest estimate of the cost of goods sold among the three approaches and the lowest net income.

**A is incorrect.** Statement I is correct. During periods of inflation, FIFO will result in the lowest estimate of the cost of goods sold among the three approaches.

**C is incorrect.** It is true that During periods of inflation, the use of LIFO will result in the highest estimate of the cost of goods sold among the three approaches and the lowest net income.

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 9g: describe accounting methods (choices and estimates) that could be used to manage earnings, cash flow, and balance sheet items**

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Q.2365 Which of the following is the *most accurate* statement regarding the quality of financial reporting and financial earnings?

A. The quality of financial reporting is judged by its profitability, while the quality of financial earnings is judged by its decision-usefulness.

B. The quality of financial reporting is judged by its sustainability, while the quality of financial earnings is judged by relevance and faithful representation.

C. The quality of financial reporting is judged by its adherence to generally accepted accounting principles (GAAP), while the quality of financial earnings is judged by its sustainability.

The correct answer is **C**.



The quality of financial reporting and financial earnings are critical aspects that investors, analysts, and other stakeholders evaluate to make informed decisions. The quality of financial reporting is primarily judged by its adherence to generally accepted accounting principles (GAAP). GAAP provides a framework of standards, principles, and procedures that companies must follow when compiling their financial statements. This adherence ensures consistency, comparability, and transparency in financial reporting, allowing stakeholders to trust the financial information presented. By following GAAP, companies demonstrate their commitment to accuracy and integrity in financial reporting, which is essential for maintaining investor confidence and facilitating effective decision-making.

The quality of financial earnings, on the other hand, is judged by its sustainability. Sustainable earnings are those that a company can maintain or grow over time without resorting to accounting manipulations or one-time gains. They reflect the company's true operating performance and its ability to generate profit from its core business activities. Sustainable earnings are a key indicator of a company's long-term viability and financial health. Investors and analysts closely monitor these earnings as they provide insights into the company's future earnings potential and its capacity to deliver consistent returns.

**A is incorrect.** While profitability is an important aspect of a company's financial performance, it is not the primary criterion for judging the quality of financial reporting. Similarly, decision-usefulness is an attribute that applies to both financial reporting and earnings, not just to financial earnings. Decision-usefulness encompasses the relevance and reliability of financial information, enabling stakeholders to make informed decisions.

**B is incorrect.** This option misstates the criteria for judging the quality of financial reporting and financial earnings. While sustainability is an important aspect of financial earnings, suggesting that the quality of financial reporting is judged solely by sustainability is inaccurate. Furthermore, relevance and faithful representation are fundamental qualitative characteristics of useful financial information as per the conceptual framework for financial reporting, but they are not the sole criteria for judging the quality of financial earnings. The primary distinction lies in the adherence to GAAP for financial reporting and the focus on sustainability for financial earnings.

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 10b: describe a spectrum for assessing financial reporting quality**

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Q.2366 Firm A, Firm B, and Firm C are market leaders in the glass-manufacturing industry. Part of the financial statements for the year 2016 is given in the following table:

	Firm A	Firm B	Firm C
Gross Profit	\$1,200,000	\$1,000,000	\$1,600,000
Operating Profit	\$700,000	\$760,000	\$500,000
Gain on Sale of Assets	\$240,000	\$0	\$0
EBIT	\$940,000	\$760,000	\$500,000
Interest	(\$250,000)	(\$200,000)	(\$510,000)
Net Income	\$690,000	\$460,000	(\$10,000)

The firm that has the highest quality of earnings for the year 2016 is:

- A. Firm A.
- B. Firm B.
- C. Firm C.

The correct answer is **B**.

Firm B's operating profit and net income are solely the result of its core business operations without any one-time gains or losses. This indicates that Firm B's earnings are sustainable and likely to be repeatable in future periods. The absence of any gain from the sale of assets in Firm B's financials suggests that its earnings are purely from its operational performance, making them a more reliable indicator of the firm's financial health. Additionally, Firm B's ability to generate a substantial net income of \$460,000 after accounting for interest expenses indicates a strong operational efficiency and financial stability.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 10a: compare financial reporting quality with quality of reported results (including quality of earnings, cash flow, and balance sheet items)***

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Q.2368 Quick-Fit is a chain of fitness centers across Malta that does not comply with generally accepted financial reporting standards from that jurisdiction, but it claims to follow the Accepted Accounting Principles of Turkey. Due to the inefficiency and ignorance of the government, it is a standard practice in Malta not to adhere to local reporting standards. However, the firm is consistently profitable as it has a monopoly in many remote areas of Malta. The firm has consistently earned profit margins of 8% over the last 15 years. Based on the provided assumptions, which of the following *best* describes the quality of financial reporting and the quality of earnings of Quick Fit?

- A. Low financial reporting quality and low quality of earnings.
- B. High financial reporting quality and low quality of earnings.
- C. Low financial reporting quality and indeterminate quality of earnings.

The correct answer is **C**.

Since Quick-Fit does not adhere to generally accepted accounting principles of the jurisdiction that it is in, the firm has low financial reporting quality. Adhering to accounting principles that are not followed in the specific jurisdiction of the firm or the principles that are not generally accepted accounting principles do not improve the reporting quality. On the other hand, the firm has earned sustainable and adequate earnings for the past 15 years, indicating high-quality earnings. However, the quality of earnings and the quality of financial reporting are interrelated. Low-quality financial reporting may indicate that the firm in question could falsify its reported numbers. As such, the quality of earnings is indeterminate from the information provided in the question.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 9b: describe a spectrum for assessing financial reporting quality***

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Q.2369 Which of the following financial reports are considered of the lowest quality in the spectrum of financial reporting quality?

- A. Reporting is compliant with GAAP, but earnings quality is low.
- B. Reporting is compliant with GAAP, and earnings are sustainable but inadequate.
- C. Reporting is not compliant with GAAP, but earnings are based on the firm's actual economic activities.

The correct answer is **C**.

A quality spectrum provides a basis for evaluating quality reports and ranges from reports of high financial reporting quality and reflect high and sustainable earnings quality to reports that are not useful due to poor financial reporting quality. According to the quality spectrum of financial reporting, a firm that does not comply with GAAP is of the lowest quality. At the bottom level of the quality, spectrum is a company displaying fictitious transactions. Right above it is financial reporting which departs from GAAP.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 10b: describe a spectrum for assessing financial reporting quality***

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Q.2370 An analyst came across many doubtful activities while analyzing the firm's financial statements compared to other firms in the same industry. Which of the following accounting choices can *most likely* lead to the conclusion that the firm is engaged in aggressive accounting activities?

- A. Using straight-line depreciation.
- B. Expensing costs in the current period.
- C. Decreasing the useful life of certain assets.

The correct answer is **A**.

An aggressive accounting activity increases earnings. Using straight-line depreciation leads to the conclusion that the firm could be engaged in aggressive accounting strategies as using straight-line depreciation decreases the depreciation expense and increases earnings.

**B and C are incorrect.** Expensing costs in the current period and decreasing the useful life of certain assets will increase expenditures and decrease earnings.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 10b: describe a spectrum for assessing financial reporting quality***

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Q.2371 The management's activity of using one set of accounting choices in one period to increase the earning and using the other set of accounting choices to decrease the earning in another period is known as:

- A. earnings smoothing.
- B. aggressive accounting.
- C. low financial reporting quality.

The correct answer is **A**.

Earnings smoothing is a practice where management intentionally adjusts financial statements to make earnings appear more stable and less volatile over time. This is achieved by manipulating accounting choices and estimates to level out fluctuations in financial performance. The primary goal of earnings smoothing is to present a company's financial health as consistently improving or stable, which can be appealing to investors, creditors, and other stakeholders who prefer predictability in financial performance. This practice involves making discretionary accounting decisions to shift earnings from high-performing periods to cover or enhance lower-performing periods. For example, in a year with exceptionally high earnings, management might decide to increase reserves or defer recognizing certain revenues, thus reducing reported earnings for that year. Conversely, in a year with lower earnings, management might release some of these reserves or accelerate revenue recognition to boost the reported earnings.

**B is incorrect.** Aggressive accounting refers to the practice of interpreting or applying financial reporting rules in a way that aggressively recognizes revenues or defers expenses, thereby inflating earnings in the short term. This approach often involves taking higher risks in financial reporting and can sometimes border on or cross into unethical or fraudulent accounting practices. Unlike earnings smoothing, which aims to present a stable earnings trend over time, aggressive accounting primarily seeks to enhance the appearance of financial performance in the short term, often without regard to the long-term implications.

**C is incorrect.** Low financial reporting quality is a broad term that encompasses various practices and outcomes resulting in financial reports that do not accurately or reliably represent a company's financial position, performance, or cash flows. This can be due to unintentional errors, lack of adherence to accounting standards, or deliberate manipulation of financial statements. While earnings smoothing can contribute to lower financial reporting quality by obscuring the true economic performance of a company, it is just one of many potential factors. Low financial reporting quality is not a specific management activity but rather a potential outcome of various accounting practices, including but not limited to earnings smoothing.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 10c: explain the difference between conservative and aggressive accounting***

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Q.2372 Which of the following accounting treatments *most likely* represents a set of conservative accounting activities?

- A. Increasing estimates of salvage value, decreasing accrual of reserves for bad debts, and early recognition of impairments.
- B. Using accelerated depreciation, decreasing valuation allowances on deferred tax assets, and expensing current period costs.
- C. Early recognition of impairment, increasing valuation allowances on deferred tax assets, and using accelerated depreciation.

The correct answer is C.

Conservative accounting practices are those that tend to present a company's financial situation in a more cautious light, potentially understating earnings or assets to avoid overstating the company's financial health. Early recognition of impairment losses, increasing valuation allowances on deferred tax assets, and using accelerated depreciation methods are all aligned with this approach.

Early recognition of impairment losses ensures that any decline in the value of assets is accounted for as soon as it is identified rather than delayed. This practice can lead to a more immediate impact on earnings but is considered conservative because it avoids the risk of overstating the value of assets on the balance sheet. Increasing valuation allowances on deferred tax assets is another conservative practice. It reflects a cautious approach to the recognition of potential tax benefits, acknowledging that these benefits may not be fully realized in the future. Finally, using accelerated depreciation methods results in higher depreciation expenses in the early years of an asset's life. This reduces net income sooner rather than later.

**A is incorrect.** It includes practices that are not typically considered conservative. Increasing estimates of salvage value can lead to lower depreciation expenses and higher net income, which is not a conservative approach. Decreasing accruals for reserves for bad debts might result in understating the potential losses from uncollectible accounts, which again is not conservative. Early recognition of impairments is a conservative practice, but when combined with the other two, the overall approach cannot be considered conservative.

**B is incorrect.** , while using accelerated depreciation and expensing current period costs are conservative practices, decreasing valuation allowances on deferred tax assets is not. Decreasing valuation allowances would lead to recognizing more income related to deferred tax assets, which could be considered aggressive if there is uncertainty about the ability to realize those tax benefits in the future. Thus, the combination of practices in option B does not represent a set of purely conservative accounting activities.

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 9c: explain the difference between conservative and aggressive accounting**

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Q.2373 Which of the following is *least likely* a motive of managers to make aggressive accounting choices?

- A. To exercise employees' put options on the company's shares.
- B. To improve future career options by beating a specific benchmark.
- C. To report earnings greater than the consensus expectations of analysts.

The correct answer is **A**.

Put options give the holder the right, but not the obligation, to sell a specified amount of an underlying security at a specified price within a specified time frame. These options become valuable when the stock price falls below the strike price, allowing the holder to sell the stock at a higher price than the current market value. Aggressive accounting practices, which may involve overstating revenues or understating expenses, are typically aimed at inflating the company's financial performance and, by extension, its stock price.

**B is incorrect.** Improving future career options by beating a specific benchmark is a plausible motive for managers to adopt aggressive accounting choices. By presenting a more favorable financial performance, managers may aim to surpass industry benchmarks or meet specific financial targets. This can enhance their professional reputation, making them more attractive to current and potential future employers. The desire to achieve or exceed benchmarks can lead managers to manipulate financial statements in a way that presents the company's financial health and performance in a more positive light than it actually is.

**C is incorrect.** Reporting earnings greater than the consensus expectations of analysts is another likely motive for managers to engage in aggressive accounting practices. Analysts' expectations play a significant role in the financial markets, influencing investor perceptions and stock prices. By reporting earnings that exceed these expectations, a company can positively impact its stock price and investor sentiment. This can be seen as an attempt to manipulate market perceptions and maintain or increase the company's stock price.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 10d: describe motivations that might cause management to issue financial reports that are not high quality and conditions that are conducive to issuing low-quality, or even fraudulent, financial reports***

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Q.2374 Two firms in the hypothetical sector of hydro-cars are similar in all aspects but use different accounting practices. Some accounts for the year 2016 are given in the following table:

	Alpha Co.	Gama Co.
Revenue	\$5,400,000	\$5,400,000
Gross Profit	\$2,200,000	\$2,200,000
Depreciation Expense	\$140,000	\$280,000
Bad Debt Expense	\$100,000	\$210,000
Research Expense	-	\$300,000
EBIT	\$1,960,000	\$1,410,000
Gain on Assets	\$130,000	-

Disregarding depreciation expenses, which of the following firm(s) use(s) conservative accounting practices?

- A. Only Alpha Co. uses conservative accounting.
- B. Only Gama Co. uses conservative accounting.
- C. Both Alpha Co. and Gama Co. use conservative accounting.

The correct answer is **B**.

Conservative accounting uses methods that are more likely to understate financial performance and do not usually create a sustainability issue. They decrease a company's reported performance and financial position in the current period and may later increase its reported performance and financial position. A good example of conservatism would be a business that books more of its expenses as normal purchases rather than capital expenses.

This is exactly what Gama Co. has done.

Note: Aggressive accounting uses optimistic projections in the accounting standards to create financial statements that present a rosier picture of a company than is actually the case. A good example of an aggressive accounting practice would be the capitalization of expenses - recording an expenditure as an asset, rather than charging it to expense as incurred.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 10c: explain the difference between conservative and aggressive accounting***

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Q.2375 Alpha Co. and Gama Co. are similar in all aspects but use different accounting practices, as shown in the following table:

	Alpha Co.	Gama Co.
Revenue	\$5,400,000	\$5,400,000
Gross Profit	\$2,200,000	\$2,200,000
Depreciation Expense	\$140,000	\$280,000
Bad Debt Expense	\$100,000	\$210,000
Research Expense	-	\$300,000
EBIT	\$1,960,000	\$1,410,000
Gain on Assets	\$130,000	-

Which of the following firms *most likely* has sustainable earnings?

- A. Gama Co.
- B. Alpha Co.
- C. Gama and Alpha.

The correct answer is **A**.

Based on the information provided, it appears that Gama Co. has more sustainable earnings than Alpha Co. because Alpha Co. has a gain on assets, which is a non-operating item and is not expected to continue in the future, whereas Gama Co. does not have such a gain.

Additionally, Alpha Co. has lower depreciation and bad debt expenses than Gama Co., which may indicate that Alpha is using more aggressive accounting practices to reduce its expenses and inflate its earnings. On the other hand, Gama Co. has higher depreciation and bad debt expenses, which are more representative of its true financial performance and are expected to continue in the future.

It's important to note that this is only based on the information provided, and a more comprehensive analysis of the companies financial statements and other factors would be necessary to make a more informed conclusion.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 10b: describe a spectrum for assessing financial reporting quality***

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Q.2376 Adam Geller is the CFO of Cube Corp. and is also the chairman of the board. The board does not have sufficient control over management because it does not consist of a majority of independent outsiders. Cube's shareholders recently accused the firm of misrepresenting its financial reports.

Which of the following factors is *most likely* responsible for management's action of providing low-quality financial reporting?

- A. Motivation.
- B. Opportunity.
- C. Rationalization.

The correct answer is **B**.

The most likely factor responsible for management's action of providing low-quality financial reporting in Cube Corp. is the opportunity presented by the lack of sufficient control over the firm's management by the board. The structure of Cube Corp.'s board, where the CFO also serves as the chairman and the board lacks a majority of independent outsiders, creates a scenario where checks and balances on management's actions are minimal. This lack of oversight and control provides management with the opportunity to engage in practices that may not align with the best interests of the shareholders, including the potential misrepresentation of financial reports. The opportunity for such actions arises because the board's composition and structure do not facilitate adequate scrutiny of management's decisions and reporting practices.

**A is incorrect.** While motivation might play a role in why management might choose to misrepresent financial reports, it is not the most direct cause in this scenario. Motivation refers to the reasons or incentives behind actions. Although management might have motivations such as personal gain or attempting to meet certain financial targets, without the opportunity to act on these motivations without adequate oversight, misrepresentation of financial reports would be significantly more challenging. Therefore, while motivation is a necessary component of fraudulent activities, it is the opportunity provided by the lack of control that is most directly responsible for the misrepresentation of financial reports in this case.

**C is incorrect.** Rationalization is a psychological mechanism that allows individuals to justify unethical or fraudulent actions to themselves as being acceptable under the circumstances. While rationalization might enable individuals within the management to feel less guilt or to justify their actions internally, it is not the primary factor that enables the misrepresentation of financial reports. Without the opportunity provided by the lack of sufficient oversight and control by the board, rationalizing such actions would be moot. Rationalization does not create the conditions for misrepresentation; it merely affects how individuals internally process their decisions to engage in such actions.

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 10d: describe motivations that might cause management to issue financial reports that are not high quality and conditions that are conducive to issuing low-quality, or even fraudulent, financial reports**

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Q.2377 Akash Prakash is the CEO of Pandora Drum Co., which is headquartered in the middle of the Bermuda Islands. Pandora is currently under a lawsuit related to presenting low-quality financial reports by overestimating the assets of Pandora by more than 500%. During a recent conference call, Prakash stated "I thought that another company operating in the Bermuda Islands might be interest in acquiring Pandora. Therefore, it was important for Pandora to over-estimate its assets to make the firm look expensive to the acquirer. It is common in the Bermuda Islands to overestimate its assets. All of the firms do it."

The main cause for Pandora's low-quality reporting is *most likely* related to:

- A. motivation.
- B. opportunity.
- C. rationalization.

The correct answer is **C**.

The factor behind the presentation of low-quality financial reporting is rationalization. In this situation, the CEO, Akash Prakash, is trying to justify his overestimating of Pandora's assets. He is saying that this is a common practice in the Bermuda Islands and that all companies do it.

This type of behavior, where an individual tries to justify their unethical or illegal actions by blaming others or providing excuses, is known as rationalization. It is a psychological defense mechanism used to reduce the guilt or discomfort associated with the actions. In this case, Prakash is trying to rationalize his decision to overestimate Pandora's assets by saying that it was a common practice and that it was done to make the company look more attractive to potential acquirers.

**A is incorrect.** Motivation refers to a driving force or reason behind someone's actions or decisions. In this case, the motivation for Prakash's decision to over-estimate the assets could be to make the company look more valuable and attractive to potential acquirers.

**B is incorrect.** Opportunity refers to the availability of a circumstance or situation that allows an individual to take a certain action. In this case, the opportunity for Prakash to over-estimate Pandora's assets may have been presented by the fact that there was a potential acquirer interested in the company, and he believed that overestimating the assets would make the company more appealing.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 10d: describe motivations that might cause management to issue financial reports that are not high quality and conditions that are conducive to issuing low-quality, or even fraudulent, financial reports***

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Q.2378 Sonic Loop is a startup that focuses on providing private jet experiences at the cost of the commercial airline. Sonic Loop has adopted a unique compensation plan for its senior management, in which 70% of the compensation of senior management depends on the firm's profit margin. Startup Insider, a whistleblower corporate magazine, printed an article in its latest issue, which reveals that the management of Sonic is involved in fraudulent financial reporting. Based on the given case, which of the following factors is *most likely* responsible for Sonic's potential fraudulent financial reporting?

- A. Motivation.
- B. Opportunity.
- C. Rationalization

The correct answer is **A**.

Motivation stems from the unique compensation plan that the company has adopted for its senior management, where 70% of their compensation is tied to the firm's profit margin. Such a compensation structure creates a strong incentive for the management to artificially inflate profit figures or engage in other forms of financial misrepresentation to boost their personal earnings. This motivation to increase personal compensation at the expense of accurate financial reporting can lead to unethical practices and potentially fraudulent activities. The desire to maximize personal gain, in this case, overshadows the ethical obligation to present truthful and transparent financial information to stakeholders, including investors, employees, and regulatory bodies.

**B is incorrect.** While opportunity does play a role in fraudulent activities, in this scenario, the primary driver is the motivation derived from the compensation structure. Opportunity refers to the circumstances that make it possible to commit fraud, such as weak internal controls or lack of oversight. Although opportunity might exist within Sonic Loop, the question specifically points to the compensation plan as the source of motivation for fraudulent reporting, making motivation the most direct cause in this context.

**C is incorrect.** Rationalization is the process by which individuals justify their unethical behavior as acceptable under the circumstances. It is a psychological mechanism used to deal with the moral conflict arising from committing fraud. While rationalization might be present, allowing senior management to internally justify their actions, it is not the primary factor driving the fraudulent financial reporting in Sonic Loop's case. The direct link between compensation and profit margins serves as the primary motivator for management's actions, rather than the rationalization of those actions after the fact.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 10d: describe motivations that might cause management to issue financial reports that are not high quality and conditions that are conducive to issuing low-quality, or even fraudulent, financial reports***

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Q.2382 If a firm that reports under IFRS uses some non-IFRS measures in its financial reports, then the firm is *least likely* required to:

- A. define and explain the relevance of the non-IFRS measure in financial reporting.
- B. not use the non-IFRS measure if the firm reports its financial reports in compliance with IFRS.
- C. reconcile the difference between the non-IFRS measure and the most comparable IFRS measure.

The correct answer is **B**.

Under IFRS and US GAAP, firms are permitted to use non-IFRS or non-GAAP measures in financial reports. However, if the firm uses non-IFRS measures, the firm is required to;

1. Define and explain the relevance of non-IFRS measures in financial reports.
2. Reconcile the difference between non-IFRS measures and the most comparable IFRS measures.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 10b: describe a spectrum for assessing financial reporting quality***

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Q.2383 Which of the following is *most appropriate* explanation of "channel stuffing"? Channel stuffing is:

- A. an aggressive revenue recognition strategy in which the firm oversupplies goods to the distribution channel.
- B. a conservative revenue recognition strategy in which the firm holds goods and delays the supply of goods to the distribution channel.
- C. an aggressive revenue recognition strategy in which the firm increases the supplier's orders and recognizes the expense before the goods are received.

The correct answer is **A**.

Channel stuffing is an aggressive revenue recognition strategy in which the firm oversupply the goods to the distribution channel (more than the expected sales target). Also known as trade loading, this can be the result of a company attempting to inflate its sales figures. Alternatively, it can be a consequence of a poorly managed sales force attempting to meet short-term objectives and quotas in a way that is detrimental to the company in the long term.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 10c: explain the difference between conservative and aggressive accounting***

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Q.2385 Which of the following statement is *most appropriate* regarding the allowance for uncollectible debt?

- A. If a firm increases the probability that the accounts receivable will be collected, it will increase the reserve for uncollectible debt and decrease Net income.
- B. If a firm decreases the probability that the accounts receivable will be uncollected, it will increase the reserve for uncollectible debt and decrease Net income.
- C. If a firm increases the probability that the accounts receivable will be uncollected, it will increase the reserve for uncollectible debt and decrease Net income.

The correct answer is **C**.

An increase in the allowance for uncollectible debt will increase bad debt expenses. Moreover, an increase in the expected warranty expense and a decrease in the useful life of assets will increase the depreciation expense. This will create the lowest operating income.

**A is incorrect.** This is because the increase in salvage value will decrease the depreciation expense, while the increase in interest rate will not affect operating income (EBIT).

**B is incorrect.** This is because decreasing the allowance for uncollectible debt will decrease bad debt expenses, and an increase in tax rate will have no effect on operating income (EBIT).

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10h: describe accounting warning signs and methods for detecting manipulation of information in financial reports**

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Q.2388 If goodwill is an intangible asset and cannot be depreciated, then which of the following assumptions can the management use to increase the earnings in a specific period?

- A. Delaying the impairment charge for goodwill.
- B. Delaying the amortization charge on goodwill.
- C. Recognizing the amortization charge on goodwill.

The correct answer is **A**.

Delaying the impairment charge for goodwill allows management to increase earnings in a specific period. Goodwill, as an intangible asset, is not subject to depreciation or amortization under accounting standards. Instead, it is subject to an impairment test, which assesses whether the carrying value of goodwill exceeds its recoverable amount. If an impairment exists, the company must recognize an impairment charge, reducing both the carrying value of goodwill on the balance sheet and the earnings in the income statement for that period. By postponing this impairment charge, management can temporarily avoid recognizing this expense, thereby artificially inflating earnings for that period. This practice, however, raises ethical and transparency issues regarding the accurate representation of the company's financial health.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 9f: describe presentation choices, including non-GAAP measures, that could be used to influence an analyst's opinion***

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Q.2390 The strategy of deferring reported earnings through choosing conservative financial reporting standards so that earnings can be utilized later, is *most likely* known as:

- A. Earnings smoothing.
- B. Putting earnings in a cookie jar.
- C. Putting earnings in restrictive reserves.

The correct answer is **B**.

The strategy of deferring reported earnings by adopting conservative financial reporting standards, allowing for the utilization of these earnings at a later time, is most accurately described as "putting earnings in a cookie jar." This practice involves the deliberate understatement of earnings in some periods to create reserves that can be used to smooth earnings in future periods. This approach is often used to manage earnings and present a more stable financial performance over time, which can be appealing to investors seeking consistency. By deferring earnings, companies can mitigate the impact of bad years by offsetting them with reserved earnings, thus maintaining a more consistent earnings trend. This strategy is a form of earnings management where companies exercise discretion in financial reporting to achieve certain objectives.

**A is incorrect.** Earnings smoothing refers to the broader practice of manipulating financial records to present a more consistent and less volatile set of financial results over time. While putting earnings in a cookie jar can be a method of earnings smoothing, it specifically involves the deferral of earnings for future use, which is a more precise tactic than the general concept of earnings smoothing. Earnings smoothing can involve various methods, including changes in accounting policies, adjustments in operational decisions, or strategic timing of revenue recognition and expense booking beyond just deferring earnings.

**C is incorrect.** Putting earnings in restrictive reserves suggests a formal allocation of earnings to reserves that are bound by specific restrictions or purposes. While this might sound similar to putting earnings in a cookie jar, the key difference lies in the intention and flexibility of use. Restrictive reserves are often created to comply with regulatory requirements or for specific future liabilities or projects and are not typically used to manage earnings or smooth financial performance over time. The practice of putting earnings in a cookie jar, on the other hand, is specifically aimed at influencing the perception of a company's financial health by smoothing earnings without the formal restrictions associated with designated reserves.

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 10c: explain the difference between conservative and aggressive accounting**

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Q.2391 Which of the following are *inaccurate* statement(s) regarding auditors?

Statement I. An auditor's unqualified opinion can provide reasonable assurance that financial statements are fairly presented.

Statement II. An auditor's unqualified opinion can assure that the firm is GAAP compliant or not.

Statement III. An auditor's unqualified opinion can assure that the firm is not engaged in fraud.

A. Statement I.

B. Statement III.

C. Statements II and III.

The correct answer is **B**.

An auditor's unqualified opinion, also known as a "clean opinion", indicates that the financial statements present a fair representation of the company's financial performance in accordance with relevant accounting standards, such as GAAP. The auditor has performed an audit and found no material misstatements in the financial statements, but the opinion is not a guarantee that the financial statements are completely error-free or that fraud has not occurred. The possibility of undetected material misstatements, including fraud, always exists.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 9e: describe mechanisms that discipline financial reporting quality and the potential limitations of those mechanisms***

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Q.2395 Which of the following is *least likely* a warning sign in the revenue recognition activity of a firm?

- A. Use of credit sales.
- B. Use of barter transactions.
- C. Decreasing trend in receivables turnover.

The correct answer is **A**.

Credit sales are a common business practice across various industries, allowing companies to sell their products or services to customers on credit terms. This practice can enhance sales volume by making it easier for customers to make purchases without immediate payment. While excessive reliance on credit sales can lead to issues with cash flow and earnings quality if not managed properly, the mere use of credit sales is not inherently a warning sign. It becomes a concern only when there is a significant and unexplained increase in credit sales relative to cash sales, potentially indicating aggressive revenue recognition or issues with the collectability of receivables.

**B is incorrect.** The value assigned to the goods or services exchanged can be subjective and potentially overestimated, leading to inflated revenue figures. Firms engaging in frequent or high-value barter transactions may be attempting to boost revenue recognition without a corresponding increase in economic value, warranting closer scrutiny.

**C is incorrect.** A decreasing trend in receivables turnover is another potential warning sign in the revenue recognition activity of a firm. Receivables turnover ratio measures how efficiently a company collects cash from its credit sales, calculated as sales divided by average accounts receivable. A decreasing trend in this ratio indicates that a company is taking longer to collect its receivables, which could be a sign of several issues. It may suggest that the company is extending credit terms to less creditworthy customers to boost sales figures, potentially leading to higher bad debt expenses in the future. It could also indicate aggressive revenue recognition practices, where sales are recorded before it is reasonably certain that the payment will be collected. Therefore, a decreasing trend in receivables turnover warrants investigation as it may reflect underlying problems with revenue recognition or customer creditworthiness.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 10h: describe accounting warning signs and methods for detecting manipulation of information in financial reports***

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Q.2396 Which of the following is *most likely* viewed as the warning sign for fraud or low-quality earnings?

- A. A firm's net income is greater than the amount of operating cash flow.
- B. A firm's amount of operating cash flow is greater than the net income.
- C. A firm's net income is greater than the amount of cash flow from investing activities.

The correct answer is **A**.

When a firm's net income is greater than its operating cash flow, it can be a warning sign of potential fraud or low-quality earnings. This discrepancy suggests that the company is reporting higher profits on its income statement than the actual cash it is generating from its core business operations. High-quality earnings are typically supported by strong cash flow from operations, as this indicates that the company's profits are being realized in the form of cash. If the operating cash flow is less than net income, it may imply that the company is engaging in aggressive accounting practices to inflate its earnings, such as recognizing revenue prematurely or delaying the recognition of expenses. This situation warrants further investigation as it could indicate that the company's financial health is not as strong as it appears on paper.

**B is incorrect.** In fact, the opposite is often true; when a company's operating cash flow exceeds its net income, it is generally considered a positive indicator. This situation suggests that the company is efficient at converting its earnings into cash, which is a sign of high-quality earnings. Companies with strong cash flows are typically more resilient and have greater flexibility in funding operations, investing in new projects, and returning value to shareholders.

**C is incorrect.** Cash flow from investing activities includes transactions related to the acquisition and disposal of long-term assets and investments, which can vary significantly from period to period and are not directly related to the operational profitability of the company. While large discrepancies in this area could warrant further analysis, they do not inherently signal fraud or low-quality earnings in the same way that a discrepancy between net income and operating cash flow does.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 10h: describe accounting warning signs and methods for detecting manipulation of information in financial reports***

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Q.2398 An analyst gathered the following information regarding the accounting practices of the Sun Corp., Moon Corp., and Star Corp. Using his analysis provided in the following table, where will Moon Corp. stand on the quality spectrum?

Sun Corp.	Adheres to US GAAP Accounting choices show no bias Provides adequate earnings
Moon Corp.	Adheres to US GAAP with some deviations Accounting choices show an aggressive bias Provides adequate earnings
Star Corp.	Adheres to US GAAP Accounting choices show a conservative bias Provides inadequate earnings

A. Moon Corp. stands at the lowest place in the quality spectrum of financial reporting.

B. Moon Corp. stands at the highest place in the quality spectrum of financial reporting.

C. Moon Corp. stands in the middle of Sun Corp. and Star Corp. in the quality spectrum of financial reporting.

The correct answer is **A**.

Moon Corp.'s position on the quality spectrum of financial reporting can be determined by analyzing the adherence to Generally Accepted Accounting Principles (GAAP), the bias in accounting choices, and the adequacy of earnings provided. Moon Corp. adheres to US GAAP with some deviations, exhibits an aggressive bias in accounting choices, and provides adequate earnings. These characteristics suggest a lower quality of financial reporting compared to firms that strictly adhere to GAAP without deviations and exhibit no or conservative bias in accounting choices.

**B is incorrect.** Standing at the highest place in the quality spectrum of financial reporting would require strict adherence to GAAP without deviations, unbiased or conservative accounting choices, and the provision of adequate earnings. Moon Corp.'s deviations from GAAP and aggressive accounting bias disqualify it from being considered the highest in terms of financial reporting quality. High-quality financial reporting is characterized by transparency, accuracy, and adherence to recognized accounting standards, which Moon Corp. fails to fully meet due to its noted deviations and bias.

**C is incorrect.** While it might seem logical to place Moon Corp. in the middle of the quality spectrum due to its provision of adequate earnings, the deviations from GAAP and aggressive bias in accounting choices significantly impact the quality of its financial reporting. The quality of financial reporting is not solely determined by the adequacy of earnings but also by the adherence to accounting standards and the neutrality of accounting choices. Sun Corp.'s strict adherence to GAAP and unbiased accounting choices, along with Star Corp.'s conservative bias (despite providing inadequate earnings), suggest a higher commitment to quality financial reporting compared to Moon Corp.

***CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 10b: describe a spectrum for assessing financial reporting quality***

Q.2400 Which of the following is *least likely* a warning sign of fraudulent accounting practices?

- A. Declining the amount of goodwill for impairment.
- B. Recognizing a greater portion of earnings in the fourth quarter.
- C. Growing the business by acquiring a large number of businesses.

The correct answer is **A**.

Declining the amount of goodwill for impairment is not typically considered a warning sign of fraudulent accounting practices. Goodwill impairment occurs when the recorded value of goodwill on a company's balance sheet exceeds its fair value. If a company determines that the value of goodwill has declined and recognizes an impairment charge, it is generally an indication of a decline in the value of the company's assets or a change in market conditions.

**B is incorrect.** Recognizing a greater portion of earnings in the fourth quarter: This can indicate earnings management or manipulation, where a company intentionally alters its financial results to meet certain targets or expectations. Shifting earnings to specific reporting periods, such as the fourth quarter, can be a red flag for potentially fraudulent activity.

**C is incorrect.** Growing the business by acquiring a large number of businesses: Rapid growth through numerous acquisitions can be a warning sign of fraudulent accounting practices if the acquisitions are used to manipulate financial statements. Companies may inflate revenues or assets through fraudulent transactions or improper accounting treatments related to these acquisitions.

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10h: describe accounting warning signs and methods for detecting manipulation of information in financial reports**

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Q.4273 Which of the following *least likely* presents an opportunity for management to issue low-quality financial reports?

- A. Poor internal controls.
- B. Ineffective board of directors.
- C. Pressure to achieve some performance level.

The correct answer is **C**.

The opportunity for management to issue low-quality financial reports is least likely presented by the pressure to achieve some performance level. This is because the pressure to meet certain performance benchmarks, while it may serve as a motive or incentive for manipulating financial reports, does not inherently provide the means or opportunity to do so. The ability to issue low-quality financial reports is more directly facilitated by weaknesses in the company's internal controls or governance structures, such as an ineffective board of directors or poor internal controls, which can create openings for financial misreporting or manipulation.

**A is incorrect.** Poor internal controls are a direct enabler for the issuance of low-quality financial reports. Internal controls are designed to ensure the accuracy and reliability of a company's financial reporting. Weak or insufficient internal controls can lead to inaccuracies in financial reporting, either through error or intentional manipulation. This lack of oversight and control mechanisms provides a clear opportunity for management to issue financial reports that may not accurately represent the company's financial position or performance.

**B is incorrect.** An ineffective board of directors also presents a significant opportunity for management to issue low-quality financial reports. The board of directors plays a crucial role in overseeing the management and ensuring that the company's financial reporting is accurate and transparent. A board that is ineffective, either due to lack of expertise, lack of independence, or failure to exercise due diligence, may not adequately monitor the company's financial reporting processes. This lack of oversight can allow management to engage in practices that compromise the quality of financial reports, such as aggressive accounting, inadequate disclosure of financial information, or even outright financial statement fraud.

**CFA Level I, Volume 2, Topic 5—Financial Statements Analysis, Learning Module 10: Analysis of Income Taxes, LOS 9d: describe motivations that might cause management to issue financial reports that are not high quality and conditions that are conducive to issuing low-quality, or even fraudulent, financial reports**

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Q.4909 Which of the following *best* describes the relationship between financial reporting quality and earnings quality?

- A. Low earnings quality guarantees low financial reporting quality.
- B. Financial reporting quality and earnings quality are entirely independent of each other.
- C. High financial reporting quality enables a more accurate assessment of earnings quality.

The correct answer is C.

High financial reporting quality enables a more accurate assessment of earnings quality because it ensures that the reported financial information is reliable and reflects the true economic activities of the company. When financial reports are of high quality, they provide relevant, complete, and neutral information, which allows analysts and investors to make well-informed judgments about the sustainability and reliability of the company's earnings. This accurate depiction of the company's financial performance and position helps stakeholders evaluate the company's true economic condition and future prospects.

**A is incorrect.** Low earnings quality does not necessarily guarantee low financial reporting quality. While poor earnings quality may indicate issues with the sustainability or reliability of earnings, it is still possible for financial reports to be of high quality if they accurately and transparently reflect these issues. High-quality financial reporting can still occur even if the underlying economic performance is poor, as long as the reports faithfully represent the company's financial condition and results.

**B is incorrect.** Financial reporting quality and earnings quality are interrelated. High financial reporting quality provides the foundation for assessing earnings quality. Without reliable and accurate financial reports, it is challenging to evaluate the true quality of earnings.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10a: compare financial reporting quality with quality of reported results (including quality of earnings, cash flow, and balance sheet items).***

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Q.4910 An analyst observes that a company's financial reports are highly detailed and comply with all standards, yet the company's earnings fluctuate widely each year. What is the *most likely* implication of this observation?

- A. The company's financial reporting quality is low.
- B. Both financial reporting quality and earnings quality are high.
- C. The company's earnings quality may be low despite high financial reporting quality.

The correct answer is **C**.

The company's earnings quality may be low despite high financial reporting quality, as wide fluctuations in earnings can indicate instability or reliance on non-recurring activities. High financial reporting quality ensures that the reports are comprehensive, accurate, and comply with relevant standards, providing a true representation of the company's financial position. However, earnings quality focuses on the sustainability and reliability of the earnings themselves. Significant volatility in earnings suggests that the company's financial performance may be influenced by factors such as non-recurring events, market fluctuations, or other unpredictable elements, which detracts from the quality of earnings. Therefore, even with high financial reporting quality, the underlying earnings may not provide a stable and reliable basis for assessing the company's long-term performance.

**A is incorrect.** Detailed and compliant reports indicate high financial reporting quality. High financial reporting quality means that the information presented is accurate, complete, and in accordance with applicable accounting standards, which enhances the reliability of the financial data provided.

**B is incorrect.** High earnings quality is characterized by stable and sustainable earnings. While high financial reporting quality is crucial, it does not necessarily imply high earnings quality if the earnings themselves are unstable or heavily influenced by non-recurring items. High earnings quality requires that earnings are consistent and can be maintained over time, reflecting the company's core economic activities.

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10a: compare financial reporting quality with quality of reported results (including quality of earnings, cash flow, and balance sheet items).**

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Q.4911 An analyst finds that a company's financial reports are free from errors but are heavily biased towards optimistic projections and assumptions. This situation *most likely* indicates:

- A. Low earnings quality.
- B. High financial reporting quality.
- C. Compromised neutrality in financial reporting quality.

The correct answer is **C**.

The financial reports being free from errors but biased towards optimistic projections and assumptions indicate compromised neutrality in financial reporting quality. Neutrality in financial reporting means that the information presented is unbiased and represents a fair view of the company's financial situation. Even if the reports are technically accurate and free from errors, a bias towards overly optimistic projections can mislead users by presenting an overly positive view of the company's financial health. This undermines the reliability of the information, as it does not provide a balanced and objective perspective.

**A is incorrect.** Earnings quality pertains to the sustainability and reliability of earnings, not the projections and assumptions used in financial reports. Biased projections affect the quality of the financial reporting, not directly the earnings quality.

**B is incorrect.** High financial reporting quality requires neutrality, not just error-free information. For financial reports to be of high quality, they must be both accurate and unbiased.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10a: compare financial reporting quality with quality of reported results (including quality of earnings, cash flow, and balance sheet items).***

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Q.4912 Which of the following scenarios *most likely* indicates low financial reporting quality but high earnings quality?

- A. A company with detailed, accurate disclosures but unstable earnings.
- B. A company with conservative accounting practices and sustainable earnings.
- C. A company performing well but providing minimal and biased financial disclosures.

The correct answer is **C**.

A company performing well but providing minimal and biased financial disclosures likely has high earnings quality but low financial reporting quality. High earnings quality means that the company's earnings are sustainable and derived from its core operations. However, minimal and biased disclosures indicate low financial reporting quality because they fail to provide a complete, accurate, and neutral depiction of the company's financial condition, making it difficult for analysts to assess the true performance and risks associated with the company.

**A is incorrect.** Detailed, accurate disclosures indicate high financial reporting quality, regardless of the stability of earnings. High-quality disclosures provide transparency and reliability in financial reporting.

**B is incorrect.** Conservative accounting practices and sustainable earnings are indicative of high financial reporting quality and high earnings quality. Conservative practices typically enhance the reliability and neutrality of financial reports.

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10a: compare financial reporting quality with quality of reported results (including quality of earnings, cash flow, and balance sheet items).**

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Q.4913 How does the inclusion of non-GAAP financial measures in reports potentially affect analysts' assessments?

- A. It simplifies the comparison across companies.
- B. It enhances the reliability and accuracy of financial assessments.
- C. It complicates the comparability and reliability of financial assessments.

The correct answer is **C**.

The inclusion of non-GAAP financial measures complicates the comparability and reliability of financial assessments because these measures can vary widely among companies and are not standardized. Non-GAAP measures are tailored by companies to exclude certain items, which can be helpful for internal management but create challenges for analysts who need consistent and comparable data to evaluate performance across different firms. These measures can also obscure true financial performance by emphasizing more favorable aspects and excluding less favorable ones, thereby reducing the overall reliability of the financial information presented.

**A is incorrect.** Non-GAAP measures often reduce comparability because they are not consistently defined or calculated across companies, making it difficult for analysts to perform apples-to-apples comparisons.

**B is incorrect.** Non-GAAP measures can distort the reliability of financial assessments by presenting a biased view of a company's financial health, potentially excluding important expenses or losses that are necessary for a complete understanding of the company's performance.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10b: describe a spectrum for assessing financial reporting quality***

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Q.4914 A company has shown remarkable growth in its revenue and net income over the past three years. However, an analyst notices that the company's receivables have grown disproportionately compared to its revenue, and its inventory turnover ratio has significantly decreased. The company also reports substantial non-GAAP earnings adjustments related to capitalization of certain expenses that competitors typically expense. What should the analyst *most likely* conclude about the company's financial reporting and earnings quality?

- A. The company's financial reporting quality is high due to consistent revenue and net income growth.
- B. The company's financial reporting quality is high, but earnings quality is low due to the decline in inventory turnover.
- C. The company's financial reporting quality is questionable, and earnings quality may be overstated due to potential earnings management and aggressive accounting choices.

The correct answer is **C**.

The company's financial reporting quality is questionable, and earnings quality may be overstated due to potential earnings management and aggressive accounting choices. The disproportionate growth in receivables compared to revenue and the decrease in inventory turnover ratio suggest potential issues with revenue recognition and inventory management. Additionally, the use of non-GAAP earnings adjustments to capitalize expenses that competitors typically expense can inflate earnings and present a misleading picture of the company's financial health.

**A is incorrect.** Consistent revenue and net income growth do not necessarily indicate high financial reporting quality if there are underlying signs of aggressive accounting practices and earnings management.

**B is incorrect.** While the decline in inventory turnover suggests issues with earnings quality, the overall financial reporting quality is also questionable due to the aggressive accounting choices and potential earnings management.

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10b: describe a spectrum for assessing financial reporting quality**

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Q.4915 Which of the following *most accurately* describes the impact of conservative accounting on future financial statements?

- A. It leads to a sustained overstatement of future earnings.
- B. It ensures that current period losses are carried forward to future periods.
- C. It results in improved future earnings performance when the conservative estimates reverse.

The correct answer is **C**.

Conservative accounting leads to improved future earnings performance when previously conservative estimates are adjusted. By recognizing lower performance in the current period through conservative estimates, future periods may benefit from higher reported earnings as these estimates are revised upwards or as deferred revenues and understated expenses are recognized.

**A is incorrect.** Conservative accounting does not result in a sustained overstatement of future earnings. Instead, it temporarily understates current earnings, which can lead to higher earnings in future periods when the conservative estimates are reversed.

**B is incorrect.** Conservative accounting does not ensure that current period losses are recognized again in future periods. Instead, it often defers the recognition of certain revenues or overstates current expenses, leading to potentially higher earnings in future periods when these conservative estimates are adjusted.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10c: explain the difference between conservative and aggressive accounting.***

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Q.4916 How does the "big bath" restructuring charge affect a company's financial reporting?

- A. It smooths earnings by evenly distributing losses across multiple periods.
- B. It artificially inflates future earnings by recording large losses in the current period.
- C. It ensures that future costs are accurately reflected in the current period's financial statements.

The correct answer is **B**.

The "big bath" restructuring charge artificially inflates future earnings by recording large losses in the current period. This practice involves taking substantial write-offs or recognizing significant expenses all at once, creating a significant loss in the current period. The result is that future periods appear more profitable as they are relieved from these expenses, thereby improving reported performance in subsequent periods.

**A is incorrect.** The "big bath" approach does not smooth earnings; it concentrates losses in one period to create a clean slate for future periods.

**C is incorrect.** The "big bath" does not ensure the accurate reflection of future costs in the current period's financial statements. Instead, it manipulates the timing of loss recognition to benefit future financial reporting.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10c: explain the difference between conservative and aggressive accounting.***

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Q.4917 Which of the following *best* describes the primary benefit of conservative accounting for less informed parties?

- A. It provides a more optimistic view of the company's financial health.
- B. It protects against the risk of overstatement of assets and earnings.
- C. It aligns more closely with management's desire to report strong financial performance.

The correct answer is **B**.

Conservative accounting protects against the risk of overstatement of assets and earnings, providing a safeguard for less informed parties such as lenders and investors, who benefit from a more cautious representation of financial health. By recognizing potential losses and liabilities early and deferring the recognition of revenues and gains, conservative accounting creates a buffer against future financial uncertainties, ensuring that the financial statements present a more prudent and reliable picture of the company's financial position.

**A is incorrect.** Conservative accounting provides a more cautious view, not an optimistic one. It aims to avoid overstating the company's financial health by being conservative in recognizing revenues and gains and aggressive in recognizing expenses and losses.

**C is incorrect.** Conservative accounting does not align with management's desire to report strong financial performance; it typically results in lower reported performance in the short term, as it emphasizes caution and prudence over presenting strong financial results.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 9c: explain the difference between conservative and aggressive accounting.***

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Q.4918 Which of the following is *most likely* a consequence of aggressive accounting practices in the current reporting period?

- A. Future earnings volatility decreases.
- B. Short-term financial performance appears stronger.
- C. Long-term sustainability of earnings improves.

The correct answer is **B**.

Aggressive accounting practices in the current reporting period make short-term financial performance appear stronger by overstating revenues or understating expenses. This creates an inflated view of the company's financial health and performance, which can temporarily boost stock prices and meet market expectations. However, this manipulation is often unsustainable and can lead to significant corrections in future periods when the true financial position is revealed.

**A is incorrect.** Aggressive accounting often leads to increased future earnings volatility. By pulling revenues forward and deferring expenses, the current period's performance is artificially boosted, creating a disparity that will need to be corrected in future periods, leading to greater fluctuations in earnings.

**C is incorrect.** Aggressive accounting undermines the long-term sustainability of earnings. By distorting the true financial performance and health of the company, it sets up unrealistic expectations and can lead to severe adjustments and a loss of investor confidence when the true financial picture emerges.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10c: explain the difference between conservative and aggressive accounting.***

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Q.4919 Which of the following *most likely* explains why it is essential for analysts to consider the intent behind the application of accounting standards?

- A. To identify potential tax savings for the company.
- B. To determine the appropriateness of the company's capital structure.
- C. To accurately infer whether the financial reporting is conservative or aggressive.

The correct answer is **C**.

Considering the intent behind the application of accounting standards helps analysts accurately infer whether the financial reporting is conservative or aggressive. Understanding the intent provides insights into management's motivations and the potential biases in financial reporting, which are crucial for assessing the company's financial health and sustainability of earnings.

**A is incorrect.** The primary concern of analyzing the intent behind accounting practices is not to identify potential tax savings, but to understand the quality and reliability of the financial information presented.

**B is incorrect.** While the appropriateness of a company's capital structure is important, the focus here is on evaluating the quality of financial reporting, specifically whether the accounting practices used are conservative or aggressive.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10c: explain the difference between conservative and aggressive accounting.***

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Q.4920 How does the IFRS treatment of impairment losses differ from US GAAP, potentially affecting the level of conservatism in financial reporting?

- A. IFRS does not allow the reversal of impairment losses, while US GAAP does.
- B. IFRS requires immediate expensing of research costs, while US GAAP allows capitalization.
- C. IFRS impairment losses are recognized based on value in use, while US GAAP uses undiscounted future cash flows.

The correct answer is **C**.

FRS recognizes impairment losses based on the higher of fair value less costs to sell and value in use. This approach can lead to earlier recognition of impairment losses, making IFRS appear more conservative compared to US GAAP, which uses undiscounted future cash flows as the criterion for recognizing impairment losses.

**A is incorrect.** IFRS does allow the reversal of impairment losses if the recoverable amount increases in future periods, while US GAAP prohibits the reversal of impairment losses once they are recognized.

**C is incorrect.** This option pertains to the treatment of research costs, which is not relevant to the question about impairment losses.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10c: explain the difference between conservative and aggressive accounting.***

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Q.4921 Which of the following factors is *most likely* to pressure managers into issuing low-quality financial reports?

- A. High levels of job security.
- B. Strict adherence to ethical guidelines.
- C. Bonuses tied to short-term earnings targets.

The correct answer is **C**.

Bonuses tied to short-term earnings targets pressure managers into issuing low-quality financial reports to meet these targets and receive their compensation. This creates a strong financial incentive for managers to manipulate financial results, as their personal income and job security may depend on meeting or exceeding these targets. This pressure can lead to aggressive accounting practices, such as premature revenue recognition or deferral of expenses.

**A is incorrect.** High levels of job security reduce pressure on managers to manipulate reports, as their employment is not contingent on short-term performance. When job security is high, managers are less likely to feel the need to engage in unethical reporting practices to safeguard their positions.

**B is incorrect.** Strict adherence to ethical guidelines discourages low-quality reporting by promoting integrity and accountability. Managers who follow ethical guidelines are committed to providing accurate and honest financial information, which enhances the overall quality of financial reports.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10d: describe motivations that might cause management to issue financial reports that are not high quality and conditions that are conducive to issuing low-quality, or even fraudulent, financial reports***

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Q.4922 Which of the following conditions would *most likely lead to high-quality financial reporting*?

A. Robust internal controls.

B. A regulatory regime with strong enforcement.

C. Managers' compensation tied solely to short-term earnings.

The correct answer is **B**.

*A regulatory regime with strong enforcement would most likely lead to high-quality financial reporting by deterring managers from issuing misleading reports. Strong regulatory oversight ensures that companies adhere to accounting standards and ethical practices, reducing the likelihood of financial misreporting. This creates an environment where transparency and accountability are prioritized, leading to more reliable and accurate financial statements.*

**A is incorrect.** While robust internal controls are crucial for ensuring accurate financial reporting, they alone do not guarantee high-quality financial reporting if regulatory enforcement is weak. Strong regulatory oversight complements robust internal controls by providing an external check on the company's financial reporting practices.

**C is incorrect.** Compensation tied to short-term earnings can incentivize managers to manipulate reports to meet targets. This focus on short-term performance can lead to aggressive accounting practices and the potential distortion of financial results to achieve bonus-related targets, compromising the quality of financial reporting.

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10d: describe motivations that might cause management to issue financial reports that are not high quality and conditions that are conducive to issuing low-quality, or even fraudulent, financial reports**

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Q.4923 How do registration requirements imposed by regulatory authorities *most likely* help maintain financial reporting quality?

- A. By mandating periodic reviews of financial reports.
- B. By setting penalties for non-compliance with financial reporting standards.
- C. By requiring companies to disclose relevant risks and financial information before selling securities.

The correct answer is **C**.

Registration requirements ensure that companies disclose relevant risks and financial information before selling securities, promoting transparency and high-quality reporting. These requirements compel companies to provide comprehensive and accurate information about their financial status, operations, and potential risks, allowing investors to make informed decisions. This process helps to maintain the integrity and reliability of financial reports.

**A is incorrect.** Periodic reviews of financial reports are part of regulatory reviews, not registration requirements. While periodic reviews are important for ongoing compliance, they are not specifically tied to the initial registration process.

**B is incorrect.** Penalties for non-compliance are part of enforcement mechanisms, not registration requirements. Enforcement mechanisms come into play after the registration process to ensure adherence to financial reporting standards and to penalize non-compliance, thus maintaining the quality of financial reporting through deterrence and correction.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10e: describe mechanisms that discipline financial reporting quality and the potential limitations of those mechanisms***

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Q.4924 How does the concept of the "expectations gap" impact the perception of audit effectiveness?

- A. It highlights the limitations of sampling in audit procedures.
- B. It addresses the potential influence of auditors' fee structures on their independence.
- C. It reflects the difference between public expectations and what audits are designed to accomplish.

The correct answer is **C**.

The "expectations gap" reflects the difference between what the public expects auditors to do and what audits are designed to accomplish. The public often assumes that audits are meant to detect all forms of fraud and errors, while in reality, audits are designed to provide reasonable assurance that financial statements are free of material misstatement. This gap can lead to misunderstandings and a perception that audits are less effective than they actually are.

**A is incorrect** because it specifically refers to the limitations of sampling, which is a different concept from the expectations gap. Sampling limitations pertain to the risk that not all errors will be detected due to the nature of examining a sample rather than the entire population.

**B is incorrect** because it pertains to potential conflicts of interest arising from auditors' fee structures, not the expectations gap. Fee structures can influence auditors' independence, but this issue is separate from the public's expectations versus the actual scope and purpose of audits.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10e: describe mechanisms that discipline financial reporting quality and the potential limitations of those mechanisms***

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Q.4925 Which of the following *best* describes a limitation of EBITDA as a performance measure?

- A. It does not account for capital expenditures, which are essential for maintaining and growing operations.
- B. It provides a comprehensive view of a company's financial health by including interest and taxes.
- C. It is less affected by non-recurring items and thus offers a clearer picture of ongoing performance.

The correct answer is **A**.

EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization) does not account for capital expenditures, which can be a significant outflow necessary for maintaining and growing operations. This omission limits EBITDA's effectiveness as a comprehensive performance measure because it does not fully capture the cash requirements of a business.

**B is incorrect** because EBITDA specifically excludes interest and taxes, thus not providing a comprehensive view of a company's financial health regarding these costs.

**C is incorrect** because while EBITDA excludes some non-recurring items, it may not provide a complete picture of ongoing performance. Excluding critical cash outflows like capital expenditures can lead to an overly optimistic view of a company's operating cash flow and financial health.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10f: describe presentation choices, including non-GAAP measures, that could be used to influence an analyst's opinion***

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Q.4926 Which of the following *best* describes how pro forma earnings can potentially mislead investors?

- A. They adjust earnings to exclude non-recurring items, making ongoing performance clearer.
- B. They present a version of earnings that may exclude important expenses, inflating profitability.
- C. They provide a conservative view of the company's financial performance.

The correct answer is **B**.

Pro forma earnings can potentially mislead investors by presenting a version of earnings that may exclude important expenses, thereby inflating profitability. By excluding items such as restructuring charges or impairment losses, companies can create an overly optimistic view of their financial health.

**A is incorrect** because while pro forma earnings aim to exclude non-recurring items, they can still be selective and misleading.

**C is incorrect** because pro forma earnings are typically not conservative; they can be adjusted to present a more favorable picture.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10f: describe presentation choices, including non-GAAP measures, that could be used to influence an analyst's opinion***

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Q.4927 Which of the following is *most likely* a key limitation of relying solely on EBITDA as a measure of a company's financial performance?

- A. It does not provide information about the company's revenue growth.
- B. It excludes interest, taxes, depreciation, and amortization, which are crucial for assessing profitability.
- C. It does not account for changes in working capital, which can impact cash flow.

The correct answer is **C**.

EBITDA does not account for changes in working capital, which can significantly impact cash flow. This limitation means EBITDA may not fully reflect the company's liquidity and cash flow situation, which are crucial for assessing overall financial health.

**A is incorrect** because EBITDA does not exclude revenue information but focuses on operating performance.

**B is incorrect** because the exclusion of interest, taxes, depreciation, and amortization is what defines EBITDA, but it does not address the impact on cash flow.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10f: describe presentation choices, including non-GAAP measures, that could be used to influence an analyst's opinion***

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Q.4928 Which of the following actions would *most likely* result in a higher valuation allowance for deferred-tax assets?

- A. Optimistic projections of future profitability.
- B. Pessimistic projections of future profitability.
- C. Increasing the estimated useful life of depreciable assets.

The correct answer is **B**.

allowance for deferred tax assets because it reduces the likelihood that future profits will be sufficient to utilize the deferred tax assets. This higher allowance reflects the increased uncertainty in realizing the benefit from these assets.

**A is incorrect** because optimistic projections of future profitability would lower the valuation allowance, as the company expects to utilize the deferred tax assets with higher future profits.

**C is incorrect** because increasing the estimated useful life of depreciable assets affects depreciation expense but does not directly impact the valuation allowance for deferred tax assets.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10g: describe accounting methods (choices and estimates) that could be used to manage earnings, cash flow, and balance sheet items***

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Q.4929 Which of the following accounting practices would *most likely* indicate an attempt to manipulate reported earnings through expense recognition?

- A. Recognizing expenses immediately in the period incurred.
- B. Capitalizing expenses and amortizing them over several periods
- C. Misclassifying operating expenses as non-recurring expenses.

The correct answer is **B**.

Capitalizing expenses and amortizing them over several periods can defer current period expenses, making the current period's financial results appear more favorable. This practice can manipulate reported earnings by spreading costs over future periods, thus enhancing current profitability.

**A is incorrect** because recognizing expenses immediately reflects an accurate representation of costs in the period incurred and does not manipulate earnings.

**C is incorrect** because misclassifying operating expenses as non-recurring would typically not enhance reported earnings; it might even reduce them if non-recurring expenses are perceived negatively by analysts and investors.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10h: describe accounting warning signs and methods for detecting manipulation of information in financial reports***

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Q.4930 An analyst notices that a company prominently features its non-GAAP financial measures in earnings reports. What steps should the analyst take to critically evaluate these non-GAAP measures?

- A. Disregard non-GAAP measures entirely and base the analysis only on GAAP measures.
- B. Prioritize non-GAAP measures over GAAP measures, as they are tailored to reflect the company's unique financial situation.
- C. Compare the non-GAAP measures to the most comparable GAAP measures and scrutinize the reconciliation provided by the company.

The correct answer is **C**.

To critically evaluate non-GAAP measures, the analyst should compare them to the most comparable GAAP measures and scrutinize the reconciliation provided by the company. This approach helps to identify the specific adjustments made, assess their reasonableness, and understand their impact on reported earnings.

**A is incorrect** because non-GAAP measures can provide valuable insights when properly reconciled with GAAP measures and should not be disregarded entirely.

**B is incorrect** because prioritizing non-GAAP measures without understanding their adjustments can lead to a distorted view of financial health.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10h: describe accounting warning signs and methods for detecting manipulation of information in financial reports***

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Q.4931 XYZ Manufacturing has reported higher net income for the past two years despite a downturn in the manufacturing sector. An in-depth look at their financial statements shows significant capitalization of expenses related to research and development (R&D) and an increase in deferred costs on the balance sheet. To evaluate if XYZ Manufacturing is using aggressive accounting to defer expenses, which steps should an analyst take?

- A. Examine the company's cash flow statement for signs of unusual patterns.
- B. Analyze the trend in deferred costs relative to revenue growth over the past few years.
- C. Review the company's R&D capitalization policy and compare it with industry standards.

The correct answer is C.

Reviewing XYZ Manufacturing's R&D capitalization policy and comparing it with industry standards can reveal if the company is capitalizing more costs than its peers, potentially inflating earnings. This step is crucial to determine if the capitalization practices are aggressive and not in line with industry norms.

**A is incorrect** because examining the cash flow statement for unusual patterns is useful, but it does not specifically address the issue of R&D capitalization and deferred costs.

**B is incorrect** because while analyzing trends in deferred costs relative to revenue growth is important, it alone might not provide a complete picture of the company's accounting practices.

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10h: describe accounting warning signs and methods for detecting manipulation of information in financial reports**

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Q.4932 A company's net income has consistently exceeded cash flow from operations. Which of the following is the *most likely* explanation? The company:

- A. is efficiently managing its working capital.
- B. is using aggressive accrual accounting policies.
- C. has a strong cash conversion cycle.

The correct answer is **B**.

Consistently having net income exceed cash flow from operations suggests that the company might be using aggressive accrual accounting policies. This discrepancy can indicate that the company is recognizing earnings without corresponding cash flows, potentially through deferring expenses or accelerating revenue recognition. Such practices can create a misleadingly favorable picture of financial performance in the short term.

**A is incorrect** because efficient working capital management would not typically cause a persistent disparity between net income and cash flow from operations; it would more likely improve alignment between the two.

**C is incorrect** because a strong cash conversion cycle indicates efficient management of receivables, inventory, and payables, which should align net income more closely with cash flows, not create a consistent discrepancy.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 10: Financial Reporting Quality, LOS 10h: describe accounting warning signs and methods for detecting manipulation of information in financial reports***

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## **Learning Module 11: Financial Analysis Techniques**

Q.500 An analyst gathered the following information for a small company reporting under IFRS:

Revenue	\$600,000
Cost of sales	(\$120,000)
Average inventory	\$40,000
Average Trade Receivables	\$60,000

Assuming that the number of days in a year is to be assumed as 360, the days of sales outstanding (DSO) is *closest to*:

- A. 3.
- B. 10
- C. 36.

The correct answer is **C**.

DSO is given by:

$$\text{Days of Sales Outstanding} = \frac{\text{Number of days in a period}}{\text{Receivable Turnover}}$$

Where,

$$\begin{aligned}\text{Receivables Turnover} &= \frac{\text{Revenue}}{\text{Average receivables}} \\ &= \frac{600,000}{60,000} = 10 \\ &= \text{DSO} = \frac{360}{10} = 36 \text{ days}\end{aligned}$$

**A is incorrect.** It represents the inventory turnover ratio.

**B is incorrect.** It represents the receivable turnover ratio.

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.**

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Q.501 Which of the following is *least likely* a possible root cause for a reduction in the inventory turnover ratio?

- A. Change in fashion.
- B. Obsolescence of technology.
- C. Increase in the number of distributors

The correct answer is **C**.

An increase in the number of distributors is least likely to be a direct cause of a reduction in the inventory turnover ratio. 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. An increase in the number of distributors typically aims to expand the market reach and improve the sales volume, which, in theory, should lead to a higher or maintained inventory turnover ratio if the additional distribution channels are effective.

**A is incorrect.** A change in fashion can significantly impact the inventory turnover ratio, especially in industries sensitive to trends, such as apparel and accessories. When products fall out of fashion, their demand decreases, leading to slower sales and an accumulation of inventory. This situation directly contributes to a reduction in the inventory turnover ratio, as the company takes longer to sell its inventory, indicating inefficiency in managing inventory levels relative to sales.

**B is incorrect.** The obsolescence of technology is another factor that can lead to a reduction in the inventory turnover ratio. In industries where technological advancements are rapid, such as electronics, products can quickly become outdated. As newer, more advanced products enter the market, the older inventory's demand diminishes, leading to slower sales and an increase in unsold stock. This accumulation of obsolete products directly decreases the inventory turnover ratio, reflecting a mismatch between inventory levels and market demand.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.***

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Q.502 For a hypothetical company, the working capital turnover and fixed asset turnover ratios are 4 and 6, respectively. Moreover, the revenue for the company is estimated at \$120,000. The average working capital for the company is *closest to*:

A. \$20,000

B. \$30,000

C. \$45,000

The correct answer is **B**.

The working capital turnover is defined as:

$$\text{Working capital turnover} = \frac{\text{Revenue}}{\text{Average working capital}}$$

In this case, we have,

$$4 = \frac{120,000}{\text{Average Working capital}}$$
$$\Rightarrow \text{Average working capital} = \frac{120,000}{4} = \$30,000$$

**A is incorrect.** It represents the average net fixed assets, calculated using the fixed asset turnover ratio.

**C is incorrect.** It represents the sum of the average working capital and the average net fixed assets.

---

Q.504 Which of the following is the *most accurate* description of the defensive interval ratio?

- A. The defensive interval ratio measures the duration for which the daily cash requirements can be met from the current liabilities.
- B. The defensive interval ratio measures the duration for which the daily cash requirements of a period can be met from the existing liquid assets.
- C. The defensive interval ratio measures the duration for which the daily cash requirements of a period can be met from the expected liquid assets at the end of the period.

The correct answer is **B**.

The defensive interval ratio is a financial metric that measures the number of days a company can continue to operate using only its existing liquid assets without needing to secure additional financing or convert long-term assets into cash. This ratio is crucial for assessing a company's short-term financial resilience, particularly in times of financial uncertainty or when access to external funding may be restricted. It provides insight into the company's ability to meet its immediate cash needs through readily available resources.

**A and C are incorrect.** The defensive interval ratio considers the 'existing' liquid assets and not the current liabilities and 'expected' liquid assets at the end of the period.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.***

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Q.506 Calculate the leverage from the following data.

Return on equity	5.4%
Net profit margin	3.5%
Total asset turnover	1.1

A. 1.19

B. 1.40

C. 1.54

The correct answer is **B**.

$$\begin{aligned}\text{ROE} &= \text{Net profit margin} \times \text{Total asset turnover} \times \text{Leverage} \\ \text{Leverage} &= \frac{\text{Return on equity}}{(\text{Net profit margin} \times \text{Total asset turnover})} \\ &= \frac{5.4\%}{(3.5\% \times 1.1)} \\ &= 1.40\end{aligned}$$

**A is incorrect.** It sums return on equity, net profit margin, and total asset turnover.

**C is incorrect.** It represents the ratio of return to equity to net profit margin.

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11d: demonstrate the application of DuPont analysis of return on equity and calculate and interpret effects of changes in its components.**

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Q.507 Revenue per employee is an acceptable ratio for analysis in which of the following industries?

- A. The service industry.
- B. The banking industry.
- C. The manufacturing industry.

The correct answer is **A**.

Revenue per employee is a particularly relevant metric for analysis in the service industry. This is because, in service-oriented businesses, the primary assets are the employees themselves, whose skills and services generate the company's revenue. Unlike industries that rely heavily on physical assets or capital expenditures, such as manufacturing or utilities, the service industry's performance and efficiency are closely tied to the productivity and effectiveness of its workforce.

**B is incorrect.** Suggesting that the banking industry is the most appropriate for analyzing revenue per employee overlooks the fact that banks' revenue generation is significantly influenced by their financial leverage, investment strategies, and interest rate spreads, rather than solely by employee productivity.

**C is incorrect.** The manufacturing industry, characterized by its heavy reliance on physical assets, machinery, and production facilities, does not prioritize revenue per employee as a primary metric for analysis. In manufacturing, the efficiency and productivity of the production process, capital expenditure, and asset utilization rates are more relevant indicators of financial performance.

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11e: describe the uses of industry-specific ratios used in financial analysis.**

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Q.1029 Return on capital will *most likely* be higher in which of the following cases?

- A. If the firm has 50% of the market share and another firm has the other 50%.
- B. If the firm has a 10% market share and all other firms have less than 5% of the market share.
- C. Return on capital is not affected by market shares.

The correct answer is **B**.

Return on capital (ROC) is a measure of how effectively a company uses its capital to generate profits. It is a crucial metric for investors and analysts as it provides insight into a company's efficiency in turning capital into profits. A higher ROC indicates a more efficient use of capital. In the context of market share, the relationship between ROC and market share can be nuanced. However, a firm that dominates its market or has a significant competitive advantage often enjoys higher returns on capital due to economies of scale, stronger bargaining power, and potentially higher pricing power.

**A is incorrect.** Having a 50% market share while another firm holds the other 50% suggests a duopoly situation. While a 50% market share is substantial, the presence of another equally strong competitor could lead to competitive pressures that might erode margins and, consequently, returns on capital. In such scenarios, both firms might engage in price wars or increased marketing expenses to gain an edge over the other, potentially reducing the efficiency with which capital is turned into profits.

**C is incorrect.** While it's true that return on capital is primarily determined by how efficiently a company uses its capital to generate profits, market share can have an indirect impact on this efficiency. A significant market share, especially when compared to competitors, can provide a company with competitive advantages that enhance its ability to generate higher returns on capital. These advantages include, but are not limited to, economies of scale, stronger bargaining power, and enhanced pricing power. Therefore, stating that return on capital is not affected by market shares overlooks the potential indirect effects that market dominance can have on a company's operational efficiency and profitability.

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.***

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Q.2097 Which of the following is *least likely* a limitation of ratios?

- A. Ratios evaluate changes in firms and industries over time.
- B. Ratios are only useful when compared to other firms or to the company's historical performance.
- C. The comparison of ratios with other firms is difficult due to accounting standards differences.

The correct answer is **A**.

Option A is not a limitation but a benefit of the ratio analysis.

**B and C are incorrect.** They are limitations of ratios.

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Q.2099 Which of the following statements is *least likely* true regarding the common-size analysis of financial statements?

- A. A horizontal common-size income statement calculates all line items as a percentage of the base year's total assets.
- B. A vertical common-size balance sheet presents each balance sheet item by the same period's total assets total assets.
- C. A vertical common-size income statement presents each income statement item as a percentage of revenue or by total assets.

The correct answer is **A**.

In a horizontal common-size income statement, each line item is expressed as a percentage of the corresponding figure in the base year, not as a percentage of the base year's total assets. The comparison is typically year-over-year for each specific line item (like revenue, expenses, etc.), not relative to the total assets.

**B is incorrect.** In a vertical common-size balance sheet, each line item is expressed as a percentage of total assets for the same period. This method allows for an analysis of the structure of the balance sheet by showing the proportion of each item relative to the total assets.

**C is incorrect.** A vertical common-size income statement does indeed express each item as a percentage of revenue (total sales) or by total assets.

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b**  
**LOS a: describe tools and techniques used in financial analysis, including their uses and limitations.**

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Q.2100 Which of the following is *least likely* use of the graphical analysis of financial data?

- A. Analyze the trend in data.
- B. Compare data across firms and time.
- C. Identify the relationship between two variables.

The correct answer is **C**.

While graphical analysis can provide some insights into the relationship between two variables, it is not primarily used for identifying and quantifying these relationships. Statistical methods like correlation and regression analysis are more suitable for this purpose.

**A is incorrect.** Trend analysis is a fundamental aspect of graphical analysis in finance, essential for visualizing how financial parameters have changed over time and providing insights into the company's historical performance.

**B is incorrect.** Comparing financial data across firms and over different time periods is a key application of graphical analysis in finance, essential for benchmarking and understanding a firm's position relative to its peers or its own historical performance."

***CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11bLOS a: describe tools and techniques used in financial analysis, including their uses and limitations.***

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Q.2101 An analyst analyzing a firm's ability to meet its long-term debt obligation is *most likely* to use which of the following financial ratio?

- A. Debt-to-assets ratio.
- B. Defensive interval ratio.
- C. Working capital turnover ratio.

The correct answer is **A**.

The debt-to-assets ratio is a crucial financial metric for analyzing a firm's ability to meet its long-term debt obligations. This ratio measures the proportion of a company's assets that are financed through debt, providing insights into the firm's solvency. A lower debt-to-assets ratio indicates a healthier balance sheet, as it suggests that a larger portion of the company's assets are financed through equity rather than debt. Conversely, a higher ratio may signal potential solvency issues, as it implies a greater reliance on debt financing.

**B is incorrect.** The defensive interval ratio measures a company's liquidity by estimating the number of days the firm can operate using its current liquid assets without needing additional financing. While this ratio provides valuable insights into the company's short-term financial health, it does not directly address the firm's ability to meet long-term debt obligations.

**C is incorrect.** The working capital turnover ratio assesses the efficiency with which a firm utilizes its working capital to generate sales. It is calculated by dividing the firm's annual sales by its average working capital. Although this ratio offers insights into the operational efficiency and short-term financial health of a company, it does not directly evaluate the firm's capacity to meet long-term debt obligations.

**CFA Level I, Volume 2, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b** *LOS b: calculate and interpret activity, liquidity, solvency, and profitability ratios.*

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Q.2102 Galactic Hyper is a chain of hypermarkets that sells most of its products for cash, which is why its days of sales outstanding are as low as 22 days. Assuming that the firm's average receivables are \$234,000, and the cost of goods sold (COGS) for the one year is \$1,245,000, the annual sales of Galactic are *closest to*:

A. \$1,410,400.

B. \$3,882,000.

C. \$4,880,200.

The correct answer is **B**.

Since

$$\text{Days sales outstanding} = \frac{365}{\text{Receivables Turnover}} = \frac{365}{\frac{(\text{Annual sales})}{(\text{Average accounts receivable})}}$$

We can rearrange the formula as:

$$\text{Annual sales} = \left[ \left( \frac{365}{\text{Days sales outstanding}} \right) \times \text{Average accounts receivable} \right] = \frac{365}{22} \times \$234,000 = \$3,882,000$$

***CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.***

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Q.2103 If the Cost of goods sold (COGS) decreases, what is the *most likely* effect on days of inventory on hand?

- A. Days of inventory on hand ratio will decrease.
- B. Days of inventory on hand ratio will increase.
- C. Days of inventory on hand ratio will remain unchanged.

The correct answer is **B**.

Recall that:

$$\text{Days of Inventory on hand ratio} = \left( \frac{365}{\text{Inventory turnover}} \right)$$

OR

$$\text{DOH} = \frac{365}{\frac{\text{COGS}}{\text{Average Inventory}}}$$

If the numerator of the inventory turnover (i.e. COGS) decreases, it will increase the Days of Inventory on hand ratio.

**A and C are incorrect.** They contradict option B.

***CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.***

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Q.2104 The working capital turnover ratio of a hypothetical firm is 12.5. Which of the following is the *most likely* impact on the ratio if the firm utilized its cash to purchase inventory?

- A. The working capital turnover ratio will increase.
- B. The working capital turnover ratio will decrease.
- C. The working capital turnover ratio will remain unchanged.

The correct answer is **C**.

Recall that,

$$\text{Working capital turnover ratio} = \frac{\text{Revenue}}{\text{Average working capital}}$$

Since cash and inventory are both current assets, a decrease in cash and an increase in inventory will offset the working capital. Therefore, the working capital turnover ratio will remain unchanged.

**A and B are incorrect.** They contradict option C.

***CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.***

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Q.2105 A firm's number of days of payables is 69 days compared to an industry average of 45 days. Which of the following is the *most appropriate* interpretation of this discrepancy?

- A. The firm might be taking too long to pay its payables.
- B. The firm's customers might be taking too long to pay the firm.
- C. The firm's payable turnover ratio is greater than the industry's payable turnover ratio.

The correct answer is **A**.

The number of days of payables is a financial metric that measures the average time (in days) a firm takes to pay its suppliers. A firm's number of days of payables of 69 days, when compared to an industry average of 45 days, suggests that the firm is taking significantly longer than its industry peers to settle its obligations to suppliers. This discrepancy can have several implications, including potential cash flow management strategies, negotiating terms that are more favorable with suppliers, or possible financial distress that is causing delays in payment.

**B is incorrect.** The number of days of payables calculates the payables of the firm, not its customers.

**C is incorrect.** A more significant number of days of payables indicates that the firm's payable turnover ratio is lower than that of the industry.

**CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.**

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Q.2107 Firm A and Firm B are two firms located in the same geographical location and serving the same geographical markets. Assuming that Firm A's Asset Turnover ratio is 1.2 while the Asset Turnover ratio of Firm B is 2.5, which of the following is an appropriate interpretation of the ratios?

- A. Firm A is more capital-intensive than Firm B.
- B. Firm A uses its assets more efficiently as compared to firm B.
- C. Firm B has a greater portion of its capital invested in assets than Firm A.

The correct answer is **A**.

The Asset Turnover ratio is a financial metric that measures the efficiency of a company's use of its assets in generating sales revenue. It is calculated by dividing sales revenue by total assets. A higher Asset Turnover ratio indicates that a company is using its assets more efficiently to generate sales. In the context of Firm A and Firm B, the Asset Turnover ratios are 1.2 and 2.5, respectively. This means that for every dollar of assets, Firm A generates \$1.2 in sales, while Firm B generates \$2.5 in sales.

**B is incorrect.** Efficiency in using assets to generate revenue is directly proportional to the Asset Turnover ratio. Since Firm B has a higher Asset Turnover ratio (2.5) compared to Firm A (1.2), it indicates that Firm B is more efficient in using its assets to generate sales.

**C is incorrect.** However, the Asset Turnover ratio indicates the efficiency of using assets to generate sales, not the proportion of capital invested in assets. A higher Asset Turnover ratio, as seen with Firm B, signifies greater efficiency in generating sales from its assets, not necessarily a higher investment in assets. In fact, a lower Asset Turnover ratio, as seen with Firm A, often implies a higher investment in assets relative to sales, which is characteristic of capital-intensive companies.

***CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.***

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Q.2109 Layout Works is a printing press, which takes an average of 25 days to pay its payables, and it takes an average of 10 days for its customers to pay Layout. Given that the average cash conversion cycle of the printing industry is 110 days, the firm's estimated days of inventory on hand is *closest to*:

- A. 75 days.
- B. 95 days.
- C. 125 days.

The correct answer is **C**.

$$\begin{aligned}\text{Cash Conversion Cycle} &= \text{Days of sales outstanding} + \text{Days of inventory on hand} \\ &\quad - \text{Number of days of payables} \\ 110 &= 10 + \text{Days on inventory in hand} - 25 \\ \Rightarrow \text{Days of inventory in hand} &= 110 - 10 + 25 = 125\end{aligned}$$

**A is incorrect.** It subtracts the number of days of payables. So that:

$$\text{Days of inventory in hand} = 110 - 10 - 25 = 75$$

**B is incorrect.** It subtracts the number of days of payables and adds days of sales outstanding so that;

$$\text{Days of inventory in hand} = 110 + 10 - 25 = 95$$

**CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.**

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Q.2110 Which of the following ratios can an analyst *most likely* use to measure the number of days of average cash expenses a firm can pay with its liquid assets?

- A. Cash ratio.
- B. Defensive interval ratio.
- C. Working capital turnover ratio.

The correct answer is **B**.

The defensive interval ratio is a liquidity ratio that measures the number of days a firm can cover its average daily cash expenses using its most liquid assets. This ratio is particularly useful for assessing a company's short-term financial resilience. It is calculated by dividing the sum of a company's cash, marketable securities, and receivables by its average daily expenditures. This provides a clear picture of how many days the company can operate without needing to secure additional financing or convert other assets into cash. The formula for the defensive interval ratio is as follows:

$$\text{Defensive interval ratio} = \frac{(\text{Cash} + \text{Marketable securities} + \text{Receivables})}{\text{Daily Cash Expenditures}}$$

This ratio is crucial for financial analysts and investors as it provides insight into the company's liquidity position and its ability to withstand short-term financial difficulties.

**A is incorrect.** The cash ratio, while a measure of liquidity, does not specifically address the company's ability to cover its daily cash expenses over a period. It is calculated by dividing a company's cash and cash equivalents by its current liabilities. This ratio provides a snapshot of the company's ability to pay off its short-term liabilities with its most liquid assets but does not consider the operational aspect of covering daily expenses.

**C is incorrect.** The working capital turnover ratio is an activity ratio that measures how efficiently a company uses its working capital to generate sales. It is calculated by dividing the company's net annual sales by its average working capital. While this ratio provides insights into the company's operational efficiency and how effectively it is using its working capital to drive revenue, it does not offer information on the company's ability to meet its daily cash expenses with its liquid assets. The working capital turnover ratio is more focused on the revenue-generating aspects of the company's operations rather than its liquidity or ability to cover short-term expenses.

**CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.**

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Q.2111 Turks & Co. is a glass-manufacturing firm whose income statement is being analyzed by an analyst at a local credit rating firm. Some relevant accounts for the year 2016 have been

given in the following table:

Income Statement

Sales	15,000
COGS	6,500
Gross Profit	8,500
Depreciation	800
SG&A	550
Lease Payments	350
EBIT	6,800
Interest Payment	250
EBT	6,550
Taxes	1,965
EAT	4,585

Using the given data, the fixed charge coverage ratio of the firm is *closest to*:

- A. 11.92
- B. 20.42
- C. 28.60

The correct answer is **A**.

The fixed charge coverage ratio is a solvency ratio that measures the firm's ability to meet its interests and leases obligations. (Note: It is a good measure for a firm that leases its assets i.e. shipping and airline companies.)

$$\text{Fixed charge coverage ratio} = \frac{(\text{EBIT} + \text{Fixed charges before tax})}{(\text{Interest payments} + \text{Fixed charges before tax})}$$

In this case, the fixed charges before tax are lease payments.

$$\text{Fixed charge coverage ratio} = \frac{(6,800 + 350)}{(350 + 250)} = 11.92$$

**B is incorrect.** Considers the fixed charges before tax in the numerator and not in the denominator so that:

$$\text{Fixed charge coverage ratio} = \frac{(6,800 + 350)}{(350)} = 20.42$$

**C is incorrect.** It does not consider interest payments.

**CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.**

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Q.2113 Turks & Co. is a glass-manufacturing firm whose income statement is being analyzed by a CFA member at a local credit rating firm. Using the data given in the following table, calculate the operating profit margin.

Income Statement

Sales	15,000
COGS	6,500
Gross Profit	8,500
Depreciation	800
SG&A	550
Lease Payments	350
EBIT	6,800
Interest Payment	250
EBT	6,550
Taxes	1,965
EAT	4,585

A. 43.67%

B. 45.33%

C. 56.67%

The correct answer is **B**.

$$\begin{aligned}\text{Operating profit margin} &= \frac{\text{Operating Profit}}{\text{Revenue}} = \frac{\text{EBIT}}{\text{Revenue}} \\ &= \frac{6,800}{15,000} \\ &= 45.33\%\end{aligned}$$

**A is incorrect.** Uses EBT instead of EBIT.

**C is incorrect.** It represents the gross profit margin.

**CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.**

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Q.2115 Company X, Y & Z are market leaders in the air cargo industry. Some ratios of the three companies are given in the following table:

	Company X	Company Y	Company Z
Return on Assets	55%	34%	17%
Profit Margin	35.00%	28.00%	11.30%
Quick Ratio	0.7	2.8	1.1
Financial Leverage	3.7	5.7	11.37

Assuming all three firms are identical in terms of size and revenue, the company that uses the greatest portion of debt in its capital structure is *closest to*:

- A. Company X.
- B. Company Y.
- C. Company Z.

The correct answer is **C**.

The financial leverage ratio is a critical metric for understanding a company's reliance on debt in its capital structure. It essentially measures the extent to which a company is financing its operations through debt as opposed to equity. A higher financial leverage ratio indicates a greater use of debt in the company's capital structure. In the context of Company X, Y, and Z, the financial leverage ratios provided are 3.7, 5.7, and 11.37, respectively. Given these figures, it is clear that Company Z has the highest financial leverage ratio at 11.37. This indicates that Company Z uses the greatest portion of debt in its capital structure compared to Companies X and Y. The use of debt financing can have several implications for a company, including potential for higher returns on equity due to the leverage effect but also increased risk due to the obligation to service the debt regardless of business performance.

**A is incorrect.** Company X has a financial leverage ratio of 3.7, which is the lowest among the three companies. This indicates that Company X uses the least amount of debt in its capital structure relative to its equity. A lower financial leverage ratio suggests a more conservative financing approach, with less reliance on debt and potentially lower financial risk. However, it also means that Company X may not be taking full advantage of the leverage effect to amplify returns on equity.

**B is incorrect.** Company Y, with a financial leverage ratio of 5.7, falls in the middle of the range among the three companies. While it uses more debt in its capital structure than Company X, it still does not use as much debt as Company Z. The financial leverage ratio of 5.7 indicates a moderate level of debt usage, which suggests a balance between the potential benefits of leverage and the risks associated with increased debt. This level of financial leverage reflects a strategic choice by Company Y to employ a certain degree of debt financing while managing its risk exposure.

**CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.**

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Q.2117 Which of the following transactions will *most likely* increase the financial leverage ratio by the largest amount?

- A. Purchase of Land through debt financing.
- B. Purchase of Plants by issuing new equity.
- C. Purchase of Inventory using cash equivalents.

The correct answer is **A**.

The purchase of assets through debt financing will increase assets and debt. Thus, it will also increase the numerator of the financial leverage ratio ( $\frac{\text{Avg. Total Assets}}{\text{Avg. Total Equity}}$ ).

**B is incorrect.** The purchase of assets with equity will increase assets and equity by the same amount, decreasing the financial leverage ratio.

**C is incorrect** The purchase of assets with cash equivalents will have a small effect on the leverage ratio as cash and asset will offset each other.

**CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.**

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Q.2118 A highly leveraged company has sales of \$1.5 million, a gross profit margin of 40%, and an average inventory of \$250,000 for the year 2015. The firm's inventory turnover ratio for the year 2015 is *closest to*:

A. 2.4

B. 3.6

C. 6.0

The correct answer is **B**.

$$\begin{aligned}\text{Inventory turnover} &= \frac{\text{Cost of goods sold (COGS)}}{\text{Average inventory}} \\ \text{Gross profit margin} &= \frac{(\text{Sales} - \text{COGS})}{\text{Sales}} \\ \text{COGS} &= \text{Sales} - (\text{Profit margin} \times \text{Sales}) \\ &= \$1.5 \text{ million} - (40\% \times \$1.5 \text{ million}) \\ &= \$0.9 \text{ million} \\ &= \$900,000 \\ \text{Inventory turnover} &= \frac{\$900,000}{\$250,000} = 3.6\end{aligned}$$

**A is incorrect.** It uses the value of the profit margin.

$$\text{Inventory turnover} = \frac{(40\% \times \$1.5 \text{ million})}{\$250,000} = 2.4$$

**C is incorrect.** It uses sales instead of COGS.

$$\text{Inventory turnover} = \frac{\$1,500,000}{\$250,000} = 6$$

**CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.**

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Q.2119 If a company's debt-to-equity ratio is 2.5, which of the following transactions will *least likely* increase the debt-to-equity ratio?

- A. The issuance of bonds to reacquire shares.
- B. The payment of dividends to common shareholders.
- C. The purchase of assets with 50% debt and 50% equity.

The correct answer is **C**.

Since the Debt-to-equity ratio is 2.5, an even increase in numerator and denominator will decrease the debt/equity ratio. For example,  $\frac{2.5}{1} = 2.5$  could then be  $\frac{(2.5+0.2)}{(1+0.2)} = 2.25$ .

**A and B are incorrect.** They will decrease equity and, therefore, increase the debt-to-equity ratio.

**CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.**

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Q.2120 If a firm's current ratio increased from 1.1 to 1.7 due to an increase in inventory, what is the *most likely* impact on the asset turnover ratio?

- A. The asset turnover ratio will increase.
- B. The asset turnover ratio will decrease.
- C. The asset turnover ratio will remain unchanged.

The correct answer is **B**.

An increase in the current ratio indicates an increase in current assets and total assets. Since the value of total assets will increase, the asset turnover ratio (Revenue/Avg. total assets) will decrease. Revenue will be unaffected by the increase in the current ratio.

**A and C are incorrect.** They contradict option B.

**CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.**

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Q.2121 What is the *most likely* impact on a firm's return on equity ratio if the corporate tax rate increases from 25% to 27%?

- A. The Return on equity ratio will increase.
- B. The Return on equity ratio will decrease.
- C. The Return on equity ratio will remain unchanged.

The correct answer is **B**.

The increase in the corporate tax rate from 25% to 27% will most likely lead to a decrease in the firm's return on equity (ROE) ratio. The ROE ratio is a measure of financial performance calculated by dividing net income by shareholders' equity. Essentially, it indicates how efficiently a company is at generating profits from every unit of shareholders' equity. The formula for calculating ROE is given by:

$$\text{ROE} = \frac{\text{Net Income}}{\text{Average Shareholders' Equity}}$$

When the corporate tax rate increases, the amount of tax a company owes on its profits also increases. This results in a decrease in the company's net income, assuming all other factors remain constant. Since net income is the numerator in the ROE formula, a decrease in net income due to higher taxes will lead to a decrease in the ROE ratio.

**A and C are incorrect.** They contradict option B.

***CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.***

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Q.2122 An analyst analyzes the last three years' balance sheets of Cosmo Inc. given in the following table.

Balance Sheet

	2017	2016	2015
Acc. Rec.	300	210	150
Inventory	500	540	450
Total Current Assets	800	750	600
Land	1,800	1,450	1,200
Total Assets	2,600	2,200	1,800
Acc. Payables	400	330	500
Long-term Debt	1,300	770	400
Common Equity	900	1,100	900
Total Liab. & Equity	2,600	2,200	1,800

The value of short-term liabilities for the most recent year if an analyst converts the balance sheet into a vertical common-size balance sheet is *closest to*:

- A. 10.54%
- B. 15.38%
- C. 50%

The correct answer is **B**.

In a vertical common-size balance sheet, each line item is expressed as a percentage of total assets, allowing for easier comparison across different periods or companies by standardizing the figures. For Cosmo Inc., the short-term liabilities consist solely of Accounts Payable. To find the percentage of short-term liabilities relative to total assets for the most recent year, we calculate the ratio of Accounts Payable to Total Assets for 2017:

$$\frac{\text{Accounts Payable}}{\text{Total Assets}} = \frac{400}{2,600} = 15.38\%$$

This calculation shows that Accounts Payable, which represents the company's short-term liabilities, constitutes 15.38% of the total assets in 2017.

***CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.***

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Q.2124 An analyst is trying to analyze the trend in the capital structure of Cosmo Inc.

Balance Sheet

	2017	2016	2015
Acc. Rec.	300	210	150
Inventory	500	540	450
Total Current Assets	800	750	600
Land	1,800	1,450	1,200
Total Assets	2,600	2,200	1,800
Acc. Payables	400	330	500
Long-term Debt	1,300	770	400
Common Equity	900	1,100	900
Total Liab. & Equity	2,600	2,200	1,800

If Cosmo Inc. had no short-term debt, the trend using the debt-to-equity ratio is *most likely*:

- A. Cosmo Inc. has a decreasing trend in its use of debt financing.
- B. Cosmo Inc. has an increasing trend in its use of debt financing.
- C. Cosmo Inc. has an increasing trend in its use of equity financing.

The correct answer is **B**.

$$\begin{aligned}\text{Debt-to-equity ratio of year 2017} &= \frac{1,300}{900} = 1.44 \\ \text{Debt-to-equity ratio of year 2016} &= \frac{770}{1,100} = 0.7 \\ \text{Debt-to-equity ratio of year 2015} &= \frac{400}{900} = 0.44\end{aligned}$$

Hence, Cosmo is increasingly using Debt financing to repurchase Equity. Please note that that debt in the D/E ratio represents the total debt on Cosmo's balance sheet (this would include both long-term and short-term interest-bearing liabilities).

**A and C are incorrect.** They contradict option A, given the computation above.

***CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.***

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Q.2125 Which of the following is the *most appropriate* equation for calculating the return on equity ratio?

- A. Return on Equity = Net Profit Margin × Asset Turnover × Financial Leverage.
- B. Return on Equity = Net Profit Margin × Equity Turnover × Financial Leverage.
- C. Return on Equity = Gross Profit Margin × Return on Assets × Financial Leverage.

The correct answer is **A**.

The Return on equity ratio (Net income / Avg. Total equity) can also be calculated using the DuPont approach:

Return on equity ratio = Net Profit Margin × Asset Turnover × Financial Leverage  
OR

$$\left[ \left( \frac{\text{Net Income}}{\text{Sales}} \right) \left( \frac{\text{Sales}}{\text{Avg. Total Assets}} \right) \left( \frac{\text{Avg. Total Assets}}{\text{Avg. Total Equity}} \right) \right]$$

**B is incorrect.** It has included equity turnover.

**C is incorrect.** It includes the Gross Profit margin and returns on assets.

***CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11d: demonstrate the application of DuPont analysis of return on equity and calculate and interpret effects of changes in its components***

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Q.2126 A research analyst at Shark Investment Management is conducting a DuPont analysis for a firm whose financial data for the year 2016 is provided in the following table:

Financial Data

Revenue	1,450,000
COGS	550,000
Gross Profit	900,000
SG&A	160,000
Wages Exp.	140,000
EBITDA	600,000
Dep. Exp.	220,000
Operating Profit	380,000
Interest Payment	170,000
EBT	210,000
Taxes	63,000
EBT	210,000
Taxes	63,000
Net Income	147,000
Total Assets	3,400,000
Total Debt	1,500,000

Considering that the data provided is accurate, the firm's tax burden is *closest to*:

- A. 0.25
- B. 0.30
- C. 0.70

The correct answer is **C**.

$$\begin{aligned}
 \text{Tax Burden} &= \frac{\text{Net Income}}{\text{EBT}} \\
 &= \frac{\$147,000}{\$210,000} \\
 &= 0.7
 \end{aligned}$$

**A is incorrect.** It uses EBITDA in the denominator instead of EBT.

**B is incorrect.** Uses operating profit in the denominator instead of EBIT.

**CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.**

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Q.2128 A research analyst at Shark Investment Management is conducting a DuPont analysis for a firm whose financial data is provided in the following table:

### Financial Data

Revenue	1,450,000
COGS	550,000
Gross Profit	900,000
SG&A	160,000
Wages Exp.	140,000
EBITDA	600,000
Dep. Exp.	220,000
Operating Profit	380,000
Interest Payment	170,000
EBT	210,000
Taxes	63,000
EBT	210,000
Taxes	63,000
Net Income	147,000
Total Assets	3,400,000
Total Debt	1,500,000

Considering that the data provided is accurate, the firm's return on equity using the extended DuPont ratio is *closest to*:

- A. 7.7%
- B. 10%
- C. 43%

The correct answer is **A**.

The extended DuPont approach has 5 components: Tax burden (N.I./ EBT), Interest Burden (EBT/EBIT), EBIT Margin (EBIT/Revenue), Asset Turnover (Revenue/ Avg. Total Assets) & Financial Leverage (Avg. Total Assets/Avg. Total Equity).

Return on Equity = 0.077 or 7.7% (Using the following table)

Tax Burden	0.70
Interest Burden	0.55
EBIT Margin	0.26
Asset Turnover	0.43
Financial Leverage	1.79
Return on Equity	0.077

**B is incorrect.** It excludes asset turnover and financial leverage.

**C is incorrect.** It represents the asset turnover ratio.

***CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11d: demonstrate the application of DuPont analysis of return on equity and calculate and interpret effects of changes in its components.***

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Q.2129 Armen Inc. and Bristol Corp. are market leaders in the construction industry. Some financial information regarding the two firms is given in the following table:

	Armen Inc.	Bristol Corp.
Revenue	6,000,000	8,000,000
Gross Profit	3,400,000	5,500,000
EBIT	2,100,000	2,700,000
Net Income	1,500,000	1,800,000
Total Debt	6,400,000	7,200,000
Dividend per Share	1	2
Share Price	25	22
Number of Shares Outstanding	500,000	600,000

Assuming that each firm's market capitalization is approximately equal to the firm's total equity, Armen Inc.'s return on equity ratio is *closest to*:

- A. 12%.
- B. 25%.
- C. 56%.

The correct answer is **A**.

To calculate the return on equity ratio, it is important to determine the value of total equity. In this case:

$$\begin{aligned}
 \text{Total equity} &= \text{Share price} \times \text{No. of Shares outstanding} \\
 &= \$25 \times 500,000 \\
 &= \$12.5 \text{ million} \\
 \text{Return on equity} &= \frac{\text{Net income}}{\text{Total equity}} \\
 &= \frac{\$1.5 \text{ million}}{\$12.5 \text{ million}} \\
 &= 0.12
 \end{aligned}$$

**B is incorrect.** It represents the net profit margin.

**C is incorrect.** It represents the gross profit margin.

**CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.**

Q.2135 Which of the following analysis methods examines the variability in financial outcome based on a change in one specific variable?

- A. Scenario analysis.
- B. Sensitivity analysis.
- C. Simulation analysis.

The correct answer is **B**.

Sensitivity analysis is a tool used to predict the outcome of a decision given a certain range of variables. By changing one specific variable while keeping others constant, analysts can determine how changes in that variable affect the outcome. This method is particularly useful in financial modeling to assess risk and understand the impact of different variables on a project's or investment's financial viability. Sensitivity analysis provides a clear picture of which variables are most influential on the outcome, allowing decision-makers to focus on managing those key variables.

**A is incorrect.** Scenario analysis differs from sensitivity analysis in that it considers the impact of changing multiple variables at once to assess the outcomes under different scenarios. It is a more comprehensive approach that looks at the possible outcomes of a decision under a set of assumptions, reflecting different future conditions.

**C is incorrect.** Simulation analysis is a technique that uses probability distributions to model and analyze the behavior of a system or process. Unlike sensitivity analysis, which examines the effect of changing one variable at a time, simulation analysis allows for the simultaneous variation of many variables to understand their overall impact on the outcome.

***CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11f: describe how ratio analysis and other techniques can be used to model and forecast earnings***

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Q.2136 A company earned a net income of \$500,000 with sales of \$2,500,000 for the year 2016. If the asset turnover ratio of the firm is 0.4, and the financial leverage is 1.3, then the return on equity of the firm is *closest to*:

- A. 8.0%
- B. 10.4%
- C. 20.0%

The correct answer is **B**.

This method provides a more detailed understanding of the factors contributing to a firm's ROE. In this case, the company's net income, sales, and asset turnover ratio are given, along with its financial leverage. The calculation proceeds as follows:

The profit margin is calculated by dividing the net income by sales, which gives us:

$$\text{Profit margin} = \frac{\$500,000}{\$2,500,000} = 20\%$$

Given the asset turnover ratio of 0.4 and financial leverage of 1.3, we can calculate the ROE using the DuPont formula:

$$\text{ROE} = (\text{Profit Margin}) \times (\text{Asset Turnover}) \times (\text{Financial Leverage}) = 0.20 \times 0.4 \times 1.3 = 10.4\%$$

**A is incorrect.** It excludes financial leverage in calculating the return on equity.

**C is incorrect.** It represents the profit margin.

**CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11d: demonstrate the application of DuPont analysis of return on equity and calculate and interpret effects of changes in its components**

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Q.2394 An analyst at a German research firm analyzes the reports of a home appliances firm, Arab Appliances, for his emerging markets income fund. Some of the information from his analysis is given in the following table and notes:

Note	Income Statement	2015	2016
1	Revenue	\$3,000,000	\$3,000,000
2	COGS	\$1,900,000	\$2,500,000
	Gross Profit	\$1,100,000	\$500,000
3	Research Cost	-	\$120,000
	Depreciation Exp.	\$90,000	\$90,000
	EBIT	\$1,010,000	\$290,000
4	Interest	\$150,000	-
	Net Income	\$860,000	\$290,000

Note 1 - Arab Oven consistently sold 20,000 units of Smart Oven at the price of \$150, in 2015 and 2016, because the country has hypothetically zero inflation which means there was no increase or decrease in input prices.

Note 2 - Arab Oven's supplier is a private company that is owned by the management of the Arab Oven. Arab only uses the FIFO inventory method.

Note 3 - Arab Oven is continuously engaged in the research for innovations in smart appliances. The firm capitalized on the research cost in 2015 but decided to expense it in 2016. This capitalization increased the depreciation cost which was \$80,000 originally.

Note 4 - The firm expensed the interest cost in 2015 but resolved to capitalize the interest on the funds used for the construction of new technology. The capitalization of interest increased the depreciation for the year which was \$80,000 originally.

After analyzing the information given in the table and notes, which of the following is the most accurate statement regarding the change in the asset turnover ratio of Arab Oven?

- A. The asset turnover ratio is lower in 2015.
- B. The asset turnover ratio is lower in 2016.
- C. The asset turnover ratio is the same in 2015 and in 2016.

The correct answer is **B**.

The asset turnover ratio, which is calculated as  $\frac{\text{Revenue}}{\text{Avg. Total Assets}}$ , is a measure of how efficiently a company uses its assets to generate sales. A lower asset turnover ratio in 2016 for Arab Oven can be attributed to the unchanged revenue amidst an increase in total assets. The reasons for the increase in total assets in 2016, despite constant revenue, are multifaceted:

Firstly, the cost of goods sold (COGS) in 2016 increased significantly from \$1,900,000 to \$2,500,000. This increase in COGS, despite stable sales volume and price, suggests that the ending inventory valuation would be higher due to the higher per-unit cost, thereby increasing the total assets.

Secondly, the firm's decision to capitalize the interest cost in 2016, as opposed to expensing it in

2015, resulted in an increase in the asset base. The capitalization of \$150,000 in interest costs directly increases the total assets, contrasting with the previous year where such costs were expensed and thus did not contribute to the asset base.

Furthermore, the research costs, which were capitalized in 2015, adding to the asset base, were expensed in 2016. However, the impact of this change is offset by the higher increase in assets due to the capitalization of interest costs and the higher COGS leading to a higher inventory valuation.

***CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.***

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Q.3796 Consider the following information for a company:

- Net income - \$ 5,000
- Income tax expense - \$ 1,130
- Interest Expense and Payments - \$ 1,050
- Lease Payments - \$ 700

The fixed coverage ratio for the company is *closest to*:

- A. 2.9
- B. 4.1
- C. 4.5

The correct answer is **C**.

$$\begin{aligned}\text{Fixed charge coverage ratio} &= \frac{\text{EBIT} + \text{Lease Payments}}{\text{Interest payments} + \text{Lease Payments}} \\ &= \frac{(\$5,000 + \$1,130 + \$1,050) + \$700}{\$1,050 + \$700} \\ &= \frac{\$7880}{\$1,750} = 4.5\end{aligned}$$

**A is incorrect.** It has used net income instead of EBIT to calculate the fixed coverage ratio.

**B is incorrect.** Lease payments have not been added to the EBIT in the numerator.

**CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.**

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Q.4933 An analyst is examining the common-size balance sheets of two companies to evaluate their financial structure. Which of the following is *most likely* to distort the analysis? Differences in:

- A. fiscal year-end dates.
- B. industry classification.
- C. asset valuation methods.

The correct answer is **C**.

Differences in asset valuation methods can significantly distort the analysis because they directly affect the reported values of assets, impacting the balance sheet composition and ratios derived from these values. For example, one company might use historical cost, while another uses fair value, leading to inconsistencies in asset valuations and comparability.

**A is incorrect.** Differences in fiscal year-end dates can affect comparability to some extent, but they do not distort the intrinsic valuation methods of assets and liabilities as directly as differences in asset valuation methods do.

**B is incorrect.** Differences in industry classification might affect the types of assets and liabilities reported, but they do not inherently distort the common-size analysis, which focuses on the relative proportions of financial statement items.

***CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11a: describe tools and techniques used in financial analysis, including their uses and limitations.***

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Q.4934 Which of the following aspects of ratio analysis is *least likely* to distort meaningful comparisons across companies and over time?

- A. Interpretation of the ratios.
- B. Differences in accounting policies.
- C. Ratios are indicators, not the answers.

The correct answer is **C**.

Ratios being indicators, not the answers, is a fundamental aspect of ratio analysis that provides insights into what happened but not necessarily why it happened. This characteristic of ratios helps analysts identify potential areas of concern or strength without inherently distorting comparisons. It means that while ratios can highlight areas for further investigation, they do not by themselves explain the underlying reasons.

**A is incorrect.** Interpretation is key in ratio analysis because it involves understanding the context and the reasons behind the ratios. Misinterpretation can lead to incorrect conclusions, thus affecting meaningful comparisons.

**B is incorrect.** Differences in accounting policies across companies and over time can distort ratios because companies may use different methods for accounting for inventory, depreciation, or other financial elements. These differences can lead to misleading comparisons unless adjustments are made.

**CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11a: describe tools and techniques used in financial analysis, including their uses and limitations.**

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Q.4935 You have been provided with the following financial ratios for Company ABC for the periods ending December 31, 2021, and December 31, 2020:

Ratios	December 31, 2021	December 31, 2020
Return on equity	8.25%	6.45%
Return on assets	4.35%	3.98%
Current ratio	1.85	1.65
Inventory turnover	4.3	3.7
Net profit margin	4.75%	3.90%
Debt-to-assets	48.25%	55.00%

Which of the following best describes the trend in Company ABC's financial performance from 2020 to 2021?

- A. Improved profitability and liquidity, and stronger solvency
- B. Declined profitability, improved liquidity, and weaker solvency
- C. Improved profitability, weaker liquidity, and stronger solvency

The correct answer is **A**.

Improved profitability is indicated by the increase in return on equity (ROE) from 6.45% to 8.25%, return on assets (ROA) from 3.98% to 4.35%, and net profit margin from 3.90% to 4.75%.

The current ratio increased from 1.65 to 1.85, indicating better liquidity. Lastly, the debt-to-assets ratio decreased from 55.00% to 48.25%, indicating a reduction in financial leverage, hence stronger solvency.

**CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11b: calculate and interpret activity, liquidity, solvency, and profitability ratios.**

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Q.4936 An analyst is evaluating the liquidity of a company using the following ratios over the past three years:

Ratio	2023	2022	2021
Current Ratio	1.8	2.0	2.5
Quick Ratio	1.2	1.4	1.6
Days of Inventory Held (DOH)	60	55	50
Days Sales Outstanding (DSO)	45	42	40

Which of the following best explains the observed change in the company's liquidity ratios from 2021 to 2023? The company has:

- A. reduced its short-term liabilities.
- B. significantly increased its inventory levels.
- C. improved its cash collection from customers.

The correct answer is **B**.

The decrease in both the current ratio and the quick ratio, alongside an increase in DOH, suggests that the company is holding more inventory. This increase in inventory affects the current ratio but not the quick ratio, which explains the observed pattern.

**A is incorrect.** A reduction in short-term liabilities would improve both the current ratio and the quick ratio, but both ratios have decreased.

**C is incorrect.** Improved cash collection would increase the quick ratio and likely the current ratio as well, but this is not observed.

**CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11c: describe relationships among ratios and evaluate a company using ratio analysis**

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Q.4937 An analyst is examining the financial health of a bank using industry-specific ratios. Which of the following ratios would *most effectively* provide insights into the bank's ability to comply with regulatory requirements and maintain liquidity?

- A. Return on Equity (ROE)
- B. Capital Adequacy Ratio
- C. Average Revenue Per User (ARPU)

The correct answer is **B**.

The Capital Adequacy Ratio is used in the banking industry to measure a bank's capital in relation to its risk-weighted assets. This ratio provides insights into a bank's ability to comply with regulatory requirements and maintain sufficient liquidity to absorb potential losses.

**A is incorrect.** Return on Equity (ROE) measures a company's profitability relative to equity but does not specifically address regulatory compliance or liquidity.

**C is incorrect.** Average Revenue Per User (ARPU) is used in relationship or subscription-based industries to measure revenue efficiency per user but is not relevant to banking liquidity and regulatory compliance.

***CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 11: Financial Analysis Techniques, LOS 11e: describe the uses of industry-specific ratios used in financial analysis.***

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## **Learning Module 12: Introduction to Financial Statement Modeling**

Q.4557 MNO Services, a rapidly expanding service provider, is developing a sales-based proforma model to project its financial standings for the next quarter. Over recent years, the company has observed an average revenue growth of 7%. MNO's Cost of Goods Sold (COGS) typically represents 50% of its sales. The projected administrative and operational costs, including Selling, General, and administrative expenses (SG&A), are expected to escalate by 4% yearly. The executive team is deliberating substantial investments in technological infrastructure to support its growing client base and operational capacity. The organization also foresees modifications in its capital structure, likely influencing its borrowing costs. As a financial consultant, which of the following steps would be most imperative in ensuring the precision and reliability of the proforma model for MNO Services?

- A. Primarily focusing on forecasting revenue growth.
- B. Preserving the COGS and SG&A expenses at levels consistent with historical trends.
- C. Attentively considering the planned investments in technological infrastructure and anticipated alterations in the capital structure.

The correct answer is C.

In the formulation of a proforma model, it's critical to address all components, including revenue growth, COGS, and operating costs. However, for MNO Services, which is contemplating substantial investments in technology and expecting changes in its capital structure, it's imperative to concentrate on these areas. Estimating the effects of these investments and changes in the capital structure on borrowing costs and other related parameters is key to ensuring the accuracy of the proforma model.

**A is incorrect.** Although projecting revenue growth is critical, focusing only on this aspect may ignore other significant factors like technological investments and changes in the capital structure, which MNO Services is considering. Adequate attention to these aspects is crucial for a well-rounded and dependable proforma model.

**B is incorrect.** Solely depending on historical data for COGS and SG&A, without accommodating the anticipated growth and shifts in the company's operational scope, could result in inaccurate projections. These figures are likely to vary with the planned technological investments and modifications in the capital structure.

***CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 12: Introduction to Financial Statement Modeling, LOS 12a: demonstrate the development of a sales-based pro forma company model.***

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Q.4560 Which of the following is the *most likely* outcome for a company that chooses price reduction in a market with highly competitive rivalry and strong bargaining power of buyers?

- A. Diminish the bargaining power of buyers.
- B. Attain a sustainable competitive advantage.
- C. Erode profit margins without significant market share gain.

The correct answer is **C**.

In a market characterized by highly competitive rivalry and strong bargaining power of buyers, a company that opts for price reduction is likely to erode its profit margins without achieving a significant gain in market share, as competitors may respond with similar price cuts.

**A and B are incorrect.** Price reduction in such a market is unlikely to lead to a sustainable competitive advantage or significantly diminish the bargaining power of buyers.

***CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 12: Introduction to Financial Statement Modeling, LOS 12c: explain how the competitive position of a company based on Porter's five forces analysis affects prices and costs.***

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Q.4561 Which of the following is *most likely* an outcome for established companies in an industry when new entrants emerge and increase competition?

- A. Established companies will significantly raise their prices.
- B. New entrants will have minimal impact on the pricing strategies of established companies.
- C. Established companies may reevaluate and potentially lower their prices to retain market share.

The correct answer is **C**.

Established companies may lower their prices in response to new entrants to maintain competitiveness and retain market share. Increasing competition often leads to more aggressive pricing strategies rather than higher prices.

**A is incorrect.** Raising prices in a market with emerging competitors would generally not be a strategic move; it could alienate customers and drive them towards the new entrants who might offer more competitive pricing.

**B is incorrect.** New entrants typically have a significant impact on the dynamics of an industry, including pricing strategies. Established companies often need to respond to these changes to maintain their position in the market.

***CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 12: Introduction to Financial Statement Modeling, LOS 12c: explain how the competitive position of a company based on Porter's five forces analysis affects prices and costs.***

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Q.4563 In a market where the bargaining power of suppliers is high, what is a likely effect on companies requiring specialized inputs from these suppliers?

- A. Companies will experience a decrease in production costs.
- B. Companies may be forced to elevate their product prices due to increased input costs.
- C. Companies will gain significant leverage over these suppliers, leading to lower input prices.

The correct answer is **B**.

In markets where suppliers have strong bargaining power, they can dictate higher prices for their inputs, leading companies to face increased production costs. These companies may need to increase their product prices to maintain profitability.

**A is incorrect.** High supplier power typically results in increased, not decreased, production costs for companies that rely on these suppliers for inputs.

**C is incorrect.** High bargaining power of suppliers usually means that the suppliers hold the leverage, not the companies purchasing from them. As a result, companies are less likely to achieve lower input prices and more likely to face higher costs.

***CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 12: Introduction to Financial Statement Modeling, LOS 12c: explain how the competitive position of a company based on Porter's five forces analysis affects prices and costs.***

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Q.4564 In a deflationary environment, if companies hold prices steady despite decreased costs, what is the *most likely* effect on the industry?

- A. Sudden increase in industry-wide profit margins.
- B. Intensified price competition and reduced industry revenues
- C. Potential increase in sales volume due to higher consumer purchasing power.

The correct answer is **C**.

Holding prices steady in a deflationary environment might lead to an increase in sales volume as consumer purchasing power increases and prices remain attractive compared to the deflating market.

**A is incorrect.** While holding prices steady can maintain or slightly improve margins, it does not guarantee a sudden increase in industry-wide profit margins, especially if operational costs remain unchanged.

**B is incorrect.** Holding prices steady in a deflationary environment is more likely to avoid price wars. It does not intensify price competition but rather bets on increased volume to drive revenue growth.

***CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 12: Introduction to Financial Statement Modeling, LOS 12d: explain how to forecast industry and company sales and costs when they are subject to price inflation or deflation.***

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Q.4565 Which of the following is *most likely* an outcome for companies that fail to renegotiate supplier contracts or optimize production in a deflationary scenario

- A. Rapid growth in market share.
- B. Improved profitability due to naturally decreasing costs.
- C. Difficulty maintaining profitability due to decreased pricing power and revenue.

The correct answer is **C**.

Companies that do not proactively manage their costs in a deflationary scenario may struggle to maintain profitability as prices and revenue decrease, and they fail to reduce operational costs accordingly.

**A is incorrect.** Simply facing deflation does not guarantee market share growth, especially if a company does not adapt its cost structure or pricing strategy.

**B is incorrect.** While costs may naturally decrease in a deflationary scenario, failure to further optimize costs or renegotiate contracts can result in missed opportunities for improved profitability.

***CFA Level I, Volume 3, Topic 5 - Financial Statements Analysis, Learning Module 12: Introduction to Financial Statement Modeling, LOS 12d: explain how to forecast industry and company sales and costs when they are subject to price inflation or deflation.***

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Q.4566 Which of the following factors is *least likely* to be considered when using the DCF approach for long-term forecasting?

- A. Company's historical average multiple.
- B. Terminal cash flow persisting in the future.
- C. Future long-term growth rate differing from the historical rate.

The correct answer is **A**.

The company's historical average multiple is not a direct consideration in the DCF approach, which focuses on the present value of expected future cash flows and growth rates, rather than relying on historical earnings multiples.

**B is incorrect.** Considering whether terminal cash flow will persist is an essential part of the DCF approach, ensuring the realism and sustainability of future cash flow projections.

**C is incorrect.** Assessing whether the future long-term growth rate will differ from the historical rate is a crucial part of the DCF approach, affecting the projection of future cash flows and the terminal value.

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Q.4567 Which of the following is *most likely* a challenge in forecasting industry sales and costs during periods of economic disruption?

- A. Economic disruption does not significantly impact industries.
- B. It's difficult to predict inflection points where the future significantly differs from the recent past.
- C. Industries typically do not respond to changes in the business cycle, government regulation, or technology.

The correct answer is **B**.

Economic disruption can lead to inflection points, making it challenging to predict future industry sales and costs as the conditions may significantly differ from historical trends and patterns.

**A is incorrect.** Economic disruption can have a profound impact on industries, affecting sales volumes, prices, and costs.

**C is incorrect.** Industries are often highly responsive to changes in the business cycle, government regulation, and technological advances, all of which can significantly affect their performance.

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