

# **FRM Part I Exam**

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Questions with Answers - Foundations of Risk Management

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## **Reading 1: The Building Blocks of Risk Management**

Q.1 In the context of financial markets, liquidity can be categorized into different types, each with its unique characteristics and implications. Market liquidity, in particular, is a critical aspect that investors and financial institutions often consider. Given the following definitions, which one is most likely to be associated with the concept of market liquidity?

- A. The risk that a bank will not be able to roll over a repo to finance their short-term cash flow needs.
- B. The risk that depositors will flock into banks and withdraw their funds or that shareholders will redeem their shares en masse.
- C. The risk that the collateral value of an asset will decline after a derivative position is established, resulting in an increase in the margin requirement.
- D. The risk that an investor who lends out an asset will be forced to sell at a lower price once the asset is returned.

The correct answer is **D**.

Market liquidity risk, also known as trading liquidity risk, refers to the potential loss in the value of an asset when markets temporarily seize up. In such situations, a market participant may not be able to execute a trade or liquidate a position immediately at the best price. This could force the seller to accept an abnormally low price, or in some cases, completely lose the ability to convert the asset into cash. This scenario is accurately depicted in choice D, where an investor who lends out an asset may be forced to sell it at a much lower price once the asset is returned, especially if the trading volume declines due to changes in one or more market factors such as interest rates and inflation.

**Choice A is incorrect** because it describes a scenario related to funding liquidity risk, not market liquidity risk. Funding liquidity risk is concerned with the ability of a firm or a bank to meet its short-term cash flow needs. In the given scenario, the risk that a bank will not be able to roll over a repo to finance their short-term cash flow needs is a clear example of funding liquidity risk. This is because it involves the bank's ability to secure short-term debt, which is a liability, to fund its operations.

**Choice B is incorrect** because it also describes a situation related to funding liquidity risk. The risk that depositors will flock into banks and withdraw their funds or that shareholders will redeem their shares en masse is a scenario that pertains to the ability of a firm to meet its liabilities. This is a characteristic of funding liquidity risk, which is concerned with the ability of a solvent institution to make agreed-upon payments in a timely fashion. This is different from market liquidity risk, which is concerned with the ability to sell an asset at its fair price.

**Choice C is incorrect** because it describes a scenario that is more related to collateral and margin requirements, which is not directly related to market liquidity risk. The risk that the collateral value of an asset will decline after a derivative position is established, resulting in an increase in the margin requirement, is a risk associated with derivative trading and collateral management. While it may have implications on liquidity, it does not directly describe market

liquidity risk, which is concerned with the ability to sell an asset at its fair price in the market.

### Things to Remember

- Funding liquidity risk is concerned with the ability of a firm to meet its liabilities.
  - Market liquidity risk is concerned with the ability to sell an asset at its fair price.
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Q.3 In 2016, the United Kingdom made a historic decision to exit the European Union, a move commonly referred to as 'Brexit'. Following this decision, the value of the British pound depreciated against other major global currencies such as the U.S. dollar and the Chinese Yuan. Which one of the following risks best explains this observation?

- A. Interest rate risk
- B. Foreign exchange risk
- C. Reputation risk
- D. Equity risk

The correct answer is **B**.

Foreign exchange risk, also known as currency risk, is a financial risk that arises from potential changes in the exchange rate between two currencies. Investors who have investments in foreign countries are exposed to this risk because the value of the foreign investments will decrease if the currency of the investment's country weakens against their own domestic currency. In the context of the question, the Brexit vote led to a decrease in the value of the British pound against other currencies. This is a classic example of foreign exchange risk. Investors who held assets denominated in British pounds would have seen the value of those assets decrease when converted back to their own domestic currency. The uncertainty surrounding the economic impact of Brexit, including potential disruptions to trade agreements and economic ties with the European Union, contributed to the depreciation of the pound. Therefore, the risk that best explains the observation in the question is foreign exchange risk.

**Choice A is incorrect** because interest rate risk is the risk that the value of an investment will decrease due to changes in the absolute level of interest rates, in the spread between two rates, in the shape of the yield curve, or in any other interest rate relationship.

**Choice C is incorrect** because reputation risk is the risk of loss resulting from damages to a firm's reputation, in lost revenue; increased operating, capital or regulatory costs; or destruction of shareholder value, consequent to an adverse or potentially criminal event even if the company is not found guilty. Adverse events typically associated with reputation risk include ethics, safety, security, sustainability, quality, and innovation. Reputation risk is more relevant to individual companies or organizations and is often associated with the company's operational practices, ethical stance, or response to a specific event or crisis.

**Choice D is incorrect** because equity risk is the risk of loss because of a drop in the market price of shares. Equity risk often refers to equity investment risk, which is the risk associated with the investment in shares/stocks of a company. This risk arises from fluctuations in the share price and the risk of the issuer defaulting.

### Things to Remember

- Foreign exchange risk is critical in global finance, especially post-major geopolitical events which can significantly influence exchange rates.
  - Scenario analysis on exchange rate fluctuations post-events helps in understanding potential financial impacts.
  - Managing foreign exchange risk involves strategies like using forward contracts, options, and currency swaps to hedge against potential losses.
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Q.4 Market risk, also known as systematic risk, is a type of risk that is inherent to the entire market or market segment. Which of the following scenarios would be considered an example of market risk?

- A. Inadequate/malfunctioning computer systems
- B. Circumvention of issued regulations and guidelines
- C. Occurrence of a natural disaster, such as a tornado
- D. An increase in the price of gas

The correct answer is **D**.

An increase in the price of gas is an example of market risk, also known as systematic risk. This is the potential for an investor to experience losses due to factors that affect the overall performance of financial markets. These factors are typically broad-based, beyond the control of individual companies or investors, and impact a large number of assets simultaneously. It includes risks associated with changes in interest rates, foreign exchange rates, commodity prices, and equity prices. Market risk can affect the value of a portfolio or individual security, resulting in losses for investors or traders.

Operational risk refers to the possibility of incurring losses resulting from operational breakdowns caused by either internal or external factors. Operational risks include legal risk, anti-money laundering risk, cyber risk, and rogue trading. Moreover, operational include corporate disasters such as operational mishaps and corporate governance scandals.

**A is incorrect.** Inadequate/malfunctioning computer systems is an example of operational risk

because it refers to a failure within the organization's internal processes or systems that can result in losses.

**B is incorrect.** Circumvention of issued regulations and guidelines is an example of compliance risk, which is a type of operational risk. Compliance risk refers to the possibility of incurring losses due to non-compliance with laws, regulations, and internal policies and procedures.

**C is incorrect.** Occurrence of a natural disaster, such as a tornado, is an example of operational risk because it refers to the possibility of losses due to external events beyond the control of the organization.

### **Things to Remember**

- Market risk, or systematic risk, is inherently related to the entire market and can't be diversified away, affecting multiple securities.
  - Common examples of market risk triggers include changes in interest rates, recessions, or geopolitical events.
  - Understanding market risk is essential for creating a balanced portfolio that aligns with one's risk tolerance and investment goals.
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Q.5 In the context of business operations, risk management plays a crucial role in ensuring the stability and sustainability of an organization. One approach to risk management is the enterprise-wide risk management. This approach is characterized by certain features that distinguish it from other risk management strategies. Based on your understanding of enterprise-wide risk management, which of the following best describes enterprise-wide risk management?

- A. Applying risk management within individual departments on a piecemeal basis.
- B. Risk management that includes all major departments in a company.
- C. A structured and consistent set of principles or risk management that are applied across the whole of a company.
- D. Risk management that encompasses all business units.

The correct answer is C.

Enterprise-wide risk management involves the development of structured and consistent business principles that govern the way different business units of a company do business, in regard to risk by applying consistent risk management principles across the whole of a company, all risks, including inter-departmental risks, are taken into account.

**A is incorrect:** Applying risk management within individual departments on a piecemeal basis is a silo approach in which different departments/business units are left to manage risks on their own without considering the impact on other departments or the company as a whole.

**B is incorrect:** Enterprise risk management includes not only major departments in a company but also minor departments and all other areas of the company that may be exposed to risks.

**D is incorrect:** Enterprise risk management involves applying risk management to all business units, but it also includes a structured and consistent set of principles that guide the way risks are identified, assessed, monitored, and managed across the entire organization.

### Things to Remember

- Enterprise Risk Management (ERM) helps in aligning risk appetite and strategy, enhancing risk response decisions, and minimizing operational surprises and losses.
- ERM is integral for robust governance and relies on a comprehensive risk management framework applied consistently across the enterprise.
- Through ERM, organizations can identify interdependencies between different types of risks and integrate responses across business units.

Q.6 In financial markets, risk management plays a pivotal role in safeguarding investments and financial activities from potential losses. It involves a series of activities that aim to create economic value. Among the following options, which one best encapsulates the definition of risk management in the context of financial markets?

- A. The practice of creating economic value by identifying and investing in risky projects that could earn a profit.
- B. The practice of avoiding an extremely risky financial undertaking to prevent a loss.
- C. The practice of creating economic value by identifying and measuring risks, and formulating robust plans to address and manage these risks.
- D. Setting risk limits beyond which an entity should not operate.

The correct answer is **C**.

Risk management in the context of financial markets involves identifying and measuring risks associated with a business, both qualitatively and quantitatively, and formulating robust plans to address and manage these risks. The goal of risk management is to create economic value by minimizing the negative impact of risks on the business while maximizing the positive outcomes of risk-taking. This involves a range of activities, including risk identification, risk assessment, risk mitigation, risk monitoring, and risk reporting.

**A is incorrect.** Risk management is not about investing in risky projects to earn a profit. Instead, it is about identifying and managing risks associated with a business to minimize negative outcomes and maximize positive outcomes.

**B is incorrect.** Risk management is not about avoiding all risky financial undertakings to prevent a loss. Instead, it is about identifying and managing risks associated with a business to minimize negative outcomes and maximize positive outcomes.

**D is incorrect.** Setting risk limits is an important part of risk management, but it is not the only aspect. Risk management also involves risk identification, risk assessment, risk mitigation, risk monitoring, and risk reporting.

### **Things to Remember**

- Risk management in financial markets encompasses a broad set of practices aiming to identify, measure, monitor, and control financial risks efficiently.
- Comprehensive risk management involves periodic risk assessments and implementing strategic decisions that can adapt to changing market conditions.
- Effective risk management not only safeguards against potential losses but also facilitates proactive strategies for capitalizing on opportunities that align with the

organization's risk appetite.

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Q.7 Tohonday, a motor vehicle production company, has historically channeled most of its earnings and spare cash into short-term government bonds maturing in less than a year. The board wishes to change its investment policy substantially and intends to tap the riskier but more profitable long-term bond market. Assuming you're the risk manager for the company, which of the following risks would be of utmost (immediate) concern from an operational point of view?

- A. Trading liquidity risk
- B. Funding liquidity risk
- C. Interest rate risk
- D. Market risk

The correct answer is **B**.

Financial institutions do not always fail because of the inability to generate a profit. Rather, it's the inability to meet short-term financial obligations that often leads to bankruptcy. This is known as **funding liquidity risk**. Suppose Tohonday decides to invest in long-term assets, in that case, it must take into account its day-to-day funding requirements, especially because funds invested in long-term assets cannot be realized quickly enough to meet short-term debts and other unforeseen obligations, such as lawsuits. Northern Rock, a significant UK mortgage lender, encountered a severe funding liquidity crisis in 2007, a situation that signaled the onset of the global financial crisis. The bank heavily relied on wholesale markets instead of depositor funds to finance its mortgage lending, a strategy that backfired amidst the global credit crunch triggered by the US subprime mortgage crisis. With most of its assets tied up in long-term mortgages, Northern Rock found itself unable to liquidate these assets swiftly enough to meet its short-term obligations, particularly the short-term debts it had incurred to finance long-term loans. This liquidity crisis led to the first bank run in the UK in over a century, resulting in a loss of customer confidence, a government bailout, and eventually nationalization in February 2008.

**A is incorrect.** Trading liquidity risk (also called market liquidity risk) is the risk associated with the inability of a firm to execute transactions at the prevailing market price. It may reduce the institution's ability to hedge market risk, and also it is the capacity to liquidate assets when necessary.

**C is incorrect:** Interest rate risk is the risk that arises from fluctuations in the market interest rates, which may cause a decline in the value of interest-rate-sensitive portfolios.

**D is incorrect:** Market risk is the risk that results due to movements in market prices and rates.

### Things to Remember

- Funding liquidity risk is particularly important for firms dealing with differentiated investment timelines, such as shifting from short-term to long-term investments.
  - Historical examples such as the Northern Rock crisis in 2007 are crucial case studies showcasing the implications of poor funding liquidity management.
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Q.8 In financial risk management, particularly in relation to credit risk, two key concepts are 'expected loss' and 'unexpected loss'. These terms are used to estimate potential credit losses and are integral to the risk management strategies of financial institutions. Which of the following accurately differentiates between expected loss and unexpected loss?

- A. Expected loss is the average credit loss we expect from an exposure while unexpected loss is the loss that occurs over and above the expected loss.
- B. Unexpected loss is the average credit loss we expect from an exposure while expected loss is the loss that occurs over and above the unexpected loss.
- C. Expected loss is the average credit loss that we would expect from an exposure while unexpected loss is the loss that would occur without a quantitative expression.
- D. Expected loss is the average credit loss that we would expect from an exposure while unexpected loss is the sum of expected losses from several time periods.

The correct answer is **A**.

**Expected loss** is the average credit loss that we would expect from an exposure over a given period of time. It is calculated as the product of the probability of default (PD), the loss given default (LGD), and the exposure at default (EAD). Expected loss is a key component of credit risk management and is used to estimate the amount of capital that a bank needs to hold to cover potential credit losses.

**Unexpected loss** is the amount of loss that actually exceeds the expected amount. It is the difference between the expected loss and the actual loss incurred. Unexpected loss is also known as the tail risk or the potential loss in extreme scenarios. It represents the risk that the actual losses may be much higher than the expected losses, which can have a significant impact on a bank's capital and profitability.

**Choice B is incorrect.** It reverses the definitions of expected loss and unexpected loss.

**Choice C is incorrect.** Unexpected loss is quantitatively expressed as the difference between the expected loss and the actual loss incurred. It is not a nebulous or unquantifiable concept, but a specific measure used in financial risk management.

**Choice D is incorrect.** Unexpected loss is not a cumulative measure of expected losses over time. Instead, it is the difference between the expected loss and the actual loss incurred in a

given period.

### **Things to Remember**

- 'Expected loss' and 'Unexpected loss' form the cornerstone of credit risk analysis, where Expected loss is typical and Unexpected loss represents extreme cases.
  - Understanding these concepts is not only critical for credit risk assessment but also for managing capital requirements and designing mitigation strategies.
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Q.9 The concept of risk and reward is a fundamental principle that governs investment decisions. This principle suggests a certain relationship between the level of risk an investor is willing to take and the potential reward they might receive. Which of the following statements accurately describes this relationship between investment risk and potential reward?

- A. As the investment risk increases, the reward decreases.
- B. As the investment risk decreases, the reward increases.
- C. As the investment risk increases, the potential for reward increases.
- D. The relation between investment risk and reward depends on the financial product.

The correct answer is **C**.

The principle of risk-reward tradeoff in finance suggests that the potential for higher returns comes with a higher level of risk. This means that as the investment risk increases, the potential for reward also increases. However, it's important to note that higher risk doesn't guarantee higher returns; it merely provides the potential for higher returns. The actual outcome may still result in a loss. This is because the risk in investments is the uncertainty that an investment's actual future returns will deviate from its expected returns. The greater the degree of risk, the greater the possible deviation from the expected return, and thus the greater the range of possible outcomes, including both losses and gains. Therefore, investors who are willing to accept higher levels of risk do so with the expectation of achieving higher potential returns.

**A is incorrect** because, typically, risk and potential reward are directly related, not inversely. If you're taking on more risk, it's usually because you expect the possibility of a higher return to compensate for that risk. This doesn't guarantee a higher return, but the potential is greater.

**B is incorrect** because it contradicts the basic principle of the risk-reward tradeoff. Lower-risk investments generally yield lower potential returns. For example, a government bond (low risk) typically offers lower returns than investing in a new tech startup (high risk).

**D is incorrect** because it suggests there is no general correlation between risk and reward in investments, and it boils down to individual assets. While the specific level of risk and potential reward can vary between different financial products, the general principle that higher risk is associated with a higher potential for reward holds true across virtually all types of investments.

### Things to Remember

- The risk-reward tradeoff principle is foundational in investment and corporate finance, outlining that higher risks often offer the potential for higher rewards.
- Real-life applications of this concept include portfolio management and strategic investment decisions in volatile markets.

Q.10 Credit risk is a primary category that encompasses several sub-types of risk. Among the following options, which one would most likely be classified as credit risk?

- A. Commodity price risk
- B. Currency exchange risk
- C. Interest rate risk
- D. Default risk

The correct answer is **D**.

Default risk is a form of credit risk. It refers to the risk that a borrower will not be able to meet scheduled repayments of interest or principal on a debt obligation. This is the most direct form of credit risk. In such a case, the lender or investor may lose the principal and interest, disrupt cash flows, and increase the cost of collection. Default risk is a significant factor in determining the interest rate on a loan or on a bond.

**A is incorrect.** Commodity price risk is a form of market risk, not credit risk. It refers to the uncertainty stemming from changes in the price of a commodity.

**B is incorrect.** Currency exchange risk, also known as foreign exchange risk, it is a market risk posed by an exposure to unanticipated changes in the exchange rate between two currencies. Businesses that operate internationally often face currency exchange risk.

**C is incorrect.** Interest rate risk is the risk that an investment's value will change due to a change in the absolute level of interest rates, the spread between two rates, or the shape of the yield curve. While this risk can impact the value of fixed-income investments (like bonds) and therefore indirectly impact a borrower's ability to repay debt, it is considered a type of market risk rather than a form of credit risk.

### Things to Remember

- Default risk is a primary type of credit risk closely examined in risk management frameworks.
- Understanding the nuances of default risk is crucial for anyone involved in lending, investing, or managing credit portfolios.
- Real-world implications of default risk highlight the importance of thorough credit analysis and risk assessment practices.

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Q.11 In risk management, risks are often categorized as either quantifiable or non-quantifiable.

Quantifiable risks can be measured in numerical terms and are often associated with financial or market risks. Non-quantifiable risks, on the other hand, are difficult to measure numerically and are often associated with event or operational risks. Given this context, which of the following pairs correctly associates a quantifiable risk with a non-quantifiable risk?

- A. Quantifiable: Interest rate risk; Non-quantifiable: Default risk
- B. Quantifiable: Civil war; Non-quantifiable: Liquidity risk
- C. Quantifiable: Equity price risk; Non-quantifiable: Risk of terrorist attack
- D. Quantifiable: Civil war; Non-quantifiable: Settlement risk

The correct answer is **C**.

Equity price risk is a quantifiable risk because it can be measured in numerical terms. For instance, if a stock's price drops from \$100 to \$90, the equity price risk is quantifiable as a 10% loss. On the other hand, the risk of a terrorist attack is a non-quantifiable risk. It's a type of event risk that is inherently unpredictable and difficult to measure numerically. Its impact on investments is uncertain and cannot be precisely quantified.

**Option A is incorrect** because both interest rate risk and default risk are quantifiable risks. Interest rate risk, the risk that an investment's value will change due to a change in the absolute level of interest rates, can be measured in numerical terms. Default risk, the risk that a borrower will be unable to make the required payments on their debt obligations, can also be quantified, often using credit ratings or credit spreads.

**Option B is incorrect** because civil war is a non-quantifiable risk, while liquidity risk is a quantifiable risk. A civil war is a type of political risk that is inherently uncertain and hard to quantify. On the other hand, liquidity risk, the risk of not being able to quickly realize an investment without a substantial loss in value, can be quantified in terms of bid-ask spread, market depth, or impact cost.

**Option D is incorrect** because civil war is a non-quantifiable risk due to its unpredictable nature and broad impacts. Settlement risk, the risk that one party will fail to deliver the terms of a contract with another party at the time of settlement, can be quantified, often in terms of potential losses if a counterparty defaults at various points during the settlement process.

### Things to Remember

- Quantifiable risks can be measured in monetary terms and often include market-related risks such as equity price risk, which can be directly quantified through financial metrics.
- Non-quantifiable risks, such as the risk of a terrorist attack, pose challenges due to their unpredictable nature and the difficulty in measuring their potential impact directly in numerical terms.

- Effective risk management requires a blend of strategies to address both quantifiable and non-quantifiable risks, including the use of insurance and contingency planning for the latter.
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Q.13 A public company is evaluating several projects for potential implementation. The risk manager, during his appraisal, identifies that some of these projects may lead to conflicts with the Food and Drug Administration due to potential ethical issues and violations of human safety standards. Which type of risk is the company primarily exposed to in this situation?

- A. Operational risk
- B. Credit risk
- C. Market risk
- D. Liquidity risk

The correct answer is **A**.

Operational risk refers to the risk of loss resulting from inadequate or failed internal processes, people, and systems, or from external events. In this scenario, if the company's projects could potentially violate ethical standards and safety regulations, leading to conflicts with the Food and Drug Administration (FDA), this would be classified as an operational risk. This is because these issues stem from the company's internal operations and processes. It's also worth noting that regulatory compliance is a key aspect of operational risk.

**Option B is incorrect.** Credit risk is the possibility of a loss resulting from a borrower's failure to repay a loan or meet contractual obligations. In this scenario, the company's potential conflicts with the FDA do not involve the risk of not receiving payment from a borrower or counterparty, so credit risk does not apply.

**Option C is incorrect.** Market risk, also called systematic risk, refers to the risk that the value of an investment will decrease due to changes in market factors such as interest rates, stock prices, or exchange rates. The scenario presented doesn't involve these factors.

**Option D is incorrect.** Liquidity risk is the risk that a company or individual will not be able to meet short-term financial demands. This could occur because the individual or company cannot convert an asset to cash without a substantial loss in value. In the context of the question, the company's potential regulatory issues with the FDA have nothing to do with its ability to quickly convert assets to cash to meet immediate financial obligations.

### Things to Remember

- Operational risk encompasses losses from failed internal processes, people, and systems, or from external events, emphasizing the need for robust controls and

compliance mechanisms.

- In sectors regulated by bodies like the FDA, non-compliance with safety and ethical standards can lead to significant operational risks, manifesting as legal penalties or damage to reputation.
  - It is crucial for firms, especially in sensitive sectors, to continuously monitor and audit their compliance with industry standards to mitigate such operational risks.
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Q.14 In finance and investment, risks are often categorized into different types based on their nature and impact. Two such categories are systemic risks and specific risks. These two types of risks differ in terms of their scope and the entities they affect. The difference between systemic and specific risks is that:

- A. Systemic risk refers to the risks that affect the entire economy, while specific risks are risks that affect only a particular company or line of business.
- B. Systemic risks are risks borne by a single entity while specific risks are borne by the economy as a whole.
- C. Systemic risks are quantifiable while specific risks are non-quantifiable.
- D. Systemic risk is diversifiable while specific risk is non-diversifiable.

The correct answer is **A**.

Systemic risk and specific risk are two fundamental concepts in finance and investment. Systemic risk refers to the risk that can affect the entire economy. It is often associated with significant events or disruptions that have far-reaching impacts, such as the failure of a major financial institution, a significant disruption in a critical market or infrastructure, global pandemics, natural disasters, and geopolitical events that can disrupt global trade and financial flows. These risks are non-diversifiable, meaning they cannot be eliminated through diversification. On the other hand, specific risks are risks that affect only a particular company or line of business. These risks are often related to the company's operations, management, or industry-specific factors. Examples of specific risks include product recalls, labor strikes, and changes in consumer preferences. Unlike systemic risks, specific risks are typically diversifiable, meaning that investors can reduce their exposure to these risks by investing in a diversified portfolio of assets.

**Choice B is incorrect** because it reverses the definitions of systemic and specific risks. Systemic risks are not borne by a single entity; instead, they affect the entire economy. Conversely, specific risks are not borne by the economy as a whole; they are risks that affect only a particular company or line of business.

**Choice C is incorrect** because it inaccurately suggests that systemic risks are quantifiable while specific risks are non-quantifiable. Both systemic and specific risks can be quantified, albeit with varying degrees of precision. Systemic risks can be quantified using macroeconomic indicators and financial market data, while specific risks can be quantified using company-specific data and industry analysis.

**Choice D is incorrect** because it inaccurately suggests that systemic risk is diversifiable while specific risk is non-diversifiable. In fact, the opposite is true. Systemic risks, which affect the entire economy, are non-diversifiable, meaning they cannot be eliminated through diversification. On the other hand, specific risks, which affect only a particular company or line of business, are diversifiable.

### Things to Remember

- Systemic risks affect the entire market or economy and are non-diversifiable, posing widespread impact potential as seen in global financial crises or major geopolitical events.
- Specific risks, conversely, affect individual entities and can be diversified through well-structured investment portfolios, highlighting the importance of asset allocation.
- Understanding the distinction between these risks enables investors to tailor their risk management strategies more effectively, balancing systemic exposure with specific investments.

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Q.15 Financial institutions are constantly striving to maintain and enhance the trust and confidence of their stakeholders, which include customers, lenders, shareholders, among others. This trust is crucial as it ensures that each party feels secure about their interests. What type of risk is most relevant that companies need to manage to ensure the confidence of all stakeholders is not compromised?

- A. Legal and regulatory risk
- B. Reputation risk
- C. Specific risk
- D. Operational risk

The correct answer is **B**.

Reputation risk refers to potential losses and negative impacts to a firm's financial condition and overall operations due to damage to its reputation. This damage can be the result of a failure to

meet stakeholders' expectations, which can be caused by a wide range of events, such as legal issues, poor customer service, unethical conduct, poor governance, or operational failures. If stakeholders lose confidence in a company, it can lead to lost business, legal issues, a drop in share price, and other negative outcomes.

**Option A is incorrect.** Legal and regulatory risk refers to the potential for losses due to non-compliance with laws or regulations. While such non-compliance could harm a company's reputation, it's a more specific type of risk that doesn't necessarily address the broader issue of stakeholder confidence in the company.

**Option C is incorrect.** Specific risk, also known as unsystematic risk or idiosyncratic risk, refers to the risk associated with individual assets within a portfolio, as opposed to the market as a whole. These risks can be mitigated through diversification. Specific risk is not directly related to the general confidence of stakeholders in a company's ability to safeguard their interests.

**Option D is incorrect.** Operational risk is the risk of loss resulting from inadequate or failed internal processes, people, and systems, or from external events. While failures in these areas could impact stakeholder confidence, it doesn't fully capture the broader idea of maintaining stakeholder confidence across all aspects of a company's operations.

### Things to Remember

- Reputation risk can significantly impact a firm's financial health and stakeholder trust, necessitating proactive strategies in PR, compliance, and risk management.
  - Firms should establish comprehensive crisis management plans to quickly address potential scandals or failures that could damage their reputation.
  - Maintaining consistent transparency with stakeholders is crucial in managing expectations and preserving trust, hence mitigating reputation risk.
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Q.33 In the context of financial risk management, the purpose of economic capital is to absorb:

- A. economic losses
- B. expected loss
- C. unexpected loss
- D. tail loss

The correct answer is **C**.

Economic capital is designed to absorb unexpected losses. These are losses that are not anticipated and can occur due to various unforeseen circumstances. The concept of economic capital is based on the premise that a bank or financial institution should have enough capital to absorb such losses and continue its operations without any significant disruption. This is why economic capital is often calculated based on a certain level of confidence, which represents the probability that the capital will be sufficient to cover the unexpected losses.

It's important to note that economic capital is not a fixed amount. It varies depending on the risk profile of the bank or financial institution. The higher the risk, the more economic capital is needed.

**Choice A is incorrect.** Economic capital does not serve the purpose of economic losses. Economic losses are a result of poor financial decisions or market downturns, which are not directly related to the concept of economic capital.

**Choice B is incorrect.** Economic capital does not cover expected loss. Expected loss is typically covered by provisions and reserves set aside as part of normal business operations, and it's not the primary purpose of economic capital.

**Choice D is incorrect.** While tail loss refers to extreme events with low probability but high impact, it's too specific to be the main purpose of economic capital. Economic capital serves a broader role in covering unexpected losses that may arise from various sources, not just extreme events.

### **Things to Remember**

- Economic capital is used as a buffer to cover unexpected losses, thereby ensuring a firm can withstand financial shocks without operational disruption.
- It is calculated to cover potential losses at a certain confidence level, which involves complex risk modeling and stress testing.
- Optimal management of economic capital helps in aligning risk management with strategic financial goals, making it a key component in financial resilience planning.

Q.35 The relationship between risk and return is simple for some assets and complex for others. The public perception of risk and return trade-off is that higher risk will lead to higher returns. However, in some asset classes like fixed-income securities, a large number of factors such as market risk, inflation, interest rate risk, and risk tolerance are considered. Which of the following options is most appropriate for a market with investors having a high risk tolerance?

- A. As the risk tolerance of investors is high, more investors will choose corporate bonds over government bonds
- B. As the risk tolerance of investors is high, more investors will choose government bonds over corporate bonds
- C. As the risk tolerance of investors is high, all investors will choose a good mix of corporate and government bonds
- D. As the risk tolerance of investors is high, all investors will choose not to buy corporate bonds

The correct answer is **A**.

When investors have a high tolerance for risk, they are more likely to invest in assets that offer higher potential returns despite the increased risk. Corporate bonds typically offer higher yields than government bonds to compensate for the additional risk. This risk comes from the possibility that the issuing corporation may default on its obligations. Therefore, in a market where investors have a high risk tolerance, it is reasonable to expect that more investors will choose corporate bonds over government bonds. This is because these investors are willing to accept the higher risk associated with corporate bonds in exchange for the potential of higher returns.

**Choice B is incorrect.** This choice suggests that investors with a high risk tolerance would prefer government bonds over corporate bonds. However, this contradicts the general understanding of risk and return in finance. Government bonds are typically considered safer investments with lower returns, while corporate bonds carry higher risk but also offer higher potential returns. Therefore, investors with a high tolerance for risk would be more likely to choose corporate bonds over government ones.

**Choice C is incorrect.** While it's true that diversification can help manage risk, this choice assumes that all investors will choose a mix of corporate and government bonds regardless of their individual risk tolerances. This is not necessarily the case as some high-risk tolerant investors might prefer to invest more heavily in higher-risk assets like corporate bonds for potentially greater returns.

**Choice D is incorrect.** This option suggests that all high-risk tolerant investors will avoid buying corporate bonds altogether which contradicts the basic principles of investment theory where higher risks are associated with potentially higher returns. Investors who have a high tolerance for risk are generally more willing to invest in risky assets such as corporate bonds because they offer the potential for greater return.

### **Things to Remember**

- Investors with high risk tolerance may prefer assets with higher yield potentials like corporate bonds over more stable options like government bonds.
  - Understanding the relationship between risk tolerance and asset selection helps in portfolio diversification and aligning investment strategies with investor goals.
  - Financial advisors must evaluate an investor's risk appetite accurately to recommend suitable high-risk, high-return investment options.
-

Q.36 Equity price risk is the type of market risk that refers to the variability in the prices of equity or stocks. Equity price risk is further subdivided into specific risk and systematic risk. Which of the following is most likely a type of specific risk?

- A. The risk of changes in the consumer price index (CPI).
- B. The risk of change in the aggregate demand of a specific sector.
- C. The risk of strategic weaknesses in a business.
- D. The risk of changes in tax rates.

The correct answer is **C**.

The risk of strategic weaknesses in a business is a type of specific risk. Specific risk, also known as unsystematic risk, idiosyncratic risk, or diversifiable risk, refers to the risk associated with individual stocks in a portfolio. This risk can be reduced or eliminated from a portfolio through diversification. Strategic weaknesses in a business, such as poor management decisions, failed investments, or operational inefficiencies, are examples of specific risks as they directly impact the individual business and not the entire market.

**Choice A is incorrect.** The risk of changes in the consumer price index (CPI) is a type of systematic risk, not specific risk. Systematic risks are market-wide risks that affect all companies, such as inflation or interest rate changes. Changes in CPI represent inflationary trends and impact all firms rather than a specific one.

**Choice B is incorrect.** The risk of change in the aggregate demand of a specific sector also falls under systematic risk as it affects all companies within that sector and not just one particular company.

**Choice D is incorrect.** The risk of changes in tax rates is another example of systematic risk because tax policies usually apply to an entire economy and thus affect all businesses operating within that economy, not just one particular firm.

### Things to Remember

- Specific risk in equity markets, such as strategic business weaknesses, can typically be mitigated through diversification across different sectors or geographical areas.
- Identifying and managing specific risks within a portfolio is crucial for optimizing returns and minimizing unnecessary exposure.
- Investors should assess the specific risks tied to individual stocks or sectors to better align their investment strategies with their overall risk management framework.

Q.37 BT Motors and New Atlas bank are two parties of a derivative contract to hedge exchange rate risk. At the end of the contract, BT Motors has a net loss position of \$6.9 million but refused to pay the entire amount. Which of the following sub-types of credit risk best describes this situation?

- A. Bankruptcy risk.
- B. General market Risk.
- C. Settlement risk.
- D. Default risk.

The correct answer is **C**.

Settlement risk is a type of credit risk that arises when one party in a transaction fails to honor their financial obligations on the settlement date. In the context of the scenario described, BT Motors, despite being in a net loss position of \$6.9 million, refuses to pay the entire amount. This refusal to fulfill their financial commitment is a clear example of settlement risk. Settlement risk is a significant concern in financial transactions, particularly in derivative contracts like the one between BT Motors and New Atlas bank. It can lead to substantial financial losses for the party that is left unpaid, in this case, New Atlas bank. Therefore, it is crucial for financial institutions to manage and mitigate settlement risk effectively to protect their financial interests.

**Choice A is incorrect.** Bankruptcy risk refers to the risk that a firm will be unable to meet its financial obligations due to insolvency. While BT Motors is refusing to pay, there's no information suggesting it's because they are insolvent or facing bankruptcy.

**Choice B is incorrect.** General market risk refers to the potential for losses due to changes in market conditions such as interest rates, exchange rates, commodity prices etc. In this case, while the derivative contract was indeed meant as a hedge against exchange rate fluctuations, the issue at hand isn't about general market risk but rather BT Motors' refusal to settle its obligations.

**Choice D is incorrect.** Default risk pertains to the possibility that a party will not fulfill their contractual obligations. Although BT Motors has not fulfilled its obligation by refusing payment, this situation specifically relates more closely with settlement risk which involves one party fulfilling their part of deal and other party failing/refusing to do so after conclusion of contract.

### Things to Remember

- Settlement risk involves the failure of one party to fulfill their part of a financial contract, which could lead to significant losses for the other party involved.
- Managing settlement risk is crucial in derivative markets and other high-stake financial transactions to prevent financial losses due to non-completion of deals.

- Effective measures against settlement risk include robust contractual agreements and ensuring counterparties have reliable financial standings.
- 

Q.5298 Which of the following definitions of bankruptcy risk is correct?

- A. The potential risk of harm to a company's brand or reputation resulting from negative public perception or publicity.
- B. The potential risk of financial, operational, or reputational harm to a company resulting from cyber threats or attacks.
- C. The likelihood that a company will become insolvent and unable to meet its financial obligations to creditors and investors.
- D. The likelihood that a borrower will default on their debt obligations, resulting in financial losses for the lender.

The correct answer is C.

Bankruptcy risk refers to the probability that a company will become insolvent, meaning it will be unable to meet its financial obligations to its creditors and investors. This risk arises when a company's liabilities exceed its assets, and it is unable to generate sufficient cash flow to fulfill its financial commitments. Bankruptcy risk is a critical consideration for creditors, investors, and other stakeholders, as it directly impacts their financial interests and decision-making processes. Understanding and managing bankruptcy risk is a key aspect of financial risk management, and it involves assessing a company's financial health, monitoring its cash flow and liabilities, and taking proactive measures to mitigate potential risks.

**Choice A is incorrect.** While harm to a company's brand or reputation can indeed have financial implications, this does not directly relate to bankruptcy risk. Bankruptcy risk specifically pertains to the likelihood of a company becoming insolvent and unable to meet its financial obligations, rather than potential damage to its reputation.

**Choice B is incorrect.** This option describes cyber risk, which involves potential harm from cyber threats or attacks. Although such risks could potentially lead to financial instability and even bankruptcy if severe enough, they are not synonymous with bankruptcy risk itself.

**Choice D is incorrect.** This choice refers more closely to credit risk - the likelihood that a borrower will default on their debt obligations - rather than bankruptcy risk. While these two types of risks are related (as default can lead towards insolvency), they are distinct concepts within the field of financial management.

### Things to Remember

- Bankruptcy risk assessment is critical for firms and their creditors and may be

evaluated through financial ratios like current ratio, and debt to equity ratio.

- Understanding bankruptcy risk is crucial in sectors where cash flow inconsistencies are common and in financial analysis for investment decisions.
  - Bankruptcy risk increases when a company's liabilities significantly surpass its assets and it is unable to maintain operational cash flow efficiency.
-

Q.5299 A financial analyst is analyzing a bank's financial health and is particularly worried about the potential increase in the bank's cost of debt due to a possible decline in its credit rating. This concern is associated with which type of risk among the following options?

- A. Interest Rate Risk
- B. Equity Price Risk
- C. Bankruptcy Risk
- D. Downgrade Risk

The correct answer is **D**.

Downgrade risk is an example of credit risk. It refers to the potential for a company's credit rating to be lowered by credit rating agencies, such as Standard & Poor's, Moody's, and Fitch Ratings. Credit ratings are an assessment of a company's creditworthiness and its ability to meet financial obligations, such as debt payments. A downgrade indicates that the credit rating agency perceives an increased risk of default or financial distress for the company.

**A is incorrect.** Interest rate risk arises from fluctuations in the market interest rates, and it may cause a decline in the value of interest-rate-sensitive portfolios.

**B is incorrect.** Equity price risk is the risk that is associated with volatility in stock prices. It doesn't result in an increase in the cost of debt.

**C is incorrect.** Bankruptcy risk is another example of credit risk. It is associated with a borrower's inability to clear his debt leading to a takeover of his collateralized assets.

### Things to Remember

- Downgrade risk impacts the cost of debt by affecting interest rates applied to new and possibly existing debts.
- Monitoring credit ratings is crucial for financial analysts to preemptively manage the financial strategies around potential downgrades.
- Regular assessments by credit agencies such as Standard & Poor's, Moody's, and Fitch play a significant role in credit risk management.

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Q.5300 Which of the following risks is associated with uncertainties in demands, the cost of production, and the cost of delivery of products?

- A. Operational Risk

B. Business Risk

C. Strategic Risk

D. Liquidity Risk

The correct answer is **B**.

Business risk is the risk associated with the uncertainties of operating a business. These uncertainties can arise from various factors, including fluctuations in customer demand, changes in production costs, and variations in delivery expenses. The level of business risk a company faces can significantly impact its profitability and financial stability. Therefore, effective management of business risk is crucial for a company's success.

Business risk can be influenced by both internal and external factors. Internal factors include operational efficiency, cost management, and product quality. External factors include market conditions, customer preferences, and competitive landscape. Companies can manage business risk by implementing effective strategic planning, optimizing production and delivery processes, and maintaining a strong brand image.

It's important to note that while all businesses face some level of business risk, the degree of risk can vary significantly depending on the industry, market conditions, and the specific business model of the company.

**Choice A is incorrect.** Operational risk refers to the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events. It does not directly link to uncertainties in customer demand, production costs, or delivery expenses.

**Choice C is incorrect.** Strategic risk involves the potential for loss due to a company's strategic business decisions such as mergers and acquisitions, partnerships, and geographic expansion. While these decisions can indirectly affect customer demand and production costs, they are not directly linked to these uncertainties.

**Choice D is incorrect.** Liquidity Risk pertains to a company's ability to meet its short-term financial obligations when they fall due without incurring unacceptable losses. This type of risk does not have a direct connection with uncertainties in customer demand or the cost of producing goods/services.

### Things to Remember

- Business risk is directly influenced by market demand and operational cost management, integral for strategic business planning.
- Business risk can have varying impacts based on industry; high-tech and commodity-based sectors often face higher volatility.
- Proactive business risk management involves dynamic strategies adapting to market circumstances and consumer trends.



Q.5303 Which statement best describes a benefit of using the Risk-Adjusted Return on Capital (RAROC)?

- A. It considers systemic risk.
- B. It helps financial institutions allocate their capital effectively.
- C. It considers non-financial risks, such as operational risk.
- D. It is simple to calculate.

The correct answer is **B**.

The primary benefit of using the Risk-Adjusted Return on Capital (RAROC) is that it aids financial institutions in effectively allocating their capital. The RAROC metric is calculated by dividing the risk-adjusted profit (net income minus expected losses and allocated capital costs) by the economic capital, which represents the amount of capital required to cover unexpected losses given a specific confidence level. By using RAROC, financial institutions can compare the risk-adjusted returns of different investments or business units, allowing them to allocate capital more effectively and pursue opportunities with the optimal balance of risk and return. This helps in achieving a balance between risk and return, and in making informed decisions about where to invest capital for maximum return on investment.

**Choice A is incorrect.** The RAROC framework does not specifically consider systemic risk. Systemic risk refers to the risk that could collapse an entire financial system or market, and it is not directly incorporated into the RAROC model.

**Choice C is incorrect.** While RAROC can be used to evaluate various types of risks, it primarily focuses on financial risks rather than non-financial risks such as operational risk. Therefore, this statement is not accurate.

**Choice D is incorrect.** RAROC isn't necessarily simple to calculate as it requires complex calculations and data inputs related to different types of risks and capital costs associated with a particular investment or business decision.

### Things to Remember

- RAROC is utilized to assess the profitability and risk of different business units, guiding capitals allocation.
- This metric is vital for achieving strategic alignment between risk and capital investment decisions in finance.
- RAROC promotes risk awareness and financially informed decision-making processes across investment portfolios.

Q.5304 Which of the following methods of risk management involves derivative products where a company pays a premium to a party to accept a certain level of risk?

- A. Avoiding the risk.
- B. Retaining the risk.
- C. Transferring the risk.
- D. Mitigating the risk.

The correct answer is **C**.

This method of risk management involves shifting the risk from one party to another. In the context of the question, the company is transferring its risk to another party through the use of derivative products. By paying a premium, the company is essentially buying insurance against a certain level of risk. The party receiving the premium is accepting the risk and is obligated to compensate the company if the risk event occurs. This method is commonly used in financial markets where risks can be quantified and priced. It allows companies to focus on their core business activities without worrying about potential financial losses from risks that can be transferred.

**Choice A is incorrect.** Avoiding the risk involves not taking any action that could lead to the risk in the first place. This strategy does not involve paying a premium to transfer risk, but rather avoiding situations or decisions that could potentially lead to financial instability.

**Choice B is incorrect.** Retaining the risk means accepting and managing it internally within the company, without transferring it to another party. In this case, there would be no need for a derivative product or payment of a premium.

**Choice D is incorrect.** Mitigating the risk involves taking steps to reduce its potential impact or likelihood of occurrence, but not necessarily transferring it entirely as described in this scenario with derivative products.

### Things to Remember

- Using derivatives for risk management transfers liability and can stabilize budget planning against market volatility.
- Derivative contracts such as options and swaps allow companies to hedge risk while focusing on core business activities.
- Effective use of risk transfer via derivatives necessitates a solid understanding of financial instruments and market conditions.

Q.5306 An analyst is calculating the expected loss using the following information.

Probability of default	2%
Loss given default	50%
Z-Score	1.645
Standard deviation	2.59
Exposure at default	\$1,000,000

The expected loss is closest to?

- A. \$20,000
- B. \$500,000
- C. \$10,000
- D. \$51,800

The correct answer is **C**.

The expected loss is calculated by multiplying the probability of default (PD) by the loss given default (LGD) and the exposure at default (EAD).

$$\begin{aligned}\text{Expected Loss} &= \text{PD} \times \text{LGD} \times \text{EAD} \\ &= 2\% \times 50\% \times \$1,000,000 \\ &= \$10,000\end{aligned}$$

### Things to Remember

- Understanding the formula for expected loss is critical for credit risk analysis and management in the banking sector.
  - Quantifying expected loss aids in determining the economic capital requirements essential for covering unexpected losses.
  - The accurate estimation of exposure, probability, and potential loss severity helps in the effective allocation of capital reserves.
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## **Reading 2: How Do Firms Manage Financial Risk?**

Q.17 A Canadian company harbors an ambitious plan to launch a project in the U.S. in twelve months. The company uses the Canadian dollar as the functional currency, and the project would most likely be executed in U.S. dollars. However, the company's top management is worried that the CAD will weaken against the USD in the months leading up to the beginning of the project, which might, in turn, increase the amount the company will have to pay for the project. As the company's risk manager, which of the following business strategies would work best regarding the foreign exchange risk?

- A. Launching the project earlier than planned.
- B. Take a hedging position in the form of a currency futures contract.
- C. Advise the company to purchase stock index futures.
- D. Immediately pay for some upfront costs of the project.

The correct answer is **B**.

A lot can change in 12 months. If the USD appreciates significantly against the CAD, the project will become more expensive, and its internal rate of return will decrease. To hedge that risk, the company could take a position in a currency futures contract to lock in the value of the CAD versus the USD.

**Option A is incorrect.** Launching the project earlier than planned, may help for some time but the company will still suffer when the CAD depreciates over the USD.

**Option C is incorrect.** purchasing stock index futures is used to hedge against the risk of fluctuation in market prices.

**Option D is incorrect.** Paying for some upfront costs of the project immediately may reduce future costs however, the company will still suffer from the effects of the currency depreciation.

### **Things to Remember**

- Hedging through currency futures can provide a fixed exchange rate, safeguarding against unfavorable currency fluctuations.
- Regular assessment of foreign exchange exposure and strategic use of hedging instruments are essential for managing currency risks.
- Understanding the costs associated with hedging strategies is crucial as it can affect overall financial performance.

Q.18 In risk management, the term 'hedging' is often used to describe a specific strategy aimed at protecting the value of an asset or portfolio against potential losses due to market fluctuations. Which of the following options most accurately captures the essence of this concept?

- A. Buying an asset to offset a decline in value of another asset.
- B. Holding an asset that appreciates in value to offset the decrease in the value of another asset.
- C. Selling a loss-making asset and replacing it with a profitable one.
- D. Holding an offsetting position in an asset or portfolio whose value we expect to move in line with market changes.

The correct answer is **D**.

Hedging entails any action taken to safeguard the value of an asset in the face of changing market prices. It's actually an attempt to "lock-in" the value of an asset. The investor protects their investment by holding assets that have a predetermined future price.

**Option A is incorrect.** Buying an asset to offset a decline in the value of another asset refers to diversification.

**Option B is incorrect.** Holding an asset that appreciates in value to offset the decrease in the value of another asset is also a diversification method.

**Option C is incorrect.** Selling a loss-making asset and replacing it with a profitable one is a form of Profit/Loss strategy.

### **Things to Remember**

- Hedging serves to protect the value of assets from adverse market movements by taking an offsetting position.
  - Hedging strategy often involves derivatives like futures and options to mitigate potential losses.
  - It's crucial to distinguish hedging from diversification and profit/loss strategies, each serving different financial goals.
-

Q.19 An international construction company places a bid for a major construction project. Top management is convinced the company will secure the contract but are also wary of currency fluctuations during the bids evaluation process, which would make the project more costly and reduce the profit margin. Which of the following actions do you think can reduce this risk?

- A. Negotiating the price of construction materials with sellers in advance
- B. Purchasing construction materials in advance with the option to sell them if the bid turns out unsuccessful
- C. Getting into a currency futures contract
- D. Adding a risk premium to the bid amount

The correct answer is C.

Using a currency futures contract, the company can price the bid quoting current market rates and then use the futures contract to hedge its exposure to currency fluctuation. This way, the company would ensure that even if the market rates change, the bid would be sufficient to undertake the project and earn a profit.

**Option A is incorrect.** prices may be negotiated in advance; however, without a contract, then you will still buy the materials at the prevailing market prices in case the prices rise, since stocks may also rise in price.

**Option B is incorrect:** A lot may happen with time. The price of the materials may rise, and therefore purchasing construction materials in advance with the option to sell them if the bid turns out unsuccessful will not help reduce the risk.

**Option D is incorrect:** the owner of the project pays the risk premium in advance and if the risk does not materialize, then this will only benefit the contractor of the project

### Things to Remember

- Currency futures contracts are standardized, exchange-traded financial derivatives that lock in the exchange rate for buying or selling a currency on a future date.
- These contracts are essential for businesses with international exposure to hedge against potential losses due to currency fluctuation.

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Q.20 In a company's risk management strategy, the risk appetite statement plays a crucial role. It outlines the types of risks the company is willing to take, the risk management tools it prefers to use, and the maximum loss it is prepared to bear within a certain confidence limit and timeframe. Given these elements, which of the following is most likely to be excluded from a company's risk appetite statement?

- A. The types of risks the firm is willing to tolerate, specifying the risks to hedge and the ones to assume
- B. The preferred risk management tools e.g, insurance, derivatives, etc.
- C. The maximum loss the firm is willing to incur at a given confidence limit and time
- D. The timings of cash flows from the firm's projects

The correct answer is **D**.

The timings of cash flows from the firm's projects are not typically included in a firm's risk appetite statement. This is because each project that a firm undertakes is likely to have its unique capital outlay and duration. Therefore, it would be impractical and potentially misleading to include specific timings of cash flows in the risk appetite statement. The risk appetite statement is more concerned with outlining the types of risks the firm is willing to take, the risk management tools it prefers to use, and the maximum loss it is prepared to bear within a certain confidence limit and timeframe. It is not intended to provide detailed financial projections for individual projects.

**Choice A is incorrect** because the types of risks the firm is willing to tolerate, specifying the risks to hedge and the ones to assume, are indeed a crucial part of a firm's risk appetite statement. This information helps stakeholders understand the firm's approach to risk management and the types of risks it is willing to take on in pursuit of its business objectives. Therefore, it is unlikely to be omitted from the risk appetite statement.

**Choice B is incorrect** because the preferred risk management tools, such as insurance and derivatives, are also typically included in a firm's risk appetite statement. These tools are part of the firm's overall risk management strategy and provide insight into how the firm plans to mitigate and manage the risks it faces.

**Choice C is incorrect** because the maximum loss the firm is willing to incur at a given confidence limit and time is a key component of a firm's risk appetite statement. This information provides a clear indication of the firm's tolerance for risk and its capacity to absorb losses.

### **Things to Remember**

- A risk appetite statement is a key document in a firm's risk management framework.
- It outlines the types of risks the firm is willing to take, the risk management tools it prefers to use, and the maximum loss it is prepared to bear within a certain confidence limit and timeframe.
- The statement is intended to provide a clear and comprehensive overview of the firm's approach to risk management.

Q.23 Distinguish between exchange-traded and over-the-counter risk management instruments.

A. Exchange-traded instruments are standardized and exchange-tradable while over-the-counter instruments are non-standardized, privately negotiated financial contracts that cannot be traded on an exchange.

B. Over-the-counter instruments are standardized and exchange-tradable while exchange-traded instruments non-standardized, privately negotiated financial contracts that cannot be traded on an exchange.

C. Exchange-traded instruments are those instruments that only deal with intangible financial assets while over-the-counter instruments only deal with commodities such as coffee.

D. Exchange-traded instruments have time to maturity of less than one year while over-the-counter instruments have longer maturity periods.

The correct answer is **A**.

Exchange-traded instruments are indeed standardized and can be traded on an exchange. This standardization is a key feature of these instruments, as it allows for a more liquid and transparent market. The standardization refers to the fact that the terms and conditions of the contracts are set by the exchange, and therefore, all contracts of the same type and expiry date are identical. This makes them easily tradable on the exchange, as any buyer can be matched with any seller. Examples of exchange-traded instruments include futures and options.

On the other hand, over-the-counter (OTC) instruments are non-standardized and are privately negotiated. This means that the terms and conditions of the contracts are agreed upon by the two parties involved, making each OTC contract unique. Because of this, OTC contracts cannot be traded on an exchange. Instead, they are traded directly between two parties, either through a dealer network or in a decentralized manner. Examples of OTC instruments include forwards and swaps.

**Choice B is incorrect.** Over-the-counter instruments are not standardized and exchange-tradable. Instead, they are non-standardized, privately negotiated financial contracts that cannot be traded on an exchange. This is the opposite of what is stated in this choice.

**Choice C is incorrect.** The type of assets dealt with by exchange-traded or over-the-counter instruments does not strictly depend on whether they are tangible or intangible. Both types of instruments can deal with a variety of assets including both tangible commodities and intangible financial assets.

**Choice D is incorrect.** The time to maturity for both exchange-traded and over-the-counter instruments can vary widely and does not necessarily follow the pattern suggested in this choice. It depends more on the specific terms agreed upon by the parties involved in each individual contract.

### Things to Remember

- Exchange-traded derivatives are standardized contracts traded on formal exchanges providing greater liquidity and transparency.
  - OTC derivatives are customized contracts between private parties offering greater flexibility but higher counterparty risk.
  - Understanding the characteristics and differences between these instruments aids in making informed decisions about risk management tools.
-

Q.25 A firm borrows funds at a variable interest rate. Buying which of the following instruments would help the firm protect itself against increases in the market rate of interest?

- A. Currency forward contracts
- B. Options on interest rate futures
- C. Currency swaps
- D. Currency futures contracts

The correct answer is **B**.

Interest rate futures are a type of derivative contract through which the holder agrees to buy or sell an interest-bearing asset on a future date. The price of an interest rate future moves inversely to the change in interest rates. If interest rates go down, the price of the interest rate future goes up and vice-versa. An option on an interest rate future gives the holder the right, but not the obligation, to buy (call option) or sell (put option) the underlying interest rate future at a specified price (the strike price) on or before a specified date (the expiration date).

In this case, a put option on an interest rate future would be an effective hedge for the firm. If interest rates rise, the firm can exercise its option to sell the interest rate future at the strike price, which would be higher than the market price. This would offset the increased cost of borrowing due to the rise in interest rates. If interest rates fall, the firm can choose not to exercise its option and benefit from the lower borrowing cost.

**Choice A is incorrect.** Currency forward contracts are used to hedge against the risk of exchange rate fluctuations, not interest rate changes. They allow parties to buy or sell a specific amount of foreign currency at a predetermined price on a future date, thus providing no protection against rising interest rates.

**Choice C is incorrect.** Currency swaps involve the exchange of one currency for another between two parties, with an agreement to reverse the swap at a later date. While this can help manage exposure to foreign exchange risk, it does not directly address the risk of rising interest rates on a loan.

**Choice D is incorrect.** Similar to currency forward contracts, currency futures contracts are used primarily for hedging against foreign exchange risk and do not provide protection against increasing market interest rates.

### Things to Remember

- Options on interest rate futures provide the right, but not the obligation, to enter into an interest rate futures contract at a specified price before the option expires.
- These options allow investors to speculate on the direction of interest rates with a known risk (the premium paid for the option), making them a critical tool for managing interest rate exposure.

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Q.41 The board of directors of BRT Inc. is determining the risk appetite of the firm. It believes increasing the firm's risk appetite will introduce BRT to new potential business opportunities and increase the rewards to stakeholders. However, changing the risk appetite of a firm can be a cause of conflict between parties. Determining the risk appetite of a firm can cause the greatest conflict between:

- A. Management and debtholders.
- B. Management and shareholders.
- C. Shareholders and the board of directors.
- D. Shareholders and debtholders.

The correct answer is **D**.

The conflict between shareholders and debtholders is the most intense when determining a firm's risk appetite. This is because their interests are diametrically opposed when it comes to risk. Shareholders, as residual claimants, have an unlimited upside potential and therefore prefer a higher risk appetite. They stand to gain more if the firm takes on more risk and succeeds. On the other hand, debtholders, as fixed-income claimants, have a limited upside potential, which is confined to the interest rate agreed upon. Therefore, they prefer a lower risk appetite to ensure the firm's ability to meet its debt obligations. This fundamental difference in risk preference creates a significant conflict between shareholders and debtholders when determining the risk appetite of a firm.

**Choice A is incorrect.** While management and debtholders may have differing views on the company's risk appetite, it is not the most likely pair to experience the highest level of conflict. Management typically has a higher risk tolerance as they are focused on growth and profitability, while debtholders prefer lower risk to ensure repayment of their debt. However, these differences can be managed through effective communication and negotiation.

**Choice B is incorrect.** Although there might be disagreements between management and shareholders regarding the company's risk appetite due to their different perspectives on risk-return trade-off, this conflict is usually not as intense as that between shareholders and debtholders. Shareholders generally favor higher risks for potentially higher returns while management might prefer a more balanced approach.

**Choice C is incorrect.** The board of directors represents the interests of shareholders in setting the company's strategic direction including its risk appetite. Therefore, conflicts between these two parties are less likely compared to other pairs since they share common objectives in maximizing shareholder value.

### Things to Remember

- The conflict between shareholders and debtholders often centers around the firm's risk

levels.

- Shareholders may prefer higher-risk strategies for greater returns.
  - Debtholders typically seek lower risk to ensure security on their loan repayments.
-

Q.42 Anadolu Tire Company is the market leader in the tires manufacturing sector in Turkey. It acquires its raw material from its neighbor, Iran, on fixed trade terms and pays the supplier in the local Turkish currency. Anadolu also sells its tires to some eastern European countries and accepts payments in Euro. Based on the business perspective of Anadolu, determine which of the following risk it should hedge.

- A. Pricing risk.
- B. Foreign currency risk.
- C. Interest rate risk.
- D. Market risk.

The correct answer is **B**.

Anadolu Tire Company should prioritize hedging against foreign currency risk. This is because the company conducts business transactions in multiple currencies - it pays its suppliers in the local Turkish currency and receives payments from its customers in Euros. If the value of the Euro depreciates against the Turkish currency, the company's revenue from its sales in Eastern Europe would decrease when converted back to the local currency. This could potentially lead to financial losses. Therefore, to protect itself from the potential adverse effects of currency fluctuations, Anadolu Tire Company should hedge against foreign currency risk.

**Choice A is incorrect.** Pricing risk refers to the potential for a change in the price of a product or service due to market factors such as competition, supply and demand, among others. While Anadolu Tire Company may face pricing risk, it is not directly related to their business model of sourcing raw materials from Iran and exporting products to Eastern European countries.

**Choice C is incorrect.** Interest rate risk pertains to the potential for changes in interest rates that could affect a company's operations or its financial condition. Although this type of risk can impact any business, there's no specific information given in the question that suggests Anadolu Tire Company should prioritize hedging against interest rate risk.

**Choice D is incorrect.** Market risk involves exposure to changes in market prices, such as equity prices or commodity prices. While Anadolu Tire Company might be exposed to some level of market risk due its operations, it doesn't appear as significant as foreign currency risk given their business model which involves transactions in multiple currencies.

### Things to Remember

- Foreign currency risk arises from the change in price of one currency against another.
  - Hedging against foreign currency risk helps stabilize cash flows and earnings forecasts, which are vital for long-term financial planning.
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Q.5036 A firm has a total risk capacity of \$600 million. Senior managers have set a risk appetite at \$300 million. Which of the following would most likely be within the acceptable risk profile for the firm?

- A. \$400 million
- B. \$250 million
- C. \$900 million
- D. \$450 million

The correct answer is **B**.

The risk profile of a company is the amount of risk it is currently exposed to. It should be less than the company's risk appetite, which is the amount of risk the company is willing to take on. In this case, the company's risk appetite is \$300 million. Therefore, the risk profile should be less than this amount. Option B, which is \$250 million, is the only option that is less than the company's risk appetite. This is in line with the principle that a company's risk profile should always be less than its risk appetite, which in turn should be less than its total risk capacity. This ensures that the company does not take on more risk than it can handle, thereby safeguarding its financial stability and long-term viability.

**Choice A is incorrect.** The risk amount of \$400 million exceeds the firm's risk appetite of \$300 million, which means it falls outside the acceptable risk profile.

**Choice C is incorrect.** The risk amount of \$900 million not only exceeds the firm's risk appetite but also its total risk capacity of \$600 million, making it an unacceptable level of risk for the company.

**Choice D is incorrect.** Similar to choice A, a risk amount of \$450 million surpasses the company's established risk appetite and therefore does not align with its acceptable risk profile.

### Things to Remember

- An acceptable risk profile for a firm is determined based on its strategic objectives, capital base, and market conditions, balancing potential returns with acceptable levels of risk.
- It's key for firms to engage stakeholders in defining acceptable risk profiles, ensuring alignment with overall business strategy and stakeholder expectations.
- Regular risk assessments and adjustments are necessary to maintain an acceptable risk profile in light of changing internal and external circumstances, such as market volatility or regulatory changes.

Q.5307 ABC Bank's chief risk officer is trying to reduce the bank's exposure to foreign exchange fluctuations. He has suggested using an agreement where the bank gets the right without any obligation to exchange a given amount of currency at a predetermined price in the future. Which of the following derivatives is the chief risk officer suggesting?

- A. Forwards
- B. Futures
- C. Options
- D. Swap

The correct answer is **C**.

Options are financial derivatives that provide the holder with the right, but not the obligation, to buy or sell an underlying asset at a predetermined price within a specified period. In the context of foreign exchange, an option would allow ABC Bank to hedge against potential adverse currency movements. If the foreign exchange rate moves in a direction that is unfavorable to the bank, it can exercise the option and exchange the currency at the predetermined rate. However, if the exchange rate moves in a direction that is favorable to the bank, it can let the option expire and exchange the currency at the prevailing market rate. This flexibility is a key characteristic of options and distinguishes them from other derivative instruments such as forwards, futures, and swaps, which obligate the contracting parties to honor the contract.

**Choice A is incorrect.** Forwards are a type of derivative instrument, but they do not provide the right without an obligation. Instead, they involve an agreement to buy or sell an asset at a specified future date for a price agreed upon today. Therefore, both parties are obligated to fulfill the contract.

**Choice B is incorrect.** Futures are similar to forwards in that they involve an agreement to buy or sell an asset at a specified future date for a price agreed upon today. However, futures contracts are standardized and traded on exchanges, unlike forwards which are private agreements between two parties. Like forwards though, futures also impose obligations on both parties involved.

**Choice D is incorrect.** Swaps involve the exchange of cash flows between two parties based on predetermined terms and conditions but do not grant any rights without obligations like options do.

### Things to Remember

- Options are financial derivatives that give the buyer the right, but not the obligation, to buy or sell an underlying asset at a predetermined price within a specified timeframe.
- They are used extensively for hedging purposes to manage various types of financial risk, including market, credit, and foreign exchange risks.

- It's essential to understand the Greeks (Delta, Gamma, Theta, Vega, Rho), which measure different aspects of risk and sensitivity in options pricing, to effectively use options in risk management strategies.
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### **Reading 3: The Governance of Risk Management**

Q.21 In risk management within an organization, the board plays a crucial role. This role involves various responsibilities and tasks that contribute to the overall risk management strategy of the organization. Which of the following options best describes the primary role of the board in the risk management process?

- A. Issuing guidelines on how to manage risks
- B. Developing the risk appetite statement
- C. Regularly reviewing decisions made by managers regarding risk exposures
- D. Choosing the risk exposures to hedge, the risks to mitigate, and those to avoid altogether

The correct answer is **B**.

The board sits above the managers in the hierarchy of management in most for-profit organizations. The board assembles and develops a comprehensive risk appetite statement, specifying the risks the company should assume and those to avoid, including the preferred methods of risk mitigation. The managers consult the risk appetite statement when choosing the projects to undertake.

The board also delegates the responsibility for approving and reviewing the risk levels to the board risk management committee.

**Option A is incorrect.** Issuing guidelines on managing risks is the role of risk advisory managers.

**Option C is incorrect:** Regularly reviewing decisions made by managers regarding risk exposures is the role of the board risk management committee.

**Option D is incorrect.** Choosing the risk exposures to hedge, the risks to mitigate, and those to avoid altogether is the role of the risk advisory directors.

#### **Things to Remember**

- Risk management is a critical aspect of any organization's operations.
- It involves identifying, assessing, and managing potential risks that could negatively impact the organization's objectives.
- The board plays a crucial role in this process by setting the organization's risk appetite and guiding the overall risk management strategy.

Q.45 Which of the following statements best describes corporate governance in today's business world?

- A. The process by which the board of directors delegates duties to hired professionals who oversee the day-to-day running of the company.
- B. The system of rules, practices, processes, and regulations guiding risk managers when determining a company's risk appetite.
- C. The system of rules, regulations, and processes by which a company's board of directors looks after the needs of various stakeholders within the broader agenda of meeting business objectives.
- D. The tools used by the board of directors to drive business strategy, corporate responsibility, and streamline the interests of the company's shareholders.

The correct answer is C.

Corporate governance is indeed a system of rules, regulations, and processes that guide a company's board of directors in managing the affairs of the company. It is designed to balance the interests of the company's many stakeholders, such as shareholders, management, customers, suppliers, financiers, government, and the community. The board of directors is responsible for looking after the needs of these various stakeholders within the broader agenda of meeting business objectives. This involves making decisions that affect the direction of the company, setting strategic goals, and ensuring they are met. The board also oversees the company's operations to ensure they are in line with the company's strategic goals. This includes monitoring the performance of the management and taking corrective actions when necessary. The board also ensures that the company complies with all relevant laws and regulations and maintains high standards of ethics and corporate behavior.

**Choice A is incorrect.** While the board of directors does delegate duties to professionals for the day-to-day running of the company, this is only a small part of corporate governance. Corporate governance encompasses much more than just delegation, including setting company objectives, establishing policies and procedures, and ensuring accountability and transparency.

**Choice B is incorrect.** This choice incorrectly narrows down corporate governance to only risk management aspects. Although risk management is an important part of corporate governance, it also includes other elements such as strategic direction, performance monitoring and stakeholder communication.

**Choice D is incorrect.** Tools used by the board to drive business strategy or streamline shareholder interests are components of corporate governance but they do not define it entirely. Corporate Governance involves a broader set of rules and processes that ensure effective management control over corporations in order to protect all stakeholders' interests.

- Corporate governance involves a system of rules, regulations, and processes that guide the management and oversight of a company, balancing the interests of its various stakeholders.

- The board's role in corporate governance is crucial, as it is responsible for setting strategic goals, ensuring compliance, and monitoring management's performance to align activities with the company's objectives.
- Effective governance requires a mix of executive and non-executive directors, each playing distinct roles in oversight, strategy, and day-to-day management.

### **Things to Remember**

- Corporate governance is essential for maintaining transparency, accountability, and ethical behavior within a company.
  - It helps in building trust with stakeholders, including shareholders, employees, customers, and the community.
  - Good corporate governance practices can contribute to the long-term success and sustainability of a company.
  - Regulatory bodies and stock exchanges often have guidelines and requirements related to corporate governance that companies need to adhere to.
  - Corporate governance failures can lead to legal issues, reputational damage, and financial losses for a company.
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Q.48 A multinational corporation, GlobalTech, operates in the rapidly evolving technology sector. The company's business strategy emphasizes aggressive growth through innovation and market expansion, often involving significant investments in research and development and entry into new, untested markets. The company's executive compensation structure includes substantial bonuses tied to short-term revenue growth and market share gains. Considering the relationship between GlobalTech's risk appetite and its business strategy, which of the following statements is most likely correct?

- A. The company's risk appetite is well-aligned with its business strategy.
- B. The company's focus creates an environment where managers are incentivized to take on excessive risks.
- C. The company's risk appetite is too conservative for its business strategy.

D. The company's business strategy is too aggressive for its risk appetite.

The correct answer is **B**.

GlobalTech's aggressive growth strategy, focused on innovation and market expansion, aligns with a high-risk appetite, as these initiatives naturally involve significant uncertainty and potential for failure. However, tying executive compensation to short-term revenue growth and market share gains creates a misalignment by incentivizing short-term risk-taking, potentially at the expense of long-term stability and sustainability. This structure can lead to excessive risk-taking, as managers may prioritize meeting short-term goals over prudent decision-making.

**Choice A is incorrect.** While the strategy and risk appetite might align at first glance, the incentive structure undermines this alignment by promoting excessive risk-taking beyond the company's intended appetite.

**Choice C is incorrect.** There is no indication that the company's risk appetite is conservative. The aggressive growth strategy and investments in R&D suggest a high-risk appetite.

**Choice D is incorrect.** The aggressive strategy reflects a high-risk appetite. The issue lies not in the alignment between strategy and risk appetite but in the incentive structure that may drive risk-taking to excessive levels.

### Things to Remember

- A firm's risk appetite defines the level of risk it is willing to accept in pursuit of its business objectives.
- A firm's business strategy outlines how it plans to achieve its objectives, and it should be consistent with the firm's risk appetite.
- Incentives play a crucial role in aligning employee behavior with the firm's risk appetite and business strategy. Misaligned incentives can lead to excessive risk-taking or risk aversion.
- A common misalignment occurs when short-term performance metrics are heavily emphasized, leading to excessive risk-taking to achieve short-term targets, potentially at the expense of long-term value.
- Effective risk governance requires a clear articulation of the firm's risk appetite, consistent communication of this appetite throughout the organization, and incentive structures that reinforce desired risk-taking behavior.
- A practical example: A bank with a high risk appetite might pursue aggressive lending

strategies in emerging markets. However, if employee bonuses are solely tied to loan volume, employees might take on excessively risky loans, exceeding the bank's intended risk appetite. Therefore, risk-adjusted performance metrics should be included in the compensation structure.

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Q.52 Corporate governance plays a critical role in the success and sustainability of companies, influencing relationships with key stakeholders. Understanding how suppliers and customers can reward good corporate governance is essential for enhancing business operations and fostering long-term partnerships. In which way can suppliers and customers reward good corporate governance?

- A. Purchase from a competitor offering lower prices
- B. Demanding a higher rate of return on their investment.
- C. Actively doing business with the company in favorable terms.
- D. Giving extra benefits to company executives.

The correct answer is **C**.

Good corporate governance can significantly enhance a company's reputation and trust among its stakeholders, including suppliers and customers. When a company practices good corporate governance, it demonstrates transparency, accountability, and fairness in its business operations. This can lead to increased confidence among suppliers and customers, encouraging them to actively do business with the company in favorable terms. They may offer better payment terms, discounts, or other benefits, recognizing the reduced risk and increased reliability associated with doing business with a well-governed company. This choice correctly identifies how suppliers and customers can reward a company for good corporate governance.

**Choice A is incorrect.** Purchasing from a competitor offering lower prices does not express appreciation for good corporate governance. Instead, it indicates a preference for lower prices over the quality of governance.

**Choice B is incorrect.** Demanding a higher rate of return on their investment does not show appreciation for good corporate governance. It rather suggests dissatisfaction with the current returns and may put undue pressure on the company, potentially leading to poor decision-making.

**Choice D is incorrect.** Giving extra benefits to company executives can be seen as an attempt to influence decisions rather than an appreciation of good corporate governance. Good corporate governance promotes transparency and fairness, which could be compromised by such actions.

### Things to Remember

- Good corporate governance enhances a company's reputation and can lead to more favorable business terms from suppliers and customers due to perceived reliability and trustworthiness.
  - It is vital for companies to exhibit transparency, accountability, and fairness in business practices to gain and maintain stakeholder trust.
  - The role of the board in enforcing good governance is crucial as it ensures that broader corporate strategies align with ethical standards and stakeholder expectations.
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Q.55 Explain the meaning of a 'fiduciary duty' within the bounds of corporate governance.

- A. A duty that arises out of a contractual agreement.
- B. A duty that is not stipulated in a company's constitution, but nonetheless expected to be performed by management.
- C. A duty imposed on a person because of the position of trust and confidence in which they stand in relation to another.
- D. The duty to prioritize the interests of the government over those of one's clients

The correct answer is **C**.

A fiduciary duty is a legal obligation that is imposed on an individual due to the position of trust and confidence they hold in relation to another. This duty is not just a moral obligation, but a legal one that binds the individual to act in the best interest of the other party. The individual, often referred to as the fiduciary, is entrusted with the responsibility of making decisions or managing assets that belong to the other party. The fiduciary is expected to act with utmost good faith, honesty, and loyalty, prioritizing the interests of the other party over their own. This duty is often seen in various professional relationships, such as between a trustee and a beneficiary, a director and a corporation, or an attorney and a client. Breach of fiduciary duty can lead to legal consequences, including damages and disgorgement of profits.

**Choice A is incorrect.** While fiduciary duties can be part of a contractual agreement, they are not exclusively derived from contracts. Fiduciary duties arise due to the position of trust and confidence that an individual holds, which may or may not be contractually defined.

**Choice B is incorrect.** Fiduciary duty does not necessarily have to be explicitly stated in a company's constitution for it to exist. It arises from the relationship between two parties where one party has placed trust in another who has a superior knowledge or power. This duty exists regardless of whether it is stipulated in the company's constitution.