Q.942 Currency depreciation will *most likely* have a large effect on a country's trade balance if:

A. goods exported and imported have close substitutes.

B. goods exported and imported have less elastic demand.

C. goods imported represent a larger proportion of overall government expenditure.

The correct answer is **A.**

When a country's currency depreciates, it means that the value of the currency has decreased relative to other currencies. This depreciation can have a significant impact on a country's trade balance, especially when the goods exported and imported have close substitutes. In such cases, the depreciation makes foreign goods more expensive for local consumers, as they now need to spend more of their own currency to purchase the same amount of imported goods. As a result, consumers are likely to shift their preferences towards domestically produced goods that serve as substitutes for the now more expensive imported goods. This shift can lead to an increase in domestic consumption of locally produced goods and a decrease in the consumption of imported goods, potentially improving the country's trade balance by reducing imports and increasing exports if the domestic goods are also exported.

B is incorrect. Consumers and businesses will continue to purchase these goods despite price increases for imports or decreases for exports. However, this option overlooks the fact that even with inelastic demand, there can still be some impact on the trade balance, albeit less pronounced than in cases where goods have more elastic demand and close substitutes.

C is incorrect. While government expenditure on imported goods can influence a country's trade balance, the effect of currency depreciation on the trade balance is more directly related to the behavior of private consumers and businesses in response to changes in relative prices of imported and domestic goods. Government spending decisions are often determined by budgetary considerations and policy objectives rather than short-term changes in exchange rates. Therefore, the proportion of government expenditure on imported goods is less likely to be the primary factor determining the impact of currency depreciation on the trade balance compared to the availability of close substitutes and the elasticity of demand for the goods involved.

CFA Level I, Economics, Learning Module 7: Capital Flows and the FX Market. LOS b: describe exchange rate regimes and explain the effects of exchange rates on countries' international trade and capital flows.

Q.947 All things being equal, inflation in a country would *most likely* lead to:

A. Depreciation in its currency.

B. Appreciation in its currency.

C. No effect on real exchange rates.

The correct answer is **A.**

Inflation within a country typically results in the depreciation of its currency. This phenomenon can be explained through the lens of purchasing power parity (PPP) and the basic principles of supply and demand in the foreign exchange market. When a country experiences inflation, the general level of prices for goods and services rises. This increase in prices reduces the purchasing power of the country's currency, both domestically and internationally. As domestic goods become more expensive relative to foreign goods, consumers and businesses are likely to increase their demand for cheaper foreign products. This shift in consumption patterns leads to an increase in the demand for foreign currencies to pay for these imports and a corresponding increase in the supply of the domestic currency in the foreign exchange markets. The increased supply of the domestic currency, coupled with decreased demand, leads to its depreciation. Furthermore, foreign investors may find investments in the country less attractive due to the reduced purchasing power, leading to a withdrawal or reduction of foreign investment, further increasing the supply of the domestic currency and contributing to its depreciation.

B is incorrect. In reality, inflation erodes the purchasing power of a currency, making domestic goods and services more expensive relative to those in countries with lower inflation rates. This discrepancy can lead to a decrease in demand for the domestic currency as both domestic and foreign consumers and investors seek more stable or valuable currencies, ultimately leading to depreciation, not appreciation, of the currency.

C is incorrect. Suggesting that inflation has no effect on real exchange rates overlooks the fundamental economic principles that govern currency value and exchange rates. Inflation affects the purchasing power of a currency, which in turn influences the real exchange rate through changes in relative prices between countries. While nominal exchange rates might adjust to reflect inflation differentials, real exchange rates, which are adjusted for price level changes, can also be affected as they reflect the relative cost of goods between countries. Ignoring the impact of inflation on real exchange rates disregards the interconnectedness of inflation, purchasing power, and currency value in the global economy.

CFA Level I, Economics, Learning Module 7: Capital Flows and the FX Market. LOS a: Describe the foreign exchange market, including its functions and participants, distinguish between nominal and real exchange rates, and calculate and interpret the percentage change in a currency relative to another currency.

Q.1015 If a country's domestic currency appreciates relative to foreign currencies, exports will most likely:

A. Increase.

B. Decrease.

C. Remain unchanged.

The correct answer is **B.**

When a country's domestic currency appreciates relative to foreign currencies, the price of its goods and services increases for foreign buyers. This is because the stronger domestic currency means that foreign buyers need to spend more of their own currency to purchase the same amount of goods or services. As a result, the country's exports become less competitive in the global market, leading to a decrease in demand from international buyers. Consequently, the volume of exports is likely to decrease as foreign customers look for more cost-effective alternatives. This dynamic is a fundamental aspect of international trade and currency exchange rates, affecting the balance of trade between countries.

A is incorrect. An appreciation of the domestic currency makes exports more expensive for foreign buyers, not less. This would likely lead to a decrease, rather than an increase, in exports. The reasoning that exports would increase under these conditions misunderstands the relationship between currency value and international trade competitiveness. When a currency appreciates, it does not make the country's goods and services more attractive to foreign buyers; instead, it does the opposite by raising prices for those outside the country.

C is incorrect. While it might seem intuitive to some that exports could remain unchanged despite fluctuations in currency value, this overlooks the sensitivity of international trade to price changes. Currency values directly impact the cost of goods and services abroad. An appreciation of the domestic currency makes exports more expensive on the global market, which can lead to a decrease in demand. It is rare for such currency movements to have no effect on export volumes, as international buyers are always looking for the most cost-effective options. Therefore, saying exports would remain unchanged ignores the complex interplay between currency valuation and global trade dynamics.

CFA Level 1, Volume 1, Topic 2 - Economics, Learning Module 7 - Capital Flows and the FX Market, LOS 7b: Describe exchange rate regimes and explain the effects of exchange rates on countries' international trade and capital flows.

Q.1564 The CPIs of India and Pakistan are 132 and 121, respectively. If the nominal exchange rate is 1.32 PKR/INR, then the real exchange rate for India is *closest to*:

A. 0.69.

B. 0.83.

C. 1.44.

The correct answer is **C.**

$$\begin{aligned} \text{RER} &= \text{Nominal exchange rate} \times \left(\frac{\text{Price level of domestic country}}{\text{Price level of foreign country}}\right) \\ &= 1.32 \times \left(\frac{132}{121}\right) \\ &= 1.44 \end{aligned}$$

Note: The CPI is used as a proxy for the price level in each country.

This calculation shows that, after adjusting for price levels in both countries, 1 Indian Rupee (INR) is equivalent to 1.44 Pakistani Rupees (PKR) in terms of purchasing power.

A is incorrect. It represents the inverse of the real exchange rate calculation, which would be more relevant if we were calculating the real exchange rate from the perspective of Pakistan. The calculation for option A likely follows the formula for the real exchange rate from Pakistan's perspective, which is not what the question asks for.

B is incorrect. It does not accurately reflect the real exchange rate calculation between India and Pakistan based on the given CPIs and nominal exchange rate. The value of 0.83 does not result from any standard method of calculating real exchange rates with the given data. It seems to be a misunderstanding of how the nominal exchange rate and CPIs interact in the formula for real exchange rates.

CFA Level I, Economics, Learning Module 7: Capital Flows and the FX Market. LOS a: Describe the foreign exchange market, including its functions and participants, distinguish between nominal and real exchange rates, and calculate and interpret the percentage change in a currency relative to another currency.

Q.1570 The exchange rates AUD/NZD has fallen from 1.01 to 0.90 in 1 year. The percentage change in the value of the AUD in terms of NZD is *closest to:*

A. -12.12%

B. -10.89%

C. 12.12%

The correct answer is **C.**

To calculate the percentage change in the AUD value in terms of NZD, we need to invert AUD/NZD.

NZD/AUD = $\frac{1}{1.01}$ = 0.99 and NZD/AUD = $\frac{1}{0.90}$ = 1.11

Now, we can simply calculate the change $\frac{1.11}{0.99} - 1 = 0.1212$.

This shows that the AUD has appreciated 12.12% against the NZD.

A is incorrect. We cannot say that the NZD has depreciated -12.12% against the AUD.

B is incorrect. It represents the depreciation rate of NZD against AUD.

CFA Level I, Economics, Learning Module 7: Capital Flows and the FX Market. LOS a: Describe the foreign exchange market, including its functions and participants, distinguish between nominal and real exchange rates, and calculate and interpret the percentage change in a currency relative to another currency.

Q.1571 Turkey and Russia are two countries with a high level of bilateral trade relationships. Due to recent economic crises in Russia, the exchange rate has gone from 19.10 RUB/TRY to 23.15 RUB/TRY. Which of the following is *most accurate* regarding this change in exchange rates?

A. The Turkish Lira has depreciated.

B. The Turkish Lira has appreciated.

C. The Russian Ruble has appreciated.

The correct answer is **B.**

When analyzing the change in exchange rates from 19.10 RUB/TRY to 23.15 RUB/TRY, it is evident that the value of the Turkish Lira (TRY) in terms of the Russian Ruble (RUB) has increased. This means that it now takes more RUB to purchase a single unit of TRY than it did before. This scenario is a clear indication of the Turkish Lira appreciating against the Russian Ruble. The appreciation of a currency is a reflection of its increased value in comparison to another currency. In this context, the appreciation of the TRY against the RUB could be attributed to various factors including economic policies, inflation rates, and changes in trade balances between the two countries. The appreciation of the TRY implies that Turkey's currency has become stronger or more valuable in terms of how much foreign currency it can buy, which could have implications for Turkey's international trade, making its exports more expensive and imports cheaper in relative terms.

A is incorrect. This option suggests that the Turkish Lira has depreciated, which would mean that it would take fewer RUB to buy 1 TRY, indicating a decrease in the value of TRY relative to RUB. However, the increase from 19.10 RUB/TRY to 23.15 RUB/TRY indicates the opposite, showing that the TRY has actually become more valuable, not less. Depreciation of a currency would imply a weakening of the currency's value, which is not the case here as it now requires more RUB to purchase the same amount of TRY.

C is incorrect. This option indicates that the Russian Ruble has appreciated, which would imply that the RUB has increased in value relative to the TRY, making it stronger and able to buy more TRY with the same amount of RUB. However, the change in exchange rates from 19.10 RUB/TRY to 23.15 RUB/TRY demonstrates a depreciation of the RUB relative to the TRY, as it now takes more RUB to buy 1 TRY. Appreciation of the RUB would be indicated by a decrease in the RUB/TRY rate, showing that fewer RUB are needed to purchase TRY, which is not the case in this scenario.

CFA Level I, Economics, Learning Module 7: Capital Flows and the FX Market. LOS a: Describe the foreign exchange market, including its functions and participants, distinguish between nominal and real exchange rates, and calculate and interpret the percentage change in a currency relative to another currency.

Q.1578 LeGrandia is a newly formed country that does not have its currency. Which of the following is *least likely* option available for LeGrandia?

A. Crawling peg.

B. Monetary union.

C. Formal dollarization.

The correct answer is **A.**

A crawling peg is an exchange rate regime that presupposes the existence of a national currency that can be adjusted in a controlled manner against a major currency or a basket of currencies. The primary purpose of a crawling peg system is to stabilize the national currency by making minor, gradual adjustments to its value in response to specific economic indicators or market conditions. This system aims to combine the stability offered by a fixed exchange rate with the flexibility of a floating rate. However, for a country like LeGrandia, which does not have its own currency, implementing a crawling peg system is not feasible. The absence of a national currency means there is no baseline value to adjust, making the concept of a crawling peg irrelevant and inapplicable to LeGrandia's situation.

B is incorrect. Entering a monetary union is a viable option for a country without its own currency. By joining a monetary union, LeGrandia would adopt the common currency used within the union, thereby gaining a stable and internationally recognized medium of exchange. This option would allow LeGrandia to benefit from the economic stability and integration advantages that come with being part of a larger monetary system. The use of a common currency could facilitate trade, reduce transaction costs, and potentially enhance economic growth and stability for LeGrandia.

C is incorrect. Formal dollarization is another feasible option for LeGrandia. This process involves adopting the currency of another country, typically a major and stable currency like the US dollar, as the official legal tender. Formal dollarization can offer several benefits, including eliminating the risk of currency crises, fostering closer economic ties with the country whose currency is adopted, and potentially attracting foreign investment due to the reduced currency risk. However, it also means relinquishing control over monetary policy, which could be a significant drawback. Nonetheless, for a country without its own currency, formal dollarization presents a practical solution to establish a stable and credible monetary system.

CFA Level I, Economics, Learning Module 7: Capital Flows and the FX Market. LOS b: Describe exchange rate regimes and explain the effects of exchange rates on countries' international trade and capital flows.

Q.1580 The exchange rate regime in which the domestic currency is permitted to fluctuate between the horizontal bands +1% and -1% against a single or a basket of foreign currencies is *most likely* called a:

A. fixed parity.

B. target zone.

C. crawling peg.

The correct answer is **A.**

In conventional fixed parity, the domestic currency is permitted to fluctuate between the horizontal bands +1% and -1% against a single or a basket of foreign currencies.

B is incorrect. A target zone is where countries maintain their currencies within a specific set margin.

C is incorrect. Crawling peg is an exchange rate regime used by countries that already have their currency. A crawling peg is used to control currency moves, especially during threats of devaluation. It involves buying and selling the currency in a coordinated manner to keep the currency within a range (band of rates)

CFA Level I, Economics, Learning Module 7: Capital Flows and the FX Market. LOS b: Describe exchange rate regimes and explain the effects of exchange rates on countries' international trade and capital flows.

Q.3253 The reasons for countries imposing capital restrictions are *most likely* to include which of the following?

A. To protect strategic or military interests.

B. To prevent domestic investors from gaining higher rates of return abroad.

C. To ensure foreigners cannot unduly influence the election of government officials.

The correct answer is **A.**

Capital restrictions are crucial for safeguarding national security and ensuring that sensitive industries, such as telecommunications, defense, and energy, remain under the control or significant influence of domestic entities or the government. By limiting foreign investment in these sectors, countries can prevent potential espionage, sabotage, or other security threats that could arise if foreign entities gain control over critical infrastructure. This approach allows governments to maintain sovereignty over their strategic assets and ensures that national interests are prioritized over global economic integration in areas deemed vital for national security.

B is incorrect. While it might seem intuitive that countries would want to prevent domestic investors from seeking higher returns abroad to keep capital within the country, this is not a primary reason for imposing capital restrictions. The main purpose of capital controls is to manage the flow of foreign investment and protect the economy from volatile capital movements that can lead to financial instability. These controls are more about managing the inflow and outflow of capital to stabilize the financial system rather than preventing domestic investors from accessing foreign markets. Moreover, in a globalized economy, investors often diversify their portfolios across borders to manage risk, and outright preventing this could be counterproductive to the overall health of the domestic financial market.

C is incorrect. The assertion that capital restrictions are imposed to ensure foreigners cannot unduly influence the election of government officials is misleading. While it is true that countries are concerned about foreign influence in their domestic affairs, capital controls are primarily economic tools aimed at managing financial stability and protecting strategic sectors. The influence of foreign investment on political processes is a separate issue that is typically addressed through regulations on political contributions and lobbying, rather than through broad capital controls. Therefore, this option does not accurately reflect the primary motivations behind the imposition of capital restrictions.

CFA Level I, Economics, Learning Module 7: Capital Flows and the FX Market. LOS c: Describe common objectives of capital restrictions imposed by governments.

Q.3254 If the exchange rate quote for the euro (USD/EUR) changes from 1.3500 to 1.2600, then in approximate terms:

A. the euro depreciated by 6.7%, and the dollar appreciated by 7.1%.

B. the dollar depreciated by 6.7%, and the euro appreciated by 7.1%.

C. the euro appreciated by 6.7%, and the dollar depreciated by 7.1%.

The correct answer is **A.**

When analyzing the impact of exchange rate changes on currency value, it's essential to understand how these changes reflect the appreciation or depreciation of currencies. In this case, the exchange rate for the euro (USD/EUR) moving from 1.3500 to 1.2600 indicates a shift in the relative value of the euro to the dollar. To calculate the percentage change in the value of the euro, we use the formula for percentage change, which is;

$$\frac{(\text{New Value} - \text{Old Value})}{\text{Old Value}} \times 100\%$$

Applying this formula, the percentage change in the euro's value is;

$$\frac{1.2600 - 1.3500}{1.3500} \times 100\% = -6.67\%$$

This indicates that the euro has depreciated by approximately 6.7%.

Conversely, the percentage change in the indirect quote is $\frac{(\frac{1}{1.2600})}{(\frac{1}{1.3500})} - 1 = \frac{1.3500}{1.2600} 1 = 0.0714$ or 7.1%.

This analysis demonstrates the inverse relationship between the two currencies in an exchange rate quote and how a decrease in the USD/EUR rate signifies the euro's depreciation and the dollar's appreciation.

B is incorrect This option incorrectly interprets the exchange rate movement, suggesting that the dollar depreciated and the euro appreciated, which is the opposite of what actually occurred. The depreciation or appreciation of a currency is determined by its increased or decreased value relative to another currency. In this scenario, the euro's value decreased relative to the dollar, indicating the euro's depreciation, not appreciation.

C is Incorrect. This option mistakenly claims that the euro appreciated and the dollar depreciated, which contradicts the actual movement of the exchange rates. The decrease in the USD/EUR rate from 1.3500 to 1.2600 clearly shows the euro's depreciation against the dollar, not its appreciation. Understanding the direct and indirect quotes in exchange rates is crucial for accurately interpreting these movements and their implications on currency values.

CFA Level I, Economics, Learning Module 7: Capital Flows and the FX Market. LOS a: Describe the foreign exchange market, including its functions and participants, distinguish between nominal and real exchange rates, and calculate and interpret the percentage change in a currency relative to another currency.

Q.3259 Some countries such as Ecuador and Panama have adopted the currency of another country. Such a regime would be *best* described as:

A. dollarized.

B. a crawling peg.

C. an independent float.

The correct answer is **A.**

Dollarization refers to the practice of a country adopting the currency of another country for use as its own. This can occur in full, where a foreign currency is used exclusively, or in a limited form, where the foreign currency is used alongside the domestic currency. The primary reason for dollarization is to achieve greater economic stability, particularly in countries that have experienced high inflation rates with their own currency. By adopting a more stable, widely accepted currency such as the U.S. dollar, these countries aim to benefit from the economic stability and credibility of the currency's country of origin. This can help in reducing inflation rates and stabilizing the economy. Countries like Ecuador and Panama have adopted the U.S. dollar as their official currency, making transactions within these countries directly in dollars without the need for currency conversion. This move has implications for monetary policy, as these countries effectively relinquish control over their monetary policy to the monetary authority of the currency they adopt.

B is incorrect. A crawling peg is an exchange rate regime where a country fixes its currency's value to another currency or a basket of currencies but allows this fixed rate to adjust periodically. This adjustment is usually made in response to certain indicators, such as differences in inflation rates between the pegging country and the currency to which it is pegged. The crawling peg aims to combine the stability of a fixed exchange rate with the flexibility of a floating rate, allowing for gradual adjustments to the exchange rate to avoid economic shocks. This system is fundamentally different from dollarization, where a country adopts another currency entirely, foregoing its own.

C is incorrect. An independent float, also known as a free-floating exchange rate system, is where a country's currency value is determined by the foreign exchange market through supply and demand relative to other currencies. This system allows for complete flexibility, with the exchange rate fluctuating freely according to market forces without intervention from the country's central bank. Countries with independent floating currencies retain control over their monetary policies, allowing them to adjust interest rates according to their economic needs. This contrasts with dollarization, where countries use a foreign currency and thus depend on the monetary policy of the currency's country of origin, limiting their control over domestic monetary policy.

CFA Level I, Economics, Learning Module 7: Capital Flows and the FX Market. LOS b: Describe exchange rate regimes and explain the effects of exchange rates on countries' international trade and capital flows.

Q.3260 Categories of participants on the buy side of foreign exchange markets would *least likely* include:

A. Leveraged accounts and retail accounts.

B. Corporate accounts and real money accounts.

C. Large banks such as Citigroup and Deutsche Bank.

The correct answer is **C.**

The foreign exchange market is typically divided into two main groups: the buy side and the sell side. The buy side includes entities that are seeking to purchase foreign currencies, which can encompass a wide range of participants such as institutional investors, hedge funds, governments, and multinational corporations. These participants are typically looking to exchange currencies for the purpose of investment, trade, or hedging against currency risk. On the other hand, the sell side consists of the large banks and financial institutions that provide foreign exchange services, including market making, trading, and brokerage services. Large banks like Citigroup and Deutsche Bank fall into this category as they are the ones who facilitate the currency transactions for the buy-side participants, rather than being the end consumers of these transactions themselves.

A is incorrect. Leveraged accounts and retail accounts are part of the buy side in foreign exchange markets. Leveraged accounts refer to investors who use borrowed funds to amplify their trading positions, aiming for higher returns (albeit with higher risk). Retail accounts refer to individual investors who participate in the forex market, often through brokers. Both types of accounts are seeking to purchase foreign currencies for various purposes, such as speculation, hedging, or personal transactions, making them part of the buy side.

B is incorrect. Corporate accounts and real money accounts are also participants on the buy side of foreign exchange markets. Corporate accounts refer to businesses that need to exchange currencies for the purpose of international trade, investment, or to hedge against currency risk associated with their global operations. Real money accounts refer to institutional investors such as pension funds, endowments, and insurance companies that invest in foreign currencies as part of their asset allocation strategies. These participants are purchasing foreign currencies to meet their respective needs, aligning them with the buy side of the market.

CFA Level I, Economics, Learning Module 7: Capital Flows and the FX Market. LOS a: Describe the foreign exchange market, including its functions and participants, distinguish between nominal and real exchange rates, and calculate and interpret the percentage change in a currency relative to another currency.

Q.3265 If the exchange rate quote for the Brazilian real (BRL/USD) changes from 3.1625 to 3.5000, then in approximate terms:

A. the real depreciated by 9.6%, and the dollar appreciated by 10.7%.

B. the dollar depreciated by 9.6%, and the real appreciated by 10.7%.

C. the dollar appreciated by 9.6%, and the real depreciated by 10.7%.

The correct answer is **A.**

To understand the impact of exchange rate changes on currency value, it's essential to calculate the percentage change in the exchange rate for both currencies involved. In this case, we are examining the change in the exchange rate between the Brazilian real (BRL) and the US dollar (USD). The exchange rate moved from 3.1625 to 3.5000 BRL/USD. This change affects the value of both currencies in opposite directions.

The percentage change in the value of the real relative to the dollar can be calculated using the formula for percentage change, which is;

$$\frac{\text{new value} - \text{old value}}{\text{old value}} \times 100\%$$

Applying this formula to the dollar's perspective (since the quote is BRL/USD), we find that the dollar's value increased by approximately 10.7%. This is calculated as;

$$\frac{3.5000 - 3.1625}{3.1625} \times 100\% = 10.7\%$$

This increase indicates that it now takes more reals to purchase one dollar, signifying that the dollar has appreciated in value.

Conversely, to find the change in the real's value, we need to invert the exchange rates to get USD/BRL and then calculate the percentage change. The inversion adjusts the perspective to how many dollars one real can buy. The calculation is as follows:

$$\frac{(\frac{1}{3.5000})}{(\frac{1}{3.1625})} - 1 = -0.0964 \approx 9.6\%$$

This negative percentage indicates a depreciation in the real's value, meaning the real has lost value relative to the dollar.

B is incorrect. It incorrectly states the direction of the currency value changes. It suggests that the dollar depreciated and the real appreciated, which is the opposite of what actually occurred. The increase in the BRL/USD rate indicates that more reals are needed to buy a dollar, meaning the real has depreciated, and the dollar has appreciated.

C is incorrect. It reverses the actual changes in currency values.

CFA Level I, Economics, Learning Module 7: Capital Flows and the FX Market. LOS a: Describe the foreign exchange market, including its functions and participants,

distinguish between nominal and real exchange rates, and calculate and interpret the percentage change in a currency relative to another currency.

Q.3266 If the exchange rate quote for the Mexican peso (MXN/USD) changes from 11.9500 to 12.4000, then in approximate terms:

A. the peso depreciated by 3.63%, and the dollar appreciated by 3.77%.

B. the dollar depreciated by 3.63%, and the peso appreciated by 3.66%.

C. the dollar appreciated by 3.86%, and the peso depreciated by 3.66%.

The correct answer is **A.**

When the exchange rate quote for the Mexican peso (MXN/USD) changes from 11.9500 to 12.4000, it indicates a shift in the value of the peso relative to the dollar. To understand the impact of this change, we calculate the percentage change in the exchange rate, which provides insight into the appreciation or depreciation of the currencies involved.

The formula for calculating the percentage change in the exchange rate is:

$$\text{Percentage Change} = \frac{\text{(New Value - Old Value)}}{\text{Old Value}} \times 100\%$$

So, the percentage change in the exchange rate is:

$$\text{Percentage Change} = \frac{(12.4000 - 11.9500)}{11.9500} \times 100\% = 3.77\%$$

This calculation shows that the exchange rate has increased by approximately 3.8%, meaning it now takes more pesos to buy one dollar. This increase in the exchange rate signifies that the peso has depreciated by approximately 3.8% relative to the dollar. Conversely, from the perspective of the dollar, this change represents an appreciation, as one dollar now buys more pesos than before.

The peso has depreciated by approximately 3.8%, and the dollar has appreciated, but due to the reciprocal nature of currency exchange rates, the exact percentage of the dollar's appreciation relative to the peso cannot be directly inferred from the given information without additional calculations. The statement about the dollar appreciating by 3.6% is an approximation of its increased purchasing power relative to the peso.

B is incorrect. It incorrectly states the direction of the currency value changes. The given exchange rate movement indicates that the peso has depreciated, not appreciated, and the dollar has appreciated, not depreciated. This option reverses the actual impact of the exchange rate change on the currencies involved.

C is incorrect. While it correctly identifies the direction of the peso's depreciation, it inaccurately quantifies the percentage change for both currencies. The option suggests a direct and equal percentage change for both currencies, which oversimplifies the relationship between the exchange rate change and the currencies' values. The calculation of the dollar's appreciation percentage would require a different approach, considering the reciprocal nature of exchange rates.

CFA Level I, Economics, Learning Module 7: Capital Flows and the FX Market. LOS a: Describe the foreign exchange market, including its functions and participants, distinguish between nominal and real exchange rates, and calculate and interpret the percentage change in a currency relative to another currency.

Q.3834 The CPIs of India and Pakistan are 132 and 121, respectively. If the nominal exchange rate is 1.32 PKR/INR, then the real exchange rate for India is *closest to*:

A. 1.78

B. 1.44

C. 1.12

The correct answer is **B.**

The real exchange rate between two countries is a measure that adjusts the nominal exchange rate between their currencies by the relative prices of a basket of goods in those countries, typically represented by their Consumer Price Index (CPI).

The formula to calculate the real exchange rate is given by:

$$\text{Real exchange rate} = \text{Nominal exchange rate} \times \left(\frac{\text{Domestic inflation}}{\text{Foreign inflation}}\right)$$

$$= 1.32 \times \left(\frac{132}{121}\right) = 1.44$$

A is incorrect. It suggests a real exchange rate of 1.78, which does not align with the calculation based on the given CPIs and nominal exchange rate. The real exchange rate calculation must accurately reflect the ratio of the CPIs adjusted by the nominal exchange rate to provide a true measure of the relative purchasing power between the two currencies.

C is incorrect. It indicates a real exchange rate of 1.12, which is lower than the calculated value. A real exchange rate of 1.12 would imply a different set of economic conditions or CPI values than those provided.

CFA Level I, Economics, Learning Module 7: Capital Flows and the FX Market. LOS a: Describe the foreign exchange market, including its functions and participants, distinguish between nominal and real exchange rates, and calculate and interpret the percentage change in a currency relative to another currency.

Learning Module 8: Exchange Rate Calculations

Q.1576 The CHF/USD spot exchange rate is currently trading around 0.9500 on major FOREX exchanges. Assuming a 1-year forward rate quoted as -25 points, the 1-year forward CHF/USD rate is *closest to*:

A. 0.9475.

B. 0.9525.

C. -24.05.

The correct answer is **A.**

To calculate the 1-year forward CHF/USD rate given a spot rate of 0.9500 and a forward rate quoted as -25 points, it is essential to understand how forward points work in the context of foreign exchange markets. Forward points are essentially the difference between the forward rate and the spot rate, expressed in basis points.

Each (1) quoted point in forward exchange quotations is typically equal to 0.0001 or 1/10,000, since a point is the last digit of a quotation. Therefore, -25 points = 0.0025.

$$\text{Forward CHF/USD rate} = 0.95 - 0.0025 = 0.9475$$

B is incorrect. It suggests a forward rate of 0.9525, which would imply an addition of the forward points to the spot rate, contrary to the correct method of adjusting for a negative forward point quote.

C is incorrect. It subtracts the basis points from the spot rate directly without dividing with 10,000.

CFA Level 1, Volume 1, Topic 2 - Economics, Learning Module 8 - Exchange Rate Calculations, LOS b: Explain the arbitrage relationship between spot and forward exchange rates and interest rates, calculate a forward rate using points or in percentage terms, and interpret a forward discount or premium.

Q.3262 The Canadian dollar is quoted in US dollar terms as 1.2025 (CAD/USD), and the peso is quoted as 12.4500 (MXN/USD). The cross rate of MXN/CAD must be *closest to*:

A. 16.9095.

B. 10.3534.

C. 11.5000.

The correct answer is **B.**

To find the cross rate between the Mexican Peso (MXN) and the Canadian Dollar (CAD), we need to understand how cross rates are calculated. A cross rate is the exchange rate between two currencies computed by reference to a third currency, typically the US Dollar (USD) in international markets. In this case, we have the exchange rates of CAD and MXN against the USD, and we want to find the rate of MXN per CAD. The formula for calculating the cross rate is:

$$\text{Cross Rate (MXN/CAD)} = \text{MXN/USD} \times \frac{1}{\text{CAD/USD}}$$

Given the exchange rates are 12.4500 MXN/USD and 1.2025 CAD/USD, we can substitute these values into the formula:

$$\text{Cross Rate (MXN/CAD)} = 12.4500 \times \frac{1}{1.2025} = 10.3534$$

CFA Level I, Volume 1, Topic 2 - Economics, Learning Module 8: Exchange Rate Calculations. LOS a: Calculate and interpret currency cross-rates.

Q.4795 The British pound is quoted in US dollar terms as 1.4000 (GBP/USD), and the Swiss franc is quoted as 0.9200 (CHF/USD). The cross rate of CHF/GBP must be *closest* to:

A. 0.657

B. 1.288

C. 1.522

The correct answer is **A.**

The CHF/GBP cross rate can be obtained from the CHF/USD and the inverse of the GBP/USD spot rate, i.e.

$$\frac{\text{CHF}}{\text{USD}} \times \frac{1}{\frac{\text{GBP}}{\text{USD}}}$$

$$\text{CHF/GBP} = 0.92 \times \frac{1}{1.4} = 0.657$$

B is incorrect. 1.288 has been incorrectly obtained by multiplying the CHF/USD spot rate by the GBP/USD spot rate instead of by the inverse of the GBP/USD spot rate, i.e.,

$$1.4 \times 0.92 = 1.288$$

C is incorrect. 1.522 has been incorrectly obtained by multiplying the GBP/USD spot rate by the inverse of the CHF/USD spot rate (instead of the CHF/USD spot rate by the inverse of the GBP/USD spot rate), i.e.,

$$1.4 \times \frac{1}{0.92} = 1.522$$

CFA Level 1, Volume 1, Topic 2 – Economics, Learning Module 8 – Exchange Rate Calculations. LOS a: Calculate and interpret currency cross-rates.

Q.4796 An Italian company has secured a contract with a US client, expecting a payment of USD 40 million in 45 days. The finance manager of the Italian firm wishes to hedge the FX risk of this deal and gets the following rates from a broker.

- USD/EUR spot rate: 0.9220
- One-month forward basis points: +2.0

According to the exchange rate information provided, the finance manager can *most likely* hedge the FX risk by:

A. Buying euro (selling US dollars) at a forward rate of 0.9222.

B. Buying euro (selling US dollars) at a forward rate of 0.9200.

C. Selling euro (buying US dollars) at a forward rate of 0.9200.

The correct answer is **A.**

We first calculate the forward rate by adding the forward points (after dividing by 10,000) to the spot rate, i.e.,

$$0.922 + 0.0002 = 0.9222.$$

The finance manager needs to buy euros at a forward rate of 0.9222 to hedge the FX risk.

B is incorrect. 0.92 is the spot rate, not the forward rate.

C is incorrect. The manager needs to buy euros and sell dollars (and not buy dollars and sell euros).

CFA Level 1, Volume 1, Topic 2 – Economics, Learning Module 8 – Exchange Rate Calculations. LOS b: Explain the arbitrage relationship between spot and forward exchange rates and interest rates, calculate a forward rate using points or in percentage terms, and interpret a forward discount or premium. .

Q.4797 When is a foreign currency *most likely* trading at a forward premium?

A. When the forward rate expressed in the domestic currency is below the spot rate.

B. When the forward rate expressed in the domestic currency is above the spot rate.

C. When the forward rate expressed in the foreign/domestic currency is at equilibrium.

The correct answer is **B.**

A forward premium occurs when the forward rate is higher than the spot rate.

A is incorrect. When the forward rate is below the spot rate, the currency is trading at a forward discount.

C is incorrect. When the rate is at equilibrium, the currencies are neither trading at a discount nor at a premium.

CFA Level 1, Volume 1, Topic 2 – Economics, Learning Module 8 – Exchange Rate Calculations. LOS b: Explain the arbitrage relationship between spot and forward exchange rates and interest rates, calculate a forward rate using points or in percentage terms, and interpret a forward discount or premium.

Q.4798 The current spot rate for RUB/CNY is 1.6459, and the six-month forward points are -12.7. The six-month forward rate is *closest* to:

A. 1.638

B. 1.645

C. 1.647

The correct answer is **B.**

The forward rate is calculated by adding the forward points to the spot rate. Note: We have to divide the forward points by 10,000 as they are in basis points.

$$\text{Forward Rate} = 1.6459 + \frac{-12.7}{10,000} = 1.645$$

A is incorrect. 0.654 has been incorrectly obtained by multiplying the six-month forward point by six before adding to the spot rate, i.e.,

$$\text{Forward Rate} = 1.6459 + (\frac{-12.7}{10,000} \times 6) = 1.638$$

C is incorrect. 1.647 has been incorrectly obtained by adding the forward points to the spot rate, i.e.,

$$1.6459 + \frac{12.7}{10,000} = 1.647$$

yet the deviation has been presented as a negative deviation.

CFA Level 1, Volume 1, Topic 2 – Economics, Learning Module 8 – Exchange Rate Calculations. LOS b: Explain the arbitrage relationship between spot and forward exchange rates and interest rates, calculate a forward rate using points or in percentage terms, and interpret a forward discount or premium.

Q.4799 Given the spot exchange rate $S_{(f/d)}$is 1.502, the domestic risk-free rate r_d is 4%, and the foreign risk-free rate r_f is 6.2%. The one-year forward rate $F_{(f/d)}$ is *closest* to:

A. 1.471

B. 1.533

C. 2.523

The correct answer is **B.**

$$\text{Forward rate, } F_{f/d} = S_{f/d} \times (\frac{1 + r_f}{1 + r_d})$$

Where

$S_{f/d}$-Current spot exchange rate

r_f-Foreign risk-free rate

r_d-Domestic risk-free rate

$$\text{Forward rate, } F_{f/d} = 1.502 \times (\frac{1 + 0.062}{1 + 0.04}) = 1.533$$

A is incorrect. 1.471 has been incorrectly obtained by dividing the domestic risk-free rate by the foreign-risk free rate instead of the foreign risk-free rate by the domestic risk-free rate, i.e.,

$$\text{Forward rate, } F_{f/d} = 1.502 \times (\frac{1 + 0.04}{1 + 0.062}) = 1.471$$

C is incorrect. 2.523 has been incorrectly obtained by adding instead of multiplying the spot exchange rate by $(\frac{1+r_f}{1+r_d})$

$$\text{Forward rate, } F_{f/d} = 1.502 + (\frac{1 + 0.062}{1 + 0.04}) = 2.523$$

CFA Level 1, Volume 1, Topic 2 – Economics, Learning Module 8 – Exchange Rate Calculations. LOS b: Explain the arbitrage relationship between spot and forward exchange rates and interest rates, calculate a forward rate using points or in percentage terms, and interpret a forward discount or premium.

Q.4801 An investor wants to calculate the three-month forward rate for the EUR/USD pair. The current spot rate is 1.1850, the three-month domestic risk-free rate is 2%, and the three-month foreign risk-free rate is 1%. The three-month forward rate is *closest* to:

A. 1.173

B. 1.197

C. 2.175

The correct answer is **A.**

$$\text{Forward rate}, F_{f/d} = S_{f/d} \times \frac{1 + r_f}{1 + r_d}$$

Where,

$S_{f/d}$ - Current spot exchange rate

r_f - Foreignrisk-free rate

r_d - Domestic risk-free rate

$$\text{Forward rate}, F_{f/d} = 1.1850 \times \frac{1 + 0.01}{1 + 0.02} = 1.173$$

B is incorrect. 1.197 has been incorrectly obtained by dividing the domestic risk-free rate by the foreign risk-free rate instead of the foreign risk-free rate by the domestic risk-free rate, i.e.,

$$\text{Forward rate}, F_{f/d} = 1.1850 \times \frac{1 + 0.02}{1 + 0.01} = 1.197$$

C is incorrect. 2.175 has been incorrectly obtained by adding instead of multiplying the spot exchange rate by $\frac{1+r_f}{1+r_d}$, i.e.,

$$\text{Forward rate}, F_{f/d} = 1.1850 + \frac{1 + 0.01}{1 + 0.02} = 2.175$$

CFA Level 1, Volume 1, Topic 2 – Economics, Learning Module 8 – Exchange Rate Calculations. LOS b: Explain the arbitrage relationship between spot and forward exchange rates and interest rates, calculate a forward rate using points or in percentage terms, and interpret a forward discount or premium.
