# Question #1 of 18

Which of the following comments is *most accurate*?

# Discretionary currency hedging allows wider deviations from the strategic A) hedging than active currency management.

×

Question ID: 1587631

A cost/benefit analysis of whether to hedge currency should include all of the

**B)** following: bid/asked transaction costs, option premiums, and back office and compliance expenses.



Currency volatility becomes a more significant issue in global portfolios over a longer time horizon as returns compound.

X

## **Explanation**

All of the expenses listed should be included in cost/benefit analysis of when and how to hedge currency risk, including items such as back office and other overhead expenses; ultimately, these direct and indirect expenses and costs will affect the client's net return.

The other two answer choices are false. Active management allows the wider deviations. In the long run, currency has less impact on risk as currency tends to mean revert in the long run. A short-run perspective supports currency hedging.

(Module 8.1, LOS 8.b)

Marie Aubert is a senior portfolio counselor at GP Group S.A., a private bank based in Paris and with branches in 23 countries. GP Group provides investment management services for individual and institutional investors.

Aubert is reviewing the portfolio of Roni Dubois, a high-net-worth French client who holds foreign investments in the United States and the United Kingdom. The weights of the U.S. and U.K. investments in his portfolio are 35% and 65%, respectively. Having read GP Group's recently published forecasts on different asset classes and currencies, Dubois asks Aubert to project his end-of-year portfolio performance. Aubert gathers the required information ( Exhibit 1: Investment Return Forecasts and Current and Forecasted Spot Rates) to compute the forecasted return.

Exhibit 1: Investment Return Forecasts and Current and Forecasted Spot Rates

U.S. investments in Dubois's portfolio	16%
U.K. investments in Dubois's portfolio	14%

#### **Current Year End-of-Year Forecasted Rate**

USD/EUR spot rate	1.1171	1.2180
EUR/GBP spot rate	1.1769	1.1221

Dubois is concerned that the returns on the foreign currencies may negatively affect his portfolio's performance. Because of this concern, Aubert recommends that Dubois hedge the current value of his foreign assets using 1-year forward contracts.

Dubois, however, is considering using currency options instead of forward contracts. He asks Aubert to devise a strategy using EUR/GBP currency options to hedge the GBP exposure. Dubois wishes to be protected if the GBP ends up trading between 1.1550 and 1.1650 when the options mature. Moreover, Dubois wishes to reap some of the benefits of the GBP's upside potential. However, to decrease the cost of the strategy, Dubois states that he is willing to forgo any additional benefit if the GBP rises above 1.1950.

Before making his final decision, Dubois asks Aubert to list the advantages and disadvantages of hedging currency exposures using forwards and options. Aubert makes the following statements:

Statement 1:	When hedging currency exposures using forwards, one implicit cost is
	the loss of upside potential if there is a favorable move in the foreign
	currency. Moreover, hedging using forwards may generate a negative
	roll yield.

Using currency options to hedge may protect against downside risk while retaining the upside potential; however, this protection may be expensive and faces the risk of time decay.

Statement 2:

## **Question #2 - 5 of 18**

Based on Exhibit 1 and the weights of U.S. and U.K. investments in Dubois's portfolio, the forecasted portfolio domestic-currency return (measured in EUR) is *closest* to:

**A)** 7.89%.

**B)** 14.92%.

C) 14.70%.

## **Explanation**

The domestic-currency (DC) return on a portfolio of foreign assets is a function of the return on the foreign assets, the return of the foreign currencies, and the weight of each asset in the portfolio. The DC return on a portfolio of *n* foreign assets can be calculated as:

$$\mathrm{R_{DC}} = \sum_{\mathrm{i=1}}^{\mathrm{n}} \mathrm{w_{i}} \left( 1 + \mathrm{R_{FC,i}} 
ight) imes \left( 1 + \mathrm{R_{FX,i}} 
ight) \! - \! 1$$

where  $R_{DC}$  is the DC return on a portfolio of n foreign assets;  $R_{FC,i}$  is the foreign-currency return of foreign asset i;  $R_{FX,i}$  is the return of the currency that foreign asset i is denominated in; and  $w_i$  is the weight of foreign asset i in the portfolio (in terms of domestic currency).

When the spot rates are quoted as USD/EUR, the USD (i.e., the foreign currency) is the price currency; therefore, to compute the return on the USD, the spot rates should be converted so that the USD is the base currency.

$$m R_{DC} = 35\,\% imes (1+16\,\%) \left( rac{rac{1}{1.2180}}{rac{1}{1.1171}} 
ight) + 65\,\% imes (1+14\,\%) \left( rac{1.1221}{1.1769} 
ight) - 1 = 7.89\,\%$$

The 14.70% answer option is incorrect as the returns on the foreign currencies are omitted, resulting in  $R_{DC} = 35\% \times (1 + 16\%) + 65\% \times (1 + 14\%) - 1 = 14.70\%$ .

The 14.92% answer option is incorrect as USD/EUR spot rates are not converted to turn the USD into the base currency, resulting in

$$m R_{DC} = 35\,\% imes (1+16\,\%) \left(rac{1.2180}{1.1171}
ight) + 65\,\% imes (1+14\,\%) \left(rac{1.1221}{1.1769}
ight) - 1 = 14.92\,\%$$

(Module 8.1, LOS 8.a)

# **Question #3 - 5 of 18**

Based on Exhibit 1, and assuming that GP Group's forecasts are accurate and that Dubois uses 1-year forward contracts to hedge the current value of his foreign assets, to rebalance the hedge at the end of the year, Dubois should *most likely*:

## A) buy the USD forward and sell the GBP forward.

×

**B)** buy both the USD and GBP forward.

X

**C)** sell both the USD and GBP forward.

**V** 

## **Explanation**

To hedge the long USD and GBP exposures, USD and GBP should be sold forward (until the end of the year). By year-end, assuming GP Group's forecasts are accurate, the values of U.S. and U.K. investments will have increased by 16% and 14%, respectively; therefore, to rebalance the hedge, Dubois should sell additional amounts of USD and GBP forward.

Assuming GP Group's forecasts are accurate, because the portfolio's USD and GBP exposures will increase by year-end, rebalancing the hedge requires increasing selling additional amounts of USD and GBP forward.

To rebalance the hedge at the end of the year, Dubois needs to sell both USD and GBP forward.

(Module 8.4, LOS 8.f)

# **Question #4 - 5 of 18**

Question ID: 1551968

Based on Exhibit 1 and Dubois's requirements pertaining to hedging the GBP exposure using EUR/GBP currency options, which of the following is the *most suitable* strategy?

**A)** Buy a 35-delta put, write a 25-delta put, and write a 25-delta call.



**B)** Buy a 50-delta put, write a 25-delta put, and write a 25-delta call.



C) Buy a 35-delta call, write a 25-delta call, and write a 25-delta put.

X

A *seagull spread* is an option strategy that consists of a put spread and a short call. The put spread combines a long out-of-the-money (OTM) or an at-the-money put and a short deeper OTM put to finance of cost of the long put.

Dubois should buy a 1.1650 strike put and write a 1.1550 strike put to be protected if the EUR/GBP trades between 1.1550 and 1.1650. The 1.1650 strike put is OTM and the 1.1550 strike put is deeper OTM because the EUR/GBP is currently at 1.1769; as such, these two puts are most likely 35-delta and 25-delta, respectively. Dubois should also write a 1.1950 strike call (OTM call) that would further reduce the cost of the hedge while forgoing the upside potential if the EUR/GBP rises above 1.1950.

Because Dubois has a long exposure to the GBP, to protect against downside risk, he should buy an EUR/GBP put (rather than a call).

Because the protective put should have a 1.1650 strike and the current EUR/GBP spot rate is 1.1769, the long put is OTM rather than ATM (i.e., 50-delta).

(Module 8.5, LOS 8.g)

# **Question #5 - 5 of 18**

In regard to hedging currency exposures using forwards and options, which of the following is *most accurate*?

A) Both statements are correct.

Question ID: 1551969

**B)** Only Statement 1 is correct.

×

**C)** Only Statement 2 is correct.

X

## **Explanation**

Statement 1 is correct. While forward contracts do not require an up-front payment, forgoing the upside potential of a favorable currency movement represents an implicit cost. Moreover, hedging currency exposures using forwards may involve a negative roll yield (i.e., the return from the convergence of the forward toward the spot price as the contract nears expiry) if the currency sold (bought) forward is trading at a forward discount (premium).

Statement 2 is also correct. Buying options to protect against downside risk requires paying an up-front premium, which may be expensive (especially if the options bought are ATM). As the option moves toward expiry, its time value declines; this is known as *time decay* and works against the holder of a long option position.

(Module 8.5, LOS 8.g)

## Question #6 of 18

The cost to hedge a long position in the EUR is reduced by:

**A)** forward euro exchange rates that are below the spot exchange rates.

×

Question ID: 1587642

**B)** lower relative interest rates in the euro zone.

C) negative roll yield.

X

## **Explanation**

A long position in the euro is hedged by selling the euro forward. Positive roll yield is a reduction in hedging cost. Positive roll yield for the seller of the euro occurs if the forward exchange rate for the euro is above the spot exchange rate. This will occur if euro zone interest rates are relatively low.

(Module 8.4, LOS 8.f)

# Question #7 of 18

Question ID: 1587647

Mia Gill is a U.S.-based investor and would like to hedge her long position to the Canadian dollar (CAD) using options. Her objective is to minimize the initial option cost by giving up some upside potential, but she does not want to lose any downside protection. Which of the following option strategies is Gill *most likely* to select?

A) Put spread.

B) Collar.

C) Seagull spread.

### **Explanation**

A collar could involve buying an out-of-the-money (OTM) put on the CAD and selling an OTM call on the CAD. The OTM put provides downside protection while costing less than an at-the-money (ATM) put. The sale of the OTM call removes some upside potential.

A put spread would involve buying OTM puts on the CAD and then selling puts that are even further OTM. Therefore, the strategy does reduce initial cost, but it also reduces downside protection (compared to buying OTM puts only). There is also no impact on upside potential.

A seagull spread is a put spread combined with selling a call. Compared to the put spread, the seagull spread has an even lower initial cost and the same downside protection (i.e., reduced downside protection), and it reduces some upside potential due to the sale of the call.

(Module 8.5, LOS 8.g)

# Question #8 of 18

A Djiboutian (DJF) investor holds an international portfolio with beginning investments of USD 1,253,000 and EUR 2,347,800. Measured in the foreign currencies, these investments appreciate 5% and depreciate 7%, respectively.

#### Additional information:

Beginning Spot Exchange Rate	Beginning Forward Exchange Rate	Ending Spot Exchange Rate
DJF/USD 179.54	DJF/USD 185.67	DJF/USD 192.85
EUR/DJF 0.00416	EUR/DJF 0.00413	EUR/DJF 0.00421

The ending value of the EUR investment is *closest* to:

**A)** EUR 2,200,000.

**B)** DJF 575,000.

C) EUR 2,500,000.

## **Explanation**

The ending value in EUR is: EUR 2,347,800 × 0.93 = EUR 2,183,454

The ending value in DJF is: EUR 2,183,454 / (EUR/DJF 0.00421) = DJF 518,635,154

(Module 8.1, LOS 8.a)

# Question #9 of 18

Question ID: 1587646

A call option with a strike price of \$60 will be available as soon as the stock price of DAG, Inc. (DAG), reaches \$55. Which of the following items best describes the option on DAG?

**A)** Binary option.

B) Knock-in option.

**C)** Knock-out option.

The call option on DAG is a knock-in option because it only comes into existence if the underlying first reaches some prespecified level (i.e., DAG stock reaches \$55).

A knock-out option ceases to exist if the underlying reaches some prespecified level. A binary (or digital) option pays a fixed amount that does not vary with the difference in price between the strike and underlying price.

(Module 8.5, LOS 8.g)

# Question #10 of 18

A European investor holds a diversified portfolio. From the euro perspective, the portfolio is weighted 60% and 40% in U.S. and U.K. investments.

#### Additional information:

Assets:	Returns measured in foreign currency:	Returns measured from investor's perspective:	Standard deviation of asset's returns measured in foreign currency:	Stand deviation of the foreign currency's returns:
U.S.	5%	6%	4.5%	3.7%
U.K.	7%	8%	3.5%	4.7%

The correlation between the foreign-currency asset's returns and returns on the foreign currency are 0.81 and 0.67, respectively, for the U.S. and U.K. assets. Which of the following is the standard deviation of returns for the investor in the U.K. assets?

<b>A)</b> 7.8%.	8
B) 60.9%.	8
<b>C)</b> 7.5%.	<b>Ø</b>

It depends on the standard deviation of the asset returns measured in the foreign currency, the standard deviation of the currency's returns, and the correlation between these two sources of returns:

Variance = 
$$(1.0^2)(3.5^2) + (1.0^2)(4.7^2) + 2(1.0)(1.0)(0.67)(3.5)(4.7) = 56.38$$

Standard deviation = 7.5%

(Module 8.1, LOS 8.a)

Mario Steffan is the head of FX strategies at Optima Securities, an investment management firm based in the United States. Optima offers a wide range of investment advisory services to high-net-worth clients. Steffan's main duties include recommending and implementing appropriate strategies to manage foreign-currency exposures in client portfolios and then monitoring these exposures.

Optima witnessed a remarkable growth in assets under management over the last few years, and is now growing its departments to support further expected business growth. Jenny Bryan was recently hired as a junior FX analyst to support Steffan in managing client portfolios.

Steffan meets Bryan to discuss currency management strategies. To test her knowledge, he asks about her understanding of the carry trade strategy. Bryan makes the following statements:

Statement 1: The carry trade strategy is implemented when the uncovered interest

rate parity is expected to be violated; this parity condition asserts that in the long term, a high-yielding currency should depreciate against a low-yielding currency on average by the spread between the interest

rates on the two currencies.

Statement 2: Based on empirical data, which shows that the forward rate in FX

markets does not represent the center of the distribution of future FX

spot rates, the forward rate is a biased predictor of future spot rates.

Steffan informs Bryan that the Federal Open Market Committee in the United States and the European Central Bank have both scheduled meetings the following month to assess economic and financial conditions and take monetary policy actions. Steffan expects volatility in FX markets to increase, especially for the USD/EUR currency pair. He asks Bryan to recommend an appropriate, minimum-cost, delta-neutral trading strategy on the USD/EUR to benefit from the expected increase in volatility.

Later that day, Bryan reviews numerous U.S. client portfolios that include BRL/USD forward contracts to hedge the currency exposure of long BRL-denominated assets. Bryan is not sure how the monetary policies and interest rates in Brazil and the United States would affect the roll yield and, consequently, the cost of hedging and the portfolios' returns. She asks Steffan to help her understand this concept. Steffan replies, "Because the interest rate in Brazil is higher than that in the United States, the forward contracts used by the clients to hedge the BRL currency exposure will have a positive roll yield. However, all else equal, if the interest rate in Brazil had been lower when the forward contracts were entered, the cost of hedging would have decreased."

John Richmond, a U.S.-based client of Optima, has a portfolio of EUR-denominated investments allocated to equities and bonds. Steffan asks Bryan to assess the effect of the foreign-currency moves on the risk of domestic-currency returns. Bryan collects the following information in

## **Exhibit 1: Portfolio Allocation, Expected Standard Deviations, and Correlations**

Exhibit 1: Portfolio Allocation, Expected Standard Deviations, and Correlations.

Weight of equities in Richmond's portfolio	60%	
Weight of bonds in Richmond's portfolio	40%	
Expected standard deviation of equity returns (in EUR)	14.44%	
Expected standard deviation of bond returns (in EUR)	4.26%	
Expected standard deviation of USD/EUR returns	6.80%	
Expected correlation of equity returns (in EUR) and bonds returns (in EUR)	0.30	
Expected correlation of portfolio returns (in EUR) and USD/EUR returns	0.43	

# Question #11 - 14 of 18

In regard to the carry trade strategy, which of the following is *most accurate?* 

Question ID: 1551947

**A)** Only Statement 1 is correct.

**B)** Both statements are correct.

C) Only Statement 2 is correct.

# X

## **Explanation**

Statement 1 is correct. The carry trade strategy is implemented by borrowing in a low-yielding currency and investing in a high-yielding currency. This strategy is profitable when the uncovered interest rate parity is violated. If the uncovered interest rate parity holds, the high-yielding currency would depreciate, on average, by the interest rate differential; therefore, the unhedged return on the high-yielding currency would match the return on the low-yielding currency and the return on the carry trade strategy would be zero.

Statement 2 is also correct. Historical data in FX markets shows that high-yielding currencies often appreciate rather than depreciate—a violation of the uncovered interest rate parity. Moreover, the data shows that the forward rate is not the center of the distribution of future FX spot rates, meaning that the forward rate is a biased estimate of future spot rates. Note that the carry trade is often referred to as trading the *forward rate bias*.

(Module 8.2, LOS 8.d)

# Question #12 - 14 of 18

Question ID: 1551948

Based on Steffan's view and requirements, which of the following strategies should Bryan *most likely* recommend?

A) A long straddle.

X

**B)** A long 35-delta strangle.

 $\bigcirc$ 

**C)** A 25-delta short risk reversal.

A long straddle and a long strangle are both delta-neutral volatility trading strategies that attempt to profit from an increase in volatility.

A long straddle is implemented by buying an at-the-money call and at-the-money put, whereas a long strangle is implemented by buying an out-of-the-money call and out-of-the-money put. Because Steffan wants to minimize the cost of the strategy, a strangle is more appropriate than a straddle because the former incorporates out-of-the-money options, which are cheaper. So, a long 35-delta strangle is the correct answer.

A long straddle will profit in a case of an increase in volatility; however, given Steffan's requirement to minimize the cost of the strategy, the strangle is the most suitable strategy.

A 25-delta short risk reversal is implemented by buying a 25-delta put and selling a 25-delta call. This strategy is a directional trade rather than a volatility trade. The short risk reversal aims to provide downside protection below the strike of the 25-delta put and earn an income from selling the 25-delta call to partially (or fully) offset the cost of the put.

(Module 8.2, LOS 8.d)

# Question #13 - 14 of 18

Steffan's reply pertaining to the roll yield on BRL forward contracts is *most likely*.

A) correct.

- **B)** incorrect regarding the effect of the lower interest rate in Brazil.
- C) incorrect regarding the positive roll yield.

## **Explanation**

The roll yield or roll return is the return from the movement of the forward price toward the spot price as the settlement of the forward contract approaches. The roll yield may be positive or negative, depending on whether the currency is bought or sold and whether it is trading at a forward premium or discount.

The BRL forward contract against the USD should trade at a discount because the interest rate in Brazil is higher than the interest rate in the United States. Selling BRL forward to hedge the currency exposure will generate a negative roll yield (because the clients are selling at a low price) rather than a positive roll yield (so, Steffan's reply is incorrect regarding the positive roll yield).

If Brazil had a lower interest rate when the forward contracts were initiated, the BRL would have been trading at a lower forward discount compared to the USD; thus, all else equal, selling the BRL forward would have generated a smaller negative roll yield, resulting in a lower cost of hedging.

(Module 8.4, LOS 8.f)

Question ID: 1551949

# Question #14 - 14 of 18

Based on **Exhibit 1: Portfolio Allocation, Expected Standard Deviations, and Correlations**, the expected currency risk contribution to the risk of the domestic-currency returns of the portfolio is *closest* to:

**A)** 13.7%.

B) 4.4%.

**C)** 9.3%.

## **Explanation**

The currency risk contribution is computed as the difference between the risk of the domestic-currency (DC) returns and the risk of the foreign-currency (FC) returns.

First, compute the variance of the FC returns of the portfolio as:

$$\sigma^{2}\left({
m R}_{
m FC}
ight)pprox {
m w}_{1}{}^{2}\sigma^{2}\left({
m R}_{1}
ight)+{
m w}_{2}{}^{2}\sigma^{2}\left({
m R}_{2}
ight)+2{
m w}_{1}{
m w}_{2}\sigma\left({
m R}_{1}
ight)\sigma\left({
m R}_{2}
ight)
ho\left({
m R}_{1},{
m R}_{2}
ight)$$

Where  $R_{FC}$  is the FC return of the European portfolio (denominated in EUR);  $R_1$  and  $R_2$  are the FC returns of the European equities and bonds, respectively;  $w_1$  and  $w_2$  are the weights of equities and bonds in the portfolio, respectively;  $\sigma$  represents the standard deviation; and  $\rho(R_1,R_2)$  is the correlation of returns between European equities and bonds.

 $\sigma^2(R_{FC}) \approx (0.6^2 \times 0.1444^2) + (0.4^2 \times 0.426^2) + (2 \times 0.6 \times 0.4 \times 0.1444 \times 0.0426 \times 0.30) \approx 0.00868;$  thus, the risk of the portfolio's FC returns =  $\sigma(R_{FC}) \approx \sqrt{0.00868}$  = 9.32%.

Next, compute the variance of the DC returns of the portfolio as:

$$\sigma^2\left(\mathrm{R_{DC}}
ight)pprox\sigma^2\left(\mathrm{R_{FC}}
ight)+\sigma^2\left(\mathrm{R_{FX}}
ight)+2\sigma\left(\mathrm{R_{FC}}
ight)\sigma\left(\mathrm{R_{FX}}
ight)
ho\left(\mathrm{R_{FC}},\mathrm{R_{FX}}
ight)$$

where  $R_{DC}$  is the DC return of the European portfolio (denominated in USD) and  $R_{FX}$  is the return of the FC against the DC (return of the USD/EUR).

 $\sigma^2(R_{DC}) \approx 0.0932^2 + 0.068^2 + (2 \times 0.0932 \times 0.068 \times 0.43) = 0.01876; \text{ thus, the risk of the}$  portfolio's DC returns =  $\sigma(R_{DC}) \approx \sqrt{0.01876} \approx 13.70\%.$ 

Finally, the expected currency risk contribution =13.70% - 9.32% = 4.38%, so this is the correct answer.

The 9.3% answer option is incorrect as  $R_{FC}$  rather than the currency risk contribution to the portfolio risk is calculated.

The 13.7% answer option is incorrect as  $\sigma(R_{DC})$  rather than the currency risk contribution to the portfolio risk is calculated.

(Module 8.1, LOS 8.a)

# Question #15 of 18

A Mexican investor with a U.S. dollar portfolio invested in U.S. bonds has a four-month investment time horizon. The investor is concerned about currency volatility. He is contemplating an appropriate and cost-effective currency management strategy and has noted that he is not overly concerned if he misses out on potential currency gains. The investor should:

**A)** leave the U.S. dollar portfolio unhedged.

×

Question ID: 1587634

- **B)** engage a currency manager to actively manage his U.S. dollar portfolio.
- X

C) fully hedge his U.S. dollar portfolio against currency risk.



## **Explanation**

The investor should fully hedge his U.S. dollar portfolio, given that currency volatility can be very high in the short term, especially for an emerging market currency like the Mexican peso. While a fully hedged portfolio would only hedge the portfolio's current market value and leave any portfolio gains or losses unhedged, the investor noted that he is not concerned about missing out on potential currency gains.

A "no hedge" scenario would expose the investor to potentially large currency movements in the short term.

An active currency management strategy is costly, and the costs are likely not justified under a very short time horizon (four months); further, generating currency gains is not one of the investor's objectives.

(Module 8.1, LOS 8.c)

# Question #16 of 18

Question ID: 1587643

A trader has a EUR 5,000,000 short asset exposure and wishes to hedge it using a six-month long forward contract. Relative to choosing a one-month long forward contract that is rolled over each month, the six-month forward contract would *most likely*:

**A)** be a perfect hedge of the initial notional value.



B) have some realized gains or losses before forward maturity.



**C)** indicate lower risk aversion.

The six-month forward contract requires no rebalancing, while the one-month rolled forward requires monthly rebalancing. Less frequent rebalancing indicates lower risk aversion.

Because the value of the hedged asset could change over the six months, the six-month hedge is not perfect and could result in a significantly overhedged or underhedged position (e.g., if the asset value increases to EUR 5,500,000 in two months, the manager would be underhedged by EUR 500,000).

Because there are no contracts to roll over before the six-month maturity, there are no realized gains or losses generated before the maturity of the six-month contract.

(Module 8.4, LOS 8.f)

## Question #17 of 18

A Canadian manager has a large portfolio with exposures to numerous foreign currencies, including the U.S. dollar (USD), the euro (EUR), the British pound (GBP), the Swiss franc (CHF), and some emerging-market currencies. When hedging the portfolio's foreign currency risk, which of following hedges would the manager *most likely* use?

A) Macro hedge.

B) Cross hedge.

C) Direct hedge.

## **Explanation**

A macro hedge is a type of cross hedge that addresses portfolio-wide risk factors rather than the risk of individual portfolio assets. One type of currency macro hedge uses a derivatives contract based on a fixed basket of currencies to modify currency exposure at a macro (portfolio) level. The currency basket in the contract may not precisely match the currency exposures of the portfolio, but it can be less costly than hedging each currency exposure individually. The manager must make a choice between accepting higher residual currency risk versus lower cost.

A direct hedge is possible for widely traded currencies such as the USD, EUR, and GBP. However, because the portfolio contains some emerging-market currencies, those currencies are not likely to be efficiently hedged using direct hedges due to high transaction costs and the potential nonexistence of an appropriate hedging contract.

A cross hedge is likely most efficient for the emerging-market currencies (to reduce transaction costs), but it is not necessary for widely traded currencies such as the USD, EUR, and GBP.

(Module 8.6, LOS 8.h)

# Question #18 of 18

The one-year interest rate is 3% in Country A and 6% in Country B. Assuming covered interest rate parity holds:

**A)** the carry trade will result in a positive return.



Question ID: 1587636

the percentage appreciation in Country A's currency will be greater than the **B)** percentage depreciation in Country B's currency.



C) Country A's currency will trade at a forward discount.



## **Explanation**

Assuming covered interest rate parity holds, the currency of the country with the higher interest rate will depreciate (Country B). Country A's currency will appreciate by (1.06 / 1.03) - 1 = 0.0291, or 2.91%. Country B's currency will depreciate by (1.03 / 1.06) - 1 = -0.0283, or 2.83%.

Country A's currency will trade at a *forward premium* because it is the country with the lower interest rate, while Country B's currency will trade at a *forward discount*.

The *carry trade* is based on a violation of *uncovered interest rate parity*, which says the forward exchange rate that is calculated through the covered interest rate parity is an unbiased estimate of the spot exchange rate (therefore, the carry trade would earn a zero return).

(Module 8.3, LOS 8.d)