Final Exam with Solutions

Explain why you agree, disagree, or partially with each of the following questions. The credit you earn will depend 100% on the EXPLANATION you provide. Each question is worth 12.5 points.

1. STATEMENT: Consider a firm that will receive a foreign-currency-denominated payment in the future. As a result of this payment, the firm has a short position in the foreign currency.

SOLUTION: DISAGREE. The firm in this case has a long position in the foreign currency.

2. STATEMENT: Consider again the firm in Problem #1. To eliminate the foreign exchange risk associated with this payment, the firm should assume a long position in the forward market by purchasing the foreign currency in the forward foreign exchange market.

SOLUTION: DISAGREE. To eliminate the foreign exchange risk associated with this payment, the firm should assume a short position by purchasing a forward contract enabling it to sell the foreign currency at a guaranteed exchange rate.

3. STATEMENT: Suppose that the spot rate is 1.56 U.S. dollars per British pound, and that the six-month forward rate on the British pound is 1.62 dollars per pound. Then, the pound trades at a forward discount.

SOLUTION: DISAGREE. In this case the pound trades at a forward premium, since the forward exchange rate exceeds the spot exchange rate.

4. STATEMENT: Consider again the information in Problem #3. Based upon this information we can conclude that the standard forward discount equals 6.2%.

SOLUTION: DISAGREE. Recall that:

\[
\text{Standard forward premium/discount} = \frac{(F_N - S)}{S} \times \frac{12}{N} \times 100,
\]

where \(F_N\) is the forward rate, \(S\) is the spot rate, and \(N\) is the number of months of the forward contract. In this case, \(F_N = 1.62\), \(S = 1.56\), and \(N = 6\), so:

\[
\text{Standard forward premium/discount} = \frac{(1.62 - 1.56)}{1.56} \times \frac{12}{6} \times 100 = 7.69\%,
\]

which is indeed a premium.

5. STATEMENT: Suppose that the covered-interest-parity condition is not satisfied, such that savings will flow from the domestic economy to the foreign economy. Then:

(a) The domestic currency per foreign currency spot exchange rate will fall.

(b) The domestic currency per foreign currency forward exchange rate will fall.

Note: You MUST include a graph in your answer for each part of this question.
SOLUTION:

(a) **DISAGREE.** As individuals move funds from financial instruments denominated in the domestic currency to those denominated in the foreign currency, there will be an increase in the demand for the foreign currency, which will cause the foreign currency to appreciate relative to the domestic currency, i.e., the domestic currency per foreign currency spot exchange rate will increase.

(b) **AGREE.** At the same time, there is an increase in the demand for the domestic currency in the forward market, which will cause the domestic currency per foreign currency forward exchange rate to fall.

6. **STATEMENT:** Suppose the spot exchange rate between the U.S. dollar and the British pound is 1.75 dollars per pound, the interest rate on a three-month U.S. financial instrument is 4.4 percent, and the interest rate on a similar U.K. financial instrument is 3.4 percent. Then, assuming the uncovered-interest-parity condition holds, we can conclude that the expected spot rate 3 months from now is 1.72 dollars per pound.

SOLUTION: **DISAGREE.** Recall that the uncovered-interest-parity condition is: \[ R - R^* = (S_{t+1}^e - S)/S, \]
where \( R \) is the domestic interest rate, \( R^* \) is the foreign interest rate, \( S_{t+1}^e \) is the expected future spot rate, and \( S \) is the current spot rate. Then, since \( R = 0.044, R^* = 0.034, \) and \( S = 1.75 \), then:

\[
0.044 - 0.034 = (S_{t+1}^e - 1.75)/1.75 \Rightarrow S_{t+1}^e = 1.7675
\]

7. **STATEMENT:** Suppose the spot exchange rate between the dollar and the euro is 1.27, the dollars can be borrowed for one year at 6 percent, and the euro can be lent for one year at 5 percent. Then, assuming the covered-interest-parity condition holds, the one-year forward exchange rate should be 1.20 dollars per euro.

SOLUTION: **DISAGREE.** Under covered interest parity:

\[
(F - S)/S = R - R^* \Rightarrow (F - 1.27)/1.27 = 0.06 - 0.05 \Rightarrow F = 1.2827
\]

8. **STATEMENT:** The key difference between a currency futures contract and a forward currency contract is that forward currency contracts require standard quantities of currencies.

SOLUTION: **PARTIALLY DISAGREE.** The issue of whether standard quantities of currencies are required by the contract is indeed a key difference between currency futures and forward contracts. However, forward currency futures contracts requires standard quantities of currencies.