

# **FINM3403: International Financial Management**

## **Practice Mid-semester Exam**

### **Questions and Solutions**

1. This includes 15 practice multiple-choice questions. Solutions are included at the end.
2. Certain questions have been intentionally phrased in an ambiguous manner. While this does add an extra layer of difficulty, it should not hinder students who are reasonably well prepared for the exam.
3. We will discuss these questions in the tutorials in next week (18<sup>th</sup> – 22<sup>nd</sup> March).
4. For the mid-term, I will be looking at the lecture slides, tutorial problems and the relevant chapters from the textbook.
5. For more information about this assessment, refer to the ECP or the information sheet that have been available to you since O-week.

## Practice Multiple Choice Questions

1. A price-maker in the foreign exchange market is
  - (a) a speculator who acts upon a subjectively expected exchange rate.
  - (b) a foreign exchange forecaster.
  - (c) a large commercial bank quoting bid and offer rates.
  - (d) a government agency which regulates trading and controls exchange rates.
  
2. If the exchange rate between the Australian dollar and the US dollar is expressed in direct quotation from an Australian perspective, then a rise in the exchange rate implies
  - (a) appreciation of the US dollar.
  - (b) depreciation of the US dollar.
  - (c) appreciation of the Australian dollar.
  - (d) (b) and (c).
  
3. If the AUD/USD exchange rate declines from 1.2500 to 1.2430, then the fall is equal to
  - (a) 70 points.
  - (b) 7000 points.
  - (c) 700 points.
  - (d) None of the above.

4. The following are the spot and the swap rates of the USD/CHF

Spot	0.6963–0.6968
90-day	9–14

This means that

- (a) the US dollar is trading at a forward premium
- (b) the Swiss Franc is trading at a forward discount
- (c) the Swiss Franc is trading at a forward premium
- (d) There is greater certainty about future rates

5. If a fixed exchange rate is set below the equilibrium rate it will create

- (a) a deficit in the balance of payments.
- (b) a surplus in the balance of payments.
- (c) inflation.
- (d) deflation.

6. Which of the following items is not a flow?

- (a) Unilateral transfers.
- (b) The increase in foreign assets held by Australian investors over a period of six months.
- (c) Foreign exchange reserves lost by the Reserve Bank as a result of intervention in the foreign exchange market.
- (d) The foreign currency and gold reserves of the Reserve Bank.

7. The statistical discrepancy appears on the balance of payments to

- (a) account for errors and omissions in the data.
- (b) equate the trade and services accounts.
- (c) account for changes in official reserves.
- (d) balance the current account.

8. The sale of foreign bonds leads to

- (a) an increase in the supply of the foreign currency.
- (b) an increase in the demand for the foreign currency.
- (c) an increase in the supply of the domestic currency.
- (d) (b) and (c).

9. If the US inflation rate is lower than the Australian inflation rate by 5 per cent then according to relative PPP (and assuming the approximate version of PPP holds)

- (a) the Australian dollar should depreciate by 5 per cent.
- (b) the Australian dollar should depreciate by less than 5 per cent.
- (c) the Australian dollar should appreciate by 5 per cent.
- (d) anything could happen depending on the interest rate differential.

10. If the foreign currency equivalent of the domestic price of a commodity is less than the foreign price of the same commodity, then the LOP implies that
- (a) the foreign currency is overvalued.
  - (b) the foreign currency is undervalued.
  - (c) the domestic currency is overvalued.
  - (d) none of the above.
11. If the interest rate differential and the forward spread are positive and equal then
- (a) the foreign currency should offer a higher interest rate and sell at a discount.
  - (b) the foreign currency should offer a higher interest rate and sell at a premium.
  - (c) the domestic currency should offer a higher interest rate and sell at a premium.
  - (d) the domestic currency should offer a higher interest rate and sell at a discount.
12. Suppose one observed the following direct spot quotations in New York and London, respectively: 1.2500-60 and 0.8000-50. Arbitrage profits per \$1 million equal
- (a) \$637
  - (b) \$0
  - (c) \$1,268
  - (d) \$4,492
  - (e) none of the above

13. The \$/DM exchange rate is  $\text{DM}1 = \$0.35$  and the DM/FF exchange rate is  $\text{FF}1 = \text{DM}0.31$ . What is the FF/\$ exchange rate?

- (a) 3.226 French francs per dollar
- (b) 1.129 French francs per dollar
- (c) 0.886 French francs per dollar
- (d) 9.217 French francs per dollar
- (e) none of the above

14. The current five-year Yen (¥) rate is 6% per annum (compounded annually). The five-year US\$ rate is 8.5%. What is the implied forward premium or discount of the ¥ over the current spot rate for a five-year forward contract?

- (a) 4.17% premium
- (b) 18.46% discount
- (c) 11.00% discount
- (d) 12.36% premium

15. Suppose that the Brazilian real devalues by 40% against the U.S. dollar. By how much will the dollar appreciate against the real?

- (a) 67%.
- (b) 40%.
- (c) 32%.
- (d) 28%.

## Solutions to Practice Multiple Choice Questions

1. A price-maker in the foreign exchange market is

- (a) a speculator who acts upon a subjectively expected exchange rate.
- (d) a foreign exchange forecaster.
- (e) a large commercial bank quoting bid and offer rates.**
- (d) a government agency which regulates trading and controls exchange rates.

(Once the price maker provides a quote, s/he must undertake the transaction at the stated rate)

2. If the exchange rate between the Australian dollar and the US dollar is expressed in direct quotation from an Australian perspective, then a rise in the exchange rate implies

- (a) appreciation of the US dollar.**
- (b) depreciation of the US dollar.
- (c) appreciation of the Australian dollar.
- (d) (b) and (c).

(Direct from Australian perspective i.e., AUD/USD. An increase from, say, AUD 1.2 to AUD 1.3 per USD implies that the USD is now buying more AUD. Note that when the exchange rate is in direct terms and increase in the exchange rate is a depreciation of the domestic currency.)

4. If the AUD/USD exchange rate declines from 1.2500 to 1.2430, then the fall is equal to

- (a) 70 points.**
- (b) 7000 points.
- (c) 700 points.
- (d) None of the above.

(1 point = 0.0001;  $70 \times 0.0001 = 70$  points)

4. The following are the spot and the swap rates of the USD/CHF

Spot	0.6963–0.6968
90-day	9–14

This means that

- (e) the US dollar is trading at a forward premium.
- (f) the Swiss Franc is trading at a forward discount.
- (g) the Swiss Franc is trading at a forward premium.**
- (h) There is greater certainty about future rates.

ANSWER: Bid < Ask. So, the currency in the denominator is trading at a Forward Premium [0.6972 – 0.6982].



5. If a fixed exchange rate is set below the equilibrium rate it will create

- (a) a deficit in the balance of payments.
- (b) a surplus in the balance of payments.**
- (c) inflation.
- (d) deflation.

(Here we are referring to the Balance of Trade model, which ONLY considers the balance of the merchandise trade account. Keep in mind that the currency of interest is the one in the denominator, and this allows us to get around the confusion caused by direct/indirect quotations. If the exchange rate is set above the equilibrium rate the country, whose currency is in the denominator/base, will run a trade deficit. Refer to the tutorial solutions for the explanation.)

6. Which of the following items is not a flow?

- (a) Unilateral transfers.
- (b) The increase in foreign assets held by Australian investors over a period of six months.
- (c) Foreign exchange reserves lost by the Reserve Bank as a result of intervention in the foreign exchange market.
- (d) The foreign currency and gold reserves of the Reserve Bank.**

(Foreign currency and gold reserves are a STOCK).

7. The statistical discrepancy appears on the balance of payments to

- (a) account for errors and omissions in the data.**
- (b) equate the trade and services accounts.
- (c) account for changes in official reserves.
- (d) balance the current account.

8. The sale of foreign bonds leads to

- (a) an increase in the supply of the foreign currency.**
- (b) an increase in the demand for the foreign currency.
- (c) an increase in the supply of the domestic currency.
- (d) (b) and (c).

[It is the equivalent of a sale of foreign assets (i.e., Australian residents selling corporate bonds issued by foreign firms or the issuance of foreign bonds by Australian companies). The sale would result in an inflow in foreign currency.]

9. If the US inflation rate is lower than the Australian inflation rate by 5 per cent then according to relative PPP (and assuming the approximate version of PPP holds)

- (a) the Australian dollar should depreciate by 5 per cent.**
- (b) the Australian dollar should depreciate by less than 5 per cent.
- (c) the Australian dollar should appreciate by 5 per cent.
- (d) anything could happen depending on the interest rate differential.

[This is an implication of the approximate version of PPP. However, should you know the exact inflation rate of the two countries, say 10% (Aust.) and 5% (US), using the “proper” PPP formula we find that the US\$ will appreciate by 4.8%.]

10. If the foreign currency equivalent of the domestic price of a commodity is less than the foreign price of the same commodity, then the LOP implies that

- (a) **the foreign currency is overvalued.**
- (b) the foreign currency is undervalued.
- (c) the domestic currency is overvalued.
- (d) one of the above.

[PPP states that  $P^A = SP^B$ . The foreign currency equivalent of the domestic price is just  $P^A/S$  and this should be equal to  $P^B$ . Here  $P^A/S < P^B$ .

For example, refer to the Law of One Price lecture example. The British pound (foreign currency) price of Australian wheat is GBP 2.35, which is less than the price of British wheat. The reason for this is because the GBP is overvalued. According to LOP, AUD/GBP should have been AUD1.6/GBP.]

11. If the interest rate differential and the forward spread are positive and equal then

- (a) the foreign currency should offer a higher interest rate and sell at a discount.
- (b) the foreign currency should offer a higher interest rate and sell at a premium.
- (c) the domestic currency should offer a higher interest rate and sell at a premium.
- (d) **the domestic currency should offer a higher interest rate and sell at a discount.**

[Implication of IRP → For the interest rate differential to be positive, the domestic interest rate should be greater than the foreign interest rate.]

12. Suppose one observed the following direct spot quotations in New York and London, respectively: 1.2500-60 and 0.8000-50. Arbitrage profits per \$1 million equal

- (a) \$637
- (b) **\$0**
- (c) \$1,268
- (d) \$4,492
- (e) none of the above

[This is an example of locational/spatial arbitrage. Exchange rates quoted in two different locations must be priced the same – law of ONE price! If they are not priced the same, one can buy (sell) in the market where it is trading at a low (high) price.

The indirect quote for GBP in NY is GBP 0.7962 – 0.8000/\$ compared to the quote in London of 0.8000 – 0.8050/\$. By converting \$1m in London you receive GBP 800,000 (as opposed to 796,200 in NY) and then you sell the Pounds for \$ in NY at 0.8000 and receive \$1m. There is no arbitrage profit.]

13. The \$/DM exchange rate is DM1 = \$0.35 and the DM/FF exchange rate is FF1 = DM0.31. What is the FF/\$ exchange rate?

- (a) 3.226 French francs per dollar
- (b) 1.129 French francs per dollar
- (c) 0.886 French francs per dollar
- (d) 9.217 French francs per dollar**
- (e) none of the above

[\$/FF =  $0.35 \times 0.31 = 0.1085$ . Taking the reciprocal, we get the FF/\$ exchange rate which is 9.217]

14. The current five-year Yen (¥) rate is 6% per annum (compounded annually). The five-year US\$ rate is 8.5%. What is the implied forward premium or discount of the ¥ (over the current spot rate for a five-year forward contract?)

- (a) 4.17% premium
- (b) 18.46% discount
- (c) 11.00% discount
- (d) 12.36% premium**

[Implication of IRP: ¥ should trade at a forward **premium**. Premium is  $\left(\frac{1.085}{1.06}\right)^5 - 1 = 12.36\%$  ]

15. Suppose that the Brazilian real devalues by 40% against the U.S. dollar. By how much will the dollar appreciate against the real?

- (a) 67%.**
- (b) 40%.
- (c) 32%.
- (d) 28%.

[The *Real* is the Brazilian currency and devalues by 40% (i.e., -0.40).

Note, the calculation for the change in USD terms is  $-\frac{e_{Braz}}{1+e_{Braz}} = -\frac{-0.40}{0.60} = 0.67$ . The US\$ will appreciate by more than 40%.

You don't need to know the above formula to answer this question correctly. All one needs to know is that the second currency will appreciate by more than what the first currency depreciates by. You can test this by re-doing the lecture 1 example in slides 30-31 from the perspective of the CHF.]