

# CENTRAL UNIVERSITY

END OF FIRST SEMESTER EXAMINATIONS 2020/2021



CENTRAL BUSINESS SCHOOL

DEPARTMENT OF BANKING AND FINANCE

CBBF 403: INTERNATIONAL FINANCE (3 CREDITS)

TIME ALLOWED: 2 ½ HOURS

STUDENT ID NO: .....

INSTRUCTIONS: FOLLOW INSTRUCTIONS ON THE QUESTION PAPER

ANSWER FOUR (4) QUESTIONS IN ALL.

ANSWER QUESTION ONE (1) AND ANY OTHER THREE (3):

**QUESTION ONE (1) COMPULSORY [40 marks]**

- a. Consider a US firm that had expected cash flow of \$100,000 from local business and 1,000,000 Rand from a South African business at the end of year 1 and an expected cash flow of \$120,000 from local business and 1,000,000 Mexican pesos from business at the end of year 2. Assuming that the Rand and Pesos are expected to be valued at \$0.07 and \$0.09 respectively :
- What will be the expected dollar cash flow for both year 1 and year 2?
  - Calculate the value of this MNC if the required rate of return is 10%.
- b. A Ghanaian firm that has expected cash flow of GHS1, 000,000 from local business and 20,000,000 Naira from their Nigerian subsidiary at the end of 1 year. Assuming the Naira value is expected to be GHS0.015. Required rate of return for the firm is 12%
- Calculate the expected cedi cash flow.
  - What is the cedi value of this Ghanaian firm?

Assuming the value of the Naira increases to GHS0.020, how much should this Ghanaian firm expect in terms of cash flow?

- What will be the new value of the firm?
  - What is the percentage increase/decrease in firm value?
- c. (i) If the spot rate of the Euro is stated as GHS 2.031, what is the value of the cedi quoted in Euros?
- (ii) If the Naira is worth \$0.07, and the Canadian dollar (C\$) is worth \$.70. What is the value of the Naira in Canadian dollars (C\$)? What is the value of the Canadian dollar (C\$) in Naira?
- d. The South African rand was quoted on the spot international foreign exchange market as rand 8.8750/\$ whilst the 3-month forward was quoted as rand 8.9865/\$
- Which currency is trading at a forward premium/discount?
  - Calculate the forward premium or discount per cent per a) three months b) annum on the dollar and on the rand

- e. The table shows the number of foreign currencies needed to buy a unit of UK pounds on the spot market.

	Euro	US\$	Japanese Yen
GB Pound	1.15660	1.5274	142.38

- i. How many GB pounds are needed to buy a unit of each of the currencies shown?
- ii. Calculate the cross rates between:
- α. The euro and the Japanese yen
  - β. The euro and the US\$
  - © The Japanese yen and the US\$

**CHOOSE ONLY THREE (3) QUESTIONS FROM THIS PART**

**QUESTION TWO (2) [20 Marks]**

- a. Assume that the Australian dollar's spot rate is \$0.90 and that the Australian and U.S. 1-year interest rates are initially 6 percent. Then assume that the Australian 1-year interest rate increases by 5 percentage points, while the U.S. 1-year interest rate remains unchanged. Using this information and the international Fisher effect (IFE) theory, forecast the spot rate for 1 year ahead.
- b. Consider a U.S firm that had expected cash flows of \$250,000 from local business over a period of 5 years and 2,000,000 Mexican pesos from business in Mexico at the end of 5 years. Assuming, the peso's value is expected to be \$0.08, calculate the expected dollar cash flows. [Take cost of capital of the parent company to be 8% and that of doing business at Mexico to be 12%].

**QUESTION THREE (3) [20 Marks]**

a. Today's spot rate of the Mexican peso is \$0.10. Assume that purchasing power parity holds. The U.S. inflation rate over this year is expected to be 7 percent, while the Mexican inflation over this year is expected to be 3 percent. B5 Company Ltd plans to import from Mexico and will need 20 million Mexican pesos in 1 year. Determine the expected amount of dollars to be paid by the B5 Company Ltd for the pesos in 1 year.

b. Assume the ff info:

- i. You have 800,000BP to invest.
- ii. The current spot rate for the Dollar is 0.625 BP.
- iii. The 90-day forward rate of the pound is 0.625 BP in Dollar.
- iv. The 90-day interest rate in the UK is 2%
- v. The 90-day interest rate in the US is 4%.

How can an arbitrageur make risk-free profits in this case?

**QUESTION FOUR (4) [20 Marks]**

a. Your employer, a large MNC, has asked you to assess its transaction exposure. Its projected cash flows are as follows for the next year. Danish krone inflows equal DK50,000,000.00 while outflows equal DK40,000,000.00 British pound inflows equal £2,000,000.00 while outflows equal £1,000,000.00 The spot rate of the krone is \$1.15, while the spot rate of the pound is \$1.50. Assume that the movements in the Danish krone and the British pound are highly correlated. Provide your assessment as to your firm's degree of transaction exposure (as to whether the exposure is high or low). Substantiate your answer.

b. Assume the cedi-euro exchange rate on 1<sup>st</sup> January 2018, was GH¢4.20000/€. If currently the exchange rate is quoted as GH¢4.5454/€, calculate;

- i. The percentage depreciation of the cedi
- ii. The percentage appreciation of the euro.
- iii. If by July ending the cedi is expected to depreciate further based on the current exchange rate by 5%, calculate the value of the euro in cedis at the end of July.

**QUESTION FIVE (5) [20 Marks]**

a. The table below shows the number of British pounds, the European Union euro, the United States dollar, and the Japanese yen buying a unit of the Australian Dollar and the Chinese Yuan.

Find;

- i. The number of Japanese yen buying a unit of the United States Dollar
- ii. The number of European Union euros buying one United States Dollar
- iii. The number of Australian dollars buying one Chinese Yuan
- iv. The number of Euros buying one British pound

	GB (£)	EUR (€)	USD(\$)	JPY (¥)
Australia dollar 1.00 AUD	0.588	0.7076	0.7535	82.24
China 1.00 CNY	0.1135	0.1355	0.1453	15.8637

b. Using the information in the table in 'a' above and the concept of cross rates, calculate:

- i. How much a Japanese company will need to pay in Chinese Yuan for import of supplies from China worth five million yen (¥5,000,000).
- ii. The amount needed to pay for petroleum products worth five hundred thousand Australian dollars (AUD 500,000) by a Chinese company in Yuan.

**QUESTION SIX (6) [20 Marks]**

- b. Explain the international Fisher effect (IFE). What is the rationale for the existence of the IFE? Explain the theory of purchasing power parity (PPP).
- c. Compare and contrast transaction exposure and economic exposure. Why would an MNC consider examining only its "net" cash flows in each currency when assessing its transaction exposure?
- d. What is a Multi-National Company (MNC)? What is their goal?
- e. Identify three (3) theories of international business. Explain some of the common methods of conducting International business.