

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM & ENERGY STUDIES

End Semester Examination – December, 2021

Program: BBA (FAS)

Semester: 5

Subject/Course: International Financial Management

Max. Marks: 100

Course Code: FINC 2014P

Duration: 3 Hours

Part A: Answer ALL Questions

Question 1. Analyze the information provided to you by The Economist from the Big-Mac Index. Then, answer the questions that follow. (2 × 5 = 10 Marks) [CO 1]

Excerpts from The Economist Big Mac index					
Country	Big Mac prices in local currency	Big Mac prices in dollars*	Implied PPP** of the dollar	Actual dollar exchange rate	Under (-)/over (+) valuation against the dollar (%)
United States (Reference)	USD 4.20	4.20	1	1	0%
Costa Rica	Colones 2,050	a?	488	510	-4.3%
Canada	CAD 4.73	4.63	b?	1.02	d?
New Zealand	NZD 5.10	4.05	1.22	c?	-3.2%
Turkey	e?	3.54	1.57	1.86	-15.6%

*Big Mac prices in dollars column shows the appropriate price of one Big Mac in US dollar in the respective country (Local price/Actual Exchange).

**Implied Purchasing Power Parity (PPP) of the dollar column shows the implied exchange rate of the US dollar vis-à-vis the foreign currency (Local Price in the country/Local Price in USD).

- a) Calculate the Big Mac prices in dollars for Costa Rica.
- b) Calculate the Implied PPP of the dollar for Canada.
- c) Calculate the Actual dollar exchange rate for New Zealand.
- d) Calculate the percentage of Under/over valuation against the dollar for Canadian Dollar.
- e) Calculate the Big Mac price in local currency for Turkey (Turkish currency is called Lira).

Question 2. Answer the following questions (2 × 5 = 10 Marks): [CO 1]

- a) If a bank quotes $\text{USD/INR} = 73.9654$, then it is a _____ Quote in India. If another bank quotes $\text{INR/USD} = 0.0135$, then it is a _____ Quote in India. (*Indicate the right answer*)
- Direct, Direct
 - Indirect, Direct
 - Direct, Indirect
 - Indirect, Indirect
- b) The price of Japanese Yen (JPY) is $\text{INR}0.65$. The price of Canadian Dollars (CAD) is $\text{INR}59.58$. The direct quote of one Canadian Dollar in Japanese Yen is _____. (*Calculate the appropriate answer and fill the blank*)
- c) Inflation rate in Indian is 6% and the same in Great Britain in 1.8%. If relative purchasing power parity (PPP) holds, the Indian Rupee will _____ against the British Pound Sterling, and the British Pound Sterling will _____ against the Indian Rupee. (*Indicate the right answer*)
- Appreciate, Depreciate
 - Depreciate, Appreciate
 - Depreciate, Depreciate
 - Appreciate, Appreciate
- d) If Bank S quotes the bid-ask rate of Euro (EUR) as $\text{EUR/INR} = 86.55 - 87.35$. The equivalent INR/EUR (reciprocal) bid and ask prices would be _____ - _____. (*Calculate the appropriate answer and fill the blank*)
- e) Assume that at a dealer desk, current price of GBP is $\text{INR } 101.55 - \text{INR } 103.35$ (Bid-Ask). If a customer walks in with $\text{INR } 1.5$ million and asks for GBP in exchange, the dealer will: (*Indicate the right answer*)
- Charge a rate of Bid price, $\text{INR } 101.55$ per GBP
 - Charge a rate of Ask price, $\text{INR } 103.35$ per GBP
 - Pay the Bid Price, $\text{INR } 101.55$ per GBP
 - Pay the Ask price, $\text{INR } 103.55$ per GBP

Part B: Answer ALL Questions

Question 3. Explain in brief, the characteristics of a Euro-Bond. (5 Marks) [CO 2]

Question 4. In brief, define nominal and real interest rates, and clarify the relationship between them. (5 Marks) [CO 2]

Question 5. What strategy you would recommend in forward contract if a company has a foreign currency payable in the future and the price of foreign currency is expected to appreciate in future. Brief answer only. (5 Marks) [CO 4]

Question 6. Explain how banks and foreign exchange dealers use bid and ask quotations as a means to earn profit. (5 Marks) [CO 3]

Part C: Answer ALL Questions (Question 8 has internal choice)

Question 7. Consider the following exchange rates and answer the questions that follow (2.5 × 4 = 10 Marks): [CO 3]

Currency	Value in Rupees (₹)
US Dollar	72.140
British Pound	103.645
EURO	82.250
Yen	0.6063
Swiss Franc	69.857
Hong Kong Dollar	8.0123

- Assume that a person wants to exchange EUR 15,000 for Swiss Francs. Determine how much will the person receive?
- Assume that a tourist arrives at a bank with British Pound 33,500. The tourist wants to exchange the pounds for dollars. The bank has quoted the rates as given above. Determine how many dollars the tourist will get.
- Assume that you have Hong Kong Dollar 19,000. Calculate how much Yen is it worth?
- Assume that you have US Dollar 7,500. Calculate how much Swiss Franc is it worth?

Question 8. Answer any one question:

Question 8-A. On a fine morning, S-Bank is quoting a *bid* rate of ₹101.60/£ (£ is British Pound Sterling) and I-Bank is quoting an *ask* rate of ₹76.45/\$ (\$ is US Dollar). What is the \$/£ *bid* rate? A third bank D-bank, is providing a direct \$/£ *ask* quote of \$1.2750/£. Assume you have ₹1,000,000 with you. Formulate a three-way arbitrage strategy to take advantage of these rates and determine the profit. (10 Marks) [CO 3]

Or

Question 8-B. The following bid and ask quotes are available from Banks A, B and C in your area: [CO 3]

Bank A: INR Per USD = 60.05/62.05

Bank B: INR Per SGD = 47.55/48.85

Bank C: SGD per USD = 1.3061/1.4010

- Determine the cross exchange rate (bid and ask) SGD per USD between banks A and B. (7 Marks)
- Explain if there is any arbitrage opportunity when comparing the cross exchange rate in part a with the quote provided by Bank C and if so how you will conduct the arbitrage. Do not show any calculations, just provide explanation in your own words. (3 Marks)

Question 9. A foreign exchange trader sees the following prices on his computer screen:
 Spot rate, Norwegian krone per dollar: Nkr 8.8181 per \$
 3 – Month forward rate: Nkr 8.9196 per \$
 USD 3 – Month Treasury bill rate: 2.60% p.a.

Norwegian 3 – Month Treasury bill rate: 4% p.a.

Determine if the Interest Rate Parity (IRP) holding. Could the trader profit by placing Nkr5,000,000 of principal in an arbitrage operation? Explain. (10 Marks) [CO 3]

Part D: Answer ALL Questions (Question 11 has internal choice)

Question 10. Assume that co. BYZ, an Indian company recently manufactured and shipped diesel generators to a company in Britain worth £2,500,000. The payment will be made by British co. in 3-months in British Pound Sterling. The following information is given to you: Spot exchange rate: ₹105/£

Three-month forward rate: ₹105.75/£

U.K. 3-month borrowing interest rate: 6.5% p.a.

India 3-month investment return is: 7.0% p.a.

Design strategies (forward market hedge and money market hedge) that will help the firm mitigate its risk of foreign exchange exposure. Which hedging strategy is the best in your opinion and why? (Round off your answer to the nearest integer) (15 Marks) [CO 4]

Question 11. Answer any one question below:

Question 11-A. Co. ABX that operates from India wants to expand in overseas markets. The following information is provided about the firm: [CO 4]

Information	Domestic Market	International Market
ABX's beta, β	1.45	1.14
Risk-free rate of interest, R_f	4.00%	4.00%
Cost of debt, before tax, K_d	8.40%	8.40%
Corporate income tax rate, τ	35%	35%
General return on market portfolio, R_m	10.50%	9.00%
Optimal capital structure:		
Proportion of debt, D	40%	40%
Proportion of equity, E	60%	60%

- Determine the local cost of equity (K_e) using CAPM. (3 Marks)
- Determine the international cost of equity ($K_{e,i}$) using the ICAPM. (3 Marks)
- Determine the local weighted average cost of capital (WACC) of ABX. (4 Marks)
- Determine the international WACC of ABX. (5 Marks)

Or,

Question 11-B. PQZ Medicare India purchased medical equipment from National Co. Japan. The payment of ¥75 million is due in 3 months' time. PQZ's manager has the following exchange rates and interest rate quotes available for her:

3-month Rupee borrowing rate: 8.50% per annum.

3-month Yen deposit rate: 0.5% per annum.

Spot exchange rate: ₹73.55 per ¥100

6-month forward exchange rate: ₹74.15 per ¥100

As an advisor to PQZ Industries, you are required to suggest hedging alternatives to PQZ's manager. Calculate the cost of each alternative and suggest which alternative is the best. (Round off all figures to the nearest integer) (15 Marks) [CO 4]