

International Finance
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Lecture - 35
Test -1

Let us start the session 35. Here we will discuss something different for you. There is no, what is called topic for you here to discuss. We have to go for a test. The test is design what are the session we have cover over the over the 35 sessions. The test designed in such a way that to test your objective evaluation, and also your subjective understanding of difference segments of the international financial system.

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TEST : 1

INTERNATIONAL FINANCIAL MANAGEMENT


Duration : 1Hour

Answer All Questions

Total Marks:50

SECTION – A
Multiple Choice Questions (20 Questions)

SECTION – B
Short- Questions (5 Questions)



So, I have designed a test for you. The test consists of two parts. Parts one is your Section A - that is multiple choice question. I will be asking you 20 questions here. Section B - a short questions, that is 5 questions will be there. You have to answer within 100 words. So, total test duration is 1 hours and here 50 marks I have given to you. The 50 marks spread over to 20 marks for 20 some objective questions and 6 marks each for 5 subjective questions. So, let us starts with the test. I will first discuss about the multiple choice question, 20 questions. After that end of the 20 question I will show you the key to the answer. Then we will go back to the subjective questions and subjective questions I will give you only the clue to the answer. So, on what basis you can write the answer,

that much only it is up to you to write the answer. So, let us start with the multiple choice.

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SECTION – A
Multiple Choice Questions

1. Interest-rate parity refers to the concept that,

- a) the same goods must sell for the same price across countries.
- b) interest rates across countries will eventually be the same.
- c) there is an offsetting relationship between interest rate differentials and differentials in the forward spot exchange market.
- d) None of the above

2. According to the Purchasing Power Parity theory, the value of a currency should remain constant in terms of what it can buy in different countries of

- a) Bonds
- b) Stocks
- c) Goods
- d) Land



Here multiple choice, number question number 1 is, interest rate parity refers to the concept a) the same good must sell for for the same price across country. b) interest rate across country will eventually be the same. c) there is an offsetting relationship between interest rate differential and differential in the forward spot exchange rate. d) none of the above. You indicate the answer and keep it to you. Question 2. According to the purchasing power parity theory, the value of a currency should remain constant in terms of what it can buy in different countries of. a) bonds. b) stocks. c) goods. d) land. You tick the answer and keep it with you.

(Refer Slide Time: 04:04)

Multiple Choice Questions

- 3. A forward rate is equal to a future spot rate if foreign exchange markets are**
- a) controlled by the government
 - b) efficient
 - c) controlled by speculators
 - d) are partially controlled by the International Monetary Fund
 - e) none of the above
- 4. The Fisher Effect assumes that the**
- a) real interest rate is equal to the nominal interest rate
 - b) nominal interest rate is equal to the real interest rate plus the inflation rate
 - c) inflation rate is equal to the real interest rate
 - d) nominal interest rate is equal to the inflation rate
 - e) nominal interest rate is lower than the inflation rate



Number 3. A forward rate is equal to future spot rate, if foreign exchange markets are. a) controlled by the government. b) efficient. c) controlled by speculators. d) are partially controlled by international monetary fund. e) none of the above. You mark the answer and keep it with you. Number 4. The fisher effect assume that the real interest number. a) the real interest rate is equal to the nominal interest rate. b) nominal interest rate is equal to the real interest rate plus the inflation rate. c) inflation rate is equal to the real interest rate. d) nominal interest rate is equal to the inflation rate. e) nominal interest rate is equal to the inflation rate. Mark the answer keep it with you.

(Refer Slide Time: 05:55)

Multiple Choice Questions

- 5. The International Fisher Effect says that the**
- a) exchange rate difference reflects the inflation rate difference between two countries
 - b) Expected spot rate reflects the interest rate difference between two countries in the opposite direction
 - c) future spot rate reflects the forward rate
 - d) interest rate is greater than the inflation rate
 - e) all of the above
- 6. Economic exposure have effect on the**
- a) future sales volume, prices and costs of companies
 - b) present earnings of company
 - c) no effect on company's balance sheet
 - d) limited effect on present profit of company



Number 5. The international fisher effect says that. a) exchange rate differential reflect the inflation rate differential between two countries. b) expected spot rate reflect the interest rate difference between two countries in the opposite direction. c) futures spot rate reflect the forward rate. d) interest rate is greater than the inflation rate. e) all the above. Mark the answer keep it with you. 6. Question number 6. Economic exposure have effect on the. a) futures sales volume prices and cost of companies. b) present earning of the company. c) no effect on company's balance sheet. d) limited effect on present profit of company. Mark the answer keep it with you.

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Multiple Choice Questions

7. According to finance theorists translation exposure

- a) only notional accounting losses and gains
- b) directly affect the present cash flows
- c) affect the future cash flow
- d) both 2& 3

8. If transaction exposures are in different dates, then it can be hedged

- a) By purchasing single forward contract
- b) By purchasing multiple forward contracts
- c) Cannot be hedged by forward contracts
- d) None of the above

9. Traders who traded among themselves foreign currency future contracts are called

- a) floor traders
- b) floor brokers.
- c) Buyers of futures contracts
- d) Sellers of futures contracts



Number 7 number 7 According to finance theorists translation exposure. a) only notional accounting losses and gains. b) directly affect the current cash flow. c) affect the future cash flow. d) both a and both b and c. Mark the answer keep it with you. Number 8. If transaction exposure are different dates, then it can be hedged. a) by purchasing single forward contract. b) by purchasing multiple forward contract. c) cannot be hedged by forward contract. d) none of the above. Mark the answer keep it with you. Number 9. Traders would traded among themselves in foreign currency future contract are called. a) floor traders. b) floor brokers. c) buyers of future contract. d) seller of future contract. Mark the answer keep it with you.

(Refer Slide Time: 10:09)

Multiple Choice Questions

- 10. Interest rate swaps involve counterparties who want to**
- a) Exchange a floating rate commitment for a fixed rate loan
 - b) exchange debt for stock
 - c) exchange a short-term loan for a long-term loan
 - d) 1 & 2
- 11. A representative collection of goods costs Rs.9,625/- in India and US\$ 174 in USA. What would be the exchange rate between US\$ and Indian Rupee ?**
- a) Not possible to find
 - b) Rs.55.3161 per US\$
 - c) Data insufficient
 - d) Rs.53.03 per US\$
- 12. The annual inflation rate is expected to be 8% in the India and that for the US is 3%. The current exchange rate is Rs.46.5500/- per US \$. What would the expected spot exchange rate be in six months for Indian Rupee relative to US\$.**
- a) Rs.46.6665
 - b) Rs.45.4597
 - c) Rs.48.8097
 - d) Rs.51.1791



Number 10 number 10 Interest rate swap involve counterparty who wants to. a) exchange a floating rate commitment for a fixed rate loan. b) exchange debt for stock. c) exchange a short term loan for a long term loan. d) a and b. Mark the answer keep it with you. Number 11. A representative collection of goods cost 9625 rupees in India and US dollar 174 in USA. What would be the exchange rate between US dollar and Indian rupee. a) not possible to find. b) 53.3161 per dollar c) data insufficient d) rupees 53.03 per dollar. Mark the answer keep it with you. Number 12. The annual inflation rate is expected to be eight percent in India and that for the US is 3 percent. The current exchange rate is 46.5500 per dollar, what would be the expected spot exchange rate in six months for Indian rupee relative to US dollar. a) rupees 46.6665 b) rupees 45.4597 c) rupees 48.8097 d) rupees 51.9791. Mark the answer keep it with you. You can use the calculator also.

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Multiple Choice Questions

13. As per Monetary Approach, if the target inflation rate is 6% and growth in money circulation is 1%, what would be rate of growth in money supply in the economy so as to achieve a real GDP growth of 8%?

- a) 14% (b) 15% (c) 13% (d) 9%

Question: 14 & 15

ICICI Bank's ADR is listed in NYSE with a share ratio of 1:2. As on Feb 12, 2013 at NSE its share price was hovering around Rs.1140.95 while at NYSE its ADR was hovering around US\$43.71. ADR and domestic equity transaction cost is US\$0.25. Is there any arbitrage opportunity between ADR and domestic equity of ICICI Bank, if US\$1: Rs.53.82?

14. What is the estimated price arbitrage between ADR and domestic equity?

- (a) Rs.69.71 (b) Rs.70.5722 (c) Rs.10.11 (d) Rs.53.82

15. What is the estimated arbitrage profit between ADR and domestic equity?

- (a) Rs.10.11 (b) Rs.69.57 (c) Rs.57.1122 (d) Zero



Number 13 number 13 As per monetary approach if the target inflation rate is 6 percent and growth in money circulation is 1 percent, what would be the rate of growth in money supply in the economy, so as to achieve a real GDP growth of 8 percent. a) 14percent. b) 15 percent. c) 13 percent. d) 9 percent. Mark the answer keep it with you. Question number 14 and 15. I am reading the question to you. Here I have given a small paragraph for write up after that question number 14 and 15 will come. Write up is here. ICICI bank ADR is listed in New York stock exchange with a share ratio of 1 is to 2 as on February 12, 2013 at national stock exchange of India. Its ICICI bank share price was hovering around rupees 1140.95 while at New York stock exchange ICICI bank ADR was hovering around US dollar 43.71 ADR and domestic equity. Transaction cost is US dollar 0.25. Is there any arbitrage opportunity between ADR and domestic equity of ICICI bank, if US dollar is rupees 53.82 with this background the question number 14 is, what is the estimated price arbitrage between ADR and domestic equity.

Answer to question number 14 is question number 14 is what is the estimated price arbitrage between ADR and domestic equity, answer to question number 14 is a) rupees 69.71 answer b) rupees 70.5722 c) rupees 10.11 d) rupees 53.82. Mark the answer keep it with you. As per the earlier write up the question number 15 is, what is the estimated arbitrage profit between ADR and domestic equity. Answer to question number 15 - a) rupees 10.11, b) rupees 69.57, c) rupees 57.1122, d) 0. Mark the answer keep it with you. Question number 16, question number 16 to 18.

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Multiple Choice Questions

Question: 16-18

The official British price of gold was £6 per ounce and that of the US price of gold \$12 per ounce. The shipping cost of gold from the US to Britain is 5 cents.

16. What would be the mint prices of gold in the respective countries?
(a) \$2.05 per £1 (b) \$2 per £1 (c) \$1 per £2 (d) \$1 per £2.05
17. What would be the gold transport rate for US importers?
a) Exchange rate beyond \$2.05 per £1
b) Exchange rate beyond \$1 per £2.05
c) Exchange rate beyond \$1 per £2
d) Exchange rate beyond \$1 per £2.10
18. What would be the maximum exchange rate for US importers?
(a) \$2.05 per £1 (b) \$2 per £1 (c) \$1 per £2 (d) \$1 per £2.05



That is 16 17 and 18 there is a write up, on that basis you have to answer question number 16 17 and 18. The write up is here the official British price of gold was 6 pound sterling per ounce and that of the US price of gold is 12 dollar per ounce. The shipping cost of gold from US to Britain is 5 cent. With this background you have to answer question number 16 17 and 18. Question number 16 is, what would be the mint prices of gold in the respective countries? Answer to question number 16 is. a) 2.05 dollar per pound sterling, b) 2 dollar per pound sterling, c) 1 1 dollar per 2 pound sterling. d) 1 per 1 dollar per 2.05 pound sterling.

Question number 17 as per the above write up. Question number 17, is what would be the gold transport rate for US importer? Question number 17 is what would be the gold transport rate for US importer? Answer to question number 17 are, a) exchange rate beyond 2.05 dollar per pound sterling. b) exchange rate beyond 1 dollar per 2.05 pound sterling. c) exchange rate beyond 2 dollar per 2 pound sterling. c d) exchange rate beyond 1 dollar for 2.10 pound sterling. Mark the answer keep it with you. Question number 18 as per the above write up. Question number eighteen is what would be the maximum exchange rate for US importer. a) 2.05 dollar per pound sterling. b) 2 dollar per pound sterling. c) 1 dollar per 2 pound sterling. d) 1 dollar per 2.05 pound sterling. Mark the answer keep it with you.

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Multiple Choice Questions

19. In the inter-bank market rupee is quoted for November 2012 as Spot : US\$1 = Rs.53.2550 - 53.2600. The interest rate in USA is 4% and in India it is 8%.What would be the one year forward rate so as to remove any arbitrage?

- (a) Rs.55.3852
- (b) Rs.55.4150
- (c) Rs.53.3033
- (d) Rs.57.5208

20. A currency is said to be a premium currency if

- a) Forward price is higher than spot price
- b) Forward price is lower than spot price
- c) If the currency is depreciating its value
- d) If the domestic interest rate is increasing



Question number 19. Question number 19 Question number 19 is in the inter-bank inter-bank market in the inter-bank market rupee is quoted for November 2012 as spot rate one US dollar is rupees 53.2550 to 53.2600. The interest rate in USA is 4 percent and that of in India it is 8 percent. What would be the 1 year forward rate so as to remove any arbitrage opportunity? Answer to the questions are a) rupees 53.3852 b) 55.4150 c) 53.3033 d) 57.5208. Mark the answer keep it with you. Question number 20. A currency is said to be a premium currency if. a) forward price is higher than the spot price. b) forward price is lower than the spot price. c) if the currency is depreciating its value. d) if the domestic interest rate is increasing. Mark the answer keep it with you. Your 20 questions are over. Let us see your what you have done and let us discuss about all questions.

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Answers: Multiple Choice Questions

- | | |
|---------|---------|
| 1. (c) | 11. (b) |
| 2. (c) | 12. (c) |
| 3. (b) | 13. (c) |
| 4. (b) | 14. (b) |
| 5. (b) | 15. (c) |
| 6. (a) | 16. (b) |
| 7. (a) | 17. (a) |
| 8. (b) | 18. (d) |
| 9. (a) | 19. (C) |
| 10. (a) | 20. (a) |
- 

Let us move to the question number 1 answer is c. The question is here interest rate parity refer to the concept that your answer is c. Interest rate parity means there is a offsetting relationship between interest rate differential and differential forward spot and forward exchange market. Interest rate parity that is difference between the two country interest rate should be equal to the spot minus forward rate such forward.

This is the interest rate parity hypothesis. What we have discussed earlier session. So, interest rate parity hypothesis equalise the interest rate differential with the forward premium. So, the answer will be c. Then question number second answer also c. What is the question number second. According to purchasing power parity theory the value of a currency should remain constant in terms of what it can buy in different countries your answer is c, because purchasing power parity theory mention that the goods prices of purchasing power that is a price that power to purchase goods should be same across the country.

So, purchasing power try to equalise the prices of goods whenever there is a differential price the goods, the country having higher price of goods and services. The country the country exchange will rate will be depreciating. So, here the question you see, the in case of purchasing power parity theory good prices goods prices should be equalised across country. Then number 3 answer is b. number 3 answer is b What is the question number 3. A forward rate is equal to a future spot rate if foreign exchange markets are here the

foreign exchange market should be efficient the foreign exchange market efficient whenever there is a no tax, there is no barrier of flow of funds, no taxation no such kind of what is called transaction cost the market is efficient then forward rate equal to the future spot rate the forward rate equal to the future spot rate with market is efficient that is question number 3 answer is b and in case of question 4 the question 4 your question 4 is the fisher effect assume that fisher effect, that is fisher if it is international fishers effect we discussed earlier classes earlier session.

The here question number 4 is answer is b. question number 4 answer is b So, here future is fisher's effect assume that nominal interest rate is equal to the real interest rate plus inflation rate. So, nominal interest rate is nothing but real interest rate plus inflation that is fisher effect mentioned as so when the country having higher inflation, higher nominal interest rate and country exchange will exchange rate will depreciate. Indian Indian interest rate is higher Indian inflation is higher, Indian inflation nominal interest rate is higher for that reason rupee is depreciating against dollar.

So, number 4 fisher effect assume that the answer is here b. Nominal interest rate is equal to real interest rate plus inflation. In case of question number 5 the answer is b. question number 5 answer is b what is question number 5? Question number 5 question number 5 answer is b what is the question number 5 Question number 5 I mentioned that international fisher effect, international fisher effect nothing but the expected spot rate reflect the interest rate differential between two countries in opposite direction.

So, when the expected spot rate reflect the interest rate differential between two countries in opposite direction. So, interest rate is the country having higher interest rate its spot rate will depreciate. So here question international fisher effect the answer is b. In question number 6 the answer is a. question number 6 answer is a What is question number six question number economic exposure have the effect on economic exposure have the effect on future sales volume and cost of company. So, here the economic exposure have the effect on the future sales volume the future sales, future prices, future valuation of the company is affect because of the economic exposure number 6 question answer is a.

The question number 7 answer is a question number 7 answer is a What is question number 7? Question number 7 according to finance theory translation exposure

translation exposure is the accounting exposure. So, here there is no it does not affect the asset liability of the company it does not affect the value of the company. It is adjustment in the process of accounting none so here the question number 7 answer is a. Only notional accounting losses and gains, only notional accounting losses and gain. The question number 8 answer is b. question number 8 answer is b

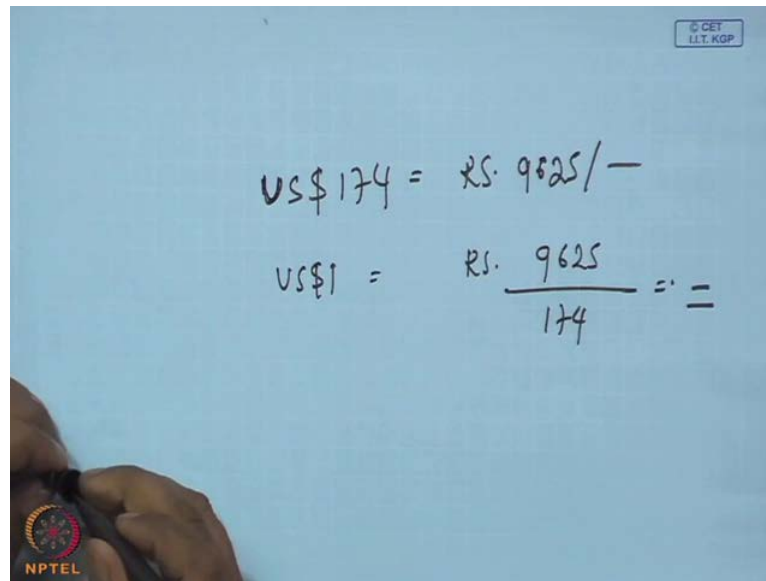
What is question number 8? If transaction exposures are in different dates then it can be hedged by purchasing multiple forward contract because in transaction exposure is a exposure because when exchange rate fluctuate it affect the assets and liability of the company, the income source of the company. So, since the exposures and different date you have to different date so you have to purchase, purchasing of multiple forward contract. You have to purchase multiple forward contract for each date, each exposure date you have to purchase one forward contract.

So, multiple forward contract you have to purchase for absorbing transaction exposure which have a which are having different date. So, question number 9 question number 9 answer is a question number 9 answer is a. What is question number 9? Traders who traded among themselves in foreign currency future market they are called the traders who trade foreign currency futures market they are called, question number there is question number 9 question number 9 answer is a. They are called floor broker floor trader those who trade among them self in foreign exchange future market they are called floor trader the question number 9 answer is a.

So, question number 10 question number 10 and also answer is a question number 10 answer is a. So, what is question number 10 interest rate swap involve counter party who want to exchange a floating rate commitment for a fixed rate loans so we in case of interest rate swap we generally as we discussed earlier session interest rate swap is for converting differential that is floating rate interest debt to a fixed rate debt or a fixed rate debt to a floating rate debt.

So, here exchange a floating rate commitment to a fixed rate loan is nothing but interest rate swap. Similarly, question number 11 question number 11 the answer is b. question number 11 the answer is b What is question number 11 a representative collection of goods cost representative collection of good cost 9 9625 in India and 174 rupees in US. What is the exchange rate between US dollar Indian rupees.

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The image shows a handwritten calculation on a blue background. The first line reads "US\$ 174 = RS. 9625/-". The second line shows the calculation for the exchange rate: "US\$ 1 = RS. $\frac{9625}{174}$ ". The result of the division is indicated by two horizontal lines, representing the value 55.6161. In the top right corner, there is a small logo for "CET I.I.T. KGP". In the bottom left corner, there is a logo for "NPTEL".

So, here US dollar if you see the calculation as I mentioned US dollar 174 is equal to rupees 9625 so US dollar 1 will be you have to divide this 9625 by 174 you will get the actual rate. The actual rate here answer is answer is b. answer is b that is rupee 55.6161. So, question number 11 the answer is b, how to calculate 174 dollar is equal to 9625 rupees. So, what will be the 1 dollar rate that will that will decide the exchange rate between Indian rupee and US dollar.

In case of question number 12 the answer is c. question number 12 answer is c What is the question number 12? Annual inflation rate is expected to be 8 percent in India and that of the US it is 3 percent current exchange rate between is, current exchange rate is between US dollar Indian rupee 46.550. So, what would be the expected spot rate after 6 month? Here you have to include, you have to, how to calculate. Here you have to discuss what we have discussed earlier classes international fishers effect. The interest rate differential reflect the future spot. So, you have to what is the interest rate differential between Indian rupee and India and US? India is 8 percent US is 3 percent interest rate differential is 3 percent in 6 month the rupee will depreciate by 3 percent. So, what will be the annual depreciation you have to calculate annual depreciation make it to 6 half yearly depreciation and that depreciation you have to add in 46.5500, that will be the new rupee rate.

So, new rupee rate will be new rupee rate will be answer will be 12 number answer is as I mentioned 12 is c. So, you have to see 12 answer is c. c is 48.8070. So, here calculation is interest rate differential.

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$$\text{US\$ } 174 = \text{RS. } 9625/-$$

$$\text{US\$ } 1 = \frac{\text{RS. } 9625}{174} =$$

$$\frac{2\% - 3\%}{\text{current spot}} = \frac{\text{Depre/Annu.} \cdot \text{Rs}}{46.5500}$$

$$8\% - 3\% = 5\%$$

US Indian interest rate minus US interest rate, US interest rate is reflect the depreciation of or appreciation of rupee. appreciation of rupee So, current rate current spot is 46.5500 the interest rate differential 8 percent minus 3 percent is 5 percent. Rupee will depreciate annual depreciation will be from here it will depreciate by 5 percent and what will be the 6 month depreciation you have to calculate and add to this. This will be your answer. Your answer is 48.8097 answer is c. Let us move to question number 13. question number 13 the answer is c. question number thirteen answer is c

What is the question number 13? Question number 13 is as per monetary approach if the interest rate, interest if the target inflation is 6 percent growth in money circulation is 1 percent, what will be the growth rate in money supply to achieve a growth rate of 8 percent. So, here we want to have a growth rate, annual growth rate of 8 percent with 6 percent inflation 8 plus 6 14, 14 percent. So, 14 percent and what will be the money circulation 1 percent. So, 14 percent minus 1 percent is 13 percent, that will be answer. So, answer is 13 13 percent. answer is 13 So, inflation is nothing so inflation plus the real growth rate minus the money circulation money velocity of money circulation that will be the answer to the money supply.

Here 8 plus 6 is 14 minus 1 percent circulation of money velocity of money that will be one percent. So, 13 percent is the money supply growth rate in the economy. So, 13 number of, question number 13 answer is c.

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ADR 1:2

ICICI Bank share price in
NSE = ₹ 1140.95

NYSE ADR = US\$ 43.71

1140.95 x 2 ≈ US\$ 43.71 x 53.82

In question number 14 and 15 you have to answer with the with the write ups. So, here so NSE ADR price is ADR so a 1 ADR, ADR 1 ADR 2 is to 2 that is 2 domestic share equivalent to 1 ADR. So, ICICI bank share price in NSE at present 11, 1140.95. So, 1140.95 rupees and in n NYSE ADR price is equal to US dollar US dollar 43.71, so, 40 43.71 so but 2 equity price equivalent to 1 ADR price. So, two equity price will be 1140.95 into 2 into 2 supposed to be equal to US dollar 43.75 into current rate of exchange rate. Current exchange rate is 1 dollar is 53.82. 53.82 53.82. This will be equivalent. If it is not equivalent there is a arbitrage opportunity. So, what will be the price arbitrage you can calculate from here. The price arbitrage is here. Price arbitrage the differential of these two is the price arbitrage and this price arbitrage is how much?

If you see there the answer is 70.57, 14 14 answer is b. 70.5722. 70.5722 What is arbitrage profit? Arbitrage profit is price arbitrage minus the transaction cost. Transaction cost is how much? Transaction cost is US dollar 0.25 into 53.82. This is a rupee equivalent of transaction cost.

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ADR 1:2
ICICI Bank share price in
NSE = ₹ 1140.95
NYSE ADR = US\$ 43.71
 $1140.95 \times 2 \approx \text{US\$ } 43.71 \times 53.82$
Transaction cost US\$ 0.25 \times 53.82

The image shows handwritten calculations on a blue background. At the top, 'ADR' is written with '1:2' written above it and underlined. Below this, 'ICICI Bank share price in' is written, followed by 'NSE = ₹ 1140.95'. The next line says 'NYSE ADR = US\$ 43.71'. A large calculation follows: $1140.95 \times 2 \approx \text{US\$ } 43.71 \times 53.82$. Below this, 'Transaction cost' is written with US\$ 0.25 \times 53.82 written below it and underlined. In the bottom left corner, there is a small circular logo with the text 'NPTEL' below it.

So, from 70.5722 minus this equal this equal to what is called the 15 number answer. What is the price arbitrage? Price arbitrage is something around 57.122. 57.122 This is the answer to 15 number question, 14 number question answer is a, 15, b and 15 number question answer is c. This is the calculation process as I mentioned here. So, the 1140.95 into 2 equal to US dollar 43.71 into this and this will be the arbitrage profit and what is the price arbitrage and arbitrage profit is arbitrage profit is price arbitrage minus transaction cost is the arbitrage profit.

So, that is the answer to you now, let us move to question number 16 and 17 and 18. Question number 16 is, if you read the question number 16 we have given a write up to you. The write up is here gold price gold price in in for ounce for ounce of gold price in US in a Britain is 6 per ounce and in US dollar it is 12 per ounce.

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The image shows handwritten calculations on a whiteboard. At the top, it says "£6 . US \$ 12" with a horizontal line underneath. Below that, it says "Transport cost = 5 cents" with a horizontal line underneath. Then, it shows "US \$ 12" over "£6" with an equals sign and "1 £" to the right. Below that, it says "US \$ 2 = 1 £" with a horizontal line underneath. At the bottom, it says "2.05" with a horizontal line underneath. In the bottom left corner, there is a small circular logo with the text "NPTEL" below it.

So, and gold transport cost or shipping cost. transport cost or shipping cost Transport cost is 5 cent. So, then question number 16 with the, with this question number what would be the mint price of gold in the respective country? Mint price of gold is nothing but this which is nothing but nothing but the US dollar 12 by 6 is equal to 6 pound sterling is equal to 1 pound sterling price. 1 pound sterling price So, this is 2 dollar 2 US dollar is equal to 1 pound sterling 1 pound sterling 2 u s dollar is equal to 1 pound sterling that is mint price of the gold.

So, here question answer is b. 2 US dollar is 1 pound sterling, the exchange of gold exchange of gold price these two countries mint price of the gold. So, what we discussed earlier session 2 per dollar per 1 pound sterling. What will be the gold transport? So, question number 16 answer is b. question number 17. What will be the gold transport rate for US importer? So, when the gold price increase beyond this, beyond 2.05 beyond 2. because the transport transportation cost is 5 5 cent. So, when they gold increase beyond 2.05 it is better to transport the gold rather than paying this.

So, it is because it will be less costly. So, here the gold transport point for the US importer is 1 pound that is 2.05 five dollar per pound sterling. The answer is a the answer is a 2.05 dollar per pound sterling. Now, question number 18 what would be the maximum exchange rate for US importer? So, a maximum exchange rate US importer,

how much they have to pay maximum? So, this is nothing but same gold transport point so here answer is 2.05 per pound sterling 2.05 dollar per pound sterling.

If the importer, the exchange rate is beyond this the importer will transport the gold rather than paid. So, the question number 18, the gold transport maximum exchange rate for the US importer is, 18 number question answer is a 2.05 per pound sterling. Now, question number 19 question number 19 In the question number 19 here in the inter-bank market rupee is quoted, spot rate is 53.2550 and 53.2600 So, interest rate between US dollar, US is 4 percent and India is 8. What will be the one year forward rate to remove the arbitrage opportunity?

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The image shows handwritten calculations on a whiteboard. At the top, it says "US\$ 100 ~ annually". Below that, "int. cost US\$ 4" is written. A horizontal line is drawn, and below it, "\$ 104" is circled. Below this, the calculation "100 x 53.2550 = Rs." is written. A second horizontal line is drawn, and below it, "100 x 53.2550 x 1.08" is circled. A small logo with the letters "MPTEL" is visible in the bottom left corner of the whiteboard.

So, suppose how to calculate. So, suppose you borrow 100 dollar from the US. So, US 100 dollar you borrow. So, you have to pay annual annually you are being borrowing so you have to pay US interest rate is 4 percent. You have to pay interest cost. Interest cost will be US dollar 4. So, annually you are paying 104 dollar. When you bring 100 dollar so to India you have to convert into Indian rupee. The sale dollar that selling rate of dollar is you will get 53.2550 53.2550 and this is the, this is the rupee you will get, this much of rupee you will get and this rupee you have this rupee you will invest in India. So, you will get a interest of 8 percent.

So, 100 into 53.2550 into 1.08; this much annually for you, this is but annually in US dollar is this much annually in rupee is this much. So, this was supposed to be equal if

there is no arbitrage. So, what will be the no arbitrage point No arbitrage point is dollar equivalent no arbitrage point will be dollar equivalent of 104 equal to rupee equivalent of 100 into 53.2550 into 1.08 this is you can calculate what is the rate.

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$$\frac{\$ 104}{100} = 53.2550 \times 1.08$$

$$\text{US\$1} = \text{₹. } 53.3033$$

So, here to remove arbitrage this will be the rate. So, this rate is nothing but if you calculate the rate will be rate will be answer to 19 is c. The rate will be 53., 53., 53.3033 per dollar. US dollar will be, 1 US dollar will be this much. If you calculate because 104 dollar you are paying after 1 year and after 1 year rupee equivalent is this much and if there is no arbitrage there is no interest rate again.

So, this this point will be 53.0333, now question number 20. So, here answer is c 19 question. Number twenty a currency is said to be premium currency. Premium currency value is increase. So, forward price will be more than the spot price. So, answer is here question number 20 answer is a. So, question number 20 answer is a. Forward price is higher than the spot price, then the currency said to be a premium currency. So, rupee rupee depreciating forward price is lower than the lower than the spot price so it is appreciating, so depreciating currency. Premium currency is a currency whose value is increasing. So, forward price is higher than the spot price. This is the answer to all twenty questions let us move to the short question short question. I have asked you

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SECTION – B Short- Questions

- Why corporate India require hedging their balance sheets position?
- Derivatives are not only means/instruments for hedging exposures. In this context discuss alternative methods of hedging.
- What should be the hedging strategies for an import-intensive export-oriented company?
- Hedging has its own cost beside the transaction cost. In this context discuss “optimal *versus* total hedging”.
- Is there any difference in the strategies of hedging for manufacturing company and that of a project oriented Software company?



Here 5 5 question you have to answer in 100 words and the answer for these I will only give you only clue, rather than writing of the answer. So, here first question is why corporate India required hedging their balance sheet position? Why corporate India required to hedge their balance sheet position? Here answer to this clue the answer is, the question is, why a corporate India why a corporate sector is hedging their position because corporate at present have a significant exposure to international currency, their either their revenue source, their export, their import, their payment of wage and salary, their payment of different kind of transaction fee are in different currency.

The since currency are fluctuating their revenue positions are fluctuating, their cost position is fluctuating. It is creating a risk to the corporate world and for that reason they need to export they need to hedge their position to immune from the risk of currency volatility. Second question, you have to write in different way with example. Second question derivatives are not only means or instrument for hedging exposure. In this context we discuss alternative method of hedging. So, as I mentioned in, as we discussed earlier derivative is a position, derivatives are instrument for financial hedging. Financial hedging is purchasing of currency swap, currency future, interest rate swap, interest rate future these are the financial hedging currency or derivative of financial instruments of financial hedging, but these are only instrument there is no other way to hedge. The other other hedging hedging instrument or hedging way is operational hedging.

The operational hedging is negotiation, risk sharing negotiation, contract changing of contract position. These are the other way of hedging. So, operational hedging you have to discuss. How the buyers and seller can share their risk? How they design the contract? How they can go for redesigning? The every 6 month they have to go for negotiation further, so negotiation risk sharing contract designing other way of operational hedging. What should be the hedging strategy for import intensive export oriented company? Third question what should be the hedging strategy for an import intensive export oriented company?

Here you have to understand that, the company is exporting re-fluctuation of currency is a problem for them. The company is importing any fluctuation of foreign currency also a problem for them. Here if the company has to see, the currency of import and currency of export. Both the currency are same then netted balance they can do that the both the currency are different then different way of hedging they are supposed to do. So, they have to go for both the currency are same then a payment payments are there which currency are fluctuating and receivables are there where currency is fluctuating. Both the currency are same so that there will be there will be positive effect for the company.

They can go for netted balance approach. If the both the currency are different, then they go to over individual balance individual hedging for the export balance sheet. Question number 4, question number 4 is here. Hedging has its own cost beside transaction cost. In this context discuss optimal hedging. Optimal hedging is here you have to discuss hedging as a transaction cost, hedging also need we are doing through derivative transaction. Derivative transaction has a, what is called in case of derivative transaction there are problems of the financial institution the company where provide hedging they may not adhered to the position. There is a position called what is called what is called credit risk are there in case of currency hedging.

So, optimal hedging is mix of mix of what is called operational hedging and financial hedging. Question number 5 is there any difference in strategy of hedging manufacturing company, project oriented software company? Software strategy of hedging for manufacturing company and that of project oriented software company? So, you have to distinguish the manufacturing company project oriented software company first here. The manufacturing company generally have export import and they have a what is called different currency area of export, different currency area of import.

So, the export imports are different vendors will be there, but in case of software oriented project company, the maximum revenue come from the exports export of the project so they generally face significant exposure in currency and their exports project oriented software company have a huge exposure because one project might be having a huge amount of millions of dollar. So, exposure is significant, but in case of manufacturing company the export is not so significant because it differentiable differentiations are there because they had may have export import not only one currency.

But many currencies are there so netted balance we provide them some kind of some kind of positive effect to them. But in case of export oriented software company the netted balance is one currency exposure is significant. So, for them it is very difficult to hedge their position they have to go for both operational and financial hedging, but in case of manufacturing company they can go for the financial hedging and prevent any kind of currency volatility in significant way, but it is not possible in case of in case of software oriented, export oriented software company. They have to go for both financial hedging and also what is called operational hedging in the in the form of negotiation, in the form of contract designing in the form of risk sharing and to remove the volatility of currency exposure.

With this let me complete this session. You have to write all this 6 5 question in 100 words each. So, that it will be good for to, good for you to understand what we have discussed in the earlier session.

Thank you