International Finance
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Lecture - 16
Transaction Exposure Management

Good morning. Let us move to the session 16, where you will be discussing about transaction exposure management. Last two session we have discussed different aspect where transaction approach, transaction exposure, and we have also discussed how to assess the transaction exposure. Now, once you assess or quantify a transaction exposure, next question will be how you can absorb this exposure through different management tools.

Here, one of the management tools is forward rate agreement. What is called forward rate contract or forward contract? Here we will be discussing session 16. How we can use forward contract in managing the transaction exposure and we will identify different approaches for forward contract? How forward contract agreement takes place between two party? How the forward rates are determined then we will also discuss through examples in some practical side of the forward contract. How we can use this forward contract for transaction exposure management. We will also identify the difficulties of forward contract. What are the disadvantages are there in forward contract and what are the other tools are available or products are available beyond forward contract for management of transaction exposure.

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Transaction Exposure Management

- Transaction exposure refers to the change in the home currency value of an item whose foreign currency value is contractually fixed.
- With the liberalization of foreign exchange market, companies are permitted to hedge their anticipated exposures by purchasing forward contracts and future contracts.
- Forward quotes are available for major world currencies upto six months.
- Currency Future market has been operating in many countries; including India, where major world currencies are being traded and quotation are available for one year.
- In this session we will be discussing about the management of transaction exposures using forward contracts.

Let us move to transaction exposure. What is actual meaning of forward contract? As we discussed in earlier session transaction exposure refers to change in the home currency value of an item whose foreign currency value is contractually fixed. Here the party or the exporter importer whenever they export they get foreign currency that foreign currency in the form of US dollar or pounds sterling or euro or Japanese yen. However, when they convert into domestic currency the value of the domestic currency against the pounds sterling against the foreign currency fluctuate and this fluctuation create transaction exposure.

Similarly, when a importer wanted to import something from foreign country he needs to pay in foreign currency by surrendering the home currency he purchase foreign currency. But question is here the import may be due after sometime. So, in between there may be appreciation or depreciation of home currency against the foreign currency and this appreciation depreciation create transaction exposure and this contractually fixed foreign currency either payment or receivables. When they convert into home currency the fluctuation of home currency against the foreign currency create transaction exposure.

As we discussed earlier session the liberalization of foreign exchange market companies are permitted to hedge their anticipated exposure against any of the foreign currency in India. Also after the liberalization exporter importer are permitted to hedge their foreign currency exposure through by purchasing foreign currency hedging product. the One of

such product is what is called forward contract. Another such products are like forward futures market options market and also negotiation side forward codes forward market. One such kind of hedging product available in available in our market, in other country also what is called forward contract? Forward contract authorized dealer in foreign currency market they provide forward contract and forward codes are the forward quotation. What is called the buying and selling of forward foreign currency? Beyond spot date spot rate spot date is beyond spot date means two dates after the spot date. So, all transactions are forward transactions in India we are getting foreign currency forward contract from 2 days onward till 6 month even 9 month also.

Forward quote are available in our market for beyond 2 days to 6 to 9 months currency future market has been operating in many country; one such one another such product is currency futures market, currency futures market. Also there which are provide forward rate or currency future rate and that also possibilities are there transaction exposure or the exporter importer. They are doing transaction exposure can buy a foreign currency futures and option to hedge their fluctuation of home currency.

In this session we will be discussing about the forward contract agreement and session seventeen will be there on futures side and these two product primarily available in market for hedging of transaction exposure.

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Management of Transaction Exposures: Forward Market

- A typical MNC balance sheet, generally, has several contractual exposures in various currencies and maturing in different dates.

Receivables/Payables	Value	Maturity Days
US$ Payable	90000	40
Euro Receivable	25000	60
US$ receivable	11000	40
US$ Interest Payable	9000	40
Euro Loan Payable	80000	60
US$ export Receivable	87500	40
Euro Export Receivable	70000	60

The question is here what actually we how we can define the transaction exposure by through the corporate angles corporate in a practical view. They are exposed to foreign currency market because of they are international transaction the transaction may be in the form of export in the form of import, in the form of payments of payments of foreign currency for borrowing and lending side. Their exposures are not confined to one currency or one country. They have multiple exposures in multiple country and multiple currency and these currencies are and also the maturity of each currency are different. Different dates are there for different currency and whenever they are exporting. Importing the multiple currency create a different kind of transaction exposure one needs to be address.

And in this context if you see this example; a typical MNC balance sheet. Typical MNC balance sheet generally has several contractual exposure in various currency and maturing in different debts. So, each currency there is there is a separate maturity date. Each currency have a separate amounts and also each currency might be having asset side might be having a liability side or each currency having a payments each currency might be having a receivables. And the receivables and payments in different currency have different maturity profile. And this create a complex management of foreign currency for transaction exposure side. And if you see this example here receivables and payables are given to you. The value of the receivables payables and maturity days are given to you.

If you see the US dollar payables US dollar payable is 90000 and the maturity date is 40 days, just 40 days. The particular MNC will need to pay 90000 dollar. Similarly, if you see euro receivables; euro currency a receivable the MNC will be receiving euro currency 25000 just after 60 days. Similarly, US dollar receivable 11000 dollar and after 40 days the MNC will be receiving US dollar 11000. Similarly, US interest payable the MNC might have taken might have taken some kind of borrowing from US market needs to pay interest on that the interest will be paid in US dollar. So, in US dollar interest payable due after 40 days is nine thousand. Similarly, if you see euro loans payable the loan amount might have taken by the MNC in euro currency. They need to pay euro loan payable 80000 after 60 days.

Similarly, US dollar export receivable the MNC might have exported to US and in the form is getting US dollar something around 87500 after 40 days. Just after 40 days the

due amount will be there. Then similarly, euro export receivable here the MNC is receiving euro because he might have exported to euro area and he is receiving 70000 euro after 60 days. In this context what you have understood here the MNC have a receivables and payables in different in different currency also having a different maturity profile. So, well assessing the transaction exposure, we need to identify the receivables and payables on different currency basis and different maturity profile. And in this process we are by cutting the receivables and payable currency wise and maturity wise.

In this process we will, I will we will be in a position to identify currency wise receivables and payables and currency wise deficit and surplus. So, that in the event of deficit we have to arrange the payment. The MNC's has need to arrange currency and in the events of surplus the MNC need to deploy the surplus in actual market.

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Management of Transaction Exposures: Forward Market

Net Exposure in US$ at 40 days

Payable	: US$99,000
Receivable	: US$98,500
Net Exposure	: US$ (-) 500

Net Exposure in Euro at 60 days

Payable	: Euro 80,000
Receivable	: Euro 95,000
Net Exposure	: Euro 15,000

- The MNC can hedge the open position of US$ and Euro by purchasing US$500 forward contract of 40 days and selling a 60-days forward contract of Euro 15,000.

So, what we will do it we have to identify net exposure in US dollar and net exposure in euro? So, if you see the earlier example the maturity profiles are either 40 days or 60 days. So, you can classify currency wise 60 days maturity and 40 days maturity. So, same thing I have done it here. So, net exposure in US dollar after 40 days. So, here if you see the payable side payable side 99000, what is the payables here? The net exposure if you see if you divide this example in a currency wise side. We have after 40 days US dollar exposure US dollar exposure with after 40 days.

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So, what is that payable side? Payable mean US dollar payable US dollar payables you identify a payable which are due on 40 days. If you see here the payables here 40 days payable your first payable is 90000 dollar which matured on 90000 dollar 90000 dollar payable after 40 days.

Similarly, euro dollar US dollar interest payable 9000 dollar 9000 dollar. After 40 days 9000 dollar after 40 days. Similarly, similarly, no other payables are there. So, total payables will be in euro in US dollar is 90000 99000. So, similarly, you have to go to US dollar receivables. You know US dollar receivable, if you see the example the US dollar receivables are there that is 11000 US dollar receivable 11000 is here. The 11000 after 40 days similarly, US dollar export receivable 87500 US dollar export receivable 87500.

So, if you see together there is no other receivables in US dollar. So, total receivable will be will be this is US dollar 98500. So, if you deduct this net. Net exposure will come over here net exposure in US dollar. So, a net exposure is US dollar there is a minus exposure of 500 minus exposure of 500. What does it mean? It means that the MNC is receiving US dollar 98500 after 40 days MNC is paying in US dollar 99000 after 40 days. So, there is a deficit of 500 US dollar that MNC need to arrange which payment maybe due on 40th day. So, there will be requirement of arranging 500 US dollar.

Similarly, if you if you do the same thing for euro side net, so euro exposure euro exposure euro exposure in 60 days. So, what you have to do that here also same thing.

You have to do that euro exposure side euro exposure is here, if you see the euro payable side, euro your euro payable side. First you have to identify euro payable euro payable will be you see the euro dollar euro loan payable is 80000 dollar euro loan payable 80000 dollar 80000 euro.

Similarly, any other euro payables are there. So, US dollar euro receivable euro loan payable euro nothing. So, entire amount is exposure is 80000, euro due on 60th date. Similarly, euro receivables euro receivables are there. Euro receivables are there. How much? If you see euro receivables here; you see euro receivable 25000 after 60 days. 25000 after 60 days anything more euro export receivable 70000 euro export receivable 70000 euro export receivable 70000 after 60 days. So, total is 195 95000. So, total amount is coming euro receivable is 90000 euro payable is 80000. So, net exposure that is net exposure in euro after 60 days will be positive. How much 15000? Because it is positive you are need the need to pay after 60 days euro amount 80000 MNC is getting euro receivable euros are there 95000. So, positive 15000 positive 15000 euro will be will be received by the MNC after on 60th day.

So, here the MNC need to deploy this euro because a surplus euro is available to him you have to. So, he will deploy the euro because or here and the US dollar side MNC have deficit of 5.8 dollar it will arrange this dollar. So, transaction exposure in dollar term in negative 500 dollar you have to arrange. So, you have to go to a forward contract for arranging this arranging this 500 dollar which suppose to be repaid on 50th 40th day. Similarly, on the euro side the surplus receivables of euro is 15000 dollar 15000 euro.

So, when they received surplus 15000 euro they need to convert into Indian rupee, so domestic currency. So, that time Indian rupee in and euro might be having a fluctuation some kind of volatility in euro side or dollar or in case of rupee side. So, he may have a exposure of 50000 dollar 15000 euro. He need to correct this exposure by either going for a forward contract for to hedge, this 15000 euro or going for a future side to hedge this 15000 euro.

In this context, we are discussing about forward contract the MNC need to purchase a 15000 15000 sell contract because you have a surplus. You have a surplus euro you need to sell the euro in actual market. So, that the value of the euro remain constant in terms of rupee because there will may be a fluctuation of in rupee and dollar rupee and euro

which may be possible after 40th day. Or there is a risk for the MNC side. So, in this context you understood that MNC generally have a exposure in different currency and different maturity profile.

So, they have to classify the currency via its payables and receivables and also in the form of maturity profile; you have to classify the payable and receivable in the event of any kind of foreign currency. In net exposure is positive they have to deploy the exposure net exposure is negative. They have to arrange the exposure and both side the MNC need to go for a hedging of this exposure because there may be some fluctuation of a fluctuation of domestic currency against the foreign currency and in this context the forward contract can be used as a tool for management of foreign currency exposure.

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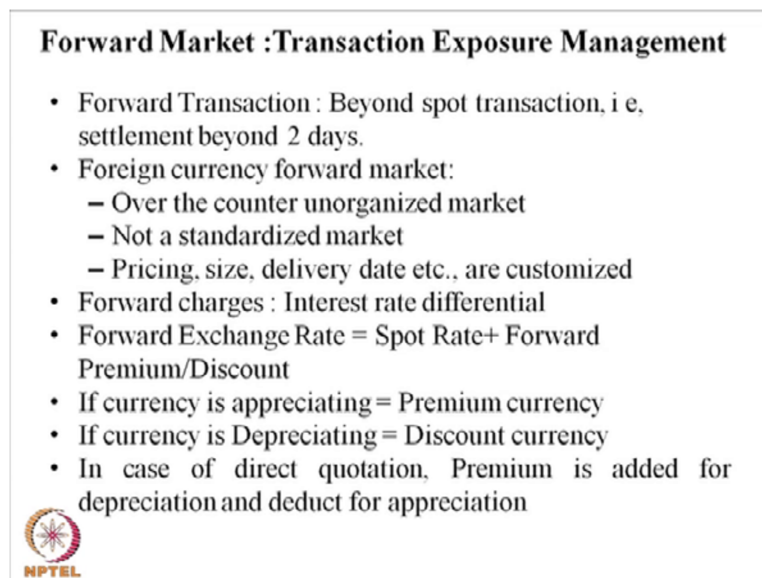

So, forward what is actually forward market transaction exposure? How you can use the forward contract for transaction exposure. To understand this let us now discuss about forward contract, forward transaction. Generally as we discussed earlier session any transaction in foreign currency beyond 2 days after the spot transaction 2 days beyond the spot transaction is a forward transaction. So, settlement takes place beyond 2 days after the spot. So, it is a forward transaction foreign currency forward market it is a unorganized market and it is a over the counter market unorganized in the sense that all authorized dealers are allowed to provide quote for forward transaction. So, different authorized dealer will give different quote for different same maturity profile same

currency wise forward transaction. So, it is not a standardized market because there is no requirement for 10000 dollar 15000 dollar. Any amount of dollar any amount of foreign currency we can get a quote and the price are not standardized in nature.

Pricing size delivery date etc are customized as per the requirement of the exporter or importer and in this process the authorized dealer provide what is called some kind of leverage, the leverage or the freedom available to authorized dealer in deciding the price of the forward contract in deciding the forward charges commission income. And also the delivery or the customized product depends upon the requirement of the exporter importer. So, since we are handling the forward contract beyond the spot date beyond the spot date that may be currency may appreciate or depreciate if the currency appreciation depreciation takes care through the premium or discount as we discussed earlier session. Foreign forward exchange rate is nothing, but spot rate plus forward premium or discount.

So, forward premium and discount is decided through interest rate differential interest rate differential between two currency or two country that define the forward rate or forward point if the currency is a appreciating currency. So, it will get what is called a forward premium a currency is depreciating currency it get forward discount. So, currency if the currency is appreciating is a premium currency the currency is depreciating. It is discount currency in a direct quote direct quote quotation is direct like where direct quotation means the foreign home currency home currency vary foreign currency remain constant the premium is added for depreciating currency and it is deducted for appreciating currency.

So, forward contract we discussed earlier session in a detail how the forward rates are decided. So, here we are using this forward rate for transaction exposure management side transaction exposure takes place, because the foreign currency either in the form of import or in the in the form of export settlement takes place beyond the spot rate and beyond the spot date settlement taking place, and is there in there may be any fluctuation of currency value and this currency fluctuation create transaction exposure to manage this transaction exposure forward. Forward contract are more suitable in nature forward contract. Here exporter, importer can customize the forward contract as per their requirement authorized dealer. Generally provide generally provide the forward

quotation beyond 2 days up to 9 months that one year also. So, in this process forward contract is a suitable product for management of transaction exposure.

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Let us discuss about how the forward contract forward contract take place? What the rule of the authorized dealer and also what is the role of the customer? Here forward contract involves two party; two party is here one party is authorized dealer. Another party is the party who is who is a customer. Here the customer may be a exporter or a importer. So, the both party authorized dealer and customer sign a forward contract forward contract. They sign for what they sign for two things that may be that may be what is called either they buy or sell forward contract, the contract designing takes place forward contract designing.

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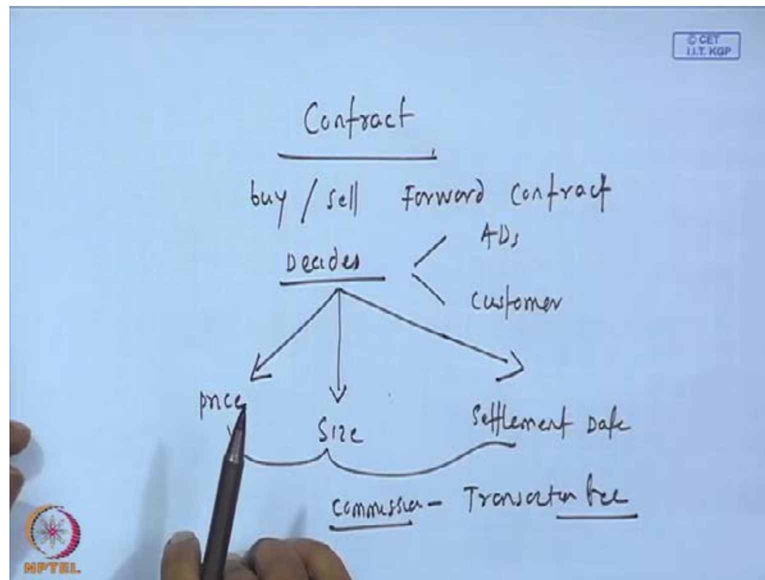

The contract either a buy contract buy or sell forward contract sell forward contract. In this process they decide about the two party decides. What they decide about first thing? The price of the forward contract. Second thing size of the forward contract that is volume the currency amount. Then also they decide settlement period. They decide about the specified amount the contract available settlement period, settlement period settlement date, the maturity of the forward contract, and also in this process, in this process in this process that the authorized dealer charge a commission or a transaction fee transaction fee.

So, what they are deciding two party? Two parties are the parties are here. The authorized dealer who is dealing foreign currency and the customers the customer they decide about what they decide about the price of the forward contract. They decide about the size of the forward contract. They also decide about the settlement date, the maturity of the forward contract. On these basis they sign agreement, the forward contract agreement sign between the two party generally these forward contract agreement are OTC over the counter agreement. And a through a telephonic discussion they agree for the forward contract.

All forward contract take place to OTC market over the counter through telephone and in this process in this process the authorized dealer charge a commission or a transaction fee which is nothing, but a profit for the authorized dealer and it may in between the

forward contract till the forward contract is not matured not matured that may not be any cash transaction. Only transaction may take place some kind of margin money, but cash transaction may not take place. If the contract size is very small in nature minute level the authorized dealer may not charge any kind of margin money before the maturity of the contract. If the contract size is very, very large the authorized dealer may ask the corporate or ask the customer to provide some margin money in the form of a cash payment.

So, generally authorized dealer if the party is a customer to the bank the authorized dealer do not charge any kind of any kind of cash payment before the maturity of the forward contract. So, forward contract forward contract are over the counter OTC product. It is a unstandardized unorganized market. The products are non standardized. In nature prices are different for different authorized dealer the volume is volume and size or the requirement depends upon the customized as per the requirement of the customer. So, generally the forward contract market is a unorganized OTC market.

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Example

A Company in India has shipped product to USA amounting to US$ 50,000 to be payable after 3 months. The spot rate US$ is Rs.53.5050/5100. Since the cash settlement will take place after 3 months, the open position of US$50,000 is a transaction risk for the Company. The Company asks for a forward quotation to a bank for hedging the risk. The Bank has given following information about the forward market.

- Spot rate : US$1: 53.5050/5100
- 3 month forward rate : 2500/3000

Using the above information, prepare the hedging strategy for the Company.

If INR, after three month available at 53.6050/- ,then estimate the transaction loss or profit.

So, while to discuss about the forward contract you have to do a problem because there is no such kind of requirements are there requirements are there for designing a forward contract. The requirements depends upon depends upon the customers requirement. The customer is importer a small party, the forward contract is easily available. The customer is a importer a very big party. He can go from one authorized dealer to another

authorized dealer and get the best quote for this own payment, so to understand the process of calculation of forward contract. Let us do a problem. The problem will problem will help us in understanding the calculation side estimation of forward rate and delivery of the forward rate calculation of forward premium side or forward discount side, and how you can use this forward contract for management of transaction exposure?

Let us do a problem. A company in India has shipped product to USA amounting to 50000 US dollar payable after 3 month spot rate on the date of shipment is 53 5050 and 5100. Since the cash settlement will take place after 3 month the open position of 50000 US dollar is a transaction risk for the company. The company asks for a forward quotation to a bank for hedging the risk. The bank has given following information about the forward market the spot rate for dollar is 53 5050 and 53 5100 3 month forward rate that is forward point 25 30 using the above information prepare the hedging strategy for the company. If INR after 3 month available at 53 6050 then estimate the transaction loss or profit in this problem. What are given to us to understand this.

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Let us do let us do the problem here a company in India exported some item to the USA he is a exporter the company is a exporter the amount of export amount of amount is US dollar 50000 how much exported 50000 US dollar and payment is due payment due after 3 months what does it mean it means after 3 month 50000 dollar will be will be will be

received by the Indian company. So, in between there may be anything happen. So, at a date of shipment date of shipment the spot rate was USD spot is 53 5050 and 53 5100. The date of shipment the date of shipment the US dollar rate was 53 5050 and 53 511. Since he is a exporter he is exporting and getting US dollar he need to convert US dollar in Indian rupee. He will be getting 53 5050. If the date of shipment he is getting the dollar then he will be getting 53 5050.

Now, after 3 months he is getting. So, this rate may not valid after 3 month. What will be the rate spot rate? You do not know if it is more than 53 rupee depreciate then US then Indian company will get more rupee. If rupee appreciates Indian company will get less rupee and there is a transaction risk involved here. The transaction is depend if the fluctuation of US dollar against rupee or a rupee against the US dollar. That is a transaction risk the transaction risk spread over three month. So, within three month anything can happen. So, there is a transaction exposure for the Indian company.

So, Indian company now has gone to the authorized dealer to a bank asks for a quote for the US dollar against rupee for delivery on after 3 month and in between the information available by to the bank is that spot rate spot rate is this and 3 month. The 3 month exposure three month forward rate forward points or forward rate is rupee dollar is 25 and 300 3 month. Forward premium since we discussed earlier sessions here it is nothing, but 2500 or 3 3000 is nothing, but forward points. If the second point 300 3000 is more than 2500; it means that rupee is depreciating and dollar is appreciating it is means the after 3 months the 53 5050 may depreciate and it may be depreciation may be anything, but forward point indicate the depreciation is 300 2500 and 3000 points.

So, now this information given to the given to the bank; the given to the authorized dealer by the bank and in this process also the problems as given to you some other indication the indication is here. If you see the go through that if INR after 3 month is available at 53 6050, then estimate the loss or profit. So, suppose the INR that is Indian rupee after 3 month after 3 month is available as US dollar 1 will be 53.6050. Then whether it is a transaction loss or transaction profit is there you have to estimate the payoff.

So, now what you are supposed to do? You have to first you have to calculate what is the forward rate? After 3 month and in this between after 3 months if you receive 50000

dollar what is a rupee equivalent of this 50000 dollar using the forward rate to calculate then you have to compare this rupee conversion of forward rate to rupee conversion of given spot that is 53 6050. And then you will decide whether the transaction loss or transaction profit is there for the company. Let us do the problem.

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Now, after three months you have to calculate the forward rate forward rate for 3 months. Now, spot rate current spot rate is 53 5050 because here the exporter is surrendering dollar. He will convert the dollar into Indian rupee the authorized dealer will provide less amount to him. This current spot is 53 5050 for the applicable spot for here for the exporter. Now, the forward point here forward point forward point if you if you see the forward point earlier the forward point we have discussed the 2500, if you see 2500 3000. So, the 2500 3000 means rupee is depreciating dollar is appreciating. So, in rupee you have to add a depreciating currency the forward premium must are add are added. So, you have to add the forward premium that is 2500 the forward rate. On this basis we will get forward rate which is applicable after 3 month that is 53.7550 after 3 months the rupee will be rupee will be available in the market 7500.

Now, this on this rate this rate given by the forward authorized dealer to the exporter when the exporter surrender 50000 dollar. He will convert at this rate. Now, what is the rupee equivalent rupee equivalent 53 7550 into 50000 dollar? The rupee equivalent will be you have to calculate rupee equivalent that is rupee equivalent something around 2

lakh rupee amount will be 2 lakh 687750. So, this is a rupee equivalence at forward rate of 53 7750. But we have given a rate we are given a rate that is if rupee remains at after 3 months rupee remains at 53 500. That is 53 505 53 6050 is there any transaction loss or profit. Now, using this rate you have to calculate rupee equivalent rupee equivalent of this will be you have to calculate again the 53.

Here, rupee equivalent is 53 6050 into 50000. That amount is how much that amount will be something around available to us is available to us you have to estimate this and from here you have to deduct this amount. Then actual amount the surplus will be surplus will be 7500. You have to estimate this form here multiply this and multiply this the y going for a forward contract by going for a forward contract. The company is getting a surplus of seven 7500 rupees. If he if he does not go for the forward contract rupee may end at 53 6050 and we will get 50000 of that there will be loss for him. If he go for a forward contract he will get a extra profit of 7500 and in this process the transaction loss will be there if it is if the customer of the or the company not going for forward contract agreement.

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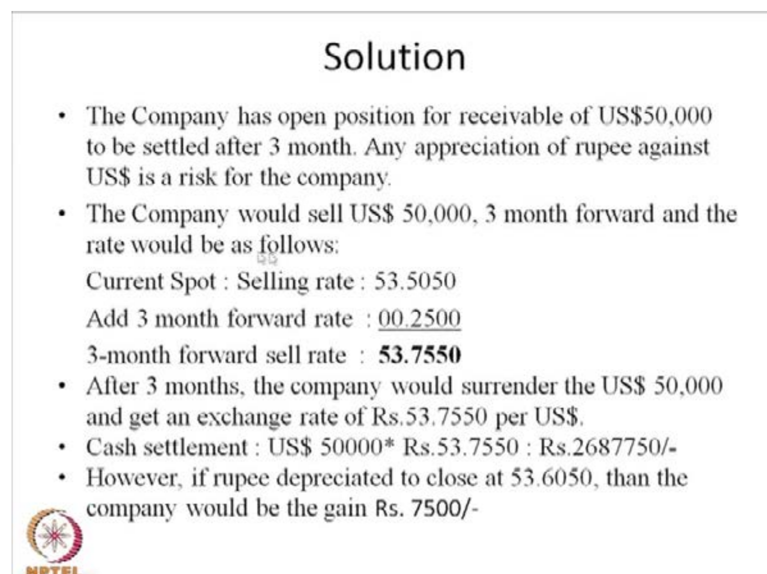

So, this is one way you analyze the forward contract. Same thing I have done is here in the solution if you see if your solution if you see here the 3 month contract 53 5050 plus the forward premium I added here 53 7500. On this 53 7500 is available quote to the customer after 3 month if rupee appreciate depreciate. It does not matter for him. So, 53

57500, he will convert this 50000 dollar and when he convert this 50000 dollar. He will be getting 2687750 and if he this is the amount rupee amount available to him, but suppose his rupee depreciated to this 53 6050. Then he will be the company would gain 7500 percent because here he is getting 53 7500 by going for a forward contract without going for a forward contract he is getting 53 6050 which is a less for him.

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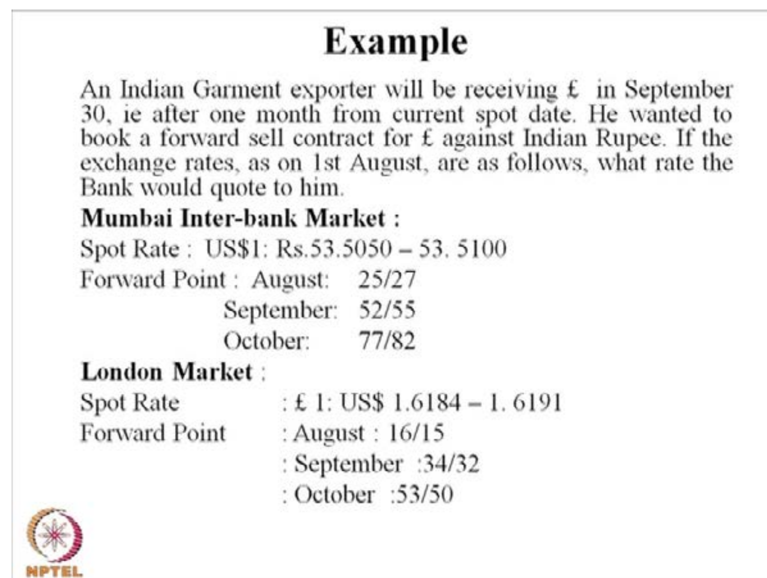

So, in this process by going for a forward contract the customer is gaining from the process let because this is a general forward contract. There is no cross currency is involved here suppose there is a cross currency conversion. Then how the forward contract take place in this process? We will understand the cross currency conversion because it may happen that the currencies are conversion currencies are conversion may not be available in particular domestic market. The authorized dealer may go for one market to another market one international market to another international market to get a forward quote in a cross currency manner. The cross currency forward rate how their calculation take place and how he can use the cross currency conversion rate for the forward contract agreement side.

Let us go for a forward contract agreement. In case of cross currency in the example is here an Indian garment exporter will be receiving pound sterling in September 30th. That is after one month from the current spot date by today August. Suppose today this month is August, he is receiving pound sterling in September end of September. So, he wanted

to book a forward sell contract for pound sterling against Indian rupee. Why he is wanted to book because within the one month the pound sterling may appreciate depreciate against rupee. We do not know and what will be the conversion rate of rupee against pound sterling we do not know. So, there is a transaction exposure for the garment exporter. For that reason he is going for a forward contract if the exchange rate as on first august are as follows. What rate the bank would quote to him in the Mumbai. Mumbai interbank market spot rate dollar against rupee is given to you. This is a dollar against rupee then forward point august September given October given to you in the London market spot rate pound sterling and dollar is given to you. And similarly, the forward points are given to us. What you have to do you have to go for a forward rate calculation side where pound sterling rupee and US dollar three currency involved. We have to estimate through cross currency forward rate and in this process what is the calculation side for us.

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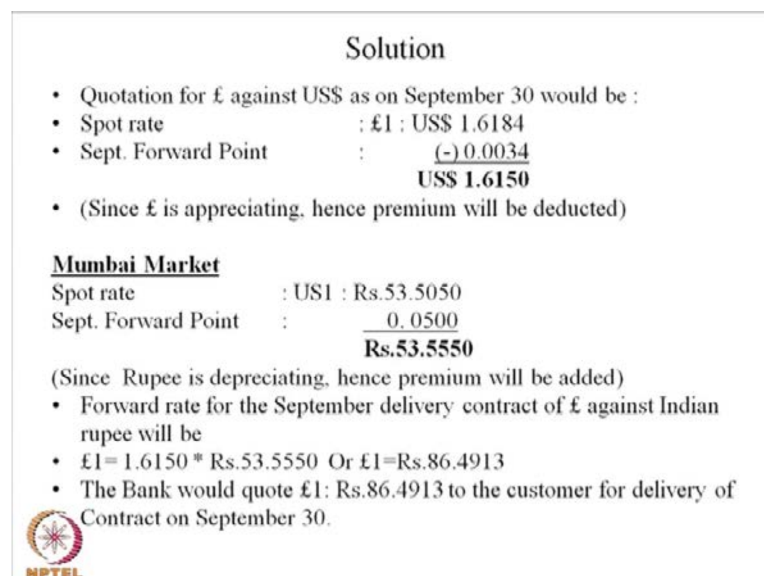

The quote here as we discussed earlier classes you have to go for what is called a cross currency cross currency forward agreement. So, the exporter is surrendering what the Indian exporter garment exporter is surrendering US pound sterling. The pound sterling will be coming to us in the month of September thirtieth. That is within one that is one month till there. So, it is a beyond two days. So, it is a forward rate.

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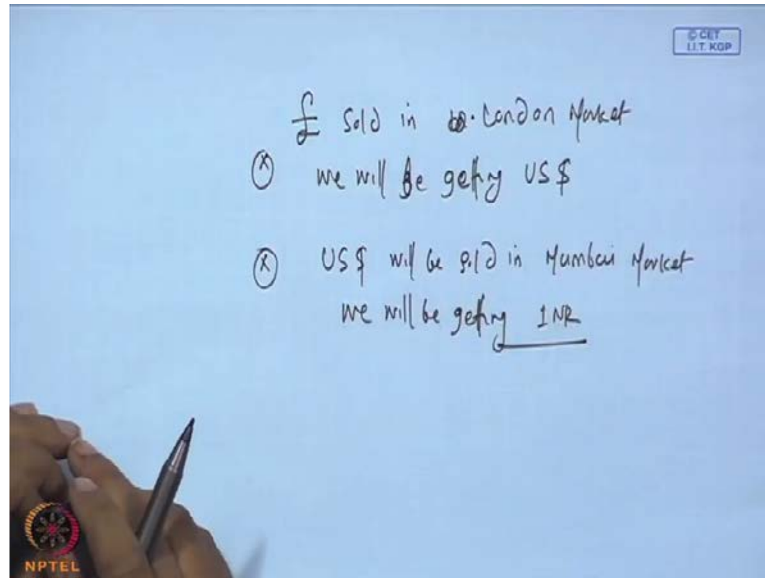

So, pound sterling pound sterling will be pound sterling will be sold in Indian in will be sold in London market and we will be getting and we will be getting US dollar the step one. Second step; US dollar will be sold in Mumbai market and we will be getting INR or Indian rupee and all this transaction takes place after one month not now. So, there is a cross currency cross currency forward rate. Here is a dollar pound sterling to dollar. There is a forward rate and dollar to Indian rupee there is a forward rate. So, both side you have to estimate the forward rate and finally, you have to finally, you have to quote the conversion of pound sterling to Indian rupee. So, this is the way of doing the problem.

Now, how we have to proceed further you have to proceed in some systematic way. So, first you have to sold dollar pound sterling in Indian US London market. So, when you sold pound sterling in London market. What will be the applicable spot rate for us your spot rate you have to seen that?

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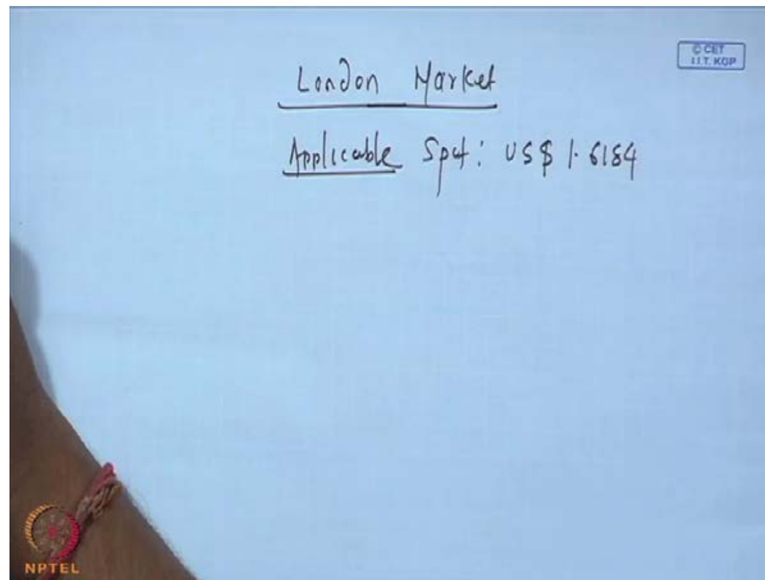

London market spot rate London market applicable spot because we are surrendering pound sterling the applicable spot will be when you surrender pound sterling. You will get US dollar, but how much you will get less amount you will get. So, the applicable spot of US dollar 1.6184 that is the applicable spot you will get less. So, US dollar 1.6184 is the rate, but this will happen when September 30th . We are now in august. So, you have to add the September 30th premium, so September 30th premium or so. If you see September month premium or premium or discount if we 34 3732 that is a dollar is dollar is appreciating. So, you have to deduct the discount.

Here premium you have to deduct 0.334. So, that then we will get 1.615 here dollar is appreciating against pound. So, he will be getting less amount in September then after getting the dollar you have to sell the dollar in London Indian Mumbai market. So, in Mumbai interbank market the you are selling dollar. So, you will get less amount of rupee. So, applicable spot rate will be 53 5050. If you see rupee in September month is appreciating 52 55. So, you have to add the forward discount. So, 50 is added here. So, forward after during the month of September that rupee dollar exchange rate will be 535500 triple 50. So, rupee is rupee is depreciating premium is added here.

So, one dollar one pound sterling will be 1.6150 dollar and one dollar will be 53 5560 dollar 60. Both are forward now conversion will be just a cross currency conversion. So, one pound sterling will be 1.6150 dollar and one dollar will be 53 5550. So,

multiplication of these we will get one pound sterling will be 864913 rupee. This is called cross currency forward rate for one pound sterling. The rupee conversion will be 86.413 the authorized dealer will quote this 86.4 pound during the month of September and that will be the cross currency or cross currency forward calculation.

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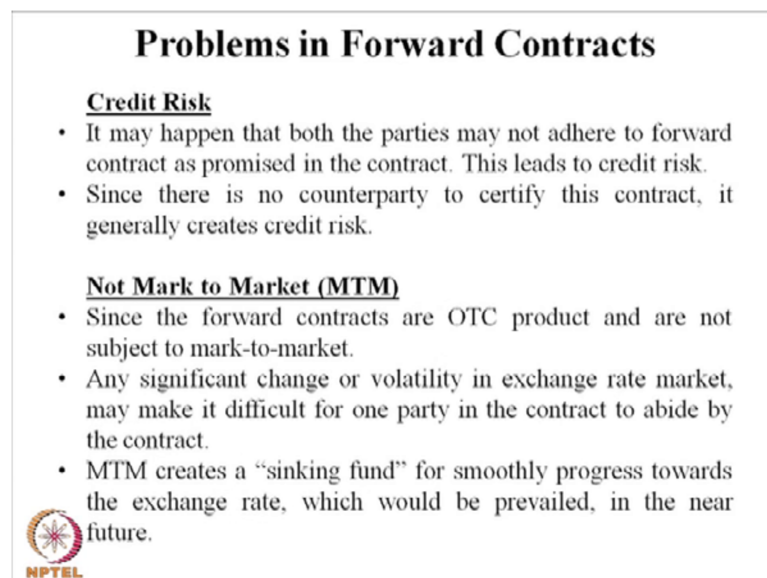

So, what are the forward rate problem forward rate has lot of problems are there. Forward contract because it may happen that credit risk will be there very high. Why credit risk will be very high because the authorized dealer may not adhered to the contract. It may suppose there is significant appreciation depreciations are there authorized dealer mat not be in a position to adhere to the forward contract. So, there is a credit risk for the in case of in case of forward contract.

A forward contract are not mark to market because once you sign the contract the it is a OTC product forward contracts are not mark to. Once you sign the contract you cannot go out from here there is no market to buy sell this contract further. So, there is no mark to market it is illiquidity for the forward contract and so it will create illiquidity for the forward contract both side for the authorized dealer side or the customer side. Your problem and the only the customer can go out for the forward contract by cancelling it by paying a cancellation charges for that.

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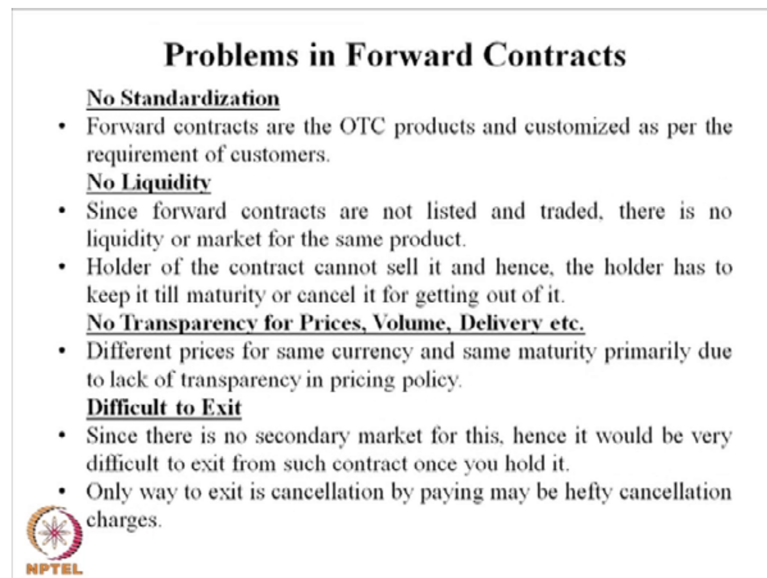

Then it is not a standardized product it is OTC market different authorized dealers are giving different quotation and there is a not a standardized in case standardization in the form of size in the form of volume in the form of pricing. So, this creates some problem because the different rates are available for different authorized dealer. There is no liquidity possible in forward contract only by cancelling it. There is no secondary market for forward contract since it is a OTC product.

And in case of there is no transparency because which authorized dealer charging which kind of what kind of prices nobody knows that. So, there is no such kind of such kind of secondary market such kind of exchange which can provide the quotation for the forward contract. So, the transparency is very less in forward contract then difficult to exit. There is no secondary market you cannot go out of the forward contract. Without cancelling it once you cancel it you have to pay heavy fee cancellation charge for that reason.

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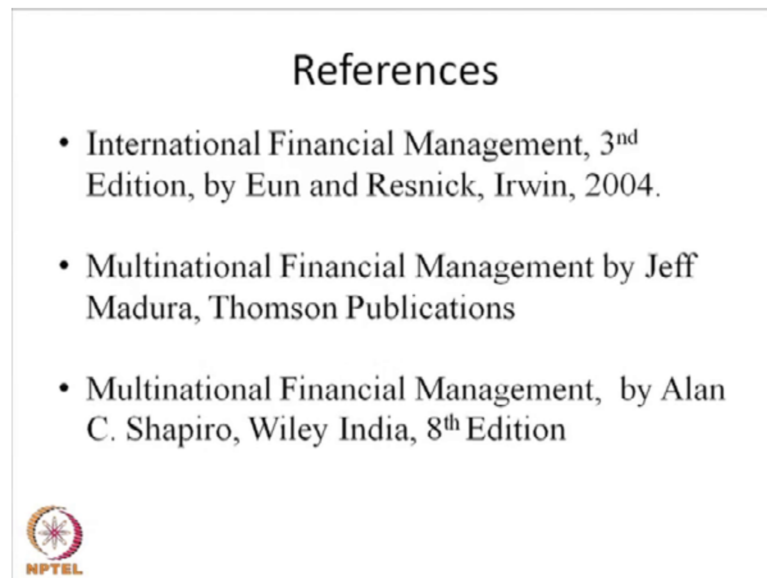

And forward contract is very useful because one of the reason forward contract is very useful. It is a customized product you will there is no such kind of market which can give you customized product. Other products are available in the market is a future. Futures are standardized product it not customized to the as the requirement of the customer. So, forward contract despite having all disadvantage there is a requirement of forward contract in the market also.

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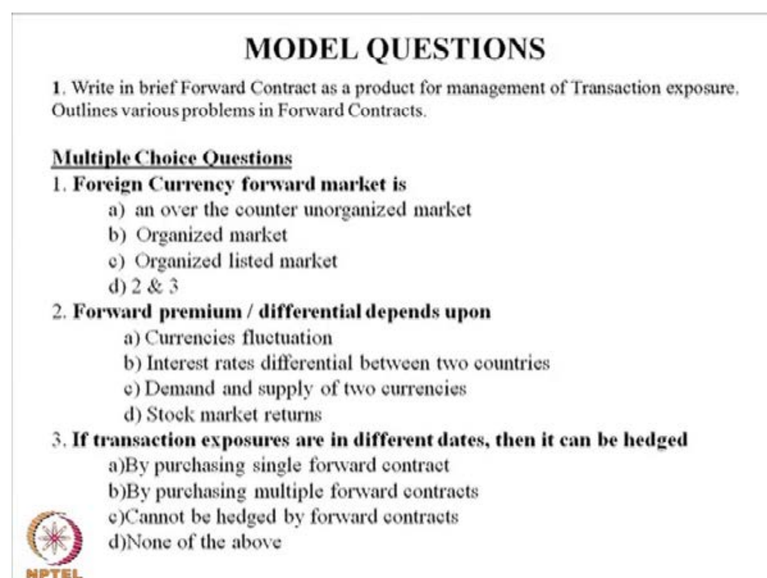

The model question here you write a brief writing brief forward contract as a product management of transaction exposure outline various problems of forward contract. Whatever discussed we forward contract problems are there you outline that multiple choice questions are given to you here foreign currency forward market is an over the counter organized unorganized market. Organized market organized listed market and 2 and 3 that is b and c whichever which 1 is correct here foreign currency forward market is over the counter unorganized market.

Forward premium differential depends upon currency fluctuation interest rate differential between two countries demand and supply of two currency and stock market return as we discussed earlier forward premium differential depends upon the interest rate differential between two countries. Number third if the transaction exposures are in different dates. Then it can be hedged by purchasing single forward contract by purchasing multiple forward contract cannot be hedged by forward contract none of the above when transaction exposures are in different date. You have to go for purchasing multiple forward contracts because forward contracts are a maturity is maturity of transaction exposure to purchase a forward contract. Here by purchasing multiple forward contracts only you can hedge transaction exposure in different dates.

Thank you.