

Financial Institutions and Markets
Prof. Jitendra Mahakud
Department of Humanities and Social Sciences
Indian Institute of Technology, Kharagpur

Lecture – 58
Foreign Exchange Market – III

So, in the previous class we discussed about the exchange rate and the quotations for the exchange rate and as well as the different factors which determine the exchange rate and the exchange rate system. There we have seen there are 3 types of exchange rate system: one is your fixed exchange rate system, then you have the floating rate, then you have the managed exchange rate system. And, if the exchange rate is determined by the market determined factors every time, then we can assume that the floating exchange rate system is prevailing in that particular country or particular market.

(Refer Slide Time: 01:02)

Foreign Exchange Market

- The market in which national monetary units or claims are exchanged for the foreign monetary units is defined as foreign exchange market (FEM).
- The FEM is not a physical place; it is an informal, electronically linked network of big banks, foreign exchange brokers and dealers whose function is to bring buyers and sellers together.
- The trading in FEM is usually done 24 hours a day by telephones, display monitors, telex and fax machines, and the satellite communications network called the *Society for Worldwide International Financial Telecommunications (SWIFT)*, which is a computer-based communication system.

So, now today we will be discussing about the foreign exchange market particularly with reference to India. So, whenever you talk about the foreign exchange market already we discussed that, what is the exchange rate, the exchange rate is nothing but whenever you are converting one particular currency into another currency. Here one currency is the home currency or domestic currency another one is the foreign currency or you are converting either from domestic to foreign or foreign to domestic then that basically we call it the exchange rate.

So, the market where these particular transactions are taking place that market is basically defined as the foreign exchange market. So, here if you see the formal definition of the foreign exchange market is this is the market in which the national monetary units or the claims are exchanged for the foreign monetary units. Why we are talking about the claims? The monetary units can be only.

There are different ways the transactions take place either transactions in terms of the international trade, the transactions can also take in terms of the investments like your foreign direct investment or foreign portfolio investments. And as well as the transactions also can be in the form of foreign aid or the borrowings from the external market or from the external agencies international agencies like IMF and all these things.

These all come under the foreign exchange market. So, after all wherever the national monetary units are claims or exchanged for the foreign monetary units that particular market is defined as the foreign exchange market. So, the transaction can be from any angle; it can be from the trade angle, it can be from the investment angle, it can be from the foreign aid angle. So, that is not the issue; the issue is basically here, we are dealing with the two different currencies or different type of currencies with respect to the domestic currency. That is what basically always we can define the foreign exchange market.

So, like other market foreign exchange market is also not a physical place. This is again informal, it can be informal to some extent because there is an OTC market for foreign exchange market also. But, mostly it is basically an electronically linked network of the big banks, or the foreign exchange brokers and the dealers whose function is to basically bring buyers and seller together.

So, the basic job of the dealer is basically to bring buyers and sellers together. So, directly the transaction can take place between the banks or the transaction can take place through the foreign exchange dealers. And, the dealer basically just work like stock exchange who try to bring the buyers and sellers together. So, your buyers requirement and sellers requirements can be shown or can be informed to the dealer and dealer is trying to make them together, in one particular on the basis of the requirements of the buyers and sellers in that particular market.

So, that is the way the foreign market is always working. Here if you see that the foreign exchange market transactions usually done 24 hours in a day by telephones. Because, one market may be open in the night the time differences are always there across the globe because it deals with the foreign exchange transactions or the different countries that involved in this particular process. So, because of that the market always work for the 24 hours basis and may be if you are dealing with US market other market and you are in India. So, then there is always a time differences between these two.

So, therefore, any time where ever the US there is night we have the day or we have the day and they have the night. So, in those context we can say that it is 24 hours this is open, and how they are basically linked? They are linked basically, through a different kind of electronics system. It can be through fax machines, it can be through telex, it can be through satellite communications.

So, here in the satellite communication we have a system called the Society for Worldwide International Financial Telecommunications in short we call it SWIFT. You might have heard this word for example, whenever you are going to a spend or going to send some money to some international agency; let you want to attend a conference somewhere and you have to pay your registration fee.

And there what basically you can see always in that portal you can find out there is a SWIFT code. Let you want to transfer your money through the bank so, if you want to transfer instead of transferring through the online, let you want to transfer it through the bank directly. Then you can go to the bank and the bank always need the SWIFT code of the particular bank to which bank the money will be credited.

So, the particular agencies would provide the SWIFT code of that particular whether it is unique number or unique kind of code what this particular bank will have; and this particular person who is organizing function or particular organization who is organizing this conference.

So, this would have the account in that particular bank and if the SWIFT code will be available then with that SWIFT code all the other details and everything if you go to the bank then the bank will try to transfer that money from rupee to dollar or rupee to euro, whatever conversion you want and finally, the money will be sent to that particular beneficiaries account.

So, that is basically called the SWIFT, but that particular system is a satellite system where all banks and the foreign exchange participants are linked through that particular satellite system. So, this is what basically this in overall the foreign exchange market is defined this is the way the foreign exchange market can be always we want to study.

(Refer Slide Time: 07:25)

Foreign Exchange Market Cont...

- Most foreign exchange markets in developing countries are either pure dealer markets or a combination of dealer and auction markets.
- In the dealer markets, some dealers become market makers and play a central role in the determination of exchange rates in flexible exchange rate regimes.
- Market makers set two-way exchange rates at which they are willing to deal with other dealers.
- In auction markets, an auctioneer or auction mechanism allocates foreign exchange by matching supply and demand orders.
- In pure auction markets, order imbalances are cleared only by exchange rate adjustments.

Handwritten note: $R_{USD} \rightarrow R_{INR}$

swayam

So, whenever we talk about the foreign exchange market the foreign exchange market are either pure dealers market what basically just now we have discussed, or it is a combination of the dealer and the auction markets. So, whenever we are talking about how the market is in the actual sense defined we said the dealers job is basically to make the buyers and sellers bring them together. And, on the basis of the requirements they can trade in this particular market, but whenever you talk about there is another segment of the foreign exchange market that is called the auction market.

So, in the dealers market if you see some dealers are market makers and play a central role in the determination of the exchange rate in the flexible exchange rate regions or flexible exchange rate system. What do we mean by the market makers? The market maker mean they basically are the bigger stake holder in this particular system who contributes or plays the significant role on the determination of the pricing in that particular market. So, here whenever we are talking about the foreign exchange market; so, in the foreign exchange market what is the price? The price is nothing, but the

exchange rate; as they are the market makers and their bid and ask prices are highly honored in the market for determination of the equilibrium price.

So, then those kind of market makers play a significantly role for the determination of the exchange rate in that particular system provided this particular country or particular economy should always follow the flexible exchange rate system in that particular point of time. So, the market makers basically set the two way exchange rates, at which they are willing to deal with the other dealers or two way exchange rate means both buying and selling; let you can say you want to convert from rupee to dollar. Let somebody wants to convert from rupee to dollar that means let we say that 70 rupees is equal to 1 dollar.

So, the 70 rupees is 1 dollar let that can be a buying price or that can be a selling price. For example, you have you want to convert your rupee into dollar you go to the bank. What the bank will do? The bank basically is going to sell the dollar to you and whenever you have the dollar and you are converting into rupee there bank is buying the dollar from you and against that they are giving the rupee.

So, in that context the market makers always set the exchange rate and willing to both the ways and as well as they are willing to deal with the other dealers. But, in the auction market on auctioneer or auction mechanism allocates the foreign exchange by matching the supply and demand orders what basically exactly happens whenever we deal with the stock exchange rates and other things or the stock market. There we provide our requirements and accordingly the matching takes place between the different stake holder and buyers and sellers and finally, the price will be determined.

Here what is happening whenever buying and selling takes place in the foreign exchange market mostly it is done by the dealers market or by a direct market between the different banks. But, there is also the trading platform through which the auction can take place of the different currency and accordingly the price can be determined or the exchange rate can be determined.

So, in the pure auction markets or order imbalances are cleared only by exchange rate adjustments. So, why basically we say that exchange rate adjustment where let somebody wants to buy the dollar at particular price, but there is no seller for that. So, accordingly what will happen depending upon this demand and supply of the dollar in

that particular point of time, there is an adjustment in terms of the exchange rate. And, finally what will happen that they can find out the equilibrium point which will be matching with the requirement of both buyers and sellers. And, accordingly the market mechanism of the foreign exchange market can work if this is an auction market.

So, this is about the different types of how the foreign exchange market is defined or different classifications and different types of the foreign exchange market exists across the globe.

(Refer Slide Time: 11:49)

Foreign Exchange Market Cont...

- Two levels of FEM
 - Direct interbank level → *Through Telephone*
 - It has been sometimes characterised as a "decentralised, continuous, open-bid, double-auction" market.
- Indirect level via foreign exchange broker
 - The banks put orders with brokers who put them on "books", and try to match purchases and sales orders for different currencies. They charge commission to both the buyers and sellers.
 - This market is characterised as "quasi-centralised, continuous, limit-book, single-auction" market. *Banks*

The slide also features logos for 'swayam' and 'THE ONLINE EDUCATION' at the bottom left, and a small video feed of a man in a red shirt at the bottom right.

Then if you see there are two levels of the foreign exchange market always prevail in the system. One is different interbank level another one is we have an indirect level via the exchange brokers. One is foreign exchange broker through the foreign exchange broker another one is between the two banks directly.

So, one bank wants to buy dollar, one bank wants sell the dollar they can always deal with each other directly mostly this particular interbank transactions always done through the telephone. So, one bank wants to buy the dollar he can request another bank that I want to buy the dollar, please tell the price of the dollar or if you want to sell the dollar then you can tell that what price you want to buy the dollar from me. But, one thing remember whenever any kind of bank tries to buy or the sell the dollar or buy or to sell any kind of currency they do not tell their intension that, whether they want to buy the dollar or they want to buy the rupee or they want to sell the rupee.

So, that's why the price is mostly quoted both ways both bid price and ask price are always revealed by the bank for example, you pick up the phone bank X there is a bank X and there is a bank Y. So, there is a bank X and bank Y and bank X wants to deal some foreign exchange transactions with bank Y then what they can do the bank X can pick up the phone and tell the bank Y what is the price of dollar; that means, his intention is not clear whether he wants to buy the dollar or he wants to sell the dollar.

So, the bank Y can quote both the prices. Let, if they want to buy dollar from bank X what price they want to pay or if they want to sell the dollar to bank X then what price specifically they want to charge. So, this intention is not clear, whenever the call goes from one bank to another bank and you see this price is always change in every seconds, every second the price is changed.

So, because of that the banks are always look for the opportunity where the prices are good for them in terms of generating the profit or creating the arbitrage opportunity. So, because of that what happens immediately they lock that particular transactions and on that price the transaction can happen between these two particular banks.

So, that is why because the intention is not clear both buying price and selling price can be quite quoted by the two different banks. Whenever they want to do some transactions in terms of the foreign exchange then that particular point of time it is defined as decentralized continuous open bid double auction market. Open bid means we are talking about both buying and selling there is no such restrictions that whether you want to go for you want to buy this or you want to sell this and double auction in the sense both the banks tell their quotations to rest to each other.

So, that is what you can tell your buying price and your selling price, they can tell their buying price and selling price and there is no restrictions in terms of the bidding any price basically you can quote and your intention is not clear. That is why it is a continuous of one bit double auction market always we define it whenever we talk about the direct bank in this or direct transactions direct interbank level of transactions in the foreign exchange market.

Then another thing is through broker if you want to trade then you put the orders with the broker and broker put them on the books and try to match the purchase and sales order for the different currencies. And finally, the charge and commission for that because they

want to always try to fix the matching between the buyers and sellers, and always as well as they can put both of them on the board.

So, here your intension is clear to the broker, you can tell your broker you want to buy this dollar or you want to sell the dollar and broker again will look for the particular bank, where whatever price basically you want whether in the same price any other bank is ready to basically take that one and provide you the dollar.

So, the because of that this market is defined as quasi centralized not full centralized quasi centralized continuous limit book single auction market. Single auction market means the intension is very much clear, that whether you are going for buying the share or selling the share. And that is the limit book means the prices are basically limited in this there is no such kind because already you provided that what price you want to buy this dollar or at what price you want to sell this dollar to the foreign exchange broker.

So, because of that this is the way the two different levels the foreign exchange market works. Then we can move in to the other issues related to the foreign exchange market.

(Refer Slide Time: 17:06)



Foreign Exchange Market Cont...

- **Retail Market**
 - The exchange of bank notes, bank drafts, currency, ordinary and traveller's cheques between private customers, tourists and banks takes place in the retail market
- **Wholesale Market**
 - The wholesale market is primarily an inter-bank market in which major banks trade in currencies held in different currency-dominated bank accounts i.e., they transfer bank deposits from seller's to buyer's accounts.

Logos at the bottom: UGC, swayam, and a university logo.

So, other ways the foreign exchange market in general always have 2 segments one is retail segment another one is the whole sale segment. So, if you talk about the foreign exchange market, in terms of the retail segment these are in the retail segment there is an exchange of bank notes, bank drafts, currency, ordinary and travelers cheques between

the private customers, tourists, banks, tourist and banks. These are a part of the retail market the reason is any small transactions which are always happening in the foreign exchange market either somebody wants to visit abroad they need foreign exchanges already I have given the example somebody wants to pay the registration fee for attending the conferences, he needs foreign exchange.

So, again somebody wants to study foreign exchange he want to pay the fees then that is again they need foreign exchange. So, because of that those kind of small transactions always take place in the retail market. So, that may be includes the ordinary and travelers cheques or the bank drafts or notes or anything. There are different ways basically this retail segment works or different instruments are available in the retail segment.

But whenever we are talking about the whole sale market in the whole sale market it is primarily interbank market two banks basically involve in this particular process. And major banks basically trade in currencies, held in different currency dominated bank accounts and they transfer their bank deposits from sellers to buyers' accounts export and import business and all these things that also is a part of the whole sale market, whenever you talk about the foreign exchange business in the system. So, that is the way also the foreign exchange market can be categorized or can be divided.

(Refer Slide Time: 18:54)

The slide is titled "Retail Vs. Interbank Spot Rate" and contains the following bullet points:

- Exchange rate between banks is determined by interbank market
- Exchange rate charged on banks' clients is based on interbank rate
- Banks charge their customers more than the interbank selling or ask rate and pay their customers less than the interbank buying or bid rate.

Handwritten annotations on the slide include:

- A circle around the phrase "by interbank market" in the first bullet point.
- Handwritten calculations: $\frac{Rs\ 10,000}{Rs\ 90} = Rs\ 92$ and $\frac{Rs\ 10,000}{Rs\ 92} = Rs\ 88$.

The slide features a video inset in the bottom right corner showing a man in a pink shirt speaking. The bottom of the slide has a blue banner with the "swayam" logo and the text "FREE ONLINE EDUCATION".

If you see that whenever you talk about the rates what basically determined in this particular foreign exchange market the exchange rate between the banks is determined

by the interbank market, but whenever the exchange rates what the banks and this is some way depending upon the demand and supply of that particular currency or that particular point of time. But whenever, we talk about the exchange rate what the bank charge on the clients this is little bit different.

So, the banks always have the price which is more than the market price banks never charges for example, if you want to convert your 10000 rupees in to pound let one pound in the market let it is 90 rupees. So, the bank may not convert that pound into 90 rupees the banks price is little bit basically always higher than this. So, let the bank is charging 92 rupees for 92 rupees 1 pound, and if you go with the pound and you want to convert into the dollar then that time the bank will not be ready to give 92 rupees bank will ready to give you let, 80; 88 rupees.

So, the question here is there is a differences of the exchange rate what basically we find it in the market and there is some kind of exchange rate what we observe whenever the bank charges that particular money on the different clients which are existing in the system. So, therefore, bank charges their customers more than the inter banks selling or ask rate and pay their customers less than the interbank buying or the bid rate.

So, bank charge their customers more than the interbank selling and pay their customers less than the interbank buying. So, if you have the dollar available to you want to convert it into the rupee what example I have taken then they will charge a different price as a lower price, but whenever you are converting from rupee to dollar then their price is different than the price what they charge whenever you are converting the different alternative currencies or the reverse currencies.

So, that is why banks charge their customers more than the interbank selling or ask rate and pay their customers less than the interbank buying or the bid rate. So, that is the general observations always we find whenever we deal with the foreign exchange market.

(Refer Slide Time: 21:34)

Foreign Exchange Market Cont...

- The major sources of supply of foreign exchange in the Indian foreign exchange market are receipts on account of exports and invisibles in the current account and inflows in the capital account such as foreign direct investment (FDI), portfolio investment, external commercial borrowings (ECB) and non-resident deposits.
- On the other hand, the demand for foreign exchange emanates from imports and invisible payments in the current account, amortisation of ECB (including short-term trade credits) and external aid, redemption of NRI deposits and outflows on account of direct and portfolio investment

Current A/C
Capital Account
Borrowing
NRI

swayam

Then the major sources of foreign exchange in Indian context if you see there the receipts of accounts of exports and invisibles in the current account then for and inflows which includes the foreign direct investment and portfolio investment, then you have the external commercial borrowings then you have the NRI deposits.

These are that is why it includes both the all kinds of accounts we have a current account which deals with the trade we have the capital account. The capital account deals with the investments then we have some official resolves and all these things always we have. Then also we have some kind of part related to commercial borrowings and the nonresident deposits or NRI deposits which is also a kind of major sources of foreign exchange rates or foreign exchange in the Indian context.

So, therefore, the demand for foreign exchange always comes from the imports and the services which is invisible payments in the current account then amortization of the external commercial borrowings including the short term trade credits external aid redemption of NRI deposits outflows of the account in terms of direct and as well as the portfolio investments. So, this is the major sources what always we get it in terms of the foreign exchange market transactions.

(Refer Slide Time: 23:10)

Players in the Foreign Exchange Market in India

- Reserve Bank of India
- ADs, mostly banks who are authorised to deal in foreign exchange, foreign exchange brokers who act as intermediaries, and customers—individuals, corporates
- All scheduled commercial banks, which include public sector banks, private sector banks and foreign banks operating in India, belong to category I of ADs. All upgraded full-fledged money changers (FFMCs) and select regional rural banks (RRBs) and co-operative banks belong to category II of ADs. Selected financial institutions such as EXIM Bank belong to category III of ADs.

So, then let us see that whenever we talk about this then what are those who are those players who are participating who are the major players in the foreign exchange market in India. Already, we have discussed again and again the foreign exchange market is directly regulated by reserve bank of India known transactions in the Indian market is possible without the permission of the reserve bank of India. No foreign exchange transactions can be carried out without the consent what you have to take from the RBI or the Reserve Bank of India which is the Central Bank.

So, that is why Central Bank is the major stake holder and who are basically the authorized dealers, foreign exchange brokers, who are basically the intermediaries and the customers basically the individuals and the corporates. They are basically the user they are the end user and the transactions takes place between the intermediaries and the customers intermediaries and the foreign exchange brokers and they are basically the customers individuals and the corporates.

So, the intermediaries means mostly the intermediaries are authorized dealers or the banks and there are some foreign exchange brokers who have got the license from RBI to do the foreign exchange business in Indian market. So, we have all the schedule commercial banks like public sector, private sector and foreign banks are the category one authorized dealer in India they are considered as the category one and all full fledged

money changers; Western Union Money Transfer and other are some kind of full fledged money changers are available in Indian market.

So, they are basically called and some Regional Rural Banks and Co-Operative Banks they are basically considered as the category two of authorized dealers. Then there are some selected financial institution such as EXIM Bank who deals with export and import business in India they are considered as the category three authorized dealers in the Indian market.

So, we have three types of authorized dealers on the basis of the nature of the business what they can do. And, the first category is always commercial bank then second category is the authorized money changers and the RRB's then some Co-Operative Banks whose balance it does reasonably good enough to do the foreign exchange transactions. Then you have the EXIM Bank specialized financial intuitions which are we have that is the EXIM Bank. That is considered as the category three. So, these are the major players who basically always participate in the foreign exchange market in India.

(Refer Slide Time: 25:48)



Players in the Foreign Exchange Market in India

- The customer segment of the foreign exchange market comprises major public sector units, corporates and business entities and dominated by select large public sector units such as Indian Oil Corporation, ONGC, BHEL, SAIL, Maruti Udyog and also the Government of India (for defence and civil debt service), private companies like Reliance Group, Tata Group and Larsen and Toubro, among others.
- In recent years, foreign institutional investors (FIIs) have emerged as major players in the foreign exchange market.
- Foreign Exchange Dealers' Association of India (FEDAI) plays a special role in the foreign exchange market for ensuring smooth and speedy growth of the foreign exchange market in all its aspects.

The slide features a yellow background with a blue wave graphic on the right. At the bottom, there are logos for 'swayam' and 'INDIAN OIL CORPORATION', along with a small video inset of a man in a red shirt speaking.

Who are those customers then the customers are mostly already I have told you these are the either individuals or the corporates, and whenever you talk about the individuals the transactions you just already we have discussed their use is not very high. But, for

specific temporary reasons they need some foreign exchange that's why they go to the foreign exchange market for their with some demand to get this foreign currency.

But mostly if you talk about the bigger transaction in the foreign exchange market that comes from the corporate sector, but here in India if you see mostly they are dominated by the public sector units and mostly the large public sector units like all the oil companies like Indian oil corporation ONGC and all. Then you have BHEL Bharat Heavy Electrical Limited who deals with these heavy materials and all these things then you have SAIL then you have the Maruti Udyog and also the government of India for the defense and civil debts service.

So, because any kind of foreign deals and transactions if anything any kind of instruments, or any kind object, or any kind of other war weapons, or anything can be bought. Then always you can deal with the foreign countries and because of that the transactions are made through the foreign currency.

Then the civil debt service also that has to be done through the foreign currency. So, that's why government is a major user then you have the major companies what some of the example I have given like IOL, ONGC, BHEL, SAIL then we have Maruti Udyog and all these things because they have a foreign Maruti Udyog has a collaboration with Suzuki, because of that all kinds of transactions where they take place and most of the vehicles what Maruti makes in India that also goes abroad and there is a demand for that.

So, because of that what happens that the foreign exchange transactions by those company are more in the Indian context. And if you see the recent data the FIIs also have emerged as a major player in the foreign exchange market because they are driving the stock market. But, because they are coming to India for their investment then the money has to be always converted into the foreign currency and foreign currency again has to be converted in to Indian currency, depending upon the nature of the positions what are taking in the Indian stock exchange or the stock market.

Foreign exchange dealers association there is a self regulatory body that is called Association of India they play a special role in the foreign exchange market which ensures a smooth and speedy growth of the foreign exchange market from the various prospective. Various prospective in the sense it can be size it can be depth or whatever

all kinds of issues always taken by the FEDAI or Foreign Exchange Dealer Association in the Indian context.

(Refer Slide Time: 28:36)



Foreign Exchange Market Trading

- In the Indian foreign exchange market, spot trading takes place on four platforms, viz., FX CLEAR of the CCIL set up in August 2003, FX Direct that is a foreign exchange trading platform launched by IBS Forex (P) Ltd. in 2002 in collaboration with Financial Technologies (India) Ltd., and two other platforms by the Reuters - D2 platform and the Reuters market data system (RMDS) trading platform that have a minimum trading amount limit of US \$ 1 million.
- These trading platforms cover the US dollar-Indian Rupee (USDINR) transactions and transactions in major cross currencies (EURUSD, USDJPY, GBPUSD etc.), though USD-INR constitutes the most of the foreign exchange transactions in terms of value. It is the FX-CLEAR of the CCIL that remains the most widely used trading platform in India. This

swayam

The trading or foreign exchange market in India generally takes place on four platforms one is a FX CLEAR of the CCIL which was started in august 2003 we have FX direct that is a foreign exchange trading platform launched by IBS FOREX private limited in 2002 in collaboration with financial technology India limited. And two other platforms are there by Reuters D2 platform and Reuters market data system RMDS they have a minimum trading amount you remember this is very important, the minimum transaction this market is basically 1 million US dollar.

The 1 million US dollar is the minimum transactions that is why very high network the individuals or companies only can participate in this trading platform other people are not that much financially sound or not eligible to participate in the system. And what are those trading platform, what kind of currencies or exchange rates are available? Obviously dollar versus rupee, dollar Indian rupee.

Transactions are the major transactions which happens in this and other currencies are EUR USD then USD Japanese yen then you have the your pound versus rupee and though USDINR constitute the most of the foreign exchange transactions in terms of the value and FX CLEAR of the CCIL that basically is the most widely used trading platform in the Indian context.

(Refer Slide Time: 30:18)



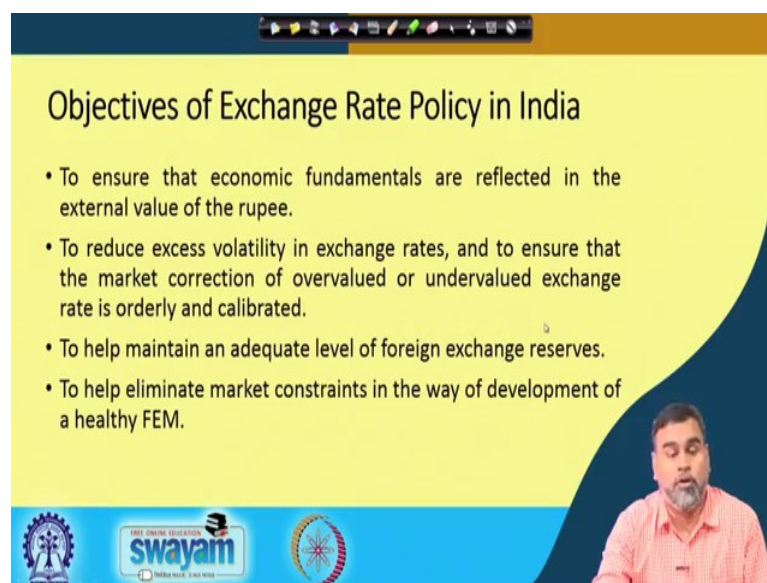
Risk Management in the FEM

- Settlement risk, market risk, credit risk, operational risk to the market
- The foreign exchange settlement risk arises because the delivery of the two currencies involved in a trade usually occurs in two different countries, which, in many cases, are located in different time zones.
- VaR model is used to measure risk in this market

The slide features a yellow background with a blue wave on the right side. At the bottom, there are logos for 'swayam' and 'INDIA WISE, FUTURE WISE' along with a small circular logo. A presenter is visible in the bottom right corner.

So, here there are different type of risk the foreign exchange market faces settlement risk, market risk, credit risk, operational risk that already you know what kind of risk it is the settlement risk arises because, the delivery of the two currencies generally involved in the trade in the two different countries and they are in the different zones. So, because of that that happens and VaR model is used to measure the risk in the market mostly whenever we deal with the foreign exchange market that is the value at risk model always we use.

(Refer Slide Time: 30:47)



Objectives of Exchange Rate Policy in India

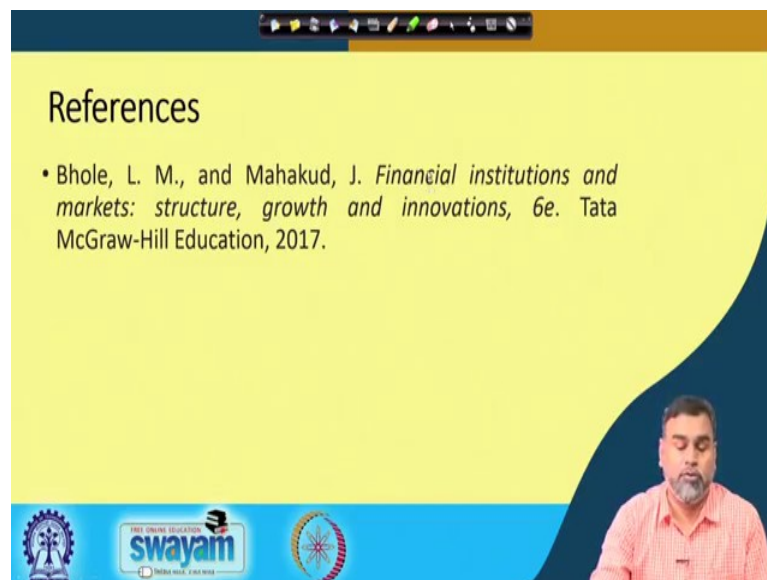
- To ensure that economic fundamentals are reflected in the external value of the rupee.
- To reduce excess volatility in exchange rates, and to ensure that the market correction of overvalued or undervalued exchange rate is orderly and calibrated.
- To help maintain an adequate level of foreign exchange reserves.
- To help eliminate market constraints in the way of development of a healthy FEM.

The slide features a yellow background with a blue wave on the right side. At the bottom, there are logos for 'swayam' and 'INDIA WISE, FUTURE WISE' along with a small circular logo. A presenter is visible in the bottom right corner.

In Indian exchange rate policy if you see what is the objective, the objective is to ensure that economic fundamentals are reflected in the external value of the rupee, to reduce the excess volatility in the foreign exchange rate and to ensure that the market corrections of overvalued or undervalued exchange rate is orderly and calibrated.

And also its objective is to help and maintain adequate level of foreign exchange reserves that we will discuss further more about this and to help the elimination of market constant in the way of development of the healthy foreign exchange market. These are the major objectives of the operations of the foreign exchange policy in the Indian context that we will see how the policy works in this particular directions.

(Refer Slide Time: 31:33)



This is the reference what basically you can go through for this session.

Thank you.