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

## Lecture – 59 Foreign Exchange Market – IV

So, in the previous class, we discussed about the exchange rate determination and as well as the foreign exchange market in India, who are those participants, and how the foreign exchange market functions, how the trading takes place, what are the different platform which are available for the investment in the foreign exchange market. So, today we will be discussing about certain issues related to how the central bank intervenes into the foreign exchange market, and why this interbank intervenes, and what is the basic objective behind that and all those issues.

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See, if you see already what we have discussed that we have three types of systems. We have a fixed exchange rate system, we have fixed exchange rate, you have a floating exchange rate system, then you have a managed exchange rate system. So, already what we have discussed that fixed exchange rate system, the government basically fixes the range of exchange rates, that how the exchange rate basically moves from one particular range with respect to a particular currency. And in the floating exchange rate, it is purely

market driven or market determined factors. But whenever it is managed, here basically it is a mixture of the floating and as well as plus the government intervention.

So, why basically government intervention to the system whenever there is any kind of fluctuations happens in the market, and one particular currency is highly depreciated or a particular currency a value is going to decline, then in that particular point of time, the central bank of that particular economy tries to intervene into that particular system. And they try to see that whether really this particular concept or particular price fluctuations, which is happening that is that can be any way can be controllable or can be controlled.

So, in that context the central bank intervention comes into the picture. So, that basically is always a phenomena we discussed with respect to the managed exchange rate system in the economy. So, therefore, the basic objective of central bank intervention is to make this particular price table or to control any kind of uneven fluctuations of the prices in a particular direction.

So that is why in the central bank interventions objective are to influence the trend movements in the exchange rate, because the central bankers perceive that the long-run equilibrium values to be different from the actual values. So, which is exchange rate which is prevailed in the market at that particular point of time; that basically is not driven by the actual fundamentals. There must be some external forces which makes this particular price away from the equilibrium level. So, in that particular point of time, the central bank tries to intervene in to that to make this particular price level the equilibrium level or to make this particular level stable.

Another objective of central bank intervention is to make this kind of exchange rate in a particular level by that the export can be competitive. The export market can be competitive, so that means, they can increase or decrease the export in that particular market with respect to the requirement of that particular economy. Because in a particular if the exchange rate of a home currency is highly depreciated, then obviously, there is an increase in the performance of the export, but that export performance may not be on that particular point of time be good for the economy in a larger extent or in a longer period of time.

So, because the price is highly fluctuating, the commodities price became very cheaper with respect to the other currency, but the question is that here the economy also to some

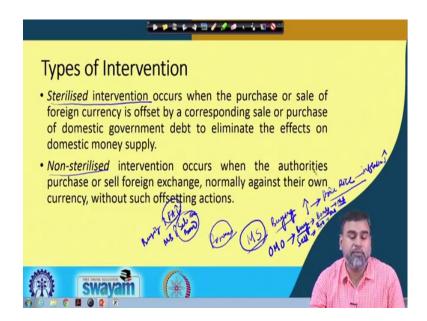
extent gets affected because the prices we are basically whenever we are going for importing or something, then we have to pay large amount of money. So, because of that, that particular discrepancy makes this particular system unstable. So, to maintain this export competitiveness, we always or there is a requirement of the central bank intervention into the system.

You see if the home currencies depreciating, so let per dollar rupee if you convert, then 70 rupees. So, we are it has gone to 75, then what is happening that the export basically become very cheaper in that particular context, but in the import become costlier. So, if the import become costlier, then it is difficult to maintain that current account balance in that particular system. So, because of that what is happening this interbank tries to intervene into that, so that is basically another objective or another requirement of the central bank intervention.

Then another objective is central bank or an intervention is also required to manage the volatility in the financial market more particularly with respect to the foreign exchange market. Because sometimes the exchange rate fluctuations are so large, and because of certain external bank factors may be the market is not able to control that particular fluctuations, then central bank takes certain steps to make this particular exchange rate fluctuations stable in a particular range. By that it will not have much adverse impact on the export and import. And another objective is to protect the currency from speculative attack and the crisis.

So, these are the different objectives of the central bank intervention and that is why the central bank tries to intervene into the market to make this particular market more stable. So, then we will see that how the central bank intervenes in the foreign exchange market.

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So, there are two types of intervention foreign exchange market does. One is we call it the sterilised intervention, and another one is we call it the non-sterilised intervention. We have a sterilised intervention, then we have a non-sterilised intervention. So, whenever you talk about the sterilised intervention, what exactly it means, it means that or sterilised intervention occurs when the purchase or the sale of the foreign currency is offset by a corresponding sale or purchase of the domestic government debt to eliminate the effect of the domestic money supply.

What it exactly means it means that whenever the central bank tries is to buy a particular foreign currency or tries to sell a particular foreign currency, then it will have the impact on the money supply. Because if you are buying, if the foreign currency is bought by the central bank, then what will happen, it will increase the money supply in the economic system. So, increase the money supply will lead to the price rise or we can say that inflation.

If inflation will increase, then what will happen it will have the adverse impact and other real economic factors within the economic system. So, because of that we have to make certain kind of step by that whatever increase is there in terms of the foreign assets, so that foreign assets increase can be offset by any kind of decisions, which is taken by the central government to reduce the domestic money supply in the economy in that particular point of time.

So, therefore, in that particular point of time, what they do they try to use this open market operation which is a major instrument of the monetary policy. So, what they do they buy or sell depending upon the positions whatever they have taken in the foreign exchange market.

By that whatever increase will be there in terms of the foreign currency and or in terms of any kind of other currencies to create that particular gap so to minimize that gap in that particular point of time simultaneously, they take certain steps in terms of the buying and selling of the foreign the government dated securities to control the money supply within the system, by that the net effect will be 0. That means the amount of money supply in the economy will be same as usual

That means, for example, they are buying if they are buying then what is happening the foreign assets will increase in the economic system that means, the money supply should increase. But in that particular point of time, what they will do they will basically try to extract certain money in the domestic market what already it is there. So, in that time whatever they will do, they will sell the bond. If they will sell the bond, then the people or public will take the bond and against that they will pay the money to the central bank. So, in the economy they can extract they can absorb certain money supply within the domestic market.

So, whatever money basically has increased in terms of the foreign assets, the same amount of the money can be reduced by taking this kind of steps. So, then the total effect will be nullified in the system. So, here what is happening, whenever we are we know that in the open market operation, we can buy or the sell depending upon the requirement in the economic system. So, that means, they are sterilised this, the money supply has been sterilised, so the net effect will be 0.

So, another one is the non-sterilised intervention, non-sterilised intervention basically what there the authorities purchase or the sell foreign exchange, normally against their own currency, without any offsetting actions. So, they only go and try to buy or sell the foreign exchange from the foreign exchange market, but they do not take any positions in the domestic market to control the money supply.

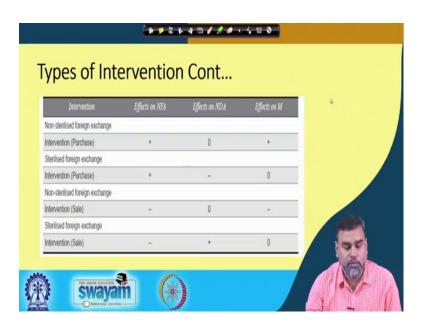
So, here what we are doing we are basically taking that buying or selling of the securities, if you remember in the money market or in the monetary policy instrument we

have discussed, in the open market operation what we do either you buy or you sell the domestic dated securities or government dated securities.

So, when you buy, what you do, you buy the security buy the bonds from the public, whenever you buy it, you have takeaway the bonds and inject the money supply in the system, give the money to the public. And whenever you are selling the bonds, basically what you are giving the bonds, and against that you are taking away the money from them.

So, whatever money you are taking away from the system that will basically reduce the money supply in the economic system. So, that positions if they will take simultaneously with this buying and selling of the foreign assets, then we call it, that is the sterilised intervention. But if this kind of steps they do not take, they simply buy or sell foreign exchange to fulfill that particular gap in terms of that particular currency, then we can call it the non-sterilised intervention. So, this is what basically this, what we can say that the types of intervention in the system always we look at.

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Then if you see what is the impact we have already discussed that the non-sterilised foreign exchange intervention whenever they make, they purchase it. So, the effect on net foreign assets will be positive will increase, effect on net domestic asset will be 0. So, the effect will be positive; the money supply will increase if it is non-sterilised.

But if it is a sterilised foreign intervention, and they are going for purchasing, this one will increase, this thing will decline, net effect will be 0. So, if both go for selling, then it will have a negative impact, it will be 0, then obviously money supply will go down. Then whenever you go for sterilised intervention in terms of the selling, then effect is negative; here it is positive. They have to take the reverse, position, then finally the effect will be 0.

So, this is the way the intervention works in the foreign exchange market by the central bank. So, here what basically here we are trying to see that the exchange rate intervention in the foreign exchange market is an inevitable thing in terms of central bankers point of view, because sometimes the fluctuations also happens not because of any economic fundamentals that may also happen because of certain other external forces which is not in that way in control of the monetary authority.

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So, another issue with respect to the foreign exchange market is the currency convertibility which is the very popular issue always we discuss about. What do you mean by this currency convertibility? Here also the central bank plays a significant role in terms of the policies, in terms of norms, in terms of regulations. So, if you define the currency convertibility, then it is nothing but it is the freedom, it is freedom to convert the local financial assets into the foreign financial assets and vice versa at market-determined rates of exchange.

So, here what is happening we are trying to convert our local currency or local assets into the foreign assets or we are converting the foreign assets into the local assets, how practically or how easily we are able to convert this things at a market-determined rate of exchange, then accordingly we can measure the degree of currency convertibility.

So, currency convertibility is basically associated with the degree of ownership in foreign domestic financial assets, foreign or domestic financial assets and the liabilities, and basically always it is embodies the creation and liquidation of the claims, by the rest of the world. How fast the particular assets can be liquidated, how fast the particular assets can come into the market for the trading and how far the particular assets valuation can be possible, so that is the way the currency convertibility is defined in the economic sense.

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So, whenever we talk about the currency convertibility, we have two types of currency convertibility; we have partial and we have the full. Whenever we have a complete freedom to convert the local financial assets into the foreign financial assets, then we can call it is the full convertibility, the complete freedom as a market-determined rate of exchange we are completely free to convert our assets into the foreign assets or foreign assets can be converted into the domestic assets, then we can call it the full convertibility.

The partial convertibility means that it is again the freedom to buy or sell the currency, but up to a limited amount. And it is only for the foreigners foreign assets point of view that means, here the 100 percent you are allowed to convert your asset into the foreign asset, and foreign assets can be converted into the local or the domestic assets. But whenever it is partial convertibility, we have certain kind of restrictions in terms of the conversion. So, whenever the restrictions are put on this we define that particular term as a partial convertibility or partial capital convertibility or partial currency convertibility in that particular market.

There are some researchers, they basically according to them, the full convertibility means removing the trade and exchange controls completely, and shifting away from the fixed, managed, pegged exchange rate system towards the flexible or the floating exchange rate system in the economy. Completely you can remove all those restrictions into the market, at any point of time any foreign assets can be converted into the domestic asset or the value of the domestic assets can be converted into also the local assets. So, this is the way the convertibility in an economic sense is defined or this is the way there are two types of convertibility we can come across whenever we deal with the foreign exchange market.

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Then if you see the different characteristics, the capital convertibility or the currency convertibility, already one thing we have discussed that is basically we want to make

exchange rate completely free or it should be completely market-determined, this is number one. It is the elimination of the import licensing, custom duties, import taxes, tariffs, advance import deposits, export incentives, multiple exchange rates, all kinds of things basically we can eliminate that means, completely the exchange rate is floating, exchange rate is completely free. All kind of restrictions are not available in the foreign exchange market. For trading or any other thing or any other operations which is related to the foreign exchange market investments.

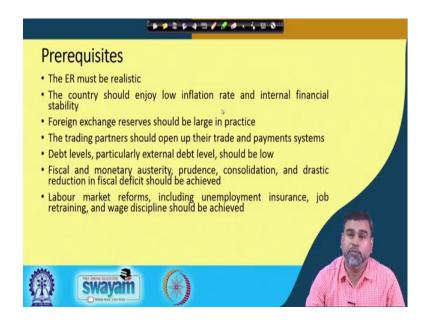
It is also deals with the restrictions removal of the restrictions on international services transactions, use, availability, retention, and holding of the foreign exchange at home and abroad, and on international capital movements as well as buying and selling of the foreign exchange. You see capital convertibility is also dealing with the international capital mobility, capital movements, there should be free capital mobility.

There should not be any restrictions with respect to sectors or with respect to any kind of other kind of characteristics like an industry or particular product and all these things. No restrictions, the 100 percent is allowed, any time, anybody can convert their asset in to the foreign asset; and foreign assets can be converted into the local or the domestic assets, then we can say that is a full convertibility which is happening in this

So, it also gives the freedom to remit the abroad profit, dividends, and other legitimate income in the foreign currencies. If any multinational which is working abroad, and they have the parent operation in a hosting country, so they are also free to distribute their dividends or any kind of income whatever they are generating in that country to their parent country and free of cost. And there is no such kind of restrictions in terms of that kind of payments to the stake holders or the investors who are available in this particular parent country.

So, in that context, we can see that there should not be any kind of restrictions in terms of exchange rate point of view and as well also the other financial cash flows which are happening in the economic system. So, that is the way the convertibility or currency convertibility is defined in the financial system.

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Then what are those prerequisites, what we need to make this particular system convertible. With the exchange rate must be realistic, in the sense that should not be driven by any kind of factors which are not economical driven; this is number one. The country should enjoy the low inflation rate and there should be stability in terms of internal financial market. Within the market the economy should not be highly volatile, and should not be that kind of instability in terms of the price fluctuations, the other or other economic parameters which are affecting this particular pricing or exchange rate in that particular system.

Foreign exchange reserve should be large in practice. The amount of foreign exchange reserves whatever the company or the country has that should be very large amount. The trading partner should open up the trade and payment systems. All the trading partner should be open in the sense the openness of that particular economy should be quite high, because this particular country is trying to do unlimited trade or unlimited transactions with respect to that country with respect to the different sectors. So, if there is any restrictions of that foreign country, then here the kind of facilities or this kind of relaxation is not going to help in terms of the capital mobility and as well as the other factors mobility.

The debt level particularly external debt of the country should be low, unless they have always a fixed obligations, and the balanced of payment of the country will becoming

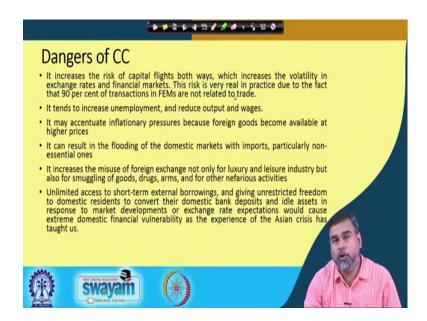
worse and worse, if the interest payments and all these things over the year will increase or we can say that the debt level is quite high for that particular country. The fiscal and monetary austerity, prudence, consolidation, and drastic reduction of fiscal deficits should be achieved. The fiscal deficit should be less. If the fiscal deficit is high, then we have the different kind of deficit where the largest deficit all the broader deficit definition is the fiscal deficit.

If the fiscal deficit is already high, then there is a high pressure on the other kind of items which are a part of the fiscal definition which includes the current account deficit or the capital account deficit. If those deficits are getting affected because of the aggregate deficit in the system is quite large, then also it is very difficult to make this particular convertibility in the easier way. So, that is why we have to look at that what kind of deficit we have. If deficit is more, then convertibility will be again be a burden or challenge for the regulator or the policy makers.

The labor market should be reformed, the unemployment insurance basically should be always there for the economic system, jobs should be retained and the wage discipline should be achieved. So, whenever we are paying the wage to the different customers that discipline of per payment of the wage also should be there.

There should not be much disparity in terms of the same type of job or in terms of the particular operation that individual or that entity is doing in that particular point of time. So, if all those prerequisites are maintained, then only what we can say the country is suitable, country is eligible to go for capital convertibility in that particular point of time.

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But there are certain problems with respect to this capital convertibility or the currency convertibility. What are those problems? First of all it increases the risk of the capital flights in both ways. If there is increase in the risk, then it increase the volatility in exchange rate and the financial market. And this risk are very real in practice due to the fact that 90 percent of the transactions in the foreign exchange market are not related to trade.

Here already I told you there are two things we have a current account, and we have a capital account. But if mostly transactions are done through export and import business, then there may be some kind of control, but mostly the foreign exchange transactions are related to NRIs, NRI deposits, the FDIs, FFIs and all these things.

So, if there is a full capital convertibility, then the fluctuations and amount of flow to the economy will be very uneven. In one day, it will be very high other day it will be large may be it is because of certain kind of stocks, certain kind of rumors or there is no such specific reason behind that, but that possibility is there which make certain kind of problem in the economic system as a whole.

It may increase the inflationary pressure because of foreign goods become available at a higher prices. It can result in the flooding of domestic markets with imports particularly non essential ones. So, if there is no restrictions in terms of the import may be the tendency towards the import may increase, so they people will not try to produce that

particular product in that home country, they try to always go for trading. And because of that all those price and as well as the demand for domestic products will be getting negatively or adversely affected by that.

It can also misuse the foreign exchange not only for the luxury and the leisure industry, but also the smuggling of the goods, drugs, arms and other nefarious activities can increase in the economic system. So, the controlling those things also relatively will be more difficult for the concerned persons and concerned authorities in that particular point of time.

Unlimited access to the short-term external borrowings, and giving unrestricted freedom to domestic residence to convert that domestic bank deposits and idle assets in response to market developments and exchange rate expectations should cause extreme domestic financial volatility as the experience of the Asian crisis has already thought us. Because the Asian crisis what has happened this was the same reason why that South East Asian crisis has happened in 96-97 because of the full capital convertibility. There was no restrictions in terms of the buying and selling of any kind of domestic product and conversion of any asset into one different kind of currencies.

So, what has happened in that particular point of time, although in the short-term the countries; where getting very high amount of growth, but that particular model was not sustainable. So, within a short span of time the particular model get collapsed, and finally, there is a big crisis we have witnessed, we have experienced in that particular point of time. So, these are the different problems or dangers with respect to CC or the capital convertibility or currency convertibility.

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So, there are some recommendations, different committees have given with respect to capital convertibility. We can go through these things. There is a spot and forward markets for both. Then bank margin on foreign exchange transactions for smaller customers need to be reduced. Then the interest rate parity in forward market should be there. Currency futures may be introduced the existing guaranteed settlement platform of CCIL needs to be extended for the forward markets. Banking sectors should be allowed to his currency swaps.

A monitoring exchange rate band of plus or minus 5 percent around the neutral real effective exchange rate may be considered. Then as an operative role if the current account deficit possessed beyond the 3 percent of GDP the exchange rate policy should be reviewed. So, these are the committee's recommendation in term of the adaptation of the full capital account convertibility in India.

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Then another important thing is foreign exchange reserve. So, here what is happening, why we need a foreign exchange reserve in the system, it is because we have the main objective is to managing a stock of reserves for any developing country or reserving their long-term value in terms of the purchasing power over goods and services, and the minimizing the risk and volatility in returns.

So, there are four factors or five factors which mostly effect the foreign exchange reserve. One is your size of the economy; second one is your vulnerability of the current and capital accounts; the exchange rate flexibility; opportunity cost and the financial market integration, these are the major factors which affect the foreign exchange reserves.

And if you talk about India then the major sources of the foreign exchange reserves are the NRI deposits foreign investments, external assistant what we get it from other countries, and external commercial borrowings, these are the major components of the foreign exchange reserve in India. (Refer Slide Time: 30:14)



So, if you see the India there are high level of foreign exchange reserve, there are reasons for that. It shows the India's ability to meet the financial obligations and maintain the countries mental stability. It is shows also the India's ability to import more goods or to absorb the shocks and uncertainty in the world economy. Ability to cope up with crisis and capital flight; greater availability of liquidity and confidence and they can get higher sovereign rating better rating and greater backing of domestic currency and finer terms of the debt. So, these are the different advantages of the high foreign exchange reserve.

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There are some negative impact also. Maintaining high exchange high foreign exchange reserve is costly because the cost of holding foreign exchange reserves is the opportunity cost of investing them in the productive activities. It augments the domestic money supply that is why this we have to take some sterilised intervention step. It also increase the interest rate burden of the economy, because the larger part of them are from NRI deposits. Increase the volatility or the vulnerability in the market.

The reserves have not been built of due to favorable balance of trade or the surplus in the current account. So, these are the adverse implications of the high foreign exchange reserves in the economic system.

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How to know that whether the foreign exchange reserves in the system is adequate or not, we have the different measures, we have import cover of reserves. Foreign exchange reserve to reserve money, foreign exchange reserve to broad money, foreign exchange reserve to external debt, foreign exchange reserve to short-term debt, then foreign exchange reserve to GDP.

For example, it is measured that if your foreign exchange reserve is able to cover up the 3 to 4, 5 months import demand or import requirements then we can say that it is adequate, but India is now having around 9 months import coverage of the foreign exchange reserves. So, in that context, we are adequately or may be more than that reserve we have in the economic system.

So, in that case we have a high amount of foreign exchange reserve. These are the limits and the advantages just now we have seen or we have discussed. Then we can say that whether this really foreign exchange reserve is good or bad in the economic system as a whole or the financial system in particular.

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These are the references what you can go through for this.

Thank you.