Money and Banking
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Lecture - 28

Now, it is pretty important place where I stopped and I was trying to talk about, I started a place called one of the functions of a central bank. This is a traditional function and you will find in other countries their central banks doing the same thing, they use these instruments. It is called central banks function is the role of the central bank is credit control, controller of credit this is function number four function number four controller of credit.

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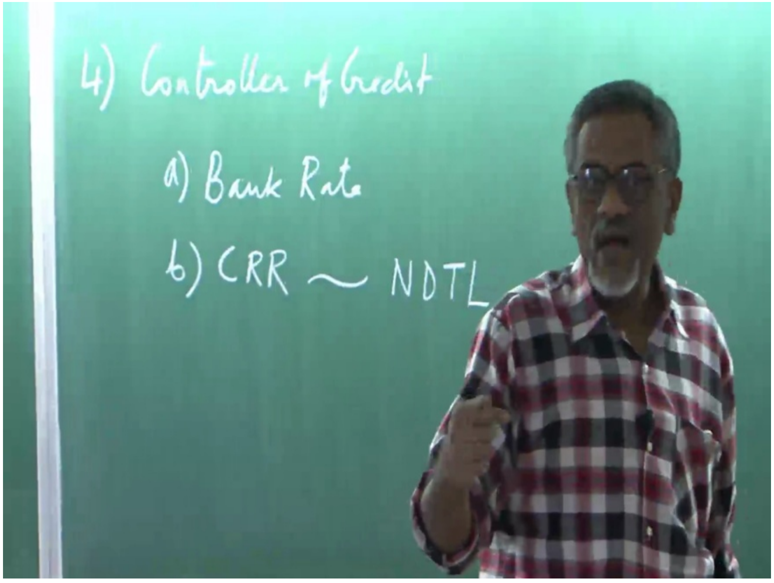

Now, as the controller of credit this becomes directly connected with monitory policy, because credit is part of money supply, creates money supply. So, controller of credit is essentially controlling money supply. So, it is monitory policy I am talking about, just the reserve bank functions it is that important thing called monitory policy, and what are the instruments traditional instruments? They control credit there is one, the first one is called bank rate. Now, what is bank rate? Bank rate is simply the interest rate of the central bank, so when central bank lends money say to commercial banks, what is the interest rate it charges?

The bank rate, this bank rate is often also used as the discount rate when banks borrow money from central bank against securities. So, banks invest in securities, you will get the banking topic next topic, banks invest in securities various kinds. It invests in primarily risk less securities, banks are not allowed to invest in the share market, the share market investment is risky investment it is called speculative investment. So, when banks invest, they invest in bonds, government bonds, semi government or like straight electricity board, railway bonds, infrastructure bonds, private sector debentures they may try, I am not so sure.

Then they also invest in commercial papers, C D’s of other banks. Now, so when banks sometimes need cash and the repo mark is a classic case (( )) cash is used securities are used. But here it is some other kind of borrowing, when banks obtaining cash from the central bank against securities the discount rate will be used. Since, the security value it deposited with the central bank is hundred crores. Now, what is the interest rate that R B I would charge? Which is called discount rate, the discount rate will be the bank rate.

The bank rate has also, therefore what you can see how it is connected. In our country let me put it right in the beginning, in our country bank rate is seldom used not used at all as the monitory policy instrument. But you go to any western country the bank rate is one of the most important monitory policy instrument or credit control instrument, in India it is not, traditionally in India it is not, it is there you can get information on bank rate, but it is not used as a monitory policy instrument, I do not know why.

Reason may be we had a public sector banking system here, in public sector you can directly control the interest rate of the public sector banks, that would also influence the interest rates of the private sector banks, because they have to compete with them. So, what you do you directly control, so there is no indirect measure required to control the interest rate of banks. Now, how is bank rate, therefore connected indirectly with the interest rate of the banks, it is connected in the following way.

If the bank rate goes up commercial banks borrow money from RBI at a higher rate, immediately commercial banks themselves would lend money at a higher rate, it is a profit maximization organization. If costs go up those who can control the price at which they sell goods would also raise the prices, that is why cost push inflation was one of the earliest theories of inflation. So, if cost goes up prices would go up its natural, because you are a profit making entity, if your costs go up in order to cover for the cost you would raise the price at which you will sell the goods.

So, banks are making profit by lending money, which is creation of credit is called. Now, lending you are charging an interest rate which is a kind of an income on that lending, so if now I have to borrow money from R B I, which I require from time to time at a higher rate. I would also naturally charge the lending rate higher. It is not necessarily connected with the deposit rate, the deposit rate would also get connected with the bank rate if I am really sort of cash all the time. So, I have to raise the deposit rate also to bring in more money.

There are two main rates broadly speaking lending rate and deposit rate, the lending rate is directly connected. So, the cost of credit it is called the cost of credit, the cost of credit will go up. So, bank rate therefore becomes an important credit control instrument and if cost of credit goes up what will happen? Companies would be shy to borrow money from banks, so credit creation goes down. So, for a restrictive monitory policy a simple mechanism that central banks in western world use is to raise the bank rate.

When you have a relaxed monitory policy which is an expansional monetary policy not a contractionary monitory policy, then you lower the bank rate, lowering bank rate automatically lowers the lending rate. So, this is the main monitory policy transmission mechanism or the root through which bank rate gets connected with. But if you have a country like India which for years interest rates of banks were directly controlled by the central bank, why would you require the bank rate? Probably this is the reason why bank rate has never been used.

Even now except after years 5, 6, 7, 8 years where the bank rate was static at 6 percent, I found some data recently. When I was preparing revising my notes for the data files for you this semester, for a couple of months I think not even a year the bank rate was increased in India to 8 percent or something and it has gone back to 6 percent again. What does it mean? That means, India must be pursuing, have been pursuing a restrictive monitory policy, the bank rate was used. Now, where else is the bank rate used bank rate is very important, now I come to some other points which are very important in the context of India.

It not only that it uses a rediscount or the discount rate or the interest rate of the central bank when it lends to commercial banks. There is an important connection of bank rate with the non banking activities of the central bank, our central bank also has some direct connection with many non banks, which is very unusual may be in comparison to other countries. Let me give an example there are many non banks in India like I D B I E X I M bank, state financial corporation’s etcetera, who where directly funded and created by the R B I. Now, if you look at the data they are such successful and independent organizations they do not depend upon the central bank which is R B I for any funds.

So, now when they were directly funded and they are not banks that they can collect public money, they have to have a source of money to do the work they do. E X I M bank does the work in supporting export import business, I D B I does the work in supporting industrial development, which is not small industry, heavy industry and medium industry. Small industry main organization FL answer one S I D B I, who created S I D B I? This is very interesting I D B I, so R B I created I D B I, I D B I created S I D B I this is how it is going.

Now, where do they get the money for the business they do? For instance you interact with S I D B I here, you create some concept, business concept some technology, you need some seed capital for a prototype for instance, the engineering students would understand that. So, in order to create the prototype you need money, now I T company does not give you, I T company asks you to go to S I D B I and S I D B I provides the money, where does S I D B I get the money? S I D B I will get the money from somebody, it gets the money from I D B I and I D B I used to get the money from R B I.

So, there was a line or a credit line which is not a credit, a refinance line which existed for many years from R B I to these organizations, non banks. They get the money, the money was returned to R B I, again R B I renewed the cash, refinancing. Now, what kind of an interest rate did they ask R B I? Here also R B I was using, if not exactly the bank rate, but some rate in relation to using a mathematical formula may be a relation to the bank rate. The bank rate was the key variable which was determining the interest rate or refinancing rate, whatever.

Now, bank rate is also used as I already mentioned in case of ways and means advances, interest rate that the R B I charges when it gives temporary advances for two months, one month to the state governments, central government bank rate is used. It is also used when it gives the advances to system I have not talked about, I will talk about that in the last topic may be in the month of November. It is the some corporative banks which are very interesting institutions in India, no body, people you and me would not know about corporative banks, unless we grew up in a semi urban area or rural area, we would know about corporative banks, where corporative banks exist in India.

We know all these public sectors banks usually and all so now the foreign banks, the private banks we know. So, the refinancing and also it is very interesting, commercial banks in India are compulsorily require to keep C R R cash, we know that now by now. The question is when the C R R cash is kept with R B I, does the R B I give you any interest to the banks, because banks are parted with the funds, they could have created loans or credits. Yes bank rate is used and therefore when they fail to meet the C R R requirement again bank rate is used as a penal rate, in which case the banks will have to pay an interest to the R B I the penal rate, the penalty.

Suppose, I as a bank was supposed to show this amount of C R R cash, keep them with the central bank last week I could not, I mismanaged my funds I collected deposits, but could not show that amount of C R R. So, there will be a penalty and what is the interest on that penalty? Penalty means not only I have to put that money in future, but also the period that I will make R B I wait for it, I will have to give R B I an interest rate, again bank rate is used. So, when R B I gets the C R R cash R B I pays the bank rate as an interest rate to the banks how are parting with from their cash.

I mean how are parting from the from the holding of that cash that they keep with the central bank the RBI, an interest is paid to the banks. If banks fail to meet the C R R requirement they will have to penalty rate, again bank rate is used, so bank rate is used in many places. Now, I have already told you how the bank rate has been used to as a discount rate etcetera, but not at all as a monitory policy instrument hardly. Monitory policy instrument you will know if you open T V's, T V's tell you clearly C R R is one repo rates, some indirect instructions about interest rates, etcetera, they are using as monitory policy instrument.

The bank rate you would not believe me, the bank rate was about 3 percent in 1950, I will show you the data went up to 10 percent in 82 and till 1990 it remind at 10 percent.

So, the bank rate suddenly went up, then somewhere in the 1990 bank rate was raised to 12 percent which is very interesting in the 1990, on the one hand in the1990 you have the reforms coming in, on the other hand the bank rate went up to 12 percent, very interesting I mean they are contradictory, I do not know why so. Now, it has come backs in 1997, It has become 6 percent, but recently it went up to 8 percent and came down again.

Bank rate gone, now I come to C R R. Next point is C R R, C R R I talked about that is as I told you, if I as a bank collect deposits I am supposed to keep a part of that deposit with in cash form, physically hand that over to R B I, thus show it, now tell that I have kept it aside, I have to actually physically carry it to R B I. Now, the C R R is not on the total deposits, a C R R is calculated on something called N D T L net demand and time liabilities of banks, why is the liability? Because banks collect deposits, so it is the banks are liable to return that money to the depositors, so which is banks liability.

Demand and time liabilities; that means, the total amount they collect under demand deposit accounts, savings account, current account, whatever and fixed deposit accounts, time accounts, which are fixed deposits of various durations, recurring deposits, etcetera, whatever we have. What is net n N D T L net demand and time liabilities N D T L is net demand and time liabilities what is net? Net of interbank deposits, so one bank has some deposit in a demand deposit account of another bank or one bank has some deposit in a time deposit account of another bank, those bank accounts are deducted.

So, it is essentially the public money that hoped, simple C R R not the total deposits and banks balance sheet I will show you, next topic coming, so it will complete the course, your understanding will become more complete when I have the next topic they are all connected. So, I will show you what are the liabilities that banks usually have and that is it etcetera. Now, so this is how C R R works, but remember C R R in India is only on scheduled commercial banks and some co-operative banks.

What are scheduled corporative banks? See scheduled commercial banks scheduled commercial banks is essentially R B I FL, second chapter or something, that a bank has to comply with this kind of restrictions, regulations or disciplines, then they will be declared scheduled commercial banks. In India most banks today are organized sector banks or scheduled commercial banks may be one or two are left out, all have become scheduled banks, they are pretty disciplined. If you are scheduled commercial bank, then you get certain advantages, privileges from the R B I, like in case of a distress R B I would help you, but R B I will also make you keep C R R cash.

So, this C R R is applicable not to the entire monitory sector of the Indian economy, it is applicable only to the scheduled commercial banks, which come under the organized sector. Even in the organized sector there are some unscheduled commercial banks, a nonscheduled commercial banks and the unorganized sector of course has many banks etcetera, money making business units, who are not government. Now, what happens to the nonscheduled commercial banks, interesting thing that happens with the nonscheduled banks is that they would tell you have to give C R R, but you do not have to keep the cash, the restrictions will applies. But in case of nonscheduled commercial banks you are not supposed to keep the cash with the central bank.

So, if there is a periodic inspection by R B I officials they can check whether C R R is maintained or not, in some corner of a commercial bank some FL. So, there giving instruction like we, I give you an instruction that for in the money and banking course you should at least put in an hour everyday in the evening, but I do not go and check or you do not come and see me everyday sir FL for money and banking course. In case of C R R you will have to come and sit in front of me and show that this is the cash you have and you can give it to me I will keep it, in case of nonscheduled commercial banks you have to just tell me you have done it FL, this is the difference that it comes.

So, C R R is not applicable to the entire monitory sector all there. So, the larger the unorganized sector, larger the number of nonscheduled commercial banks in a country, there were problem and you know something what has happened, I think this is also happening I have to collect more information. Many non banks these days have a lot of cash and central bank is worried about it, how they are using it and they may be asking non banks also to show C R R, nonbanks also have been asked to show C R R. I am not exactly I am not exactly knowledgeable about which are the non banks and where it works circumstances C R R is asked from them, the requirement, the corporative banks are also there.

Now, you know something, if you look at the history of C R R in India, you will see that, well from 1999 it has become a weekly C R R weekly basis. But they gave you a fortnight time to show two weeks back last Friday deposit C R R, so this Friday I am supposed to show two weeks back Friday FL C R R, this Friday I am I do not have to show the deposits of this week C R R where it is there. So, what happens once you start keeping C R R, if the deposits go up you have to just add some cash, because this is already there with R B I. If the C R R is going down, then there is a reverse flow of funds from R B I to the banks.

So, already you have x amount, but the amount has become x plus y, because of larger deposits this week, I will have to show that extra C R R on y, this is how it goes a fortnights time is given to report that. Corporative banks, regional rural banks, etcetera they are also asked to maintain C R R, but then they are not asked to show that, any way I will talk about that. At times it is very interesting, they had a C R R once upon a time separately from demand liabilities and time liabilities, not general C R R which we have today, today we have a general C R R of 7 percent on N D T L.

Once upon a time in India there was a C R R on d and the C R R on t separately and my notes are saying those C R R days I have someone data here, the d C R R was higher and the t CRR was lower. You can understand time deposits usually money which is kept with the bank and not to be withdrawn on a regular basis, fixed deposit accounts. So, R B I was not that worried about that C R R, because banks can have more freedom to use that money deposits which are coming under fixed deposit accounts or through fixed deposit accounts. But in case of demand liabilities it is dangerous, money comes in money can go out anytime, so the C R R was also higher there.

So, R B I essentially telling the commercial banks look demand deposit account high C R R FL freedom we do not want to give you to use that money for credit creation purposes. So, that is why the data was like that in my notes and a 3 percentage point difference, some once upon a time it was like that in the 60 may be, the 50 and 60. Demand liabilities C R R was 5 percent, time liabilities C R R was 2 percent, then around 1962 they merged, so it was in the 50. Since, then it went up and the maximum C R R is 15 percent.

I think there was an upper limit on bank rate also, it was 12 percent I think, do I have the note, I do not have it here, there is an upper limit on bank rate also according to the R B I constitution. Bank rate can go from 0, it can be 0, as in foreign countries sometimes it has gone to nearly 0 or near 0, its very low in those countries these days to a very high of probably 12 percent I have forgotten, question mark FL. C R R again it can come to very close to 0 which is in western countries, that is what the banking industry got into trouble, there was no cash with the central bank to bail them out.

So, whom are they asking? Government and what is happening to government budget? Deficits are increasing, not only the economy is down for which they are over spending, they now have to bail out the banks, they do not have cash. So, much trouble, imagine this C R R was invented by them they do not maintain that, unbelievable when I heard that. So, I came across in a book about bank of Canada, I could not believe that in a monitory economics book, I can give you the reference also to that book of that book, it is in the library. So, what is happening is that I think it is the maximum permissive limit is 15 Percent according to the constitution of R B I RBI act, either R B I act or some other document.

So, C R R can increase up to 50 percent, question is has it ever reach 15 percent at that tighter monitory policy R B I decided to pursue, it was there during Rajiv Gandhi years at the end of the seven plan. Then doctor Man Mohan Singh era it started coming down C R R, it did reach 15 percent I will try to show you the data, which is unthinkable, very high C R R. Now, it is half of that roughly, it varies between 7 and 8 7 and 8 FL77.25 7.58 maximum 8.25 comes down again, it fluctuates between a very small range now, it is a much more much more liberalized confident economy today, those days where not days of confidence in the Indian economy.

At one point I do not know why in the eighty’s or seventy’s they had incremental C R R, which means C R R you FL on total deposits. Now, in this week there is an extra deposit that has come. So, now I am going to calculate x plus y which is z a C R R, for the entire N D T L plus extra y an extra C R R FL percent. So, central bank was really trying to suffocate the commercial banks when it comes to credit creation. Because the deposits they mobilize not only they have had a very high C R R, which is on the total this week, but also the extra delta deposit that has taken place between last week and this week an extra C R R called incremental C R R, this also they had.

I found the doubt from R B I documents foot note its very interesting, do not waste foot notes, when you become an economic student and read a paper. This is my advice to you or any document main frame main document page FL and sometimes people usually ignore the foot notes. Do not increase many many cases I have found very important information is hiding in very small 8.8 font size, the rest of the document at 12 may be 8 font size, 7 font size foot note FL R B I document incremental C R R is amazing feature they had.

Also now with the opening of the economy, liberalized economy with N R I accounts separate I told you, often N R I accounts they have separate and they have some accounts which are in rupee accounts, some N R I accounts are in foreign currency accounts. So, the money comes in foreign currency, remains in foreign currency, interest is paid on that and then it when it withdraws they withdraw in foreign currency. To facilitate N R I movement, money movement in India, because if you have to come here money and then you have to keep it in Indian currency it has to be get converted and at the time of withdrawal also it has to get converted back into the currency from where it has come, either US or who knows England or something.

So, what is interesting is I do not have the information here there is a probably a different value of C R R on a non-resident Indian accounts, they have kept that separate. In state bank I found out, if we look at the back sometimes there is a board which carries the information of various interest rates, on various accounts various fixed deposit accounts, 2 year two year fixed deposits interest rate, 3 year, 1 year, N R I accounts also we will see their different interest rates. Similarly, C R R on N R I deposits in India probably under the advice of the central bank is different.

Now, as I told you and as I told you that the C R R cash that is kept with the R B I is usually the bank rate is paid. Sometimes in order to same thing in order to have a contraction policy more effective reserve bank told the commercial banks, we will give you an interest rate above the bank rate on C R R to make them pay or keep a large amount of C R R cash with them, sometimes they have done that also. So, this is C R R, the C R R I have it is amazing not Rajiv Gandhi era, Rajiv Gandhi era it was 15 percent, but then during doctor man Mohan Singh era 1994, it is amazing went up from 14.5 percent to 14 percent again 14.5 to 15 percent, unbelievable.

Then around the late 1990 it started dropping dropping dropping 202 it dropped to 4.75 C R R 203 4.5 204 5 207 5 2077 208 9 FL C R R, this is very odd to me. Recession is setting in C R R going up Indian monitory policy I really do not understand R B I monitory policy do not understand anything. If the recession is coming, if you look at the western countries bank rates, they do not have C R R much it is nearly 0, they have been falling usually, when recession is there it will fall in India it goes up the reverse. In 2003 4.5 2004 5 2007 7.5 2008 9, problem FL may that problem. (( )) Very good point where cash holding increases.

Student: So, if the government tries to increase the increase the C R R.

I have no t understood your point. Government cannot prevent by saving C R R, C R R is on the bank deposits. No in recession banks have flushed with funds, no bank failing was not never a case in India. C R R I think it is ridiculous, I think one reason I can find why they have been raising C R R in the recession years. Is that the around the time of the recession years a bit later inflation set in has a problem, so they were trying to control inflation through tight money policy and this is where they have damaged Indian economy also.

Because by raising C R R you are raising the lending rate, because when banks give loans they would raise the lending rate, lending rate means cost of finance goes up for companies and company investments would shrink, simple I am I am simplifying the whole picture. So, it is not a good thing in recession years your C R R going up not at all. That means, you are giving the indication to banks that you do not have to really go and lend, you do not keep the money with us we will give your hand some interest. So, banks would become more lethargic, they would not be what you call that. Proactive in finding out where to give lend, innovate in their lending system in the kinds of loans they give in order to survive and make some money still.

Already recession is there it is not a good thing at all and people cash holding recession, in recession times people cash holding do not go up, people cash holding goes up in times of inflation. Because in inflation they know by tomorrow price will go a farther they would try to spend on essential things right away, so there cash holding increases. Recession there is not much spending going on I rather be somewhere, part somewhere where I get a return. People cash holding is not directly related to C R R, C R R is directly related to the banks credit creation abilities, cost of finance, etcetera.

Since, it is amazing I mean I have to look at the data it just does not make much sense to me, in India everything is FL I mean this normal logic common sense does not prevail. So, it is very difficult for me to appreciate this you can found out reasons for that. Tight money policy they had if they had high C R R tight money policy, one reason could be to control inflation. In fact, this has been a very painful way of controlling inflation in India, because they are also, so other reasons why inflation is there.

We have food surplus we have food inflation, I mean there are also so other things it is not monitory policy which is going to solve that problem, ridiculous monitory policy trying to solve that problem. You have food surplus you have food inflation, is it the R B I headache, an R B I can solve it? A person has food on the table does, but suffers from malnutrition. What is the doctor going to do? Food on the table suffers from malnutrition, what is the doctor going to do? You tell me, ridiculous Indian policies monitory policies are unbelievable I really do not understand this, so maybe you will understand one day, your economy.

Next is I am coming to open market operation, this is the final one which is often there in theoretical models, they talked of monitory policy I have seen they not only they have a bank rate as a variable or something interest rate, but they also have an open market policy directly modeled in their frame work, made it a part of the model.

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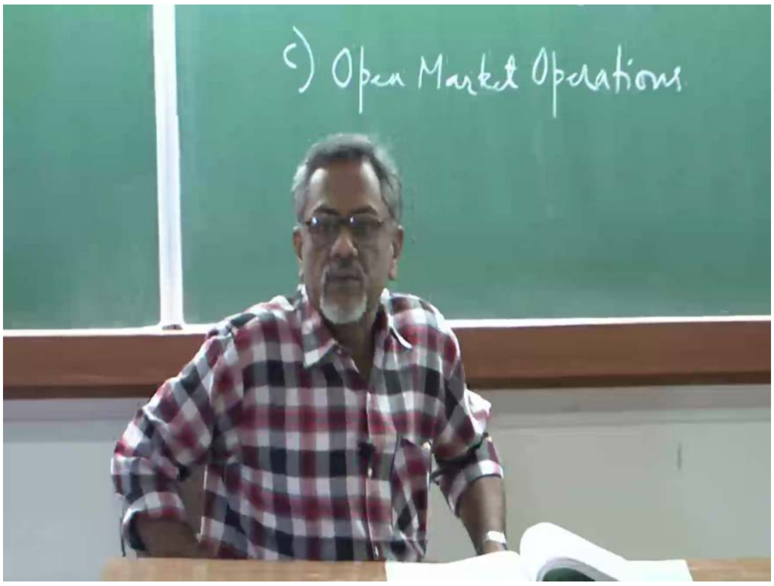

So, open market operations are, the last one controller of credits, open market operations, open market operations there are two types of open market operations, open market sale and open market purchase. Open market sale of securities and open market purchase, essentially directly controls the money supply, when bank rate has been raised, C R R has been raised, but company or banks are still flush with funds and they can give out loans, but government wants the tight money policy. They can go for open market operations whereby they can sell securities directly to the banks and state governments and whoever is keeping money in banks etcetera have surplus funds.

Can buy government securities which are usually very attractive, because they are risk less as such that you can buy, no risk involved, sure payment, no chance of default, good interest income and therefore it is can squeeze out cash from the system, this is the open market sale. The other one when banks are not having much cash, there is a shortage of liquidity in the system, companies are asking for more money, deposits are not much high, they can go for open market, purchase of securities, by purchasing R B I will hand over cash in return and it can inject funds into the system, money supply in to the system. So, it is the direct method to control money supply.

The bank rate C R R is indirect ones in some sense and this is direct C R R is more direct than bank rate, bank rate is the most indirect one to influence money supply. C R R is slightly better, it has some direct relationship with bank cash availability and open market operations is the other most direct money supply control instruments. These are standard traditional monitory policy instruments across countries used by central banks, but we won’t stop there because the Indian central bank is very different. Before I come to the nontraditional functions today I would just mention shortly one thing I will begin may be and not able to complete it is a very important function of the central bank of any country is to look after the exchange rate, this is the open economic, macro economics, look after the exchange rate.

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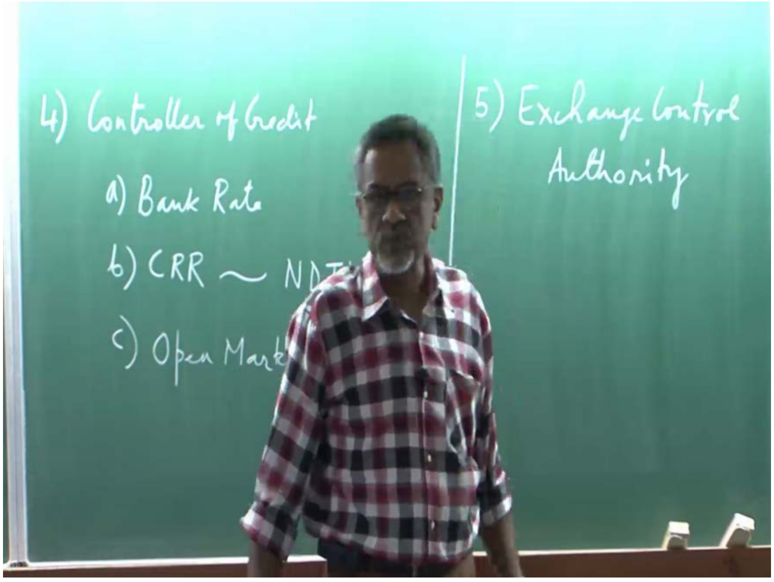

So, now what I would do is I would just mention number 5, the function is called exchange control authority, controller of credit and exchange control authority. Now, things have changed over the years with respect to R B I intervention in the exchange market. R B I initially, India used to initially have a fixed exchange rate system, have you done that in macro economics macro economic theory, fixed exchange rate system, flexible exchange rate system. Good next semester you have my course I will take it up in the context of monitory policy, but you can extend it to physical policy also.

What happens in India or a country there are two kinds of broad polar positions of exchange rate systems. One is called a fixed exchange rate system; one is a flexible exchange rate system. Now, in a fixed exchange rate system what happens, whenever exchange rate fluctuates from the fixed value central bank of a country intervenes, suppose the exchange rate value is going up FL. So, central bank would intervene by supplying more, like exchange it is like a price, price of US dollar in terms of Indian currency. So, 52 rupees per dollar, it is like a price, you are buying dollar as good using 52 Indian currency, Indian rupee. Suppose, it is going up to 53, when the price goes up what happens in the demand supply framework?

When there is price going up means there is a demand pressure, when demand curve shift prices goes up, when supply curve shift prices come down. I am talking about rightward shift or outward shift, it demand outward shifts prices go up, if supply outward shifts prices down. So, if there is a demand pressure on rupee price of dollar; that means there is a demand pressure, all you can ease that is by pumping in more foreign currency in that market, for exchange market, so that the supply increases and it will come down.

On the other hand if the supply shift is too much and Indian exchange rate we said dollar, currency value of dollar Indian currency value of dollar is now appreciating which is, it is becoming 51 50 49 48 rupees. So, the US dollar in terms of Indian price, Indian currency is going down; that means too much of supply is there and you do not want that to happen. The reasons why a country may not like that, apparently looks like very attractive U S FL dollar 53, 53 rupees per dollar, now it has gone down to 49 rupees per dollar, 48 rupees per dollar.

So, when it does happen, then what you do? You can intervene by increasing the demand for dollar, so R B I can go as an artificial buyer and start buying dollar, so the price will start going up again. Price going up means depreciation of the currency, the meaning of that is depreciation of its value in terms of US dollar, because 1 US dollar now costs more, so Indian currency cost's is cheaper FL. So, this fixed versus flexible exchange rate systems do give rise to the need of the central bank to intervene.

In case of a fixed exchange rate system central bank will have to intervene to give the price there, because there is a continuous up and down of the exchange rate and it has to moderate. In case of a flexible system the central bank tasks are much easy, it will broadly monitor keep an eye open, if it is going up or going down, how much is going up how much is going down. If only if it is too much they would intervene.