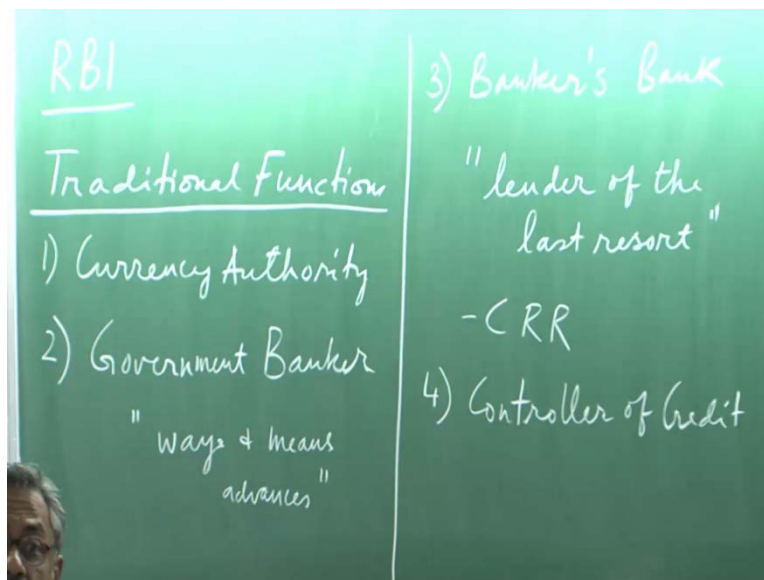


Money and Banking
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Lecture - 27

So, I start I started new topic in the previous class, essentially this is RBI and I want to talk about two kinds of roles, that the Central Bank of India called RBI Reverse Bank of India plays, one is a regularity role, another one is a promotional role. Now, the way I want to pursue this topic is I want to first point out, which are the traditional functions of a Central Bank that our Central Bank RBI performs, traditional functions, which are common across countries of Central Banks across countries.

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And later, I will tell you about the nontraditional things that our RBI has been doing. So, what I started out with is the traditional functions, and what I mentioned in the traditional functions of RBI. I mentioned two kind of traditional functions, I mentioned one currency authority, this is very traditional. Central Bank of a country takes the responsibility of issuing currency, legal currency which is called legal tender which the citizens of the country use.

In our country we have a slightly different thing Central Bank as well as the ministry of finance does it, ministry of finance is concerned with the coins and all rupees that you see rupee notes. The notes above 1 rupee note are all issued by the Reserve Bank of

India. In other countries I think the entire coin and notes are both issued by the Central Bank most countries in India there is a slight difference.

So, the coins and 1 rupee note used to be the responsibility of the ministry of finance, how much of that amount will be issued and the high denomination notes above one rupee is the RBI. So, currency authority I talked about in details, the one that I started, but did not complete is the government banker business. Central Bank is always the government banker or what did I say not banker I call that government banker, so Central Bank is always the government banker.

That means most functions of a of the government particularly the central government and also in our country state government are carried out banking operations are carried out by the Central Bank. Now, in RBI does that also, now what are the banking, these are the commercial banking operations like, when we go to a bank we open an account, we invest money there in fixed deposits etcetera savings account.

So, there are demand deposit accounts time deposit accounts, we put money there, we ask for remittance services I have to send some money to my parents. Please issue a draft or I applying for some scholarship job I have to put in some money or appear in a test prepare a draft. They also have something alternative to a draft called bankers cheque, so there is a various kinds of normal banking activities which are commercial banking activities.

Which, the Central Bank performs for the government not everybody else the government, now beside that this is kind of part of nontraditional functions. To some extent is that it looks after also as a banker to the government, it looks after the central government in particular and also state governments. It looks after their temporary deficits, not a year end physical deficit or budget deficit the way we talk about deficit in India, but temporary deficit, mismatches.

This is called mismatch between funds coming in and expenditures going out, because taxes etcetera which are sources of funds for the government, they do not come throughout the year. They are collected at various points of time half yearly collections, year end collections rest of the months in a year, how would the government meet the expenses.

So, often there are temporary mismatches between finances or funds coming in, through taxes and other sources and expenditures flowing out. Now, there is a new thing RBI started, since the ad hoc treasury bills, I talked about ad hoc treasury bills in the in the previous topic. Ad hoc treasury bills were terminated no more ad hoc treasury bills, they converted into them all outstanding ad hoc bills were converted into some like a console.

I told you about that at 4.64 I think 4.64 or 4.67 interest rate fixed for ever, ever means government will redeem them at some point. I do not know whether they have redeemed them already, but they they are planning not to a give a fixed life to it, then government is under obligation to return the money to the public. At that point of time when it matures, so it made it, indefinite made it open ended for their convenience, because government financier were in a very poor shape, right now it is in very poor shape also and you will heard about that on TV another places.

So, what they have done they replaced there something called ways and means advances I was talking about that, these are the adventure that that RBI gives to the Central Bank and the state governments. Ways and means advances ways and means advances these are the money that the RBI gives, now these advances for when they are giving to the central government, it does not have many restriction. But, remember they are like a maturity of three months and they do carry an interest rate alright.

And for temporary gas worth for the state governments often, there are certain restrictions you will find that in professor Boulez book. What is the Boulez book is in your reference list, some copies are there in the 4th edition copies are there in the library. I did not buy the 5th addition 4th edition 4th edition about 8 10 copies are there you can find the doubt, because for the state governments they do number of things they can give ways and means advances without any security or collateral which is called.

That means, they do not know they do not take any security, valuable from the state government and just gives the loan alright, trusting them at an interest. Then so often they had given against a security like government of India securities, government of India sells bills, treasury bills bonds etcetera, which state governments invest you have found that out from the previous topic. State governments do interest invest them, if you have not found that out you will find that out soon.

So, state governments invest their surplus is there, so if they have bills they can show that to RBI and take a loan out for 2 months 3 months alright. There in sometimes there is special advance is given, special occasion like the flood in Assam I gave you the example, Assam state government can ask from RBI. Some special advances because the economy is in terrible shape in the state economy in Assam, because of the floods. First there was the political disturbance in some district 2 3 districts.

And now there is the flood half of Assam is covered with water was, covered with water half, of that big state is unbelievable, the size of the flood this year. And this is the second flood, the first one took place the few months back in the beginning of the monsoon season, so this is it they can get for special advances. And then the interest rate interest rates RBI decides, so often these interest rates when RBI is giving a loan or taking money from somebody.

Some banks the interest rates are often determined by in relation to the bank rate, what is the bank rate I am coming to that bank rate is nothing, but the interest rate charge by the Central Bank. When it gives alliance to commercial banks, so this bank rate is also used here, when they lend to the governments, state governments and central government, Bank rate is nothing, but a formal expression for the interest rate charged by the Central Bank. In US it is called the federal rate I thing, because it is called the Federal Reserve that Central Bank, and the name of the bank rate is a Federal.

In England it is called probably the bank rate, the apart from the ways and means advances as banker to the governments, central government and state governments. It often provides over draft facilities, do you know over draft facilities over draft facilities are my account balance has reached the minimum, but I need money. The bank has discretion, if bank thinks like the state bank this man I know for the last 24 years, he is being working here, he still has 10 more year to go.

Now, he needs an over draft facility, because his account balance in the saving account fixed deposit may (()). Account balance has gone down to minimum balance alright, give him over draft facility, because on the assurance comes from internally is that at the end of the month his pay cheque will come. So, we can deduct that amount, every month his pay cheque gets deposit here, so there are over draft facilities which are given to governments state governments and central government.

Like, when their account balance has reached the minimum, they do not have cash the government cash with RBI is 0 nearly, but government needs money. Through without issuing treasury bills, without going for ways and means advances which they may have already taken a lot, who knows then RBI can also give them some over draft facilities, it depends it is the RBI's choice alright.

So, these overdraft facilities are shown and then they are very short term very even shorter than 3 months 2 months period overdraft facilities, and often there is an interest rate and a progressive interest rate that is charged on that. Overdraft is very exceptional amount, so suppose within 7 days you are supposed to return that money, so 7 days you did not. So, your interest rate after 7th day that is the 8th day and the 9th day, may jump by 2 percentage point, now how is the interest rate initially the interest rate has been settled in relation to the bank rate, what it is presently.

They have some formula if bank rate is this is will be the ways and means advances interest rate, this will be the overdraft facility interest rate. Now, it can so happen that in an overdraft facility, there may have a progressive rate like the way we have progressive income taxes. For low income people there is no tax above a certain income, there is a 20 percent 10 percent tax rate.

Then it crosses another threshold, the tax rate increases to 20 percent, then it crosses another threshold, because of 30 percent, progressive not the corporate profit tax rate, corporate profit tax is flat one now progressive system they have alright. So, this is one another thing as a banker to the government, it can do which also available from commercial banks for public, you and me in special cases. They know you well your monthly income gets deposited here, there is an assurance and now this man is in trouble he needs an extra 10,000 rupees for 5 days.

He does not have cash it, bank can provide it is the discretion of the manager I think, manager can decide and give that money to you. In fact, once it happened with me here, and one of my colleagues says state bank overdraft (()). Fortunately, I did not have to go through the overdraft, but that was the available he said, so these are the things we learned.

Next it is a very important function, this a traditional functional also, not a nontraditional function. Suppose, these ways and means advances etcetera kind of nontraditional in the

sense other countries may not have them, but I put them mere as banker to the government put them here. Is that there is something called public debt, is something which is also studied in economics. Earlier it used to be called it used to come under I think public finance, I do not know where it comes under, this is an area of economics public debt.

What is public, here the public word public is not our usage a word, public means government, remember and private means non government, all everybody. Public debt is government as you have found out from this discussion in this course is often borrowing money alright. So, it is creating a debt for itself, now this borrowing usually is internal, so the large chunk of public it is often internal, I have borrowed from the RBI have borrowed from the banks I have borrowed from the people by selling bonds to them alright.

I have borrowed from, I regularly borrow using treasury bills they all create public debt, now this is called internal public debt, but public debt is just not internal in 1991, before doctor Manmohan Singh came to power. In 1991 they came to power in June I think, when before that probably around that time I remember after Rajiv Gandhi expired the economy was in shambles, terrible shape. Now, they created a huge amount or external public debt also, they borrowed initially from bank of England they shipped gold, then they got a huge loan from IMF and I remember IMF was one Stanley Fischer the famous economist from MIT.

And Stanley Fischer visited in India also, because when IMF gives a loan they also come there top bosses do visit the country advice the government, want to do what not to do. So, I remember Stanley Fischer himself also came here, the Stanley Fischer's macro book I use still Fischer Dornbusch Fischer and they have added an third author now. Startz I use that book also I when I joined IIT used to use this Dornbusch Fischer book, it was almost expired they added dornbusch was also at MIT, when I was a student doing PHD Dornbusch was very young.

And he was a prolific writer, his main area was international economics international finance and I we used to read these papers. I still have one his books written in 1980 or 1981 anyway, they are all MIT big fellows, they also own positions in IMF world bank etcetera top positions. Now, IMF gave a loan, so India created a huge amount of external,

now who manages all these debt government does not, government makes the money tries to make money spending it concentrates on spending.

The banker or the financial consultant, if I put it this way, every company can have a financial consultant, the financial consultant or the debt manager is the Central Bank, so the internal debt thus various amounts, they have collected at various times the interest payments that have to be made. All track or accounting track or accounting information in an accounting frame work alright, debt is maturing every point probably.

All this management of public Debt internal or external is done by the Central Bank, this is the facility again which as a account holder in a commercial bank, I would not get it from the commercial bank. Commercial bank would never offer that service to me, I may have to hire a financial consultant to get that service, but as a governments banker the topic is governments banker alright or government banker. These are like the normal duties or functions of the Central Bank, this is all I am trying to say alright fine.

Now finally, I come to last point which is very important in India, you know in India what we have been doing, since 1950 1951 you took that Indian economics course from me. They, have been following the Russian model of economic development 5 year plans, just now today they were talking on TV about the cabinet meeting regarding final approval of the 12's plan. Today, they were talking on TV, today cabinet meeting is there, they are to going to took up more reformations, they are talking about foreign direct investment to come in larger amount, in pension in insurance.

And all that which take all big ticket free forms, and they are also talking about approval or finalizing the 12th 5 year plan. Which, planning commission drafts in consultation with various ministries and various organizations, but this final approval depends upon the cabinet nod. Now, these 5 year plans what do they need what do you see when you open a 5 year plan, what they have been doing, what they want to do? What should be the expenses in the coming 5 years?

What should be the broad projects? Policies that they should pursue both at the micro level and at the macro level, so they require funding financing which every year, the budget announces for one year only. Budget is essentially an implementation of those board guidelines, plus some temporary things that may come up. Nothing else, budget

gives practical shape to the 5 year plans, which is a projection over 5 year period and the budget is an annual budget.

So, year to year they go monitoring, spending, allocating funds, under various projects, they have already announced in some sense broad policy guidelines are already there in the 5 year plans. So, now, you can imagine in the 4 country like India we have 5 year plans, ambitious plans where is the money going to come from. So, this head ache about financing the plans, which is a big issue how do you finance your 5 year plans under infrastructure energy will get this, irrigation will get this transport will get this etcetera alright.

Then urban development then social sector, now where is the money going to come from, here again RBI is consulted. RBI becomes a financial consultant to the government of India, and also I think it does become a financial consultant to the state governments if they require their expertise help expert help alright. So, you become an advisory body you become an advisory body a very important one for the government, so as government banker it has it has to do, so much.

Again this is true for all countries and remains do advise very important, now I come to the one's which you are really interested, laboratory policy staff which I am also interested. A government banker or governments banker, I do not know how they put it professor Boulez hook you can check now I have banker's bank banker's bank this is very interesting third point banker's bank.

So, all bank all bank all banks also have a bank, there is a very famous say in the monetary economics, literature the banking literature this I need to come to and, but I will come to that later, but I can mention that. She was asking me sir what is the meaning of this expression, this is very famous expression lender of the last resort here comes, the lender of the last resort function which Central Bank always had.

Just not new under this heading called banker's bank, what is the banker's bank doing banker's bank means if bank needs money where will it go, we need money we take a loan from a bank. Against securities may be there are restrictions, specifications outlined which we have to follow, fill out this form and get that that certificate, you know. Even to get a job how many certificates, birth certificate, transcripts reference letters, so many

things now to take a loan you would not believe me, how many papers you have to fill in...

Now, when a bank needs money Central Bank, so it is a banker's bank very important, now this is the broad idea here. So, lender of the last resort means bank have no money, it has misused it is funds or in misplanned it is funds given out too much loan which is called creating credit. We saw we the deposits it has mobilized or collected, now depositors are saying give me my money, bank cannot say sorry we do not have your money. What do you mean?

So, bank cannot block and say sorry go home I do not have your money. So, in order to prevent that Central Bank is there to help out the bank or banks who need cash. Sometimes, the cash the amount they need may be large amount, sometime a small amount, now in order to ensure this role lender of the last resort as the Central Bank it lends to commercial banks.

So, nobody there is there to help them, ensure that after the 1930's depression, they created certain rules of the game in the banking industry. One of them is the famous CRR, this came into existence, so as banker's bank, if I have to perform this role, then they created something called CRR Cash Reserve Ratio. This is essentially what they have created Cash Reserve Ratio ensures the Central Bank has some of your money.

So, in case you are in trouble I will use your money to help you out, very smart they did not have that in the 1930's depression. So, when bank after bank and hundreds of banks started failing one after the other Central Bank had no cash to bail them out, a similar situation was coming up with the recent financial crisis 2008 09. And Central Bank had no way of bailing them out, reason is their own creation called CRR, the deposit rates have to dare CRR rates have gone down to near 0.

They were so overconfident, they created it where as traditional country like India who is very cautious conservative had a very high CRR here 7 percent. The 7 percent of the role deposits is a huge amount of cash huge amount of cash, 7 percent, 1 percentage point CRR the liquidity increases in the banking system by thousands of Crores. 1 percentage point, suppose Central Bank announces RBI, we are going to lower the CRR from 8 percent to 7 percent, the liquidity that is the extra cash now that will be available with the bank.

And no longer RBI will keep them, is to the tune of 25,025 30,000 crores, the total deposit is. So, much of the organized banking system I am talking about not the on organized sector alright. And not even the non banks, non banks are not directly under the regulation of Central Bank, usually if they are trying to do that there is no CRR usually there. So, now, this CRR and the they are is one of the methods, they used to serve that function, lender of the last resort.

So, what I do essentially there are say 50 banks whose CRR money is with me, now one of them is in trouble the 50 banks CRR money is a lot of cash 7 8 percent is a lot of cash. So, for RBI to bail out one bank is no big deal no pressure this is the lovely thing they have created, interesting allowed the countries who discovered this or created this instrument they do not follow that. I was reading up my monetary economics book a few a year back year and half bank of Canara CRR is 0 percent bank of Canara CRR is zero percent is and non banks also started faltering you know all right.

So, we will come through that those issues rather those are the issues probably she will deal wither in a thesis all right. Now, as banker's bank what else does it do as lender of the last resort is one of the functions CRR was creator for that, what else. It provides short term funds all right I will come to there is a repo etcetera becoming quite common, short term funds, it provides a centralized clearing facility. I told you centralize clearing facility RBI, so it needs to just debit one account credit another account, because this rupee is going to go for state bank to bank of Maharashtra.

There is a check that arrived in state banks, some account where the check is written in favor of my the money has to be debited from say Canara bank. All it will have to do Canara bank account like a central room you are sitting with a representative from each bank, and you see now (()) otherwise it used to take a long time. So, centralized clearing facility is one of the things, then they also provide as banker's bank remittance facilities.

Remittance facilities are also provided, if bank wants to remit money , suppose you are talking about in the globalize world you are talking about Punjab national bank, opening an opening a branch in Toronto. The Toronto branch needs some cash urgently, Punjab national bank will have to remit the money, how will it remit the money. Punjab national bank cannot deal with foreign exchange directly, so it will go to RBI, RBI will prepare

the dollar draft, sent it to there by electronically even they concerned it these days that money to Toronto branch the Punjab national bank.

In fact, in Canada I found there was a state bank branch, they have Indian banks have branches abroad now, some of them big ones. So, they provide remittance facilities for banks imagine, we go to banks for remittance facilities, a banks require remittance facilities usually foreign currency remittances. Usually, I think and there the Central Bank offers them the remittance facilities, so bankers bank it has number of functions some of them are very common sense functions, some of them are very important monetary policy functions etcetera.

Like, the ensuring the safety of public money, it commercial banks and commercial banks we were talking about your reading, commercial banks create some sort of excessive private money by giving out too many loans. We saw with the deposit it has collected, now the deposits require payments interest payments, I do not have cash because I miss planed my investment activities. How to control that, a regulator need to control that one?

One function that a regulator performs is regulatory function is that the Central Bank of the country can keep CRR money, then that money is there safe money is there, which they can use pre cautioning money, which they can use to bail out a bank. This is the commonsense she just started reading on recent 2012 paper, Saturday reading on that doing a PHD thesis etcetera. So, these are the regulator's functions alright bankers bank, now you would really like it because this is the part which is coming to something called monetary policy.

The one I am coming to know, which is in the code of the Central Banks monetary policy functions, that fourth item I am going to talk about is controller of credit. This is very important, this is the one that we talk about in monetary policy controller of credit, credit is something which banks create. And there is something called credit multiplier, you all learned that credit multiplier, I told you in the money supply topic credit multiplier.

We have a deposit, but one deposit in the banking system creates multiple amount of money is a multiplier, and also from within the bank if bank collects 100 Crores of deposits. After CRR deduction reserve money deduction the excess Reserve Bank will keep for withdrawals etcetera, from 100 crores, they can create 500 Crores worth of

credit. You wonder how do they do that, 100 crore (()) deduction 100 crores (()) may be 30 crores, 40 crores. From 30 crores, 40 crores they create a multiplier which is 8 times more or 5 times more or 10 times more, how is the credit created, because these are the loans that the bank promises on the basis of that base money. On which a part of the deposits they have collected, as credit and the credit multiple is, so large because this money when they promise to company A company B company C company D etcetera.

Various amounts of loans, they do not release the funds immediately, they open an account and they say every 2 months I will deposit 30,000 rupees. Towards that loan that we have sanctioned you, and in a 2 year 3 year period finally, the 10 crores worth of loan will be given to you not over night. So, with a base money they gamble, they promise more loans this is called credit multiplier from within a bank alright. This is where the game they would have to play as a banker, good banker and they also anticipate the some of the loans that they given in the past will also mature and the money would come in.

The problem starts the problem starts if suddenly there is an extra hurdy or rush to withdraw funds by the depositors, which banks did not anticipate. Second, the money that was supposed to come in from past loans, did not arrive on time. So, there becomes a mismatch already I promise so much loan, I have to make the interest premiers on the deposits. The deposits are withdrawing too much I have assured a funds mismanage by financiers. So, good banker knows how much loan it can create, when deposits come in.

What is the correct amount on deductions one has to make, so it deposit a 100 Crores CRR (()) sir 30.5 Crores (()) 30.5 Crores how much loan they we give, this is they have to calculate. Here comes the role of the regulator also, a hungry greedy bank will create too much loan and then cannot manage it (()). A cautious one will create lesser amount of loan (()) take profit the other guy another bank may act differently, so here comes just like businesses, every business is run by a group of people is their mind, their expertise, their vision, their knowledge, all together decide.

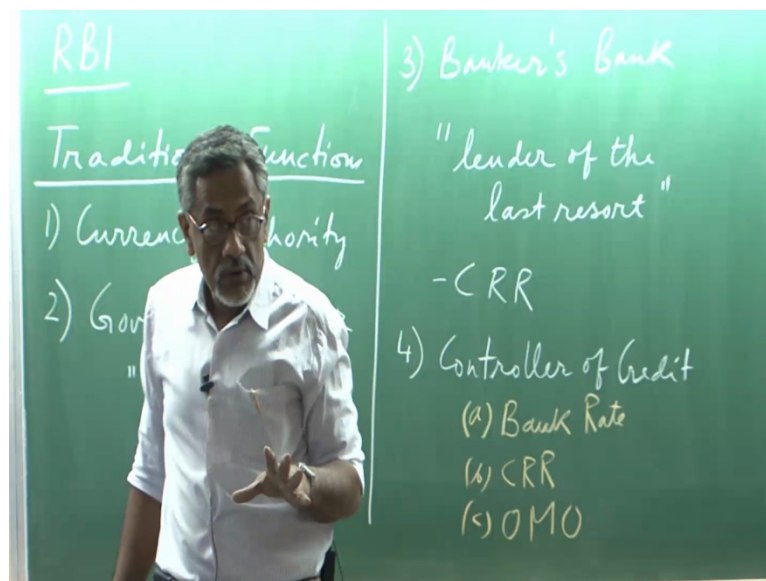
How the business is run (()), initial training all of you may have at IIT Kanpur, but then 4 people here, 3 people there open, their one businesses and you see the performance of the businesses achieved are different. Because, the minds involved in this business at different set of people, similarly for banks same 32.2 Crores or 5 Crores, how they would

manage, their banking business in terms of loan creation etcetera depends would vary from bank A to bank B to bank C.

I need not going to it, so controller of credit at the macro level, when banks deals with public money, because it is very important for the government and government does that through Central Bank. How to control credit, suppose there is excessive credit getting created, banks see the economic booming company is asking for funds. How to invest and banks are just opening their lockers, and you know in a cabinet society. There is something called a bubble, and the bubble bursts tomorrow crashes loans are defaulted banks are sitting on the straight, doors , which is called bank holiday.

It is an expression for that you do not want that, so since banks deal with public money ultimately it becomes the responsible of the state, to make sure that banks do not create excess credit banks do not behave irresponsibly. Now, how to do that? This is the kind of think she was trying to reed, I was trying to explain to her yesterday, how to do that. This is the job of a good regulator, so in a cabinet system markets play a role I understand, markets have to be free I understand that, but there is still a role for a regulator. In the monitory system the regulator is the Central Bank, and controller of credit is an important function as a regulator the Central Bank has to perform.

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It is a very important function, now traditionally, I am doing traditional functions there are 3 monitory policy instruments which control credit which can control credit, these

are monetary policy instruments control of credit. So, I would just mention them, but I will take them up, tomorrow what are the 3 instruments they are called monetary policy instruments or credit control instruments.

One called bank rate, one is called bank rate b is called Cash Reserve Ratio CRR and c they are called Open Market Operations OMO open market operations. So, one is bank rate one in cash reserve ratio another one last one is open market operations. They are controller of credit or credit control instruments, another expression for them are they are very conventional or traditional money monetary policy instruments. And why they are important I told you from the point of view of macro economics it is important, from the point of view of regulatory functions, you allow your child to do whatever he wants do to in a free society.

You allow child to be free with some restrictions, which is better, so the regulators role is very important well Central Bank is the regulatory in the money market Of the money market and these are all parts banks etcetera part of the money market. So, I want to talk about these bank rate CRR and open market operations, 3 instruments credit control instruments, both from a macro prospective and also from the point of view of credit control instruments.

They come under something called controller of credit, RBI is the controller of credit in India, the guardian of credit control means RBI is the main regulatory authority, because it is the Central Bank. No big deal every countries Central Bank does that RBI also does it, so now, we are running out of time only 5 6 minutes, I rather not begin all these things alright discussion of these items and I do it tomorrow.