

Financial Institutions and Markets
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Lecture - 18
Monetary Policy Instruments

Good morning. So, in the previous class we started the discussion on the Reserve Bank of India, its about the basic functions of Reserve Bank and as well as the major objectives of the Reserve Bank. And, one of the major objectives of the Reserve bank is the conduct of the monetary policy. Because, as you know that there are three different measure policies always we observe for functioning of the economic system: one is monetary policy, second one is fiscal policy third one is the foreign exchange policy.

So, this monetary policy is totally regulated and controlled by the central bank and Indian context this is the Reserve Bank of India. And, the fiscal policy is controlled by the government itself and the foreign exchange policy also is governed by the Reserve Bank of India. So, there are the three major policies always we see. So, today we will be discussing about different type of instruments what the central bank always uses for the conduct of the monetary policy.

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Objectives of Monetary Policy in India

- To accelerate economic development in an environment of reasonable price stability,
- To develop appropriate institutional set-up to aid this process
- To help in achieving the financial market stability

Handwritten notes:
Volatility, Liquidity, GDP, Price Stability → Growth rate → Interest rate ↓ Investment ↑ Savings ↑, Inflation (circled), Price level ↑

So, let us see that what are the basic objectives of the monetary policy in the actual sense. So, as you know the basic objective of monetary policy is to increase or accelerate

the economic development in an environment of reasonable price stability. Because, if you see that always we have major two objectives: one is your price stability and another one is increase in the growth rate.

But particularly in the country context we call it the GDP growth rate, but the price stability and GDP growth rate basically does not go together. Why? Because, you see if for example, we are changing the interest rate. So, if we are declaring the interest rate then what will happen the money supply will increase because, more banks can provide the loan or more demand for the loans will be there.

The money supply will increase, then investment will increase; if investment will increase, then the output will increase. Then if output will increase then obviously, the growth rate of the GDP will increase. But at the same point of time, if your money supply is increasing it will also increase the price level, so that means, there will be inflation. So, this is a very tricky task for the Reserve Bank or the central bank that whatever way the monetary policy can be implemented; by that both price can be stable or the price stability can be maintained and as well as the economic growth also should not be hamper.

So, this is the major objective whatever we have in terms of the monetary policy. And, second one is to develop the appropriate institutional set up to aid this process and how this particular process will work because, there is a channel which works in this particular context. And, for the smooth operation of this particular channel we need one appropriate institutional set up and the Reserve Bank of India is a responsible to see that in this context how the commercial banks are working.

What are the effectiveness of this bank credit channel in this particular system? And all kinds of instructional set of always looked upon by the central bank for this smooth conduct of the monetary policy of that particular country; that is also another thing we have to keep in the mind.

Then, another objective of the monetary policy is to achieve the financial market stability, and again and again we are telling that the market should be stable; that means, you see in a general sense stability means basically what. Always we ensure that the market should be fluctuating, the market should be volatile. Why volatile? Because, this is a desired concept unless the market is not volatile may be people will not be interested

to invest in that particular system. But, the volatility is required up to a particular level or a particular range.

Let the volatility can be accepted to a particular range. But, beyond that limit if the price is fluctuating then we can say the market is unstable; that means, too much volatility leads to instability. So, volatility is a desired concept desired phenomena, but whenever we are talking about too much volatility then it is basically an undesired concept or undesired phenomena.

So, basically in a true sense volatility is required, but whenever we talk about the instability, it is basically undesired. So, one of the basic objective of the monetary policy is that they can control that particular volatility by that the market can be stable. So, these are the three major objectives of the monetary policy in India.

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Framework for Monetary Policy in India

- Money supply can't be the only control variable of monetary policy as it is not exogenous i.e., it is not fully under their control must have led them to adopt the approach as indicated.
- There are two major elements which are virtually outside our control, namely (a) the increase in monetary supply corresponding to inward remittances of foreign exchange, and (b) the requirement of credit for financing the purchase of food grains.
- Monetary policy instruments ----- Intermediate Targets ----- Output
- RBI regards money supply and the volume of bank credit as the two major intermediate variables

Handwritten notes:

- Money supply $\uparrow \downarrow$
- Disinflation output price stability
- $Y = f(r, M, K)$
- instruments → monetary credit → bank credit → M2 → M3 → monetary for foreign

Then, if you see the next is how the framework for the monetary policy in India basically works. Already I told you that the monetary policy is basically works in a particular system, there is a proper framework is existing for the conduct of the monetary policy. So, again we can go back to our discussion; that whenever you talk about the policy there are two debates. The basic instrument is we have to change the money supply. If the money supply can increase or decrease depending upon the investment, output, and price stability all these things basically get affected. So, the question here is whether the money supply is an endogenous or it is exogenous.

What do mean by endogeneity and exogeneity? The endogeneity means basically that depends upon some other variables. If you want to change then how this particular endogenous variable determined, then that is Y , then Y should be a function of x . And, here the x is basically what the exogenous variable which can be controlled by the regulator, if you want to change Y then you have to change the x .

So therefore, the question here is whether the money supply is endogenous or it is exogenous. If you go by the economic theories there is a debate that whether the money supply is endogenous or money supply is exogenous. So, according to Keynesian framework money supply is exogenous. Whenever the regulator or the central bank wants they can change that money supply on the basis of the requirement to control the price or to increase the growth rate. But, the question here is in a true sense if you see the money supply is not exactly exogenous or money supply cannot be exogenous.

Then why this money supply cannot be exogenous? If you talk about in our countries context that there are two factors which affect the money supply, but this is not in the control of the regulatory bodies like Reserve Bank of India. What are those factors? One is the inward remittances of the foreign exchange. How much foreign exchange is coming to India, they enclose and the requirement of credit for financing the purchase of the food grains.

But the requirement of the credit for financing the purchase of the food grains that depends upon the various other external factors like monsoon, then the demand for that particular food grain all these things. So, how much production will be there in that particular point of time whether the particular country has to buy the extra product or the particular is an excess amount of the product which has been produced. So, there are different factors which are responsible for this.

So, the RBI or the any central bank cannot decide that how much money is required to buy the product at that particular point of time or how much loan can be given or should be given to procure that amount of the product particularly food grains. So, this is not in the control of the central bank or the RBI and another one is how much foreign exchange is coming to India in that particular period; and what those two variables, how that impacted the money supply.

So, in a practical sense the money supply cannot be exogenous at least for the Indian context because, the total money supply cannot be controlled by the regulator. So, if the money supply cannot be directly controlled by the regulator or cannot be changed by the regulator, then what basically we are thinking of? We are thinking of a framework and how that particular framework looks like; if you see this framework we have a framework like this. We have to change certain instruments, there are certain instruments has to be used to change the money supply.

So, these instruments will have the impact on the money supply, on here the money supply and bank credit are the intermediary targets or intermediate targets. These are the two variables which are the intermediate variables in our context. Then finally, if the money supply gets changed and the bank credit gets changed or the bank credit mean the amount of loans where the banks are giving; if those things will change this will have the impact upon the investment and finally the output. So, this is the way the channel works. So, that is basically you call the monetary policy framework.

So, then the question is that intermediate target is money supply and the bank credit and final outcome variable is the either price stability or the output. And, the question here is, what is the instruments through which monetary policy can affect the money supply and as well as the bank credit? So, these are basically we call it the monetary policy instruments. So, our basic discussion is basically to try to identify which are those instruments the commercial banks or the reserve bank always uses to change the money supply or the bank credit. And finally, the output variables like your price stability or inflation and the GDP growth rate get affected.

So, let us see that what are those instruments basically we used as the monetary policy instruments for India?

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The slide is titled "Monetary Policy Instruments" and lists two main categories:

- **Open Market Operations (OMOs)** ✓
 - Sale/ purchase of Government securities to/ from the market with an objective to adjust the rupee liquidity conditions in the market on a durable basis.
 - Excess liquidity in the market tends to sale of securities thereby sucking out the rupee liquidity.
 - Illiquidity condition tends to buy securities from the market, thereby releasing liquidity into the market.
- **Bank Rate**
 - It is the rate at which central bank allows finance to commercial banks.

Handwritten notes on the right side of the slide:

MS (High)
↓
Sale the Govt. Securities (OMO)
↓
Excess Money
↓
Contraction of money
↓
in the market
↑

The slide also features a video feed of a presenter in the bottom right corner and logos for "swayam" and the Reserve Bank of India in the bottom left corner.

So, there are many instruments we have over the years the Reserve Bank of India is using as the instruments for the monetary policy; the first instrument which is very popular in the market that is called the open market operations. What basically the open market operation means, the open market operation in an actual sense is nothing, but it is the buying or selling of the government securities to adjust the liquidity conditions in the market. What does it mean?

If for example, the money supply or liquidity is very high in the market. If the liquidity is very high in the market, then what this Reserve Bank of India can do. The Reserve Bank of India can sell the government dated securities. So, if they sell the government security then what they can do, they will suck out the money which is available to the public to them.

Against that they will provide these bonds or government securities and money will be basically going to the Reserve Bank of India. So, the total circulation or total availability of the money in the economy or with the public will go down. Then obviously, what will happen it will basically reduce the money supply and the other channel will work accordingly. The reverse can work whenever there is an illiquidity or the money supply or the liquidity condition in the market is very low or there is illiquidity in the market then what Reserve Bank of India can do.

Reserve Bank of India will buy the securities from the public or from the market. So, if they will buy the securities from the market then what will happen; they will pay them and against the bond whatever these banks and other market participants are holding, they will take that bond with them. Then more money will be coming into the market and therefore, the money supply or the liquidity of the market can go up.

So, the open market operation is nothing, but buying and selling of the government securities to create the liquidity or to inject the liquidity or to observe the liquidity from the market. This is one of the instruments which is used by RBI to change the money supply in the economy. Then another one is bank rate, by changing the bank rate also which was popularly used before. Nowadays it is not a very popular instrument which is used to control the money supply, but in 90s it was used as a popular instrument, as the popular monetary policy instrument to control the money supply.

What is the bank rate? The bank rate is basically a rate at which the commercial banks can borrow from the Reserve Bank of India. But the bank rate is relatively a long term rate; the bank rate does not change frequently. The bank rate is the rate at which the central bank allows finance to the commercial banks or in otherwise the commercial banks can borrow from the central bank. So, if the bank rate will increase then the availability of the money supply will go down.

Because, the bank rate will increase, then the market lending rate will increase. The market lending rate will increase then the demand for money will go down, then available of money to the public or to the market also will go down then the money supply will go down. And, this reverse thing can happen whenever the bank rate will be less or bank rate will be low. So, there are two instruments.

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Monetary Policy Instruments Cont...

- **Cash Reserve Ratio (CRR)**
 - The CRR refers to the cash which banks have to maintain with the RBI as a certain percentage of their demand and time liabilities.
- **Statutory Liquidity Ratio (SLR)**
 - It is the percentage of total deposits banks have to invest in government bonds and other approved securities. → Highly liquid
 - There are three objectives behind the use of SLR: (a) to restrict expansion of bank credit, (b) to augment banks' investment in government securities, and (c) to ensure solvency of banks.

Handwritten notes in blue ink:

- CRR ↑ ↓
- Bank ↓ ↑
- Deposits / Bank / Time ↓ ↑
- Highly liquid (with arrow pointing to SLR definition)

Then, the other instruments are if you see that another one instrument is the cash reserve ratio, which is again and again used by the Reserve Bank of India to control the money supply. What is the cash reserve ratio? Cash reserve ratio is nothing, but it is the cash which the banks have to maintain with RBI as a certain percentage of their demand and time liabilities. Here if you remember, what do mean by this demand and time liabilities? It is nothing, but the deposits your saving deposits or the time deposits or the fixed deposit.

So, certain percentage of the total deposit has to be kept with the RBI as the reserve. It is 6 percent or 7 percent; it varies on the basis of the liquidity condition in the market. And, here if your CRR is increasing then availability of the money to the bank will go down then; obviously, your money supply will go down. If CRR will be less or will decline then money available to the bank will go up then money supply will go up. So, this is also the way the Reserve Bank of India by changing the cash reserve ratio can control the money supply.

Then, another one is your statutory liquidity ratio, which is popularly known as the SLR. What does it mean? According to the RBI regulations there is a mandatory percentage of the total deposits, what the commercial banks have to invest in the government bonds and other approved securities; mostly the securities which are highly liquid. Certain

percentage of the money should be invested in the government securities or highly liquid bonds.

But the question here is, why it is so? It is so basically to restrict the expansion of the bank credit because, the commercial banks may not be free to use their funds in whatever sector they want to use it. To increase the banks or to augment the banks investment in the government securities and to ensure the solvency of the banks which are very important. What does it mean? The solvency of the banks means, once stipulated amount of the money is invested in the government securities, then if there is any kind of crisis or any kind of instability probability is there, then, what will happen.

Those kinds of instruments are risk free more or less there is a perfect kind of guarantor for that because this is guaranteed by the government. So, in that context what will happen the bank can basically get out of that any kind of liquidation or the insolvency? So, that is one kind of security what the bank always should have, if they have invested some funds in the government securities and as well as also controls the money supply. So, this is the basic objective of having the SLR instruments or SLR kind of instrument for conduct of the monetary policy.

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Monetary Policy Instruments Cont...

- **Direct Credit Allocation and Credit**
 - Controls the distribution or allocation of credit among different sectors, borrowers, and users through the fixation of specific and direct quantitative credit ceilings or credit targets
 - Restricts drawing power of borrowers under cash credit limits
 - Certain prescribed credit-deposit ratio in respect of their rural and semi-urban branches separately
- **Selective Credit Controls**
 - They are used to reduce the supply of credit in certain directions and to encourage it in desired directions

Then which are those other instruments? These other instruments are the direct credit allocation and the credit. You see the Reserve Bank of India also control the distribution of allocation of the credit among different sectors. There are some priority sector, some

amount of loans should be given to the priority sector and there are some sectors which are highly risky sectors. The loans given to those sectors also should be controlled, that is basically this guidelines what the Reserve Bank of India has given. So, by controlling this what they can do, they basically go for a fixation of specific and direct quantitative credit ceiling and credit targets.

Then given the limit that how much loans can be given to that particular sector or particular company or particular individual and as well as which are the sectors also should get some loan. Like the priority sector, like the agricultural sector, and small scale industries and etcetera which restrict the drawing power of the borrowers under the cash credit limits. Certain prescribe credit deposit ratio also already given in respect of their rural and semi urban branches separately, that mean the 60 percent credit deposit ratio should be there. Credit to deposit ratio should be at least 60 percent and that credit deposit ratio can vary across the regions.

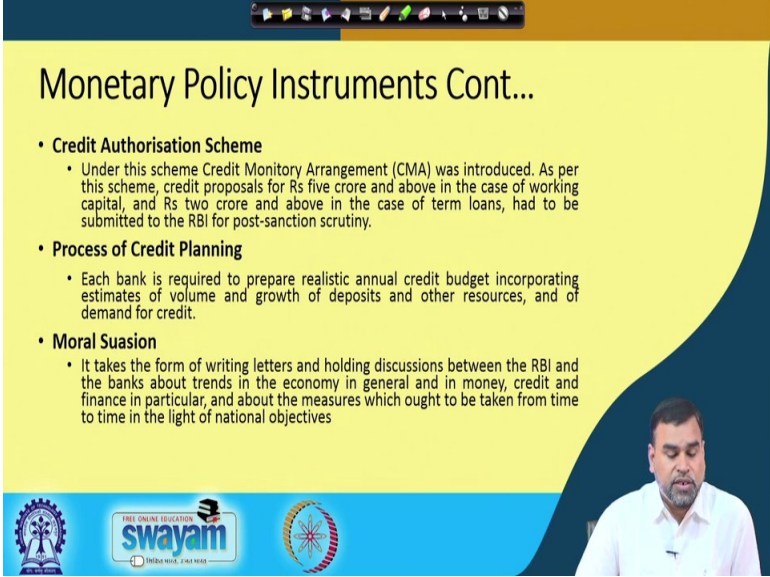
Some of the banks may be in the rural areas some of the banks in the urban areas. So, depending upon the credit worthiness of the customers or the individuals or the different kind of borrowers the Reserve Bank of India has fixed this credit deposit ratio for the different type of customers. So, this is what basically the one of the instrument through which they can control the money supply in the system. Then we have another instrument we have selective credit control. Why basically the selective credit control is there; because, they are use to reduce supply credit in certain directions and to encourage it in desired directions. Why? Basic objective of selective credit control is to stop the hoarding.

What is basically happening at the time of low price sometimes what has been observed, some of the producers can hoard that particular product by taking more loans from the banks and in the future period they can sell it under the higher price. So, RBI basically is ensuring to maintain the price stability. What basically RBI does? What is the central bank does? They can regulate, they can control that particular entity or particular sector in terms of providing the loans.

So, if the loans can be restricted automatically it can discourage the hoardings and as well as the price fluctuations also can be controlled through that. So, the selective credit

control is also a very quiet old measure and RBI also use it as one of the monetary policy instruments whenever it is required. Then what are those other instruments?

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Monetary Policy Instruments Cont...

- **Credit Authorisation Scheme**
 - Under this scheme Credit Monitory Arrangement (CMA) was introduced. As per this scheme, credit proposals for Rs five crore and above in the case of working capital, and Rs two crore and above in the case of term loans, had to be submitted to the RBI for post-sanction scrutiny.
- **Process of Credit Planning**
 - Each bank is required to prepare realistic annual credit budget incorporating estimates of volume and growth of deposits and other resources, and of demand for credit.
- **Moral Suasion**
 - It takes the form of writing letters and holding discussions between the RBI and the banks about trends in the economy in general and in money, credit and finance in particular, and about the measures which ought to be taken from time to time in the light of national objectives

The other instruments are like we have the credit authorization scheme. Here under this scheme what basically happened, the credit proposals for rupees five crore and above in the case of working capital and two crore and above in the case of term loans has to be submitted to the RBI for the post sanction scrutiny; because, every companies need the working capital finance. If the working capital finance and the day to day finance, if they want from the commercial bank and with the amount of money is going below the five crore they need the prior approval from RBI; the bank should take approval from RBI this is the number 1.

And number 2, if it is an individual entity who taking the loan more than two crore then what is happening for that also the prior approval is second from RBI. And, through that process RBI tries to control that what kind of customer is taking the loan and for what purpose the loan is given. It has two objectives: one is to control the non-performing asset in the system and as well as to control the amount of money supply to the system at a particular point of time. So, this is basically defined as the credit authorization scheme under that we have credit monetary arrangements through which this particular mechanism works. Then we have a process of credit planning. What do we mean by the process of credit planning?

You see each bank is required to prepare a realistic annual credit budget, incorporating estimates of the volume and growth of deposits and other resources and the demand for credit. That means, RBI has given the kind of information or given certain kind of notification to all the commercial banks to prepare the budget for their credit allocation, and as well as that what kind of deposits they are expecting in that particular year. Forecasted figure of the real increase of the deposits or the expected demand for the credit that thing and all those details has to be prepared from the beginning.

And once the proposal is ready it is subject to change, but at least the proposal from the beginning should be ready. And proper planning has to be done to ensure that the money supply in the system and a particular point of time can be controlled. So, in this context if there is a proper planning which exist then that can go to RBI and RBI is ensuring that this is the way the money supply is going to be there in the next period. Then moral suasion means what, it is basically writing letters holding discussions between RBI and the banks about the trend in the economy in general. And money credit and finance in particular about the measures which ought to be taken from time to time in light of the different objectives.

And, the objectives are basically nothing what the price stability and the increase in the growth rate. So, this is basically informal kind of way of controlling the money supply. Because, if RBI feels that the bank needs advise or they should understand or what is the economic scenario. And, what kind of demand should be there for the credit and as well as whatever amount of deposits should be there in that particular system or that particular point of time. So, depending upon the economic conditions what basically the RBI and banks decide that how much loan can be given in that particular point of time. So, because of that the moral suasion is one of the instrument which also can be used.

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Monetary Policy Instruments Cont...

- **Liquidity Adjustment Facility (LAF)**
 - LAF enables liquidity management on a day to day basis
 - The operations of LAF are conducted by way of repurchase agreements (repos and reverse repos) with RBI being the counter-party to all the transactions.
 - Repo or ready forward contract is an instrument for borrowing funds by selling securities with an agreement to repurchase the said securities on a mutually agreed future date at an agreed price which includes interest for the funds borrowed.
 - The reverse of the repo transaction is called 'reverse repo' which is lending of funds against buying of securities with an agreement to resell the said securities on a mutually agreed future date at an agreed price which includes interest for the funds lent.
 - The interest rate in LAF is fixed by the RBI from time to time

Logos: Swamyam, Reserve Bank of India

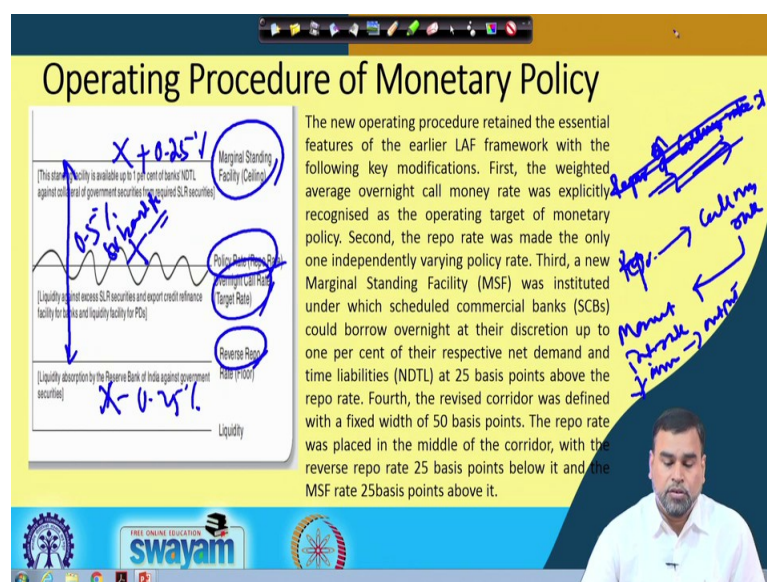
Then the most important instrument which is basically done by RBI in today's context that is called the LAF: Liquidity Adjustment Facility. You are already aware about the reverse repo rate, repo rate. So, these are the different rates which are used under this LAF or the liquid adjustment facility and it is basically manages the liquidity on a day to day basis. So, the operations of LAF is conducted by way of repurchase agreements, repo and reverse repo with the RBI being the counterparty for all the transactions.

What basically happens repo contract is basically an instrument for borrowing funds by selling securities with an agreement to repurchase the said securities and mutually agreed future date at an agreed price which includes interested for the funds borrowed. That means the commercial bank will borrow from RBI. Here the commercial bank will borrow from RBI with an agreement that the security can be repurchased further with the interest rate. And, the reverse repo rate is, which is the lending of funds against buying of securities with an agreement to resell the said securities on a mutually agreed future date at an agreed price which includes the interest rate at the funds lent, it is reverse.

This repo rate is charged by RBI and the reverse repo rate is basically charged by the commercial bank. So, if the commercial bank wants to borrow the money for overnight basis from RBI they wants to borrow at a repo rate with the agreement that the money can be again given back to the RBI. And, again if there is any express kind of money which is available with the commercial banks then RBI can take out that money from

commercial bank, it can be parked in RBI. And, that is basically rate for that RBI with paid from interest to the commercial bank that is basically the reverse repo rate. And, the reverse repo rate and repo rate both are basically always change from time to time by the Reserve Bank of India.

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So, using this repo rate and reverse repo rate, a monetary policy operating procedure has been established. In the current context if you see the RBI wants there should be corridor. So, this total one is basically your corridor. So, here in the corridor they have a single policy rate that is the repo rate and in the below which is the floor that is the reverse repo rate and the above they have a marginal standing facility rate. What basically happens and here if the repo rate is X your marginal standing facility rate is X plus two point 0.25 percent and a reverse repo rate is X minus 0.25 percent.

That means the total corridor is 0.5 percent or the 50 basis point. So, what is the objective and the target rate is the call money rate. The mechanism works like this, if repo changes repo increases. So, it will change basically the call money rate call money rate means the interbank lending rate. It will have the impact upon the call money rate. So, if the call money rate changes we can define it in this way; if repo will have the impact upon call money rate, the call money rate changes then the market interest rate or the lending rate changes then; obviously, your investment and output also gets changed.

So that means, the RBI always ensures that the call money rate should be below the marginal standing facility rate. What is the marginal standing facility rate? The marginal standing facility rate is little bit more than the repo rate. So, if RBI wants to borrow or wants to lend more money to the commercial bank or commercial bank wants to borrow more money from RBI. So, they can borrow at a MSF rate after their limit is over in terms of a repo rate. So, then at that particular point of time RBI ensure that instead of going to RBI they should go to the call money market. Call money market means one bank and borrow from another market another bank.

So, that can what is happen the total amount of the money supply will not get changed. So, the RBI's target is maintained if the overnight call rate or the call money rate is below the marginal standing facility rate. The only whatever target RBI has made that particular target can be maintained over the period of time. So, if at any point of time the marginal standing facility rate will be cheaper than the call money rate, then the commercial banks will prefer to borrow from RBI. Once the money is coming from RBI, it will affect the total money supply then automatically it will affect the price stability and other issues.

So, that is why RBI will have ensures that this corridor should be maintained and once the corridor is maintained then, the whatever forecasting and the planning has been made in terms of the price stability and growth rate that will not going to be affected in that particular period of time. So, this is called the operating procedure of the monetary policy. But there are certain challenges; there are certain revisions which have been made in terms of the monetary policy that will be discussing in the next class. This is what basically we are discussing today. Next class will be talking about the challenges and as well as the autonomy of the reserve bank.

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Please go through these particular references for this particular session.

Thank you.