

Financial Institutions and Markets
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Lecture – 37
Call Money Market – II

So in the previous class, we started the discussion on the Call Money Market. So, already what we defined that call money market is a short term money market, where the particular instruments which are available their maturity period varies from 1 day to 15 days and if you consider the overall money market maybe the maturity period is relatively longer.

And here already also we have discussed the call money market is also defined as the interbank lending market because the banks and primary dealers are only responsible or maybe the major participants in this particular segment or there only allowed to participate in a segment. And apart from the banks there are some standalone primary dealers who are also allowed to participate in this particular system.

Today, we will be discussing about certain issues related to the call money rate and how the call money rates are determined and as well as what are those factors which determine this call money rate or why the call money rates are relatively volatile. And apart from the call money market is there any other market which has related to this interbank lending market what is that still is different from the call money market which we have discussed in the previous class.

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Call Rates

- The rate of interest paid on call loans is known as the call rate. The call rate is highly variable from day to day, and often from hour to hour. It is very sensitive to changes in demand for and supply of call loans.
- The call rate has been freely determined by the market forces since 1989.
- Mostly the call rate in India is defined as **interbank call rate**.

Handwritten notes:

- Market determined
- Policy Rate
- Repo rate
- Price Variation
- Policy Rate
- Repo rate
- Reverse Repo rate

So, coming back to this discussion if you see the rate of interest which is paid on the particular call loans these are basically called as the call rate or the call money rate in short we call it the call rate. And if you see that the call rates are highly fluctuating or highly volatile it varies from day to day or it is highly variable from day to day and often from one hour to another hour. And it is very sensitive to the changes in the demand for and supply of the call loans.

So, already what basically here I was trying to tell you that the call money rate is market determined. It is market determined; that means, there is no such kind of regulatory body who decides this call money rate. The call money rate is always sensitive towards the policy rates and what do you mean by the policy rate? In the Indian context, already we have discussed this part, our policy rate is the repo rate.

So, since Reserve Bank of India has the repo rate and the change in the repo rate will have the implication on the call money rate because the intermediate target for the monetary policy is the call money rate. If you remember that whenever we are discussing about the corridor so, here we have a corridor here in the floor we have the reverse repo rate, then here we have the repo rate and we have the MSF rate or the Marginal Standing Facility rate.

And, what we have discussed that the call money rate should vary here; that means, it should be less than the MSF rate and the corridor has to be maintained to maintain the

price stability. So, if any kind of extra money what the banks required if they will go and borrow this money from Reserve Bank of India, then it will increase or decrease the money supply in the system. If they will go borrowing more money then it will increase the money supply in the system by that the price level will increase.

But, if you go by the MSF rate, if the MSF rate will be lesser than the call money rate then they will go to RBI, but MSF rate will be more than the call money rate then the borrowings will be done from the interbank lending market. By that what is happening that the amount of money supply in the system become stable or become same.

So, that is why the price level will be stable. So, that is why it is very much sensitive towards the changes in demand for and supply of the call loans which are basically done by the commercial banks or the primary dealers. So, previously the call money rate was determined by the regulator, but since 1989 the call rate is predetermined by the market forces, that already we have discussed.

And mostly the call rate in India is defined as the interbank call rate because it is an interbank lending market, we call it the interbank call rate in the context of India whenever we discuss about the call money market.

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Reasons for Call Rate Volatility

- Requirement for CRR needs create excess demand for liquidity in call money market
- Over extended credit position of Banks
- Occasional market disruptions
- Heavy withdrawal by Institutional investors
- Liquidity crisis in money market
- Sluggish demand in bank deposit with heavy pressure for non-food credit in the banking sector crating asset liability mismatch
- Causality in foreign exchange market and call money market
- Structural deficiencies in the Banking Sector

Handwritten notes:

- CRR* (circled)
- Excess demand for call loan* (written diagonally)
- 2007-80%* (circled)
- Just from liquidity* (written diagonally)
- Excess demand* (written diagonally)

The slide is part of a Swayam online education session, as indicated by the logo at the bottom.

Then, if you see that already I told you that the call rates are highly volatile. It is one of the highest volatile market which exist in the Indian financial system. Why the call rates

are highly volatile? Already we told that the call rates are highly volatile because the demand and supply of the call loans change frequently. The demand and supply of the call loans, if they will change frequently then automatically what is happening the call rate or the interest rate on the call money market also is going to be changed.

And how it is possible when why basically the demand for call loans and supply of the call loans change, what is the reason behind that? The first point is basically what already we have seen that is your CRR requirements. Whenever the CRR requirements increase the requirement of cash reserve ratio increases that creates the excess demand for liquidity in the call money market.

So, for example, if your CRR will increase or Cash Reserve Ratio will increase then the bank will need more money because to fulfill that CRR requirement because if they will not maintain the CRR because that is a regulatory norm. So, that is why that is a regulatory cost involved in that. So, to avoid that regulatory cost the bank always will be interested to maintain that CRR, if it will increase then; obviously, the demand for call loans will increase.

So, obviously, the bank will try to borrow with that particular required amount of money from another commercial bank within that particular call money market. So, that is one of the most important reasons for which the demand for call loans basically fluctuates; this is number 1.

Number 2: over extended credit position of the banks. What does it mean? Already we know that the banks basically provide the loans or the credits from the deposits. The deposit are the only source through which the loans and the credit can be given. But, at a certain point of time some of the banks may provide more credit than the stipulated availability of the deposits whatever they have.

If the credit amount is relatively higher and that particular point of time again all of sudden there is some kind of CRR requirements changed then; obviously, the dependency of the call money market will increase or we can say that the demand for call loans will increase or the bank also borrow from the call money market to provide that amount of loan to certain kind of the customers whether that may be for the industrial loans or it may be for the other type of loans what they wanted to give.

So, to provide more loans they sometimes depend on the call money market because they do not have enough deposit base available with them to provide that amount of loan if there is a demand for loan at that particular point of time; that is basically another reason. So, that is why the demand for call loans and the supply of call loans both are basically determined by the credit position over extended credit position of the commercial banks.

Then, we have the occasional market disruptions that maybe some kind of disturbances which can happen in the market. So, this particular disruptions are very short term in nature. As you know that the call money market is also a short term market, so any kind of market disruptions also will effect both the demand and supply of the call loans. So, in that particular point of time the availability of the or the requirement of the money in the call money market change.

Heavy withdrawal by the institutional investors; you see that whenever anybody keeps the money in the bank they have every right to withdraw the money. For some specific reasons if they larger depositors or larger investors of withdrawn that particular money in a single day or for some specific reason this withdrawal amount has increased then also to make this or to manage this short term liabilities or short term asset liability concept the commercial banks wants to borrow the money. Because they have made the calculations that how much money can be withdrawn.

The reserve requirements are basically already defined, the short term requirements are already defined. So, if the short term reserve requirements already defined or how much liquidity is there with the bank which can be kept as a access reserve to fulfill the customers demand that is already defined, but that has been predicted or forecasted before.

But, for some reason if the institutional investors of heavily withdrawn the money then the availability of the deposit or availability of the money to the commercial bank declines to fulfill the requirement of the customer or the fulfillment of the liquidity requirements. So, at that particular point of time or short term region they want to borrow from the call money market. So, that is why the call money demand or the demand for call loans basically can increase.

Then you have another reason we have liquidity crisis in the money market. The liquidity crisis means if let there is a very less money supply in the system money supply have

less liquidity because of availability of the money in the market is less. So, that particular point of time what will happen this Reserve Bank of India are the regulator we will change the interest rate. So, the change in interest rate will have impact on the lending rates because the policy rate will change.

The policy rate will change automatically the lending rates will be affected. If the lending rates will be affected accordingly your demand for money will be affected. So, if the demand for money will be affected automatically the demand for call loans also will be affected. So, that is basically we call to the liquidity crisis in the money market that will lead to the fluctuations of the call loans the demand for call loans or the supply of call loans in the particular system.

Then another reason if you see that this longest demand in bank deposit with heavy pressure for a non food credit in the banking sector. So, there are two types of credit what the banks give one is your food credits which were given to buy required food grains and another one in the non food credit which includes or different type of credit requirements like industrial loans, personal loans, then you have housing loans all kind of things are coming under the non food credit.

So, what is happening that if the demand for deposit is relatively less, but there is a huge pressure on this kind of loans in the market which basically makes the mismatch between asset and liabilities. The bank deposit is less, the demand for loans are higher. So, either in the market the opportunities are more that is why the industrial sector demand more loans or the market is conducive which is creating better investment opportunity that is why this investors or people are interested to go for more loans.

So, in that particular point of time what is happening that creates a clear mismatch between assets and liabilities. That mismatch between asset and liabilities also led the banks to go for more loans from the call money market. So, they can borrow the money from the call money market to cater the demand for the non food credit which are existing in the system in that particular point of time. So, that is why that is another reason which makes the changes in the demand and supply of the call loans.

Then already you know that all the markets are interlinked, money market, stock market foreign exchange market these are inter linked. If any changes which can happen in the exchange rate market for example, this rupee is depreciating against a dollar or RBI

wants to intervene to control that particular price fluctuations in this exchange rate market. So, that particular intervention in the foreign exchange market will affect the total aggregate money supply. If the total aggregate money supply gets affected then automatically what will happen it will have the impact on the call money rate. Why because the market interest rate will be changed.

So, any kind of changes, any kind of fluctuations in the foreign exchange market or it can be in the stock market, both the markets if there is any kind of changes which can happen, that has a spillover effect on the demand for call loans and supply of call loans because there is a inter linkage, the markets are highly integrated. So, any disruptions, any major changes which may occur in one of the market that can transmit to the other markets then obviously, the interest rate which is prevailing in that particular market gets affected by that. So, that is why any kind of causal because there is a causality so, the demand and supply also changes accordingly or the call loans also changes accordingly.

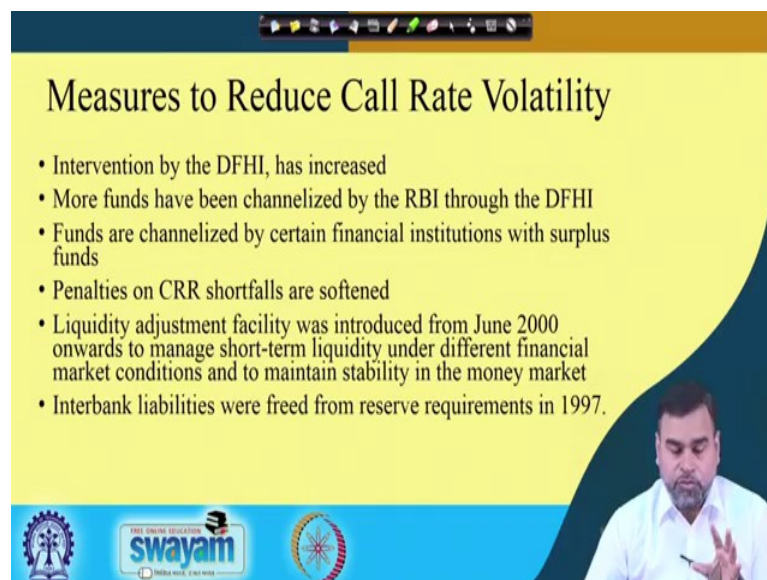
Then, you have the structural deficiencies in the banking sector. So, if there is any kind of structural deficiency which happens in the banking sector to fulfill that particular deficiency the commercial banks can go and borrow the money from the call money market because that particular market is exclusively relevant or maybe allowed to the commercial banks to borrow and lent. So, then whenever any kind of deficiency occurs in the banking sector so, one bank always relies upon another bank to get that particular financing, to get rid of this kind of deficiency which may occur in a short period of time.

So, these are the major issues or major factors or major reasons what we can say these are affecting the demand for and supply of the call loans, and once the demand for and supply of call loans change accordingly that will change the call money rate or the interest rate which prevails in the call money market. So, that is why the call rates are relatively highly volatile. I can give you a figure that in some year the average call money rate was even 80 percent that was in 2007. So, the rate was quite high.

Already I told you that are various reasons behind that the weighted average call money rate in 2007 was 80 percent if you go back to analyze the year 2007 data you have lot of analysis in terms of the crisis and all these things. If you consider those kind of factors the call money rate has been highly affected by those kind of changes which have occurred in the economic system as a whole. So, these are the major reasons which

basically after the demand for call loans and supply of the call loans and by that the call money rates become volatile.

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Measures to Reduce Call Rate Volatility

- Intervention by the DFHI, has increased
- More funds have been channelized by the RBI through the DFHI
- Funds are channelized by certain financial institutions with surplus funds
- Penalties on CRR shortfalls are softened
- Liquidity adjustment facility was introduced from June 2000 onwards to manage short-term liquidity under different financial market conditions and to maintain stability in the money market
- Interbank liabilities were freed from reserve requirements in 1997.

Then there are certain measures what RBI always takes to reduce the call rate volatility. How far it was effective, that is a separate question, but there are certain measures which have been taken. The discount finance house intervention has increased for discounting this particular finance which are available in the system. More funds have been channelized by RBI through DFHI.

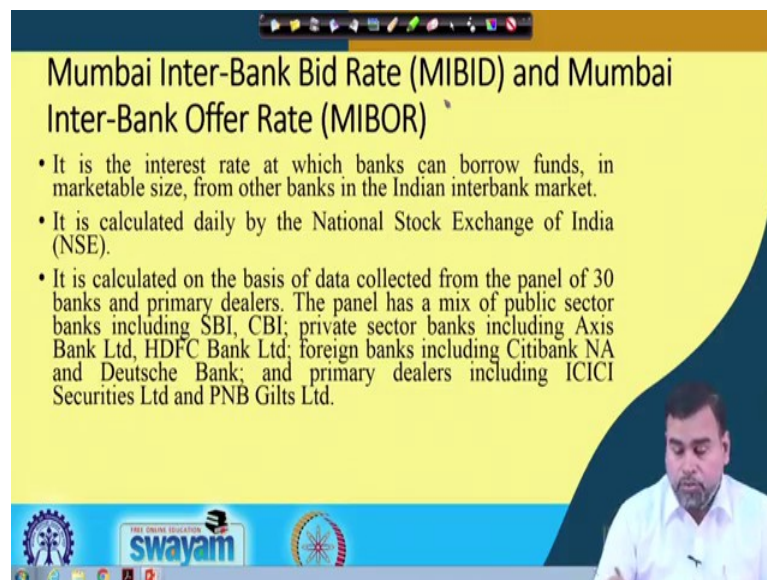
Funds are channelized by certain financial institutions with surplus funds. Penalties on CRR shortfalls are softened. Previously whatever penalty the banks were paying in a particular stipulated point of time if they have not maintain this CRR that particular penalty has been little bit softened if this particular bank shortfalls for the CRR requirements. Liquidity adjustment facility was introduced in 2000 to manage the short term liquidity, to maintain the stability in the money market. Interbank liabilities were free from the reserve requirements in 1997.

So, these are some of the measures what RBI has taken to make this particular market more stable, but in the real sense if you see because it is a market determined interest rate or the demand and supply also driven by so many exogenous factors so, because of that what in practical sense we have observed that the call money market is highly volatile or

the interest rate in the call money market changes very frequently. The frequency of the change in that particular market is quite large.

So, this is what in practical sense we have observe, but still the regulators always try to take certain steps or measures to reduce that kind of volatility in the market because already we know that the volatility leads to instability. Any kind of threshold limit volatility crosses then we can say that the market become unstable. So, to get rid of the concept of or to remove the probability of instability in the market they always ensure that the call money rates should be volatile because it is a market determined factor what the volatility should be within a range.

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Mumbai Inter-Bank Bid Rate (MIBID) and Mumbai Inter-Bank Offer Rate (MIBOR)

- It is the interest rate at which banks can borrow funds, in marketable size, from other banks in the Indian interbank market.
- It is calculated daily by the National Stock Exchange of India (NSE).
- It is calculated on the basis of data collected from the panel of 30 banks and primary dealers. The panel has a mix of public sector banks including SBI, CBI; private sector banks including Axis Bank Ltd, HDFC Bank Ltd; foreign banks including Citibank NA and Deutsche Bank; and primary dealers including ICICI Securities Ltd and PNB Gilt Ltd.

So, then if you see that there are certain measure rates which are available in the system which always we use as the benchmark rates which are available in the call money market.





We have a rate called Mumbai inter-bank bid rate because call money market is determined by the location. We have call money market in Mumbai, Kolkata and Ahmadabad. But the prominent market is Mumbai because most of the banks head offices are situated in Mumbai. Mostly because of that the Mumbai interbank bid rate in Mumbai, interbank offer rate these are the prominent rates which are always we use whenever we go for the call money market.

So, here what is happening all the rates which are charged by this entities they collect those data and try to find out the weighted average of the particular interbank lending rate or the Mumbai interbank rate in a particular time gap. So, that is why this is basically a weighted rate which is calculated on the basis of the interest rate charge by this kind of entities which are participating in this particular system.

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London Inter-Bank Offer Rate (LIBOR)

- It is an interest rate at which banks can borrow funds in marketable size from other banks in the London interbank market.
- The LIBOR is fixed on a daily basis by the British Bankers' Association (BBA).
- LIBOR formally measures the cost of this inter-bank lending and setting out the average rate banks pay to borrow from one another.



Then we have there are some other rates which are globally available always we use in our analysis in the research or this is always considered as a proxy for the international interest rate. So, that is basically call the LIBOR rate. You might have heard about this later again and again that this is the interest rate basically which banks can borrow funds from marketable size from other banks in the London interbank market here.

We have a Mumbai interbank and whenever we talk about the international market we consider the LIBOR which is basically the London interbank market and this is a highly acceptable rate across the globe and whenever we talk about any floating rate interest in the global scenario always it is calculated with reference to the LIBOR. Or whenever we do any research we try to collect data in terms of any foreign lending rate or foreign interest rate we always consider LIBOR is the first one.

Because if you see in the derivatives we will discuss that whenever you go for the swap and all these things, the floating interest rate is always calculated LIBOR plus 0.5 percent LIBOR minus 0.5 percent like that.

So, LIBOR is a very popular rate which is used internationally as a short term interest rate which prevails in the market. And the LIBOR is fixed on a daily basis by the British Bankers Association. So, every day you can get the data for the LIBOR in that particular market and that data is nothing, but the call money market in London or in UK. It basically measures the cost of the interbank lending and setting out the average rate banks pay to borrow from one another.

So, this is an average rate this is not like our Mumbai interbank lending rate which is the weighted average of call money rate. So, this is basically a weighted rate or the average rate we shows that in a particular day how much interest rate the call money market in UK is. And as well as whether the rate is how much fluctuations in comparison to the different rates and different days that you can always shows from the LIBOR rate fluctuations in the UK market. That is why it is a very popular interest rate which prevails in the system that is why always we should have some idea about the LIBOR rates whenever you discuss about the call money market.

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The slide is titled "Term Money Market and Repo Market". It contains three bullet points:

- In term money market where the tenor of the transactions is from 15 days to one year.
- Repo or ready forward contact 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.

Handwritten notes in pink ink on the right side of the slide include "Repo under LAF" and "Repo outside LAF". A video feed of a presenter is visible in the bottom right corner. The bottom of the slide features the "swayam" logo and other educational icons.

Then apart from the call money market we have another two major markets which are related to this call money market, but not relatively it is different in comparison to the call money market. It is again a rate which is or the market which deals with the particular assets for term to maturity is relatively larger or higher or longer; longer term maturity assets which are traded in this particular segment; these are the term money market and repo market.

We were discussing about the call money market where the term to maturity was varying between day 1 to day 15; from 1 day to 15 days where whenever you talk about the term money market and repo market little bit these are two different markets and here the transactions the term to maturity is from 15 days to 1 year. In the term money market the tenure of the transactions is from 15 days to 1 year.

And, the repo market in already we discussed about the repo rate and reverse repo rate, but if you see that in RBI contexts the repo marketer two types; one is repo under LAF Liquidity Adjustment Facility and repo outside LAF. So, here this repo market I am talking about repo outside LAF. So, the repo rate which is decided by RBI this is basically what? This is basically a short term liquidity management and this is the measure instrument for the monetary policy.

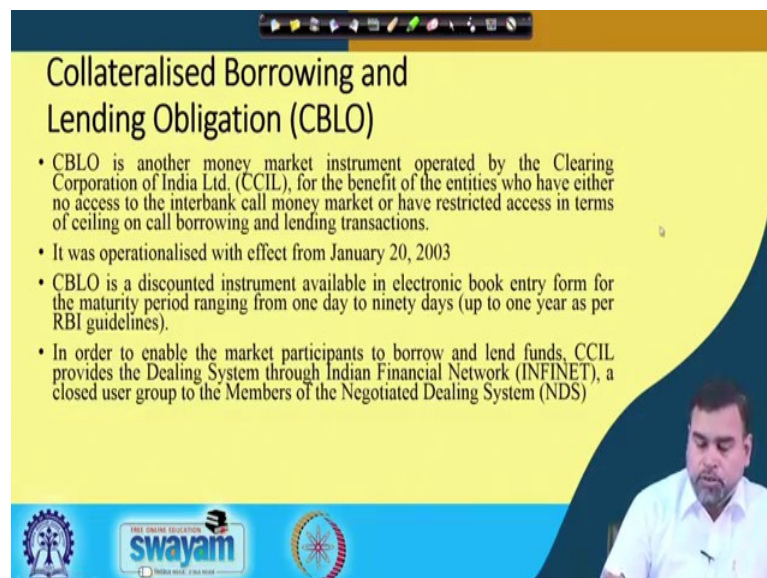
But, outside LAF also we have another repo market which basically always used to finance the money into the different financial institutions in the market and that repo is

basically varying. It is not specific to a particular organization; it can vary from one particular entity to another entity one time period to another time period. But, still that provision is there that there is an outside repo market where the borrowings can possible by one entity, but one organization and this fixations of the interest rate can be done by the Reserve Bank of India.

Already you know that repo contract is an instrument for borrowing funds by selling the securities with an agreement to reforces the said securities and a mutually agreed future date at an agreed price which includes the interest for the funds borrowed. And there was a repo rate already you know which is lending or funding against buying and securities with an agreement to resell the said securities and a mutually agreed future date at an agreed price which includes the interest rate for the funds lent.

Already we know that concept, but I was just trying to tell you there are two types of repo market which exist; one is repo under LAF and another in outside LAF market. So, here we are referring to the outside LAF whatever repo market we have those markets are exclusively for some specific reasons, for which the RBI can always give the advice to the commercial banks to provide the loans.

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Collateralised Borrowing and Lending Obligation (CBLO)

- CBLO is another money market instrument operated by the Clearing Corporation of India Ltd. (CCIL), for the benefit of the entities who have either no access to the interbank call money market or have restricted access in terms of ceiling on call borrowing and lending transactions.
- It was operationalised with effect from January 20, 2003
- CBLO is a discounted instrument available in electronic book entry form for the maturity period ranging from one day to ninety days (up to one year as per RBI guidelines).
- In order to enable the market participants to borrow and lend funds, CCIL provides the Dealing System through Indian Financial Network (INFINET), a closed user group to the Members of the Negotiated Dealing System (NDS)

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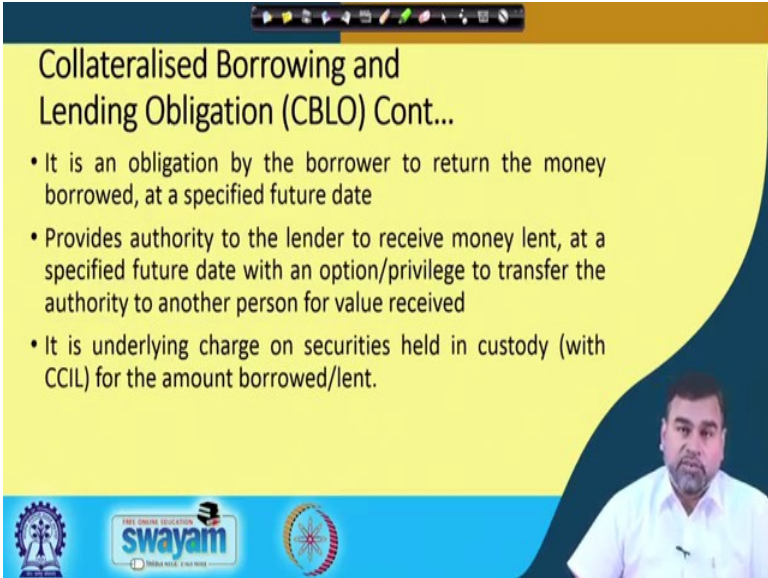
Then we have another market that is called the CBLO market Collateralized Borrowing and Lending Obligations. Already you know that in the call money market we do not need any kind of collaterals, but the CBLO market need some collateral and why the

market was developed? The market was developed for the benefit of the entries who have either no access to the interbank call market or of the restricted access in terms of ceiling on call borrowing and lending transactions that we have discussed in the previous class. Either they are not allowed to participate or even if there are allowed there are some restrictions in terms of the borrowing and lending.

So, because of that another market we have developed that is called the CBLO market. This was a relatively new market started in January 20th, 2003. And here the maturity period ranging from 1 day to 90 days and it can go up to 1 year also in certain extent. And this transactions or the trading takes place through CCIL Clearing Corporation of India Limited which provides a dealing system through the Indian financial network and also closed user group to the members of the negotiated dealing system.

We have a negotiated dealing system where all kind of transaction, money market transactions always takes place. And CCIL provides that platform through which anybody wants to participate through this CBLO market they can use that particular part for their investment in this particular segment.

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Collateralised Borrowing and Lending Obligation (CBLO) Cont...

- It is an obligation by the borrower to return the money borrowed, at a specified future date
- Provides authority to the lender to receive money lent, at a specified future date with an option/privilege to transfer the authority to another person for value received
- It is underlying charge on securities held in custody (with CCIL) for the amount borrowed/lent.

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Then, you see that CBLO gives an obligation by the borrower to return the money provided at a specified future date and provides the authority to lender to receive the money lent at a specified future date with an option to transfer the authority to another person for value received that is also allowed. It is underlying charge and securities held

in custody with CCIL for the amount borrowed or lent. So, CCIL is responsible or organization which deals with the CBLO operations in the Indian market.

So, CBLO mostly is used to take care of the particular organizations who have the restricted access or have no access to the call money market. So, these are the major three market which are related to the call money market but, not exactly. Only their different in terms of the instruments maturity period and as well as also the collaterals which are used to provide this kind of loans. In the call money market we do not need any collateral, but for the CBLO or the call money market to some extent to the one bank needs the collateral to get the loan from another bank.

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Please go through this particular references for this particular session.

Thank you.