UNIT 5 MONEY MARKETS

Structure

5.0 OBJECTIVES

After going through this unit, you will be able to:

- discuss the main functions of the money markets;
- describe the principal features of these markets;
- list the basic money market instruments in India;
- examine the factors influencing money markets in India; and
- analyse the impact of monetary policy on money market operations.

5.1 INTRODUCTION

Debt market is generally understood as comprising the money market (short-term debt, maturity of one year or less) and the capital market (long-term debt). This distinction is made as the two sectors are driven different market forces and serve different needs of the market players. This Unit is a discussion about the nature, functioning and the developments of Money Market.

Banks and Financial Institutions, even though they plan their cash-flows meticulously, usually find that on any day their actual cash inflows and cash outflows do not match. They have either a cash short fall or cash excess. By nature these are of short-term nature. Though this happens in the case of all enterprises, it is manageable for commercial enterprises as they depend on their banks. However, banks and financial institutions that have temporary shortages cannot postpone their liabilities and have to meet these liabilities; default by them would result on a run on the banks. On the other hand banks and financial institutions which have temporary surpluses are on the look out for very short term investment opportunities. But, these should be very safe or risk-less. Any default or even a day's delay would land the banks and financial institutions in unnecessary trouble. One has to remember that these "investments" are not really investments but are by nature deployment of temporary funds in search of some return. We can say that these are parking of funds for a short time till required. Thus investments in money market are not made using the universal rule of "trade-off between risk and return". But, on the other hand, it a market for funds seeking safe or riskless avenues. Money markets are different from capital markets.

Financial Markets

Capital Market	Money Market
● Market for Long Term	● Market for Short Terms Funds
● Supply	● Assets
– Individual savers	– close substitutes of money
– Investment by Banks	● Supply
– FI's	– Temporary surpulses of Companies, FI's Banks
– Mutual Funds	● Demand
● Demand	– Temporary deficit of Companies, FI's Banks
– Companies	● Guiding Principle
– FI's	– Parking in Riskless Assets
– Mutual Funds	● Yield not so important
● Guiding Principle	
– Risk-Return trade off	

The differences between the two markets can be understood as given below:

5.2 FUNCTIONS AND FEATURES OF MONEY MARKETS

Money market can be defined as a market for money and close substitutes for money. In other words market for assets that can be converted into money easily and without any loss of capital. It can also be seen as a market for short-term funds, i.e., up to one-year maturity. The money market is generally expected to perform three broad functions.

1) It should provide an equilibrating mechanism to even out demand for and supply of short-term funds.

2) It should provide a focal point for central bank intervention for influencing liquidity and general level of interest rates in the economy.

3) It should provide reasonable access to providers and users of short-term funds to fulfill their borrowing and investment requirements at an efficient market clearing price.

Thus Money Market is a market for short-term funds. Money market constitutes an important segment of the financial market by providing an avenue for equilibrating the surplus funds of lenders and the requirements of borrowers for short periods ranging from overnight up to an year. In this process, it also provides a focal point for central bank's intervention in influencing the liquidity in the financial system and thereby transmitting the monetary policy impulses.

5.3 EVOLUTION OF MONEY MARKET IN INDIA SINCE THE MID-EIGHTIES

Recognizing the need for reforms in the financial system in India, The Reserve Bank of India had constituted a committee to Review the Working of the Monetary System under the Chairmanship of Shri Sukhamoy Chakravarty in 1985. While this committee gave a detailed recommendation for the reforms in the financial system, it commented that Money Markets are a special segment and need a detailed study and recommended setting up of a special study group to go into this matter. Thus the RBI set up a Working Group on Money Market under the Chairmanship of Shri.N.Vaghul, which submitted its Report in 1987. Based on the recommendations, RBI initiated a number of measures in the 'eighties to widen and deepen the money market. The main initiatives were:

1) In order to impart liquidity to money market instruments and help the development of secondary market in such instruments, the Discount and Finance House of India (DFHI) was set up as a money market institution jointly by the Reserve Bank of India, public sector banks and financial institutions in 1988. RBI has since divested its shareholding and DFHI has been taken over by SBI and merged with SBI Gilts to form the SBI DFHI Ltd.

2) To increase the range of money market instruments, Commercial Paper, Certificates of Deposit, and Interbank Participation Certificates were introduced in 1988-89. There is a wide range of instruments now.

3) To enable price discovery, the interest rate ceiling on call money was freed in stages from October 1988. As a first step, operations of DFHI in the call/ notice money market were freed from the interest rate ceiling in 1988 and in May 1989, the interest rate ceiling was completely withdrawn, for all operators in the call/notice money market and on interbank term money, rediscounting of commercial bills and Interbank Participation Certificates without risk. Currently, all the money market interest rates are by and large determined by market forces.

Subsequently institutions similar to the DFHI were allowed to be set up and named as many Primary Dealers PD's. As of now we have about 16 PD's in India both in the Public Sector and the Private. These PD's play a very important role in the money market, that of market makers. They participate actively in the auctions of Treasury Bills and Government Bonds. Thus they buy, stock and retail Government Debt (Primary Securities)

Check Your Progress 1

1) List the main functions of money markets.

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2) Mention the significant changes taking place in the money markets of India since the mid-eighties.

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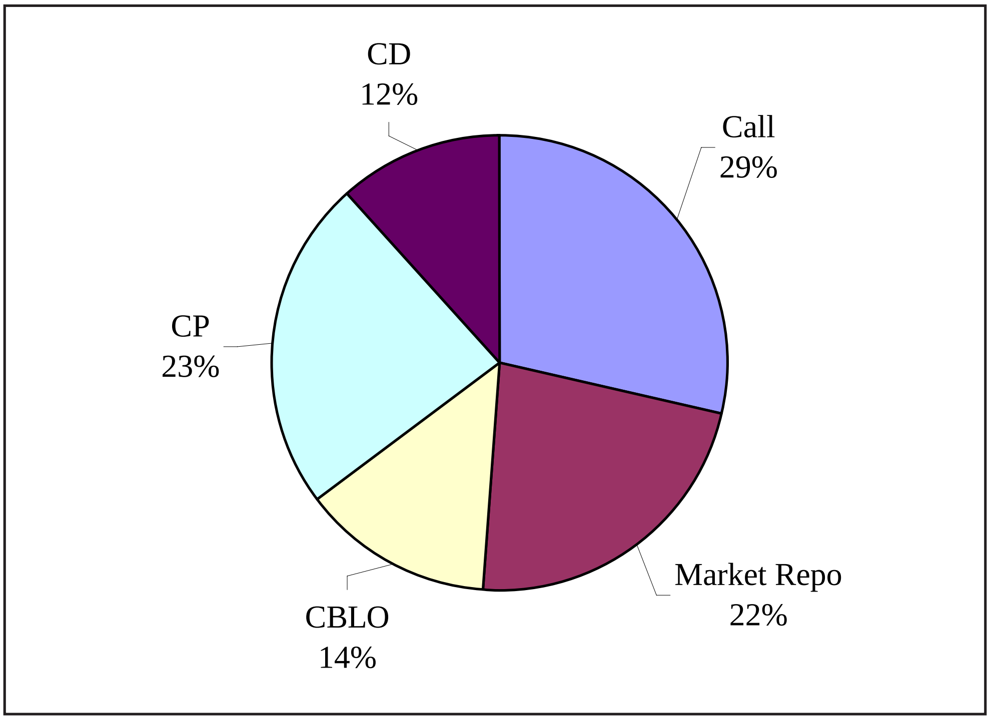
5.4 MONEY MARKET INSTRUMENTS

As discussed earlier, the institutions having temporary surpluses seek risk-less investments. Thus special type of instruments are needed in this market. These instruments are called Money Market Instruments. They are discussed below.

Characteristics of Money Market Transactions

- Short Term in Nature
- Instruments with very low risk are used
- Very low transaction costs
- No transactions hassles
- Very high volumes
- Thus the market efficiency depends on
  - Low cost transactions
  - Information availability, and
  - Large number of participants

The figure below shows the proportion of various instruments in the total money market as prevailing in India



Call Money

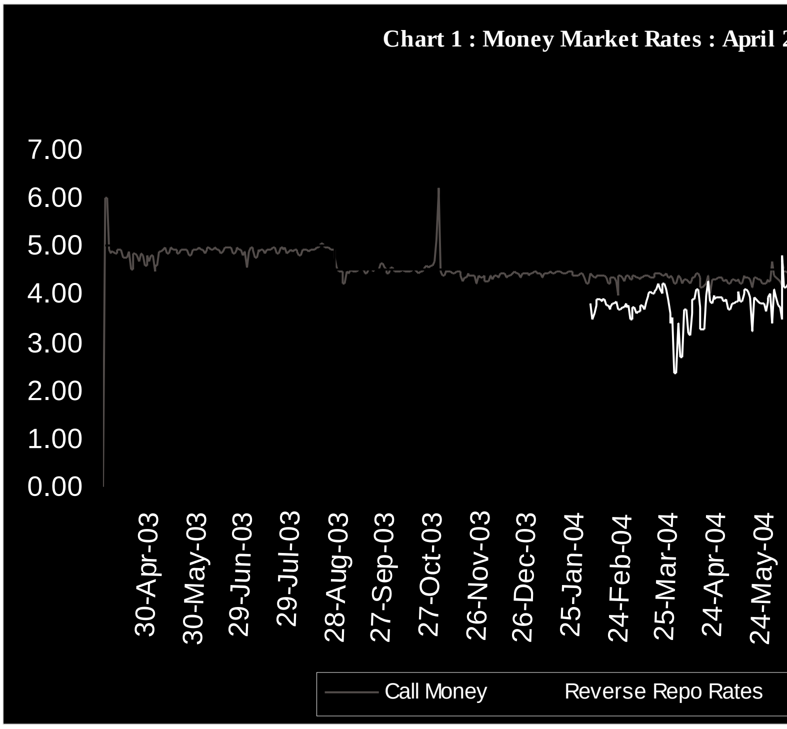
Call Money is the over night inter-bank funds market in India. It has the following characteristics:

- Overnight funds / deposits
- Participants

- Banks
- Primary Dealers
- FI (restricted)

- Demand And Supply
  - Temporary surpluses / deficits of banks and PD's
- RBI restrictions
  - Totally deregulated and left to market forces. But,
  - Only for Banks and Primary Dealers
- Clean Lending, in the form of a deposit
- Interest rates
  - Deregulated i.e., rates determined by the market forces
- Volatile : wide fluctuations even during the day

The figure below shows the change in the rates for various money market instruments in India in the period 2003-2005.



- Intervention of RBI through LAF, OMO
- High value transactions
- Brokers not allowed

The call/notice money market was predominantly an interbank market until 1990, except for UTI and LIC, which were allowed to operate as lenders since 1971. The RBI's policy relating to entry into the call/notice money market was gradually liberalised to widen and provide more liquidity. The behaviour among banks in the call money market is not uniform. There are some banks, mainly foreign banks and new private sector banks, which are active borrowers and some public sector banks that are major lenders. RBI has been a major player in the call/notice money market and has been moderating liquidity and volatility in the market through repos and refinance operations and changes in the procedures for maintenance of cash reserve ratio.

A reference rate in the overnight call money market called "MIBOR" or the "Mumbai Interbank Offer Rate" similar to the LIBOR has emerged recently through the National Stock Exchange and Reuters.

Commercial Paper

CP is a money market instrument, issued in the form of a promissory note, by highly rated corporates for a fixed maturity in a discounted form. CP was introduced in India in 1989 to enable highly rated corporate borrowers to diversify their sources of short-term borrowing and also to provide an additional instrument to investors. Terms and conditions for issuing CP like eligibility, modes of issue, maturity periods, denominations and issuance procedure, etc., are stipulated by the Reserve Bank. There are no interest rate restrictions on CP. With experience, refinements were made to the instrument by removing/easing number of restrictions on the maturity and size of CP, requirement of minimum current ratio, restoration of working capital finance , etc. Corporates, PDs and SDs are eligible for issuing CP for a minimum period of maturity of 15 days and maximum period of 1 year. It is significant to note that there is no lock-in period for CP. The issuance of CP has been generally observed to be related inversely to the money market rates.

Certificates of Deposit

While deposits kept with banks are not ordinarily tradable, when such deposits are mobilised by a bank by issue of a CD, then such deposits get securitised and, therefore, become tradable. Thus, CDs represent essentially securitised and tradable term deposits.

In India, CDs were first introduced in 1989. The terms and conditions for issuing CDs like eligibility, maturity periods, size, transferability, applicability of reserve requirements, etc., are stipulated by the Reserve Bank. CDs in general represent relatively a high cost liability. Hence, banks resort to this source generally when the deposit growth is sluggish but credit demand is high.

Treasury Bills

Treasury Bills are instruments of short-term borrowing of the government and play a vital role in cash management of the government. Their characteristics are as follows:

- Short Term Debt of Government of India
- Maturity less than a year
- Issued
  - through RBI
  - at a discount to face-value and redeemed at F V
  - for 91, 182 and 364 days maturity
  - by weekly / fortnightly auction
  - competitive and non-competitive bids
- Anybody can invest

- Minimum investment Rs 25,000
- Good secondary market
- Good instrument for cash management
- Eligible for Reverse Repo transactions with the RBI

Being risk-free, their yields at varied maturities serve as short-term benchmarks and help pricing varied floating rate products in the market. Treasury Bills market has been the most preferred by central banks for market interventions to influence liquidity and short-term interest rates, generally combined with repos/reverse repos. Hence, development of this market is very crucial for effective open market operations. The auction procedures have been streamlined to have notified amounts for all auctions and to accept non-competitive bids outside the notified amounts.

Repurchase Agreements (Repos)/Ready Forward Transactions

Repo refers to a transaction in which a participant acquires immediately funds by selling securities and simultaneously agreeing for repurchase of the same or similar securities after specified time at a given price. The following are its characteristics:

- Repurchase agreement/RP's Buy-Backs/Ready Forward
- Combination of a Ready Transaction and a Forward Deal
- Simultaneous sale of an asset (today)

  And an agreement (contract)

  To repurchase the same asset on a future date at a price fixed today
- Two legs
  - Sale
    - Give the asset and receive rupees
    - Title passes on 'day one'
  - Re-purchase
    - Give rupees and receive back the asset
    - Title restored on the date of maturity

The transaction combines, elements of both a securities purchase/sale operation and also a money market borrowing/lending operation. Typically it signifies lending on a collateralised basis. The terms of contract is in terms of a "repo rate" representing the money market borrowing/lending rate. As in the case of other instruments, repos also help equilibrating between demand and supply of short-term funds. Internationally, repurchase agreement (Repo) is a versatile and perhaps the most popular money market instrument.

In our market, two types of repos are currently in operation - interbank repos and the RBI repos. Interbank repos are permitted under regulated conditions. RBI repos are used for absorption/injection of liquidity.

Now all Government securities have been made eligible for repo. Further, besides banks, Primary Dealers are allowed to undertake both repo/reverse repo transactions. Non-bank participants have also been allowed recently to lend money through reverse repos to other eligible participants. In terms of instruments, the repos have also been permitted in PSU bonds and private corporate debt securities provided they are held in dematerialised form in a depository and the transactions are done in recognised stock exchanges. RBI has removed the restriction of a minimum period of 3 days for inter bank repo transactions. This enables banks and other participants in the repo market to adjust their liquidity in a more flexible manner.

RBI has been using its repo instrument effectively for absorbing excess liquidity and for infusing funds to ease the liquidity. The repo rate set by the Bank has also more recently become a sort of signaling rate along with Bank Rate. The repo rate currently in a way serves the purpose of a ceiling and the Reverse Repo Rate as the floor for the money market to operate within an interest rate corridor.

Collateralized Borrowing and Lending Obligation(CBLOs)

CBLOs are a mechanism to borrow and lend funds against securities through a platform provided by the Clearing Corporation of India Ltd (CCIL), for the lenders and borrowers to come together not only for banks but also for primary dealers, financial institutions, mutual funds, non-banking finance companies and corporates. It is a type of derivative debt instrument which has short maturities, up to 90 days . This overcomes the drawbacks plaguing the present Repos market - obligations can be squared up only on the due date – cannot “pre-pay or “call-back” . The holder of CBLO can sell, or, an investor can buy it, at anytime during its tenure . The CBLO’s are in denominations of Rs 50 lakh and are traded through ‘offers’ and ‘bids’, specifying the discount rate and maturity period. The bids/offers will be through an auction screen called `auction market’. These orders are matched on the basis of the best quotations, allowing, of course, for negotiations. The net liabilities and receivables for each participant are settled at the end of the day are settled. CCIL fixes borrowing limits for each participant on the basis of a valuation of the securities after a `hair-cut’. This instrument has emerged as a very useful cash management instrument for both banks and the corporate firms.

Money Market Mutual Funds

Money Market Mutual Funds (MMMFs) were introduced in India in April 1991 to provide an additional short-term avenue to investors and to bring money market instruments within the reach of individuals. A Task Force was constituted to examine the broad framework outlined in April 1991 as also the implications of the Scheme. Based on the recommendations of Task Force constituted for the purpose, detailed scheme of MMMFs was announced by the Reserve Bank in April 1992.

The portfolio of MMMFs consists of short-term money market instruments. Investment in such funds provide an opportunity to investors to obtain a yield close to short-term money market rates coupled with adequate liquidity. The growth in MMMFs has, however, been less than expected.

Check Your Progress 2

1) Explain Call money as a money market instrument.

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2) Distinguish between Repurchase agreements and collaterised borrowing and lending operations.

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5.5 FACTORS INFLUENCING MONEY MARKETS IN INDIA

There are many factors influencing and affecting money markets. RBI is the most important influencing factor in India money market. By virtue of the implication for the conduct of monetary policy, money market comes within the direct purview of RBI regulation. The primary aim of the Reserve Bank of India's operations in the money market is to ensure that the liquidity and short-term interest rates are maintained at levels consistent with the monetary policy objectives of maintaining price stability, ensuring adequate flow of credit to productive sectors of the economy and bringing about orderly conditions in the foreign exchange market. The Reserve Bank of India influences liquidity and interest rates as follows:

- RBI and the Money Market RBI intervention and signaling through the money market
- RBI Repo
  - sells GOI bonds from own holding and repurchase them
  - Implications
    - Borrows from the market
    - Sucks up liquidity
    - Influences interest rates- " floor"
- RBI Reverse repo
  - Buys GOI bonds into own holding and sells them back
  - Implications
    - Lends to banks/PD's
    - Injects liquidity
    - Influences interest rates – "ceiling"

Liquidity Adjustment Facility

The Narasimham Committee has observed that the RBI support to the market should be through a Liquidity Adjustment Facility (LAF) under which the RBI would periodically, if necessary, daily, reset its repo and reverse repo rates which would in a sense provide a reasonable corridor for market play. It now operates as follows in conjunction with the Open Market Operation (OMO) :

- LAF
  - every day
  - Both REPO and Reverse Repo window
  - Pre-announced Reverse Repo and Repo Rates
  - "Auction" for the amount borrowed or injected
  - Very effective fine tuning of money supply/liquidity/interest rates
- OMO sale or purchase of RBI on "own account"
  - Influences the money supply/liquidity
  - Longer-term effect that LAF

Thus the thrust of LAF is the continuous presence of the Reserve Bank in the money market through the operation of repos window. While reverse-repos are used for absorbing excess liquidity at a given rate (floor) and infusing liquidity into the system through repos at a given rate (cap), the floor and cap rates set by the repo window provide an effective corridor for the operation of the call money market. Depending upon the stance of the policy to ease or tighten the liquidity, floor and cap rates could be adjusted from time to time. While on the floor side of the market, the Reserve Bank's repo window has been by and large effectively operating, supply of liquidity at a cap rate has to take into account several considerations.

5.6 MONEY MARKET AND MONETARY POLICY IN INDIA

The linkages between the money market and monetary policy in India are very important.

A central bank seeks to influence monetary conditions through management of liquidity by operating in varied instruments. In an administered or controlled regime of money and financial markets, the management of liquidity is essentially through direct instruments, like varying cash reserve requirements, limits on refinance, administered interest rates and quantitative and qualitative restrictions on credit. Thus, the cost, availability, and direction of funds flow come under the direct influence of the central bank. In a deregulated and liberalized market environment, the position is different, since the interest rates are largely determined by market forces. In that situation, there is still a need to influence monetary conditions through management of liquidity, but, this has to be achieved mainly through market based operating instruments, like open market operations and refinance/discount/repo windows. The central bank becomes, in a way, a part of the market, though it is still above the market, by virtue of its power to influence primary liquidity. The success of market based indirect instruments, of course, depends upon the existence of a vibrant, liquid and efficient money market, well integrated with the other segments of financial market, in particular the government securities and foreign exchange markets. Such an integrated and efficient market is necessary, for monetary policy impulses, sent through money market interventions to be reflected in the monetary conditions, through the transmission channel of the general level of interest rates. In a later unit of the course, in Block 4, you will have occasion to study monetary policy in greater detail.

Check Your Progress 3

1) What are the main factors influencing money markets. Answer with special reference to India.

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2) Bring out the linkages between monetary policy and money markets.

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5.7 LET US SUM UP

This unit has familiarised you with the market for short-run funds. The unit aimed at discussing the market for short-term funds with a particular orientation regarding India. The unit began by distinguishing between capital markets and money markets and then went on to describe the main features and the functions of the money market.

The unit subsequently went on to take an orientation that focussed on the situation with regard to money markets in India. The unit described the growth and evolution of the money markets in India since the mid-1980s. It described in great detail several of the money markets in operation in India. Next, the unit looked at the factors that affect money market operations. It mentioned that the Reserve bank of India's policy is the main influence on the money market. Finally the unit touched upon monetary policy and its impact on the money market.

5.8 KEY WORDS

Commercial Paper : A short-term unsecured promissory note, issued by corporations, mostly on discount basis

Financial Intermediation : The process of facilitating the flow of funds from surplus spending units to deficit spending units

Liquidity : The extent to which or the ease with which an asset may quickly be converted into cash with the least administrative and other cost

Repurchase Agreement : An agreement between buyer and seller in the sale of securities to reverse the transaction in the future at a specified date and price

5.9 SOME USEFUL BOOKS

Bhole, L.M, (2004). *Financial Institutions and Markets*, Tata McGrawHill, New Delhi.

Fama, E.F. (1972) *Foundations of Finance*, Basic Books, New York.

Khan, M.Y. (2003), *Indian Financial System* Tata McGraw, New Delhi.

Pathak, Bharati V. (2003), *Indian Financial System*, Pearson, New Delhi.

5.10 ANSWERS /HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

1) Read section 5.2 and answer.

2) Read section 5.3 and answer.

Check Your Progress 2

1) Read section 5.4 and answer.

2) Read section 5.4 and answer.

Check Your Progress 3

1) Read section 5.5 and answer.

2) Read section 5.6 and answer.