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The Money Market

Chapter Objectives

This chapter will enable you to develop an understanding of the following:

1. *Meaning of Money Market.*
2. *Characteristics, functions, and benefits of the money market*
3. *Development of the money market in India*
4. *Different money market instruments such as :*
   - *Treasury bills : Types, importance, participants, and size*
   - *Commercial papers : Meaning, participants, guidelines, and size*
   - *Commercial bills : Types, features, and size*
   - *Certificates of deposit : Features, size, and comparison of CDs and CPs*
   - *Call/Notice Money Market: Importance, participants, call rate, size, and steps to convert call money market into pure inter-bank money market*
   - *Collateralized lending and borrowing obligation*
5. *Money market intermediaries such as Discount and Finance House of India and Money Market Mutual Funds*
6. *Link between the money market and the monetary policy in India*
7. *Tools for managing liquidity in the money market.*
8. *Money market derivatives*

INTRODUCTION

The money market is a market for financial assets that are close substitutes for money. It is a market for overnight to short-term funds and instruments having a maturity period of one or less than one year. It is not a physical location (like the stock market), but an activity that is conducted over the telephone. The money market constitutes a very important segment of the Indian financial system.

The characteristics of the money market are as follows:

- It is not a single market but a collection of markets for several instruments.
- It is a wholesale market of short-term debt instruments.
- Its principal feature is honour where the creditworthiness of the participants is important.
- The main players are: the Reserve Bank of India (RBI), the Discount and Finance House of India (DFHI), mutual funds, insurance companies banks, corporate investors, non-banking finance companies (NBFCs), state governments, provident funds, primary dealers, the Securities Trading Corporation of India (STCI), public sector undertakings (PSUs), and non-resident Indians.
- It is a need-based market wherein the demand and supply of money shape the market.
- Trunsactions in the money market can be both secured and unsecured, *i.e.*, without collaterals.

Functions of the Money Market

A money market is generally expected to perform three broad functions.

- Provide a balancing mechanism to even out the demand for and supply of short-term funds.
- Provide a focal point for central bank intervention for influencing liquidity and general level of interest rates in the economy.
- Provide reasonable access to suppliers and users of short-term funds to fulfill their borrowings and investment requirements at an efficient market clearing price.
- Plays a central role in the monetary policy transmission mechanism as through it the operations of monetary policy are transmitted to financial markets and ultimately to the real economy.

Besides the above functions, a well-functioning money market facilitates the development of a market for longer-term securities. The interest rates for extremely short-term use of money serve as a benchmark for longer-term financial instruments. Money market rates reflect market expectations of how the policy rate could evolve in the future short-term.

Benefits of an Efficient Money Market

An efficient money market benefits a number of players. It provides a stable source of funds to banks in addition to deposits, allowing alternative financing structures and competition.

Benefits of an Efficient Money Market

- Provides a stable source of funds to banks.
- Encourages development of non-bank entities.
- Facilitates government market borrowing.
- Makes effective monetary policy actions.
- Helps in pricing different floating interest products.

It allows banks to manage risks arising from interest rate fluctuations and to manage the maturity structure of their assets and liabilities.

A developed inter-bank market provides the basis for growth and liquidity in the money market including the secondary market for commercial paper and treasury bills.

An efficient money market encourages the development of non-bank intermediaries thus increasing the competition for funds. Savers get a wide array of savings instruments to choose from and invest their savings.

A liquid money market provides an effective source of long-term finance to borrowers. Large borrowers can lower the cost of raising funds and manage short-term funding or surplus efficiently.

A liquid and vibrant money market is necessary for the development of a capital market, foreign exchange market, and market in derivative instruments. The money market supports the long-term debt market by increasing the liquidity of securities. The existence of an efficient money market is a precondition for the development of a government securities market and a forward foreign exchange market.

Trading in forwards, swaps, and futures is also supported by a liquid money market as the certainty of prompt cash settlement is essential for such transactions. The government can achieve better pricing on its debt as it provides access to a wide range of buyers. It facilitates the government market borrowing programme.

Monetary control through indirect methods (repos and open market operations) is more effective if the money market is liquid. In such a market, the market response to the central bank's policy actions are both faster and less subject to distortion.

The Indian Money Market

The average turnover of the money market in India is over ₹1,00,000 crore daily. This is more than 3 per cent let out to the system. This implies that 2 per cent of the annual GDP of India gets traded in the money market in just one day. Even though the money market is many times larger than the capital market, it is not even a fraction of the daily trading in developed markets.

Role of the Reserve Bank of India in the Money Market

The Reserve Bank of India is the most important constituent of the money market. The market comes within the direct purview of the Reserve Bank regulations.

The aims of the Reserve Bank's operations in the money market are

- to ensure that liquidity and short-term interest rates are maintained at levels consistent with the monetary policy objectives of maintaining price stability;
- to ensure an adequate flow of credit to the productive sectors of the economy; and
- to bring about order in the foreign exchange market.

The Reserve Bank influences liquidity and interest rates through a number of operating instruments—cash reserve requirement (CRR) of banks, conduct of open market operations (OMOs), repos, change in bank rates, and, at times, foreign exchange swap operations.

Steps to Develop the Money Market in India

The money market in India is divided into the formal (organized) and informal (unorganized) segments. One of the greatest achievements of the Indian financial system over the last 50 years has been the decline in the relative importance of the informal segment and increasing presence and influence of the formal segment upto the mid-1980s, money market was characterized by lack of depth, small number of instruments, and strict regulation on interest rates. The money market consisted of the inter-bank call market, treasury bills, commercial bills, and participation certificates.

Several steps were taken in the 1980s and 1990s to reform and develop the money market. The reforms in the money market were initiated in the latter half of the 1980s.

In the 1980s A committee to review the working of the monetary system under the chairmanship of Sukhamoy Chakravorty was set up in 1985. It underlined the need to develop money market instruments. As a follow up, the Reserve Bank set up a working group on the money market under the chairmanship of N. Vagul which submitted its report in 1987. This committee laid the blueprint for the institution of a money market. Based on its recommendations, the Reserve Bank initiated a number of measures.

- The Discount and Finance House of India (DFHI) was set up as a money market institution jointly by the Reserve Bank, public sector banks, and financial institutions in 1988 to impart liquidity to money market instruments and help the development of a secondary market in such instruments.
- Money market instruments such as the 182-day treasury bill, certificate of deposit, and inter-bank participation certificate were introduced in 1988–89. Commercial paper was introduced in January 1990.
- To enable price discovery, the interest rate ceiling on call money was freed in stages from October 1988. As a first step, operations of the DFHI in the call/notice money market were freed from the interest rate ceiling in 1988. Interest rate ceilings on inter-bank term money (10.5 per cent to 11.5 per cent), rediscounting of commercial bills (12.5 per cent), and inter-bank participation without risk (12.5 per cent) were withdrawn effective May 1989. All the money market interest rates are, by and large, determined by market forces. There has been a gradual shift from a regime of administered interest rates to market-based interest rates.

In the 1990s The government set up a high-level committee in August 1991 under the chairmanship of M. Narasimham (the Narasimham Committee) to examine all aspects relating to structure, organization, functions, and procedures of the financial system. The committee made several recommendations for the development of the money market. The Reserve Bank accepted many of its recommendations.

- The Securities Trading Corporation of India was set up in June 1994 to provide an active secondary market in government dated securities and public sector bonds.
- Barriers to entry were gradually eased by: (a) setting up the primary dealer system in 1995 and satellite dealer system in 1999 to inject liquidity in the market; (b) relaxing issuance restrictions and subscription norms in respect of money market instruments; (c) allowing the determination of yields based on the demand and supply of such paper; (d) enabling market evaluation of associated risks; by withdrawing regulatory restriction such as bank guarantees in respect of commercial papers; and (e) increasing the number of participants by allowing the entry of foreign institutional investors (FIIs), non-bank financial institutions, and mutual funds.
- Several financial innovations in instruments and methods were introduced. Treasury bills of varying maturities and RBI repos were introduced. Auctioned treasury bills were introduced leading to market-determined interest rates.
- The development of a market for short-term funds at market-determined rates has been fostered by a gradual switch from a cash-credit system to a loan-based system, shifting the onus of cash management from banks to borrowers.
- Ad hoc and on-tap 91-day treasury bills were discontinued in April, 1997. They were replaced by Ways and Means Advances (WMA) linked to the bank rate. The introduction of WMA led to the limiting of the almost automatic funding of the government.
- Indirect monetary control instruments such as the bank rate—reactivated in April 1997, strategy of combining auctions, private placements, and open market operations—in 1998–99, and the liquidity adjustment facility (LAF)—in June 2000 were introduced. The LAF helped to develop interest rate as an important instrument of monetary transmission.
- The minimum lock-in period for money market instruments was brought down to 7 days.
- The inter-bank liabilities were exempted from the cash reserve ratio and the statutory liquidity ratio (SLR) stipulations for facilitating the development of a term money market.
- New money market derivatives such as forward rate agreements (FRAs) and interest rate swaps (IRSs) were introduced in 1999.
- Money market instruments such as certificate of deposits and commercial paper are freely accessible to non-bank participants.
- The payment system infrastructure was strengthened with the introduction of the negotiated dealing system (NDS) in February 2002, setting-up of the Clearing Corporation of India Limited (CCIL) in April 2002 and the implementation of real time gross settlement (RTGS) system from April 2004.
- Collateral Borrowing and Lending Obligation (CBLO) was operationalized as a money market instrument through the CCIL on January 20, 2003.
- Transformation of Call Money Market into a pure inter-bank market by August, 2005.
- Widening of collateral base by making state government securities eligible for LAF operations since April, 2007.
- Operationalization of a screen-based negotiated system (NDS-CALL) for clearings in the call/notice and term money markets in September, 2006. The reporting of all such transactions made compulsory through NDS-CALL in November, 2012.

Reforms in the Money Market

- New instruments
- New participants
- Changes in the operating procedures of monetary policy
- Fine tuning of liquidity management operations
- Technological infrastructure

- The repo in corporate banks allowed in March 2010.
- Operationalization of a reporting platform for secondary market transuctions in CPs and CPs in July 2010.

The development and profile of the money market has changed in the nineties. A basic objective of money market reforms in the recent years has been to facilitate the introduction of new instruments and their appropriate pricing. The Reserve Bank has endeavoured to develop market segments which exclusively deal in specific assets and liabilities as well as participants. Accordingly, the call/notice money market is now a pure inter-bank market. In order to ensure systemic stability, prudential limits on exposures to the call money market have been imposed. Standing liquidity support to banks from the Reserve Bank and facilities for exceptional liquidity support have been rationalized. The various segments of the money market have integrated with the introduction and successful implementation of the LAF. The NDS and CCIL have improved the functioning of money markets. They have facilitated a speedier conversion of notice/call money market into a pure inter-bank money market and enabled the growth of a buoyant repo market outside the LAF.

Money Market Centres

There are money market centres in India at Mumbai, Delhi, and Kolkata. Mumbai is the only active money market centre in India with money flowing in from all parts of the country getting transacted there.

MONEY MARKET INSTRUMENTS

The instruments traded in the Indian money market are:

1. Treasury Bills (T-bills);
2. Cash Management Bills (CMBs);
3. Call/notice money market—Call (overnight) and short notice (up to 14 days);
4. Commercial Papers (CPs);
5. Certificates of Deposits (CDs);
6. Commercial Bills (CBs);
7. Collateralized Borrowing and Lending Obligation (CBLO).

Call/notice money market and treasury bills form the most important segments of the Indian money market. Treasury bills, call money market, and certificates of deposit provide liquidity for government and banks while commercial paper and commercial bills provide liquidity for the commercial sector and intermediaries.

TREASURY BILLS

- T-Bills are short-term instruments used by the government to raise short-term funds.

Treasury bills are short-term instruments issued by the Reserve Bank on behalf of the government to tide over short-term liquidity shortfalls. This instrument is used by the government to raise short-term funds to bridge seasonal or temporary gaps between its receipts (revenue and capital) and expenditure. They form the most important segment of the money market not only in India but all over the world as well.

T-bills are repaid at par on maturity. The difference between the amount paid by the tenderer at the time of purchase (which is less than the face value) and the amount received on maturity represents the interest amount on T-bills and is known as the discount. Tax deducted at source (TDS) is not applicable on T-bills.

Features of T-Bills

- They are negotiable securities.
- They are highly liquid as they are of shorter tenure and there is a possibility of inter-bank repos in them.
- There is an absence of default risk.
- They have an assured yield, low transaction cost, and are eligible for inclusion in the securities for SLR purposes.
- They are not issued in scrip form. The purchases and sales are effected through the Subsidiary General Ledger (SGL) account.
- At present, there are 91-day, 182-day, and 364-day T-bills in vogue. The 91-day T-bills are auctioned by the RBI every Friday and the 364-day T-bills every alternate Wednesday, *i.e.*, the Wednesday preceding the reporting Friday.
- Treasury bills are available for a minimum amount of ₹25,000 and in multiples thereof.

Types of T-Bills

There are three categories of T-bills.

On-tap Bills On-tap bills, as the name suggests, could be bought from the Reserve Bank at any time at an interest yield of 4.66 per cent. They were discontinued from April 1, 1997, as they had lost much of their relevance.

Ad hoc Bills Ad hoc bills were introduced in 1955. It was decided between the Reserve Bank and the Government of India that the government could maintain with the Reserve Bank a cash balance of not less than ₹50 crore on Fridays and ₹4 crore on other days, free of obligation to pay interest thereon, and whenever the balance fell below the minimum, the government account would be replenished by the creation of ad hoc bills in favour of the Reserve Bank. Ad hoc 91-day T-bills were created to replenish the government's cash balances with the Reserve Bank. They were just an accounting measure in the Reserve Bank's books and, in effect, resulted in automatic monetization of the government's budget deficit. A monetized deficit is the increase in the net Reserve Bank credit to the central government which is the sum of the increase in the Reserve Bank's holdings of: (a) the government of India's dated securities; (b) 91-day treasury bills; and (c) rupee coins for changes in cash balances with the Reserve Bank.

In the 1970s and 1980s, a large proportion of outstanding ad hocs were converted into long-term dated and undated securities of the Government of India. This conversion is referred to as 'funding.' Their expansion put a constraint on the Reserve Bank conduct of monetary policy and hence they were discontinued from April 1, 1997. The outstanding ad hoc T-bills and tap bills as on March 31, 1997 were funded on April 1, 1997 into special securities without any specified maturity at an interest rate of 4.6 per cent per annum. A system of Ways and Means Advances from April 1, 1997 was introduced to replace ad hoc bills and to accommodate temporary mismatches in the government of India receipts and payments.

Auctioned T-Bills Auctioned T-bills, the most active money market instrument, were first introduced in April 1992. The Reserve Bank receives bids in an auction from various participants and issues the bills subject to some cut-off limits. Thus, the yield of this instrument is market determined. These bills are neither rated nor can they be rediscounted with the Reserve Bank. At present, the Reserve Bank issues T-bills of three maturities—91-days, 182-days, and 364-days.

Importance of T-Bills

The development of T-bills is at the heart of the growth of the money market. T-bills play a vital role in the cash management of the government. Being risk free, their yields at varied maturities serve as short-term benchmarks and help in pricing different floating rate products in the market. The T-bills market is the preferred central bank tool for market intervention to influence liquidity and short-term interest rates. The development of the T-bills market is a pre-condition for effective open market operations.

Development of the T-Bills Market

Ad hoc 91-day T-bills were introduced in the mid-1950s. These bills were introduced to replenish on an automatic basis, the central government's cash balance with the Reserve Bank so that only the minimum required level was maintained. These bills opened up an era of uncontrolled monetization of the central government's deficit. Before the 1960s, there was an active T-bills market owing to the weekly auctions of the 91-day T-bills.

In the mid-1960s, the auction system for the issue of 91-day T-bills was replaced by on-tap bills. Till 1974, the tap bills rate changed with changes in the bank rate which sustained the interest of the participants in the T-bills market. However, after 1974, the discount rate on ad hoc and tap bills was fixed uniformly at 4.6 per cent. The T-bills market lost lustre due to the administered rate regime.

However, the interest in T-bills revived with the introduction of the 182-day T-bills on an auction basis in November 1986. It also revived because of the constitution of the Discount and Finance House of India in 1988 as a money market institution.

The 182-day T-bills were discontinued in 1992 and replaced by the 364-day auction T-bills in April 1992 as part of reform measures. Subsequently, the 91-day auction T-bills were introduced in January 1993. The parallel existence of the 91-day tap T-bills and ad hoc T-bills continued till March 1997.

Thereafter, the 14-day intermediate T-bills and auction T-bills were introduced in April 1997 to provide an alternative avenue to state governments and to facilitate some foreign central banks to invest surplus funds.

The 182-day T-bills were reintroduced to provide variety in treasury bills. However, both the 182- and 14-day T-bills were discontinued from March 2001. The 182-day T-bills were reintroduced in April 2005.

The Reserve Bank's purchase and holding of T-bills have become totally voluntary with the discontinuation of the ad hoc and on-tap 91-day T-bills. Before the introduction of the auctioned T-bills, a substantial majority of the T-bills used to be held by the Reserve Bank. With the introduction of auctioned T-bills, more than 25 per cent of T-bills are held by investors other than the Reserve Bank. The auction procedures have been streamlined with notified amounts for all auctions being specified in case of competitive bids and non-competitive bids being accepted outside the notified amount. A uniform price-based auction for 91-day T-bills was introduced on an experimental basis in 1998–99. It has been successfully adopted.

- In a competitive bid, participants submit their bids to the Reserve Bank who then decides the cut-off yield/price and makes the allotment.
- In a non-competitive bid, participants are not allowed to bid, as they do not have the expertise in bidding and are allotted bids at the weighted average price determined in competitive bidding.

Participants in the T-Bills Market

The Reserve Bank of India, banks, mutual funds, financial institutions, primary dealers, provident funds, corporates, foreign banks, and foreign institutional investors are all participants in the T-bills market. The state governments can invest their surplus funds as non-competitive bidders in T-bills of all maturities.

Sale of T-Bills

The sale of T-bills is conducted through an auction. The method helps in price discovery, a process wherein prices in the market reflect the relative cost of production and consumption utilities with a view to achieving the optimum allocation of resources in the economy. In case of auctions, competitive bids are submitted by the participants to the Reserve Bank and the bank decides the cut-off yield/price and makes the allotment on such a basis. For an auction to be meaningful, it is necessary that auctions are conducted on a competitive bidding basis. For this purpose, the participation should be large and varied in nature. A wider participation in auctions results in increased competition, yielding better prices and improving the auction results. Primary dealers, banks, corporates, mutual funds, and others participate in the competitive bids.

Besides allotting T-bills through auction, the Reserve Bank accepts non-competitive bids from state governments, non-government provident funds, and other central banks. Non-competitive bids are accepted to encourage participants who do not have expertise in bidding. Such bids are a more efficient way of encouraging retail participation instead of having a large number of retail investors bidding competitively on their own. The Reserve Bank also participates on a non-competitive basis to primarily take up the under-subscribed issues. Non-competitive bidders are allotted T-bills at a weighted average price of the successful competitive bids. Non-competitive bids are accepted outside the notified amount.

Types of Auctions

There are two types of auctions: (i) multiple-price auction and (ii) uniform-price auction.

Multiple-price Auction

- Each winning bidder pays the price it bid.

Multiple-price Auction The Reserve Bank invites bids by price, *i.e.*, the bidders have to quote the price (per ₹100 face value) of the stock which they desire to purchase. The bank then decides the cut-off price at which the issue would be exhausted. Bids above the cut-off price are allotted securities. In other words, each winning bidder pays the price it bid.

The advantage of this method is that the Reserve Bank obtains the maximum price each participant is willing to pay. It can encourage competitive bidding because each bidder is aware that it will have to pay the price it bid, not just the minimum accepted price. The disadvantage is that bidders bid more cautiously (*i.e.*, offer lower prices) in these auctions. This is so because it may happen that bidders who paid higher prices could face large capital losses if the trading in these securities starts below the marginal price set at the auction. This is known as the 'winner's curse.' The winner's curse can be a problem in those markets where price volatility is high. In order to eliminate the problem, the Reserve Bank introduced uniform price auction in case of 91-day T-bills.

Uniform-price Auction In this method, the Reserve Bank invites bids in descending order and accepts those that fully absorb the issue amount. Each winning bidder pays the same (uniform) price as decided by the Reserve Bank. In other words, all winning bidders are awarded the auctioned amount at the same price.

Uniform-price Auction

- Each winning bidder pays the uniform price decided by the Reserve Bank.

The advantages of the uniform price auction are that they tend to minimize uncertainty and encourage broader participation. On the other hand, it may be possible that uniform price auctions could reduce the need to prepare for the auction as allotment at a uniform price reduces the incentive to bid. Moreover, there are dangers of irresponsible bidding or of collusion in a uniform price auction.

Most countries follow the multiple-price auction. However, now the trend is a shift towards the uniform-price auction.

Uniform-price auction was introduced on an experimental basis on November 6, 1998 in case of 91-day T-bills. Since 1999–2000, 91-day T-bill auctions are regularly conducted on a uniform price basis.

There exists a fixed calendar for auctions of all types of T-bills. The Reserve Bank issues a press communication, two to three days prior to the auction and invites bids, indicating the date of the auction and terms such as the amount of auction and type of auction.

The T-bill auction module was operationalized on October 22, 2003 on the Public Debt Office–Negotiated Dealing System (PDO–NDS). The auction is announced and processed on-line in a Straight-Through-Process (STP) on the system.

91-Day T-Bills

Treasury bills were sold on tap since 1965 throughout the week to commercial banks and the public at a fixed rate of 4.6 per cent. They were discontinued from April 1, 1997.

The 91-day ad hoc T-bills were created in favour of the Reserve Bank but in 1997–98 they were phased out under an agreement with the Reserve Bank and totally discontinued from April 1, 1997. The ad hoc and tap T-bills were converted into special securities without any specific maturity at an interest rate of 4.6 per cent per annum.

In 1992–93, a scheme for the issue of auctioned 91-day T-bills with a predetermined amount was introduced. The cut-off yields were significantly higher than the fixed discount rate on tap bills. The notified amount of each auction was consistent at ₹500 crore upto March 14, 1997. The notified amount of each auction was reduced to ₹100 crore with effect from March 21. Since May 2001, it has been increased from ₹100 to ₹250 crore. The notified amount was then increased to ₹500 crore in 2003 which was further raised to ₹2,000 crore from April 2004. The increase was on account of the introduction of the Market Stabilization Scheme (MSS).

Size of the 91-Day T-Bills Market

The size of the treasury bills market is reflected in gross issues and the amount outstanding. A gross amount of ₹24,050 crore was raised through 91-day T-bills. The gross issues declined substantially in the year 1997–98 as the notified amount of auctions was maintained in a narrow band of ₹100 crore to ₹300 crore. The volume of sales of the 91-day T-bills declined in the subsequent years again due to the low notified amount. In order to offer an increased amount of short-term paper the notified amount in each auction was raised from ₹100 to ₹250 crore from May 18, 2001. However, since 2001–02, due to high liquidity, persistent capital inflows and a reduction in the repo rate, both the gross issues and amount outstanding of 91-day T-Bills have increased.

The amount subscribed by the Reserve Bank as a percentage of gross issues declined in the year 1993–94 and 1994–95 but increased substantially in the year 1995–96 due to stringent liquidity conditions in the money and credit markets. The decline in this amount in the year 2000–01 reflects higher market absorption owing to spells of easy liquidity.

The average net holdings of the Reserve Bank of around 85 per cent in 1992–93 were almost nil in 2000–01. This reflects a high market interest in these short-term bills and successful conduct of open market operations. Since 2001–02, the Reserve Bank has not subscribed to issues of 91-day T-Bills.

There was a substantial decline in the amount outstanding from 1997–98 to 1999–2000 as the notified amount of each auction was reduced to ₹100 crore from ₹500 crore. However, the amount outstanding has increased substantially since 2001–02. This reflects a high level of liquidity in the system.

364-Day T-Bills

In April 1992, the 364-day T-bills were introduced to replace the 182-day T-bills.

In case of the 364-day T-bills, a multiple/discriminatory price auction is conducted where successful bidders have to pay prices (yield) they have actually bid.

Initially, the auction of the 364-day T-bills was conducted on a fortnightly basis. These auctions evoked a good response from investors such as financial institutions and banks. These bills are not rediscountable with the Reserve Bank. Since 1998–99, the periodicity of the auctions has been changed to monthly as against fortnightly.

The features of the 364-day T-bills are similar to those of the 182-day T-bills. The investors' response to these bills depends, among other things on the uncertainties in the government securities market, variations in the SLR, and yield. The notified amount of these T-bills was raised from ₹500 crore to ₹750 crore effective December 13, 2000, and to ₹1,000 crore from April 2002. This was further increased to ₹2,000 crore from April 2004 on account of the introduction of the market stabilization scheme (MSS).

182-Day T-Bills

The 182-day T-bills were introduced in November 1986 to provide short-term investment opportunities to financial institutions and others. These bills were periodically offered for sale on an auction basis by the Reserve Bank. Prior to July 1988, the auctions were held every month. Since then, however, fortnightly auctions were held, synchronising with the reporting Fridays of scheduled commercial banks. These bills could not be rediscounted with the Reserve Bank.

These bills were introduced with an objective to develop the short-term money market. It turned out to be a handy instrument for entities like banks, financial institutions and corporates, to invest their short-term liquid funds. The bills were issued at a discount to face value for a minimum of ₹1 lakh and its multiples thereof. The amount raised in each auction depended upon the funds available with the market participants. These bills were eligible securities for SLR purposes and for borrowing under the 'stand by refinance facility' of the Reserve Bank. They were not purchased by state governments, provident funds, and the Reserve Bank.

The yield on the 182-day T-bills was freely determined by market forces. Also, they had an active secondary market. The notified amount was kept at ₹100 crore on each of the auctions.

The Reserve Bank phased out the auctions of this bill from April 28, 1992 to May 25, 1999. In May 1999, it was reintroduced. It was discontinued from May 2001 to March 2005. In April 2005, it was reintroduced.

The high average cut-off yield of 9.89 per cent and a yield which tended to rise each year, had made this bill popular with investors.

After its reintroduction in May1999, the government raised ₹5,500 crore through these bills. Non competitive bids aggregating to ₹600 crore were accepted in 1999–2000 while there were no non-competitive bids in 2000–01. The devolvement on the Reserve Bank was ₹645 crore during 1999–2000 and ₹250 crore during 2000–01.

The bill was discontinued once again in May 2001. It was reintroduced in April 2005 with a notified amount of ₹500 crore.

Implicit Yield at Cut-off Prices

Treasury bills are sold at a discount. The difference between the sale price and the redemption value is the return on the treasury bills or the treasury bill rate. This rate was increased to 4.60 per cent in 1974 from 2.25 per cent in 1955–56. The rate was not only administered but it was the lowest rate of interest prevalent till 1993. Since 1993, the treasury bill rate is market-determined and has been much higher than 4.6 per cent per annum, leading to a higher yield to investors.

The yield is the rate of return on a particular instrument. Implicit yield is the yield on an instrument if it is held till its maturity. This yield is calculated as follows.

If a T-bill with a face value of ₹100 is issued at ₹98, then the implicit yield is

$$= \left[\left(\frac{100}{98} \times 100\right) - 100\right] \times 4$$

$$= 8.164 \text{ per cent}$$

The Reserve Bank publishes implicit yields in its weekly bulletins.

A drawback of implicit yields is that they may not be exactly market-determined. Primary dealers are required to bid for a minimum amount of treasury bills in auctions; this may influence yields. Moreover, the Reserve Bank takes devolvement in order to maintain yields and give signals on interest rates to the market. Hence, as treasury bills yields are dependent on and influenced by the level of liquidity in the money market, they are not preferred as benchmark rates. Moreover, a continuous rise and decline in implicit yields has hampered the growth of a smooth yield curve.

Sale of Government of India Treasury Bills by Auction

Main Features

1. (i) The Bills of varying maturities with a maximum tenor of upto 364 days will be sold by the Reserve Bank of India (hereinafter called "the Bank") on auction basis. The date and place of auction, and the exact tenor of bills will be announced by the Bank from time to time.

   (ii) The Bank will notify the nominal amounts of bills to be sold to competitive bidders from time to time.

   (iii) The Bank may make allocations at the auctions by means of either 'uniform price auction' or 'multiple price auction'. The method of auction will be announced by the Bank from time to time.

   (iv) The Bills would be issued at a discounted price.

   (v) In respect of competitive bids, the rate of discount and the corresponding issue price would be determined at each auction. In the case of uniform price auction, competitive bids will be accepted at the minimum discounted price called cut-off price determined at the auction, irrespective of bid prices tendered. In the case of multiple price auction, competitive bids will be accepted upto the minimum discounted price called 'cut off' price determined at the auction, at bid prices tendered at the auction. Competitive bids at offer prices lower than the 'cut off' price will be rejected in the case of both uniform and multiple price auctions

   Illustration showing acceptance of competitive bids on 'uniform price' and 'multiple price' auction methods

   Let us assume that RBI has notified an amount of ₹300 crore for competitive bidders in a treasury bill auction and received the following bids.

Bidders	*Bid Prices (₹)*	*Bid Amount (₹ Crore)*	*Cumulative bid Amount (₹ Crore)*
A	98.50	90	90
B	98.40	60	150
C	98.35	80	230
D	98.30	70	300
E	98.20	85	385
F	98.00	30	415

Source: RBI

   Let us assume that the cut-off price fixed in the auction is ₹98.30. Bids upto the cut-off price, i.e., A, B, C & D will be accepted. E & F will be rejected. In the case of the 'uniform price' auction, each successful bidder will have to pay @ ₹98.30 irrespective of bid prices individually quoted. The total amount payable will be (₹98.30/100x300) = ₹294.90 crore; whereas in the case of multiple price auction, each successful bidder will have to pay the bid price he had offered. The total amount payable will be [(₹98.50/100x 90) + (₹98.40/100 × 60) + (₹98.35/100x80) + (₹98.30/100 × 70)] = ₹295.18 crore.

   (vi) Allocation for 'non-competitive' bids will be at the discretion of the Bank. These non-competitive bids will be outside the notified amount. Such allocation for 'non-competitive' bids will be at the weighted average price arrived at on the basis of the competitive bids accepted at the auction.

   (vii) The Bank will have the full discretion to accept or reject any or all the bids either wholly or partially, as deemed fit by it, without assigning any reason.

   (viii) The Bank may, if it considers appropriate to do so participate in the auction as a 'non-competitor' and buy bills for part of or whole of the amount notified at the cut-off price decided in the auction.

Eligibility for Investment:

2. The investment in the treasury bills, through competitive route, may be made by any person resident in India, including firms, companies, corporate bodies, institutions and Trusts. Non-Resident Indians and foreign investors are eligible to invest subject to the approval of the government and provisions of Foreign Exchange Management Act, 1999 and the regulations framed there under, in addition to the other provisions of laws applicable to government securities.
3. Eligible entities could participate on 'non-competitive' basis in auctions for specified Bills as decided by the Bank from time to time. The state governments, eligible provident funds in India, the Nepal Rashtra Bank and any Person or Institution, specified by the Bank, with the approval of government, in this regard, can participate on non-competitive basis. Individuals can also participate on non-competitive basis as retail investors. For retail investors, the allocation will be restricted to a maximum of 5 percentage of the aggregate nominal amount of the issue, within the notified amount as specified by the Government of India, or any other percentage determined by Reserve Bank of India.

Explanation: The allocation for individuals shall be within notified amount and for other eligible entities outside notified amount.

Note: Eligible provident funds are those non-government provident funds governed by the Provident Funds Act 1925 and Employees' Provident Fund and Misc. Provisions Act, 1952 whose investment pattern is decided by the Government of India.

Tenders for purchase of Government of India Auction Treasury Bills:

Minimum Subscription:

4. Bills will be issued for a minimum amount of ₹ 10,000/- (Rupees Ten Thousand only) and in multiples of ₹ 10,000/- on competitive basis, as well as on non-competitive basis.

Form:

5. The Bills will be issued in the form of Promissory Note/ Credit to Subsidiary General Ledger (S.G.L.) Account.

Transferability:

6. The bills will be transferable in terms of the Government Securities Act, 2006 and the Government Securities Regulations, 2007.

Repayment:

7. The Bills will be repaid at par on the expiration of their tenor at the office of the Bank at which they are registered.

Laws applicable in regard to the Bills:

8. (i) The rights of all persons subscribing to or holding the Bills shall be determined in accordance with the provisions of the Government Securities Act, 2006 and the Government Securities Regulations 2007, read with the terms of this notification, and such other notifications as may be issued from time to time by the Bank, in consultation with Government of India in this regard.
   (ii) The tax laws in India will apply for the purpose of assessing and determining the liability of the investor or holder of the Bills.
   (iii) Any dispute in relation to the Bills shall be decided by the Courts in India.

Conclusion

The size of the treasury bills market in terms of both volume of sales and outstanding has increased. The Reserve Bank has made substantial efforts to develop the treasury bills market. The bank has discontinued on-tap and ad hoc treasury bills and introduced auctioned treasury bills which have not only helped in developing the treasury bills market but have also gone a long way in enhancing the popularity of this instrument by making the yield market-determined. The primary dealer and satellite dealer systems were set up to activate the treasury bills market. This market has the potential to develop further if the market is broadened even more by increasing the number of players and instruments. Moreover, this market can be made more liquid and attractive if treasury bills futures are introduced.

Cash Management Bills (CMBs)

The Reserve Bank of India on behalf of the Government of India issues a new short-term instrument, known as Cash Management Bills (CMBs), to meet the temporary mismatches in the cash flow of the Government. The CMBs have the generic character of T-bills but are issued for maturities less than 91 days. Like T-bills, they are also issued at a discount and redeemed at face value at maturity. The tenure, notified amount and date of issue of the CMBs depends upon the temporary cash requirement of the Government. The announcement of their auction is made by Reserve Bank of India through a Press Release which is issued one day prior to the date of auction. The settlement of the auction is on T+1 basis. The non-competitive bidding scheme has not been extended to the CMBs. However, these instruments are tradable and qualify for ready forward facility. Investment in CMBs is also reckoned as an eligible investment in Government securities by banks for SLR purpose under Section 24 of the Banking Regulation Act, 1949. First set of CMBs were issued on May 12, 2010.

Cash Management bills are also issued under market stabilization scheme for liquidity management.

COMMERCIAL PAPER

- A commercial paper is an unsecured short-term promissory note issued at a discount by creditworthy corporates, primary dealers and all-India financial institutions.

The Working Group on Money Market in 1987 suggested the introduction of the commercial paper (CP) in India. The Reserve Bank introduced commercial papers in January 1990. Commercial papers have been in vogue in the United States since the nineteenth century and have become popular in money markets all over the world since the 1980s.

A commercial paper is an unsecured short-term promissory note, negotiable and transferable by endorsement and delivery with a fixed maturity period. It is generally issued at a discount by the leading creditworthy and highly rated corporates to meet their working capital requirements. Depending upon the issuing company, a commercial paper is also known as a finance paper, industrial paper, or corporate paper.

Initially only leading highly rated corporates could issue a commercial paper. The issuer base has now been widened to broad-base the market. Commercial papers can now be issued by primary dealers and all-India financial institutions, apart from corporates, to access short-term funds. Effective September 6, 1996 and June 17, 1998, primary dealers and satellite dealers were also permitted to issue commercial papers to access greater volume of funds to help increase their activities in the secondary market.

A commercial paper can be issued to individuals, banks, companies, and other registered Indian corporate bodies and unincorporated bodies. Non-resident Indians can be issued a commercial paper only on a non-transferable and non-repatriable basis. Banks are not allowed to underwrite or co-accept the issue of a commercial paper. Foreign institutional investors (FIIs) are eligible to invest in commercial papers but within the limits set for their investments by the SEBI.

Investors in CP

- Individuals
- Banks
- Corporates
- Unincorporated bodies
- NRIs
- FIIs

A commercial paper is usually privately placed with investors, either through merchant bankers or banks. A specified credit rating of P2 of CRISIL or its equivalent is to be obtained from credit rating agencies.

A commercial paper is issued as an unsecured promissory note or in a dematerialized form at a discount. The discount is freely determined by market forces. The paper is usually priced between the lending rate of scheduled commercial banks and a representative money market rate.

Corporates are allowed to issue CPs upto 100 per cent of their fund-based working capital limits. The paper attracts stamp duty. No prior approval of the Reserve Bank is needed to issue a CP and underwriting the issue is not mandatory.

Most CPs were issued by manufacturing companies for a maturity period of approximately three months or less. During 2001–02, manufacturing and related companies issued 67.4 per cent of total CPs, whereas 21.5 per cent of the total was issued by leasing and finance companies and the balance of 11.1 per cent by financial institutions. However, the share of manufacturing companies in the aggregate amount of CPs outstanding declined to an average of 56 per cent during 2002–03 and further to 28.9 per cent during 2008–09 and the share of leasing and finance companies markedly increased from 13 per cent in 2001–02 to 76.5 per cent in March 2008 but declined to 61.5 per cent during 2008–09. The share of manufacturing companies has gone down substantially due to enhanced efficiency in their operations, longer internal accruals, and better cash management. Leasing and finance and manufacturing companies remain the major issuers of CPs.

The CP market is dominated by corporates having tangible net-worth of ₹50 crore and above. The recent RBI guidelines on investment in non-SLR securities for banks exempted CPs from the purview of such guidelines. This enabled financial institutions to raise a higher amount through CPs in 2004 and thereafter.

The Process for Issuing a CP

A resolution has to be passed by the Board of Directors approving the CP issue and authorizing the executive(s) to execute the relevant documents as per the Reserve Bank's norms. The CP issue then has to be rated by a credit rating agency. The rating is usually completed within two to three weeks of receipt of necessary information. The company has to select an Issuing and Paying Agent (IPA), which has to be a scheduled bank. The IPA verifies all the documents submitted by the issuer viz., copy of board resolution, signatures of authorized executant and then issues a certificate that documents are in order. It also ensures that the issuer has the minimum credit rating as stipulated by the Reserve Bank and amount mobilized through issuance of the CP within the guarantee indicated by the credit rating agency for the specified ratings. It has also to certify that it has a valid agreement with the issuer. All the certified copies of original documents verified by it are held in its custody.

The company then has to arrange for dealers such as merchant banks, brokers, and banks for placement of the CPs which has to be completed within two weeks of opening. Every CP issue has to be reported to the Reserve Bank through the IPA.

Scheduled commercial banks are the major investors in commercial papers and their investment is determined by bank liquidity conditions. Banks prefer a commercial paper as an investment avenue rather than sanctioning bank loans. These loans involve high transaction costs and money is locked for a long time period whereas in a commercial paper which is an attractive short-term instrument, allows banks to park funds during times of high liquidity. Some banks fund commercial papers by borrowing from the call money market. Usually, the call money market rates are lower than the commercial paper rates. Hence, banks book profits through arbitrage between the two money markets. Moreover, the issuance of commercial papers has been generally observed to be inversely related to the money market rates.

Summary of Guidelines for Issuance of a CP

Guidelines for issue of Commercial Paper

1. **Introduction**
   Commercial Paper (CP) is an unsecured money market instrument issued in the form of a promissory note. CP, as a privately placed instrument, was introduced in India in 1990 with a view to enable highly-rated corporate borrowers to diversify their sources of short-term borrowings and to provide an additional instrument to investors. Subsequently, Primary Dealers (PDs) and all-India Financial Institutions (FIs) were also permitted to issue CP to enable them to meet their short-term funding requirements. The guidelines for the issue of CP, incorporating all the amendments issued till date, are given below for ready reference.
2. **Eligibility for Issue of CP**
   (a) Companies, PDs and FIs are permitted to raise short-term resources through CP.
   (b) A company would be eligible to issue CP provided:
      (i) the tangible net worth of the company, as per the latest audited balance sheet, is not less than ₹4 crore;
      (ii) the company has been sanctioned working capital limit by bank/s or FIs; and
      (iii) the borrowal account of the company is classified as a standard asset by the financing bank/institution.
3. **Issue of CP–Credit Enhancement, Limits, etc.**
   (a) CP shall be issued as a 'stand-alone' product. Further, it would not be obligatory in any manner on the part of the banks and FIs to provide stand-by facility to the issuers of CP.
   (b) Banks and FIs may, based on their commercial judgement, subject to the prudential norms as applicable to them, with the specific approval of their respective Boards, choose to provide stand-by assistance/credit, back-stop facility, etc., by way of credit enhancement for a CP issue.
   (c) Non-bank entities (including corporates) may provide unconditional and irrevocable guarantee for credit enhancement for CP issue provided:
      (i) the issuer fulfils the eligibility criteria prescribed for issuance of CP;
      (ii) the guarantor has a credit rating at least one notch higher than the issuer given by an approved CRA; and
      (iii) the offer document for CP properly discloses the net worth of the guarantor company, the names of the companies to which the guarantor has issued similar guarantees, the extent of the guarantees offered by the guarantor company, and the conditions under which the guarantee will be invoked.

(a) The aggregate amount of CP that can be issued by an issuer shall at all times be within the limit as approved by its Board of Directors or the quantum indicated by the CRA for the specified rating, whichever is lower.

(b) Banks and FIs shall have the flexibility to fix working capital limits, duly taking into account the resource pattern of company's financing, including CP.

(c) An issue of CP by an FI shall be within the overall umbrella limit prescribed in the master circular on resource raising norms for FIs, issued by the Department of Banking Regulation, Reserve Bank of India, as prescribed/ updated from time-to-time.

(d) The total amount of CP proposed to be issued should be raised within a period of two weeks from the date on which the issuer opens the issue for subscription. CP may be issued on a single date or in parts on different dates provided that in the latter case, each CP shall have the same maturity date.

(e) Every issue of CP, and every renewal of a CP, shall be treated as a fresh issue.

4. Eligibility for Investment in CP

(a) Individuals, banks, other corporate bodies (registered or incorporated in India) and unincorporated bodies, Non-Resident Indians and Foreign Institutional Investors (FIIs) shall be eligible to invest in CP.

(b) FIIs shall be eligible to invest in CPs subject to (i) such conditions as may be set for them by Securities Exchange Board of India (SEBI) and (ii) compliance with the provisions of the Foreign Exchange Management Act, 1999, the Foreign Exchange (Deposit) Regulations, 2000 and the Foreign Exchange Management (Transfer or Issue of Security by a Person Resident Outside India) Regulations, 2000, as amended from time to time.

5. Form of the Instrument, Mode of Issuance and Redemption

5.1 Form

(a) CP shall be issued in the form of a promissory note and held in physical form or in a dematerialized form through any of the depositories approved by and registered with SEBI, provided that all RBI regulated entities can deal in and hold CP only in dematerialized form through such depositories.

(b) Fresh investments by all RBI-regulated entities shall be only in dematerialized form.

(c) CP shall be issued in denominations of ₹5 lakh and multiples thereof. The amount invested by a single investor should not be less than ₹5 lakh (face value).

(d) CP shall be issued at a discount to face value as may be determined by the issuer.

(e) No issuer shall have the issue of CP underwritten or co-accepted.

(f) Options (call/put) are not permitted on CP.

5.2 Tenor

(a) CP shall be issued for maturities between a minimum of 7 days and a maximum of up to one year from the date of issue.

(b) The maturity date of the CP shall not go beyond the date up to which the credit rating of the issuer is valid.

5.3. Procedure for Issuance

(a) Every issuer must appoint an IPA for issuance of CP.

(b) The issuer should disclose to the potential investors; its latest financial position as per the standard market practice.

(c) After the exchange of confirmation of the deal between the investor and the issuer, the issuer shall arrange for crediting the CP to the demat account of the investor with the depository through the IPA.

(d) The issuer shall give to the investor a copy of IPA certificate to the effect that the issuer has a valid agreement with the IPA and documents are in order.

5.4 Rating Requirement

Eligible participants/issuers shall obtain credit rating for issuance of CP from any one of the SEBI registered CRAs. The minimum credit rating shall be 'A3' as per rating symbol and definition prescribed by SEBI. The issuers shall ensure at the time of issuance of the CP that the rating so obtained is current and has not fallen due for review.

5.5 Investment/Redemption

(a) The investor in CP (primary subscriber) shall pay the discounted value of the CP to the account of the issuer through the IPA.

(b) The investor holding the CP in physical form shall, on maturity, present the instrument for payment to the issuer through the IPA.

(c) The holder of a CP in dematerialized form shall get the CP redeemed and receive payment through the IPA.

5.6 Documentation Procedures

(a) Standardized procedures and documentation for CPs are prescribed in consultation with Fixed Income Money Market and Derivatives Association of India (FIMMDA) in consonance with international best practices.

(b) Issuers /IPAs shall follow the operational guidelines issued by FIMMDA, from time to time, with the approval of RBI.

6. Trading and Settlement of CP

(a) All OTC trades in CP shall be reported within 15 minutes of the trade to the reporting platform of Clearcorp Dealing System (India) Ltd.(CDSIL).

(b) OTC trades in CP shall be settled through the clearing house of the National Stock Exchange (NSE), i.e., the National Securities Clearing Corporation Limited (NSCCL), the clearing house of the Bombay Stock Exchange (BSE), i.e., Indian Clearing Corporation Limited (ICCL), and the clearing house of the MCX-Stock Exchange, i.e., MCX-SX Clearing Corporation Limited (CCL), as per the norms specified by NSCCL, ICCL and CCL from time to time.

(c) The settlement cycle for OTC trades in CP shall either be T+0 or T+1.

7. Buyback of CP

(a) Issuers may buy-back the CP, issued by them to the investors, before maturity.

(b) Buy back of CP shall be through the secondary market and at prevailing market price.

(c) The CP shall not be bought back before a minimum period of 7 days from the date of issue.

(d) Issuer shall intimate the IPA of the buy-back undertaken.

(e) Buy-back of CPs should be undertaken after taking approval from the Board of Directors.

8. Duties and Obligations

The duties and obligations of the Issuer, IPA and CRA are set out below:

I. Issuer

The issuer shall ensure that the guidelines and procedures laid down for the issuance of CP are strictly adhered to.

II. IPA

(a) The IPA shall ensure that the issuer has the minimum credit rating as stipulated by RBI and the amount mobilized through issuance of CP is within the quantum indicated by CRA for the specified rating or as approved by its Board of Directors, whichever is lower.

(b) The IPA shall certify that it has a valid agreement with the issuer (Schedule II).

(c) The IPA shall verify that all the documents submitted by the issuer, viz., copy of board resolution, signatures of authorized executants (when CP is issued in physical form) are in order and shall issue a certificate to this effect.

(d) Certified copies of original documents, verified by the IPA, shall be held in the custody of IPA.

(e) All scheduled banks, acting as IPAs, shall report the details of issuance of CP on the Online Returns Filing System (ORFS) module of the RBI within two days from the date of issuance of the CP.

(f) IPAs, shall immediately report, on occurrence, full particulars of defaults in repayment of CP to the Chief General Manager, Financial Markets Regulation Department, Reserve Bank of India, Central Office, Fort, Mumbai-400001 IPAs shall also report all instances of buyback of CPs undertaken by the issuer to the Chief General Manager, Financial Markets Regulation Department, Reserve Bank of India, Central Office, Fort, Mumbai-400001

(g) III. CRA

(a) CRAs shall abide by the Code of Conduct prescribed by the SEBI for CRAs for undertaking rating of capital market instruments, which shall be applicable for rating CPs.

(b) The CRAs shall have the discretion to determine the validity period of the rating depending upon their perception about the strength of the issuer; and they shall, at the time of rating, clearly indicate the date when the rating is due for review.

(c) The CRAs shall closely monitor the rating assigned to issuers vis-à-vis their track record at regular intervals and shall make their revision in the ratings public through their publications and website.

9. Non-applicability of Certain Other Directions

Nothing contained in the Non-Banking Financial Companies Acceptance of Public Deposits (Reserve Bank) Directions, 1998 shall apply to the acceptance of deposit by issuance of CP, by any NBFC in accordance with these guidelines.

TABLE 4.1 Chronology of Development of CP in India

As on	Tangible Net Worth	Working Capital	Agg. Amt. of CP Issue	Maturity	Denomination	Minimum CP Issued per Investors	Mode of Issuance
January 1990	₹10 Crore	₹25 Crore	20 Per Cent of Working Capital (Fund-based Limit)	3 to 6 Months	Multiples of ₹25 Lakh	₹1 Crore	Physical
April 24, 1990	₹5 Crore	₹15 Crore	20 Per Cent of Working Capital (Fund-based Limit)	3 to 6 Months	Multiples of ₹10 Lakh	₹50 Lakh	Physical
May 30, 1991	₹5 Crore	₹10 Crore	30 Per Cent of Working Capital (Fund-based Limit)	3 to 6 Months	Multiples of ₹5 Lakh	₹25 Lakh	Physical
May 13, 1992	₹5 Crore	₹5 Crore	75 Per Cent (Fund-based Limit)	3 to 6 Months	Multiples of ₹ 5 Lakh	₹25 Lakh	Physical
October 18, 1993	₹4 Crore	₹4 Crore	75 Per Cent (Fund-based Limit)	3 Months to Less than One Year	Multiples of ₹5 Lakh	₹25 Lakh	Physical
November 4, 1996	₹4 Crore	–	As Sanctioned by Bank	3 Months to Less than One Year	Multiples of ₹5 Lakh	₹25 Lakh	Physical
April 15, 1997	₹4 Crore	–	As Sanctioned by Bank	1 Month to Less than One Year	Multiples of ₹5 Lakh	₹25 Lakh	Physical
May 25, 1998	₹4 Crore	–	As Sanctioned by Bank	15 Days to 365 Days	Multiples of ₹5 Lakh	₹25 Lakh	Physical
October 10, 2000	₹4 Crore	–	CP can be Issued as “Stand Alone” Product	15 Days to 365 Days	Multiples of ₹5 Lakh	₹25 Lakh	–
April 30, 2001	₹4 Crore	–	CP can be Issued as “Stand Alone” Product	15 Days to 365 Days	Multiples of ₹5 Lakh	–	Demat form (January 2001)
November 4, 2006	₹4 Crore	–	As Sanctioned by Banks	7 Days to 365 Days	Multiples of ₹5 Lakh	–	Demat form
February, 2017	₹5 Crores	–	As sanctioned by banks	7 days to 365 days	Of ₹5 lakhs and multiples of ₹1 lakh	–	–

Source: www.rbi.org.in

The cost of CPs includes interest paid to investors, IPA fees, stamp duty, rating fees, arranger fees, depository participant (DP) and Registrar and Transfer Agent (RTA) fees and depository fees.

The chronology of the development of the CP market is summarized in Table 4.1.

Stamp Duty on CP

The stamp duty on issuance of a CP is governed by the Indian Stamp Act and is under the purview of the central government. The level of stamp duty was scaled down substantially across various maturities on March 1, 2004.

The stamp duty rate applicable to non-bank entities are five times higher than those applicable to banks. Moreover, a CP issuance attracts a stamp duty for 90 days irrespective of the tenor. Hence, stamp duty levy makes shorter tenor issuance expensive.

Size of the CP Market

The size of the CP market is reflected in the total outstanding amount of commercial papers issued by companies. The outstanding amount of commercial papers increased considerably in the initial years. The amount of commercial papers issued by corporates increased significantly from ₹577 crore in March 1993

to a peak of ₹3,264 crore in March 1994 accompanied by a decline in the average discount rate from 15.5 per cent to 11 per cent during 1993–94. But in 1994–95 and 1995–96, however, the outstanding amount of CPs declined sharply. This decline was attributed to the withdrawal of the stand-by facility of the paper in October 1994, coupled with rising interest rates and a shrinking of short-term surplus funds with banks.

Since 1996–97, the commercial paper market has picked up as it can be accessed at rates lower than the short-term PLRs of commercial banks; CPs have become an attractive source of working capital funds as their rates are less than the sub-prime lending rates. Hence, commercial papers prove to be cheaper for corporates. The CP market has also become an attractive avenue for banks to park their credit funds. This market has been growing at a rate of 12–14 per cent, since 2000–01.

The outstanding amount of CPs as on March 31, 2017 was ₹3979.7 billion and the rate of interest between 5.99 to 13.33 percent.

The CP rates are dependent on ratings, a company's standing, and the demand–supply position of the market.

Corporates with the highest rating (P1+, PR1+, A1+) who regularly access the CP market are BPCL, HPCL, IPCL, IOC, ACC, Telco, L&T, Tata Coffee, Dabur, 1L&FS, M&M Finance, GE Caps, EID Parry, Electrosteel Castings, and Ashok Leyland Ltd.

Nationalized banks invest in CPs as a primary market instrument. They prefer to invest in CPs only during low credit off-take period.

Leasing and finance companies were the predominant issuers of CPs partly reflecting the Reserve Bank's policy of phasing out the access of these companies to public deposits.

Mutual funds have emerged as big investors as the SEBI regulations impose a ceiling of 10 per cent in investment in unlisted paper but CP investments are excluded. Hence, a large amount of money from mutual funds is flowing to CPs. As a result, interest rates dipped to a low of 6.33 per cent in February 2005. The corporates get a direct and quick access to the institutional investors through issuance of CPs. It is a cheaper option as compared to the customary bank credit route. Moreover, the decline in stamp duty has made CPs attractive.

Secondary Market in CPs

There was very little activity in the secondary market of CPs due to the investor's preference to hold the instrument till maturity. The market is developing with the entry of foreign and private sector banks who are becoming the major players. Mutual funds also prefer the secondary market route as the stamp duty for issuing CPs is higher at 0.5 per cent for mutual funds than for banks, which stands at 0.2 per cent. Mutual funds are active players in the CP secondary market. Mutual funds buy the paper in the secondary market through banks who pay a lower stamp duty in the primary market.

Factors Inhibiting the Growth of the CP Market

Commercial paper is a good instrument to raise short-term finances but this instrument is still in an underdeveloped state in India. The reasons are as follows.

1. Even though the minimum size of investment is ₹5 lakh, retail investors see little scope in investing their money.
2. CP issues involve administrative difficulties and complex procedural formalities which inhibit the growth of this market.
3. The non-bank institutional investors such as LIC, UTI, and GIC are not big buyers in this market because of a Reserve Bank directive limiting their short-term investments in the money market to treasury bills and as majority of their investment is either in equities or other long-term investments.
4. There is no active secondary market for CPs even though efforts have been made by the DFHI in this direction.
5. The CP market has witnessed ups and downs. Corporates too find it hard to enter as there is neither an underwriting facility nor a roll-over facility in case of CPs.
6. Stamp duty levy make CPs less attractive than short-term credit for corporates.
7. Stamp duty has been reduced substantially by the central government but still disparity exists between stamp duty payable by banks and non-bank entities. Banks as investors pay only one-fifth of what non-bank entities pay for subscribing to a CP. This distortion in the stamp duty rates has forced non-bank entities to buy the paper in the secondary market through banks to save on stamp duty. The stamp duty applicable to non-bank entities should be on par with banks. Moreover, the stamp duty structure inhibits a reduction in the minimum maturity period of CP.

8. The minimum maturity period of 7 days inhibits the growth of the CP market. In developed countries such as USA and France, CPs are issued with an overnight maturity. This is possible because there is no stamp duty on CP and settlement of CP takes place on the same day (*i.e.*, at T+0 basis). In India, the minimum maturity period can be reduced only when stamp duty is abolished and a full-fledged real time gross settlement (RTGS) system is in place.
9. The big corporates in the last few years could borrow money at base rates from banks which were cost-effective as compared to commercial paper rates. Moreover, corporates also generated a substantial amount of internal funds to meet their credit demand which reduced the need to issue CPs.

COMMERCIAL BILLS

- Commercial bills are negotiable instruments drawn by the seller on the buyer which are, in turn, accepted and discounted by commercial banks.

The working capital requirement of business firms is provided by banks through cash-credits/overdraft and purchase/discounting of commercial bills.

A commercial bill is a short-term, negotiable, and self-liquidating instrument with low risk. It enhances the liability to make payment on a fixed date when goods are bought on credit. According to the Indian Negotiable Instruments Act, 1881, a bill of exchange is a written instrument containing an unconditional order, signed by the maker, directing to pay a certain amount of money only to a particular person, or to the bearer of the instrument. Bills of exchange are negotiable instruments drawn by the seller (drawer) on the buyer (drawee) for the value of the goods delivered to him. Such bills are called trade bills. When trade bills are accepted by commercial banks, they are called commercial bills. The bank discounts this bill by keeping a certain margin and credits the proceeds. Banks, when in need of money, can also get such bills rediscounted by financial institutions such as LIC, UTI, GIC, ICICI, and IRBI. The maturity period of the bills varies from 30 days, 60 days, or 90 days, depending on the credit extended in the industry.

Commercial bills were introduced in the money market in 1970. The RBI rediscounted genuine trade bills at the bank rate or at a rate specified by it. The development of the bills market enabled banks and financial institutions to invest their short-term surplus funds in bills of varying maturities.

Types of Commercial Bills

- Demand Bill
- Usance Bill
- Clean Bill
- Documentary Bill
- Inland Bill
- Foreign Bill
- Hundi
- Derivative Usance Promissory Note

Types of Commercial Bills

Commercial bill is an important tool to finance credit sales. It maybe a demand bill or a usance bill. A demand bill is payable on demand, *i.e.*, immediately at sight or on presentation to the drawee. A usance bill is payable after a specified time. If the seller wishes to give some time for payment, the bill would be payable at a future date. These bills can either be clean bills or documentary bills. In a clean bill, documents are enclosed and delivered against acceptance by the drawee, after which it becomes clear. In the case of a documentary bill, documents are delivered against payment accepted by the drawee and documents of the file are held by bankers till the bill is paid.

Commercial bills can be inland bills or foreign bills. Inland bills must (a) be drawn or made in India and must be payable in India; or (b) drawn upon any person resident in India. Foreign bills, on the other hand, are (a) drawn outside India and may be payable in and by a party outside India, or may be payable in India or drawn on a party in India; or (b) it may be drawn in India and made payable outside India. A related classification of bills is export bills and import bills. While export bills are drawn by exporters in any country outside India, import bills are drawn on importers in India by exporters abroad.

The indigenous variety of bill of exchange for financing the movement of agricultural produce, called a 'hundi,' has a long tradition of use in India. It is in vogue among indigenous bankers for raising money or remitting funds or to finance inland trade. A hundi is an important instrument in India; so indigenous bankers dominate the bill market. However, with reforms in the financial system and lack of availability of funds from private sources, the role of indigenous bankers is declining.

With a view to eliminating movement of papers and facilitating multiple rediscounting, the RBI introduced an innovative instrument known as 'Derivative Usance Promissory Notes,' backed by such eligible commercial bills for required amounts and usance period (up to 90 days). The government has exempted stamp duty on derivative usance promissory notes. This has simplified and streamlined bill rediscounting by institutions and made the commercial bill an active instrument in the secondary money market. This instrument, being a negotiable instrument issued by banks, is a sound investment for rediscounting institutions. Moreover, rediscounting institutions can further discount the bills anytime prior to the date of maturity. Since some banks were using the facility of rediscounting commercial bills and derivative usance promissory notes for as short a period as one day, the Reserve Bank restricted such rediscounting to a minimum period of 15 days. The eligibility criteria prescribed by the Reserve Bank for rediscounting commercial bills are that the bill should arise out of a genuine commercial transaction showing evidence sale of goods and the maturity date of the bill should not exceed 90 days from the date of rediscounting.

Features of Commercial Bills

Commercial bills can be traded by offering the bills for rediscounting. Banks provide credit to their customers by discounting commercial bills. This credit is repayable on maturity of the bill. In case of need for funds, banks can rediscount the bills in the money market and get ready money. Commercial bills ensure improved quality of lending, liquidity, and efficiency in money management. It is fully secured for investment since it is transferable by endorsement and delivery and it has high degree of liquidity.

The bills market is highly developed in industrial countries but it is very limited in India. Commercial bills rediscounted by commercial banks with financial institutions amount to less than ₹1,000 crore. In India, the bill market did not develop due to (i) the cash-credit system of credit delivery where the onus of cash management rests with banks and (ii) an absence of an active secondary market.

Measures to Develop the Bills Market

One of the objectives of the Reserve Bank in setting up the Discount and Finance House of India (DFHI) was to develop the commercial bills market. The bank sanctioned a refinance limit for the DFHI against a collateral of treasury bills and against the holdings of eligible commercial bills.

With a view to developing the bills market, the interest rate ceiling of 12.5 per cent on the rediscounting of commercial bills was withdrawn from May 1, 1989.

To develop the bills market, the Securities and Exchange Board of India (SEBI) allowed, in 1995–96, 14 mutual funds to participate as lenders in the bills rediscounting market. During 1996–97, seven more mutual funds were permitted to participate in this market as lenders while another four primary dealers were allowed to participate as both lenders and borrowers.

In order to encourage the 'bills' culture, the Reserve Bank advised banks in October 1997 to ensure that at least 25 per cent of inland credit purchases of borrowers be through bills.

Size of the Commercial Bills Market

The size of the commercial bills market is reflected in the outstanding amount of commercial bills discounted by banks with various financial institutions.

The activity in the bills rediscounting market remained subdued and came down from ₹4,612 crore in 1991–92 to ₹906 crore at the end of March 2002. This depicts the small size and volume of the bills rediscounting market. Even though the number of participants has been increased by the Reserve Bank, the volume of activity is quite low.

The total monthly average amount of bills rediscounted by commercial banks with non-bank financial institutions worked out to ₹1,131 crore during 2001–02, with the Small Industries Development Bank of India (SIDBI) accounting for the major share of 63.7 per cent.

There was a substantial decline in the market for bills rediscounting in the year 2002–03. The SIDBI is a major participant in this market as it accounts for 75 per cent of the total transactions in this market. A rise in the rediscounting activity of the SIDBI led to an increase in the volumes of this market in 2003–04.

Banks prefer discounting inland bills and purchasing foreign bills. The share of bill finance in the total bank credit increased from 1993–94 to 1995–96 but declined subsequently. This reflects the underdeveloped state of the bills market. The reasons for the underdevelopment are as follows.

- The Reserve Bank made an attempt to promote the development of the bill market by rediscounting facilities with itself till 1974. Then, in the beginning of the 1980s, the availability of funds from the Reserve Bank under the bill rediscounting scheme was put on a discretionary basis. It was altogether stopped in 1981. The popularity of the bill of exchange as a credit instrument depends upon the availability of acceptance sources of the central bank as it is the ultimate source of cash in times of a shortage of funds. However, it is not so in India. The Reserve Bank set up the DFHI to deal in this instrument and extends refinance facility to it. Even then, the business in commercial bills has declined drastically as the DFHI concentrates more on other money market instruments such as call money and treasury bills.
- It is mostly foreign trade that is financed through the bills market. The size of this market is small because the share of foreign trade in national income is small. Moreover, export and import bills are still drawn in foreign currency which has restricted their scope of negotiation.
- A large part of the bills discounted by banks are not genuine. They are bills created by converting the cash-credit/overdraft accounts of their customers.
- The system of cash-credit and overdraft from banks is cheaper and more convenient than bill financing as the procedures for discounting and rediscounting are complex and time consuming.

- This market was highly misused in the early 1990s by banks and finance companies which refinanced it at times when it could not be refinanced. This led to channelizing of money into undesirable uses.

The Reserve Bank issued new guidelines to banks on January 24, 2003 regarding purchasing/discounting/negotiating/rediscounting of genuine commercial/trade bills. The important features of the revised guidelines are as follows.

- Banks are presently required to open letters of credit (LCs) and purchase/discount/negotiate bills under LCs only in respect of genuine commercial and trade transactions of their borrower constituents who have been sanctioned regular credit facilities by them. Accommodation bills should not be purchased/discounted/negotiated by banks.
- The practice of drawing bills of exchange claused 'without recourse' and issuing letters of credit bearing the legend without recourse should be discouraged because such notations deprive the negotiating bank of the right of recourse it has against the drawer under the Negotiable Instruments Act.
- Bills rediscounting should be restricted to usance bills held by other banks. Banks should not rediscount bills earlier discounted by non-banking financial companies (NBFCs) except in respect of bills arising from sale of light commercial vehicles and two/three wheelers.
- While discounting bills of the services sector, banks should ensure that actual services are rendered and accommodation bills are not discounted. Service sector bills should not be eligible for rediscounting.
- Banks should not enter into repo transactions using bills discounted/rediscounted as collateral.

CERTIFICATES OF DEPOSIT

Certificates of deposit (CDs) are unsecured, negotiable, short-term instruments in bearer form, issued by commercial banks and development financial institutions.

Certificates of deposit were introduced in June 1989. Only scheduled commercial banks excluding Regional Rural Banks and Local Area Banks were allowed to issue them initially. Financial institutions were permitted to issue certificates of deposit within the umbrella limit fixed by the Reserve Bank in 1992.

Certificates of deposit are time deposits of specific maturity similar to fixed deposits (FDs). The biggest difference between the two is that CDs, being in bearer form, are transferable and tradable while FDs are not. Like other time deposits, CDs are subject to SLR and CRR requirements. There is no ceiling on the amount to be raised by banks. The deposits attract stamp duty as applicable to negotiable instruments. They can be issued to individuals, corporations, companies, trusts, funds, associates, and others.

NRIs can subscribe to the Deposits on a Non-repatriable Basis.

CDs are issued by banks during periods of tight liquidity, at relatively high interest rates. They represent a high cost liability. Banks resort to this source when the deposit growth is sluggish but credit demand is high. Compared to other retail deposits, the transaction costs of CDs is lower. A large amount of money is mobilized through these deposits for short periods, reducing the interest burden when the demand for credit is slack.

CDs are issued at a discount to face value. Banks and FIs can issue CDs on floating rate basis provided the methodology of computing the floating rate is objective, transparent and market-based.

Measures to Develop the CD Market

- Certificates of deposit are short-term tradable time-deposits issued by commercial banks and financial institutions.

In 1989–90, the maximum amount that could be raised through CDs was limited to 1 per cent of the fortnightly average outstanding aggregate deposits. Since these deposits were subject to reserve requirements, a bank-wise limit on their issue of CDs was prescribed. With time, the bank-wise limits were raised. From October 16, 1993, these limits were abolished. In April 1993, scheduled commercial banks were permitted to raise CDs without any ceiling on the interest rate. This not only enabled banks to raise resources at competitive rates of interest but also enabled CDs to emerge as a market-determined instrument. The deposits serve as relationship instruments, issued by banks on a discretionary basis to high net worth clients.

In 1992, six financial institutions—IDBI, IFCI, ICICI, SIDBI, IRBI, and EXIM Bank—were permitted to issue CDs. These institutions could issue CDs with a maturity of more than one year and upto three years for an aggregate amount of ₹2,500 crore.

Effective from May 3, 1997, an umbrella limit for the mobilization of resources by way of term money borrowings, CDs, term deposits, and inter-corporate deposits was prescribed for three finan-

cial institutions—IDBI, ICICI, and IFCI—supplanting the instrument-wise limits stipulated earlier. The overall ceiling for the umbrella limit was set equal to the net owned funds of the financial institutions. A similar umbrella limit was also prescribed for EXIM Bank and SIDBI in June and August 1997, respectively.

CDs are issued by commercial banks on a discount to face value basis; the CDs of development financial institutions can be coupon bearing. The discount rate of a CD is market-determined. Coupon rates on the deposits issued by banks and financial institutions are published by the Reserve Bank on a fortnightly as well as monthly basis.

In 2000–01, the minimum maturity of a CD was reduced to 15 days to bring them at par with other short-term instruments like commercial papers and term deposits.

With a view to broadening the CD market, the minimum size of an issue was gradually scaled down from ₹5 lakh to ₹1 lakh in June 2002. From June 30, 2002, banks and financial institutions were required to issue CDs only in the dematerialized form.

Banks/FIs are also allowed to issue CDs on a floating rate provided the methodology of compiling the floating rate is objective, transparent and market-based. The issuing bank/FI is free to determine the discount/corporate. The interest rate on floating rate CDs is reset periodically in accordance with a pre-determined formula that indicates the spread over a transparent benchmark.

Banks/FIs cannot issue loans against CDs. Further, they can not buy-back their own CDs before maturity.

Guidelines for Issue of Certificates of Deposit (CDs)

Certificates of Deposit

1. Introduction Certificate of Deposit (CD) is a negotiable money market instrument and issued in dematerialized form or as a Usance Promissory Note against funds deposited at a bank or other eligible financial institution for a specified time period.

2. Eligibility CDs can be issued by (i) scheduled commercial banks (excluding regional rural banks and local area banks); and (ii) selected All-India Financial Institutions (FIs) that have been permitted by RBI to raise short-term resources within the umbrella limit fixed by RBI.

3. Aggregate Amount

3.1 Banks have the freedom to issue CDs depending on their funding requirements.

3.2 Financial Institutions can issue CDs within the overall umbrella limit prescribed in the master circular/direction on resource raising norms for FIs, issued by Department of Banking Regulation, Reserve Bank of India and updated from time-to-time.

4. Minimum Size of Issue and Denominations Minimum amount of a CD should be ₹1 lakh, i.e., the minimum deposit that could be accepted from a single subscriber should not be less than ₹1 lakh, and in multiples of ₹1 lakh thereafter.

5. Investors CDs can be issued to individuals, corporations, companies (including banks and PDs), trusts, funds, associations, etc. Non-Resident Indians (NRIs) may also subscribe to CDs, but only on non-repatriable basis, which should be clearly stated on the Certificate. Such CDs cannot be endorsed to another NRI in the secondary market.

6. Maturity

6.1 The maturity period of CDs issued by banks should not be less than 7 days and not more than one year, from the date of issue.

6.2 FIs can issue CDs for a period not less than 1 year and not exceeding 3 years from the date of issue.

7. Discount/Coupon Rate CDs may be issued at a discount on face value. Banks/FIs are also allowed to issue CDs on floating rate basis provided the methodology of compiling the floating rate is objective, transparent and market-based. The issuing bank/FI is free to determine the discount/coupon rate. The interest rate on floating rate CDs would have to be reset periodically in accordance with a pre-determined formula that indicates the spread over a transparent benchmark. The investor should be clearly informed of the same.

8. Reserve Requirements Banks have to maintain appropriate reserve requirements, i.e., Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR), on the issue price of the CDs.

9. Transferability CDs in physical form are freely transferable by endorsement and delivery. CDs in demat form can be transferred as per the procedure applicable to other demat securities. There is no lock-in period for the CDs.

10. Trades in CDs

(a) All OTC trades in CP shall be reported within 15 minutes of the trade to the Financial Market Trade Reporting and Confirmation Platform ("F-TRAC") of Clearcorp Dealing System (India) Ltd. (CDSL).

(b) The requirement of exchange of physical confirmation of trades matched on F-TRAC is waived subject to the following conditions:

  (i) Participants entering into one time bilateral agreement for eliminating the exchange of confirmation or multilateral agreement drafted by the Fixed Income Money Market and Derivatives Association ("FIMMDA") ;

  (ii) Participants adhering to the extant laws such as stamp duty as may be applicable; and

  (iii) Participants ensuring adherence to a sound risk management framework and complying with all the regulatory and legal requirements and practices, in this regard.

(c) The list of entities, which have signed the multilateral agreement, will be published by FIMMDA and the Clearing Corporation of India Limited (CCIL) on their websites.

11. Settlement All OTC trades in CDs shall necessarily be cleared and settled under DVP I mechanism through the authorised clearing houses [National Securities Clearing Corporation Limited (NSCCL), Indian Clearing Corporation Limited (ICCL) and MCX Stock Exchange Clearing Corporation Limited (CCL)] of the stock exchanges.

12. Loans/Buy-backs Banks/FIs cannot grant loans against CDs. Furthermore, they cannot buy-back their own CDs before maturity. However, the RBI may relax these restrictions for temporary periods through a separate notification.

13. Format of CDs Banks/FIs should issue CDs only in dematerialized form. However, according to the Depositories Act, 1996, investors have the option to seek certificate in physical form. Accordingly, if an investor insists on physical certificate, the bank/FI may inform the Chief General Manager, Financial Markets Regulation Department, Reserve Bank of India, Central Office, Fort, Mumbai - 400 001 about such instances separately. Further, issuance of CDs will attract stamp duty. There will be no grace period for repayment of CDs. If the maturity date happens to be a holiday, the issuing bank/FI should make payment on the immediate preceding working day. Banks/FIs, therefore, should fix the period of deposit in such a manner that the maturity date does not coincide with a holiday to avoid loss of discount/interest rate.

14. Security Aspect Since CDs in physical form are freely transferable by endorsement and delivery, it will be necessary for banks/FIs to see that the certificates are printed on good quality security paper and necessary precautions are taken to guard against tampering with the document. They should be signed by two or more authorized signatories.

15. Payment of Certificate

15.1 Since CDs are transferable, the physical certificates may be presented for payment by the last holder. The question of liability on account of any defect in the chain of endorsements may arise. It is, therefore, desirable that banks take necessary precautions and make payment only by a crossed cheque. Those who deal in these CDs may also be suitably cautioned.

15.2 The holders of dematted CDs will approach their respective Depository Participants (DPs) and give transfer/delivery instructions to transfer the security represented by the specific International Securities Identification Number (ISIN) to the 'CD Redemption Account' maintained by the issuer. The holders should also communicate to the issuer by a letter/fax enclosing the copy of the delivery instruction they had given to their respective DP and intimate the place at which the payment is requested to facilitate prompt payment. Upon receipt of the demat credit of CDs in the "CD Redemption Account", the issuer, on maturity date, would arrange to repay to holders / transferors by way of banker's cheque/high-value cheque, etc.

16. Issue of Duplicate Certificates

16.1 In case of loss of physical certificates, duplicate certificates can be issued after compliance with the following:
(a) Notice is required to be given in at least one local newspaper;
(b) Lapse of a reasonable period (say 15 days) from the date of the notice in the newspaper; and
(c) Execution of an indemnity bond by the investor to the satisfaction of the issuer of CDs.

16.2 The duplicate certificate should be issued only in physical form. No fresh stamping is required as a duplicate certificate is issued against the original lost CD. The duplicate CD should clearly state that the CD is a duplicate one stating the original value date, due date, and the date of issue (as "Duplicate issued on _____").

Secondary Market for CDs

Being negotiable instruments, CDs are traded in the secondary money market. However, the secondary market for these deposits has remained dormant as investors find it profitable to hold the high-interest yielding deposits till maturity. In order to provide flexibility and depth to the secondary market, the time restriction on transferability of CDs issued by both banks and financial institutions was withdrawn effective from October 10, 2000. Two-way quotations on the deposits are offered by DFHI, but very little trade actually takes place in the secondary market. CDs are also traded on the NSE–WDM segment but its proportion in the total trading volume is insignificant.

Size of the CD Market

The size of the CD market is reflected in the total outstanding amount of CDs issued by commercial banks and financial institutions.

The amount of money mobilized by banks till 1997–98 through certificates of deposit increased indicating that the primary market for the issuance of the deposits grew rapidly. Stringent conditions in the money market and firm call money rates rekindled the interest of banks in CDs in 1994–95 to 1997–98.

Since 1998–99, the banks' reliance on the relatively high-cost CDs declined due to downward trend in the rates of other money market instruments and strong growth in bank deposits coupled with a deceleration in non-food bank credit. Moreover, interest rate deregulation in term deposits and reduction in the maturity period to 15 days facilitated better management of liabilities by banks and reduced their need to issue CDs.

However, there was a surge in CD issues in 2003–04 on account of reduction in the stamp duty on CDs, withdrawal of the facility of premature closure of deposits in respect of CDs and exemption of investments in CDs by banks from the instructions on non-SLR investments below one year. These developments led to greater demand for investment in CDs by mutual funds.

Since 2004–05, the demand for investment in CDs was further pushed by private sector banks as they are cost attractive vis-a-vis fixed deposits. Moreover, as compared to fixed deposits, CDs do not carry prepayment or premature closure and tax deducted at source (TDS). Also, the reduction in the minimum maturity period from 15 days to 7 days made CDs an attractive investment avenue for both private sector banks and mutual funds. The outstanding CDs constituted 4.8 per cent of the aggregate deposits of issuing banks as at end-March 2008. The weighted average discount rate of CDs was 8.94 per cent at the end-March 2008, 9.31 per cent at the end-March 2009 and 11.13 percent in 2011–12. During 2011–12, the spike was due to tight liquidity conditions in the money market and the reluctance of mutual funds to rollover back CDs after asset management companies (AMCs) were made accountable for fair valuation on mark-to-market basis.

Factors Inhibiting the Growth of CDs

CDs of commercial banks form only 2 per cent of their (financial institutions) aggregate deposits. Hence, there is a large scope for the development of this instrument. The following factors, however, limit the growth of CDs:

- Transactions in the secondary market have not developed because the number of participants are limited, interest rates are quite high, and CDs are not listed.
- The secondary market for certificates of deposit has been slow to develop. With banks offering higher interest rates on these deposits, investors find it profitable to hold them till maturity.
- The reliance of financial institutions on CDs has decreased. It can be increased if the tenor of the CDs of the financial institutions is rationalized.

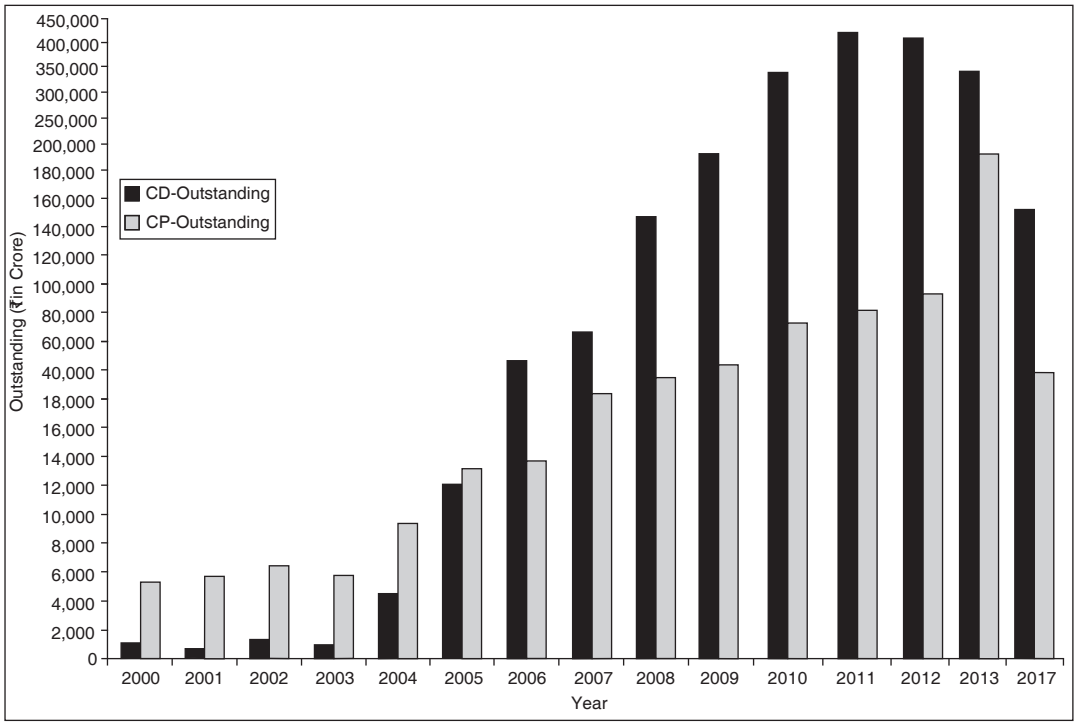


Figure 4.1 Comparison of Certificates of Deposit and Commercial Papers—Outstanding.

- There is no facility of loans against the deposits by banks nor can banks buy them back prematurely.
- The market is limited to few investors as the minimum level of investment is still high.
- The stamp duty on the CDs has also affected their growth.
- CDs carry a fixed rate of discount. To enlarge the market of these deposits, it is necessary to introduce floating rate CDs.

TABLE 4.2 Certificate of Deposit and Commercial Paper: A Comparison

	CD		*CP*	
Year (End-March)	*Interest Rate (Per Cent)*	*Outstanding (₹ in Crores)*	*Interest Rate (Percent)*	*Outstanding (₹ in Crores)*
2000	7.5–12	1,227	10–12	5,663
2001	6.5–12	771	8.75–12	5,847
2002	5.0–10.03	1,576	7.10–10.00	7,224
2003	5.0–7.1	908	6.00–7.75	5749
2004	4.21–6.34	4,764	4.70–6.5	9,706.5
2005	6.50–8.94	12,078	5.2–7.25	13,418.9
2006	4.60–8.50	43,568	6.95–925	12,767.35
2007	4.60–10.75	64,821	6.40–13.0	21,336
2008	5.50–10.75	1,47,792	6.70–14.25	32,591
2009	5.4–12.35	1,92,867	6.4–12.5	44,171
2010	4.5–7.12	3,41,054	5.3–9.0	75,506
2011	9.0–10.6	4,24,740	7.93–15.0	80,305
2012	9.3–11.13	4,19,530	9.75–15.25	91,190
2013	7.5–11.9	3,40,250	8.02–13.9	1,92,340
2017	6.21–6.70	1,55,740	5.99–13.33	3,97,970

Source: RBI, *Annual Report,* various issues.

Comparison of Certificates of Deposit and Commercial Papers

Commercial banks are the major investors in commercial papers and it is through certificates of deposit they raise funds to tide over their short-term requirements. The interest rate on both these instruments reflect the liquidity conditions of banks.

Comparing the outstanding amount in case of both CDs and CPs, reveals an inverse relationship between the two. When the outstanding amount of CDs increased, the outstanding amount of CPs decreased. In the year 1995–96, when liquidity conditions tightened and there was an increased demand for bank credit, the outstanding amount of CDs scaled to a peak of ₹16,316 crore while CP issues were merely ₹76 crore. The outstanding amount of CDs declined from 1999 due to a slackening of credit demand and easing of liquidity conditions. With the easing of liquidity conditions and enlargement of limits, the outstanding amount of CPs has picked up since 1997.

- There has been an inverse relationship between CD and CP issues.

The minimum rates on CDs were lower than those of CPs. The size of the CD market also was larger than that of CPs till 1998. From 1999, the size of the CP market has grown with the easing of interest rates and low credit off-take. The size of the CD market trebled in 2005, 2006 and 2011due to high credit off-take and tight liquidity conditions. (See Table 4.2)

CALL/NOTICE MONEY MARKET

Introduction

It is by far the most visible market as the day-to-day surplus funds, mostly of banks, are traded there. The call money market accounts for a major part of the total turnover of the money market. It is a key segment of the Indian money market. Since its inception in 1955–56, the call money market has registered a tremendous growth in volume of activity.

- Under call money market, funds are transacted on overnight basis and under notice money market, funds are borrowed/lent for a period between 2–14 days.

The call money market is a market for very short-term funds repayable on demand and with a maturity period varying between one day to a fortnight. When money is borrowed or lent for a day, it is known as call (overnight) money. Intervening holidays and/or Sundays are excluded for this purpose. When money is borrowed or lent for more than a day and upto 14 days, it is known as notice money. No collateral security is required to cover these transactions. The call money market is a highly liquid market, with the liquidity being exceeded only by cash. It is highly risky as well as extremely volatile.

Why Call Money

- Fortnight shall be on a reporting Friday basis and mean the period from Saturday to the second following Friday, both days inclusive.

Call money is required mostly by banks. Commercial banks borrow money without collateral from other banks to maintain a minimum cash balance known as the cash reserve requirement (CRR). This inter-bank borrowing has led to the development of the call money market.

CRR is an important requirement to be met by all commercial banks. The Reserve Bank stipulates this requirement from time to time. CRR is a technique for monetary control effected by the Reserve Bank for achieving specific macro-economic objective/s such as maintaining desired levels of inflation, growth, and exchange rates. CRR refers to the cash that banks have to maintain with the Reserve Bank as a certain percentage of their total demand and time liabilities (DTL). CRR, a primary instrument of monetary policy, has been brought down from 15 per cent in March 1991 to 5 per cent in January 2009.

- Eligible participants are free to decide on interest rates, but calculation of interest payable would be based on FIMMDA's (Fixed Income Market and Derivatives Association of India) Handbook of market practices.

Prior to May 2000, banks were required to maintain 85 per cent of their fortnightly reserve requirement on a daily basis. The networking among various branches of banks was not developed enough for the branches to report their respective net demand and time liabilities (NDTL) positions to the main branch on the first day of the fortnight itself. The NDTL of a bank is the sum of its liabilities to the banking system and its liabilities to the public.

With a view to providing further flexibility to banks and enabling them to choose an optimum strategy of holding reserves depending upon their intra-period cash flows, several measures were undertaken recently. In November 1999, a lagged reserve maintenance system was introduced under which banks were allowed to maintain reserve requirements on the basis of the last Friday of the second (instead of the first) preceding fortnight. From May 6, 2000, the requirement of minimum 85 per cent of the CRR balance on the first 13 days to be maintained on a daily basis was reduced to 65 per cent. With effect from August 11, 2000, this was reduced to 50 per cent for the first seven days of the report-

ing fortnight while maintaining the minimum 65 per cent for the remaining seven days including the reporting Friday. The daily minimum CRR was reduced to enable the smooth adjustment of liquidity between surplus and deficit segments and better cash management to avoid sudden increase in overnight call rates.

Hence, once every fortnight on a reporting Friday, banks have to satisfy reserve requirements which often entails borrowing in the call/notice money market. It is a market in which banks trade positions to maintain cash reserves. It is basically an over-the-counter (OTC) market without the intermediation of brokers. Inter-bank trading accounts for more than 80 per cent of the total transactions.

Participants in the Call Money Market

The call money market was predominantly an inter-bank market till 1971 when the erstwhile UTI and LIC were allowed to operate as lenders. Until March 1978, brokers were also allowed to participate in the call money market and they would effect transactions between lenders and borrowers for a brokerage. In the 1990s, the participation was gradually widened to include DFHI, STCI, GIC, NABARD, IDB1, money market mutual funds, corporates, and private sector mutual funds as lenders in this market.

The participants in the call money market who took on roles as both lenders and borrowers were: scheduled and non-scheduled commercial banks, foreign banks, state, district and urban cooperative banks, and DFHI. Other borrowing participants were the brokers and dealers in the securities/bullion/bills market, and sometimes individuals of high financial status.

In 1996–97, the Reserve Bank permitted primary dealers to participate in this market as both borrowers and lenders. Those entities that could provide evidence of surplus funds were permitted to route their lending through primary dealers. The minimum size of operations for routing transactions has been reduced from ₹20 crore to ₹3 crore, with effect from May 9, 1998. The call money market is now a pure inter-bank money market with effect from August 6, 2005.

Role of the Reserve Bank in the Call Money Market

The Reserve Bank intervenes in the call money market indirectly by conducting repo auctions.

Additional funding is provided through repo auctions which increase liquidity in the market and bring down call money rates. The Reserve Bank's reverse repo auctions absorb excess liquidity in the economy and push up depressed call rates

The Reserve Bank's intervention is necessary as there is a close linkage between the call money market and other segments of the money market and the foreign exchange market.

Link Between the Call Money Market and Other Financial Markets

There is an inverse relationship between call rates and short-term money market instruments such as certificates of deposit and commercial papers. When call rates peak to a high level, banks raise more funds through certificates of deposit. When call money rates are lower, many banks fund commercial papers by borrowing from the call money market and earn profits through arbitrage between money market segments.

A large issue of government securities also affects call money rates. When banks subscribe to large issues of government securities, liquidity is sucked out from the banking system. This increases the demand for funds in the call money market which pushes up call money rates. Similarly, a rise in the CRR or in the repo rate absorbs excess liquidity and call rates move up.

The call money market and the foreign exchange market are also closely linked as there exist arbitrage opportunities between the two markets. When call rates rise, banks borrow dollars from their overseas branches, swap them for rupees, and lend them in the call money market. At the same time, they buy dollars forward in anticipation of their repayment liability. This pushes forward the premia on the rupee–dollar exchange rate. It happens many a times that banks fund foreign currency positions by withdrawing from the call money market. This hikes the call money rates.

Call Rate

The interest rate paid on call loans is known as the 'call rate.' It is a highly volatile rate. It varies from day-to-day, hour-to-hour, and sometimes even minute-to-minute. It is very sensitive to changes in the

demand for and supply of call loans. Within one fortnight, rates are known to have moved from 1–2 per cent to over 140 per cent per annum.

Till 1973, the call rate was determined by market forces, *i.e.*, by the forces of demand and supply. In December 1973, the call rate touched a high of 30 per cent due to tight credit policy wherein the bank rate was raised and refinance and rediscount facilities were discontinued. As a result, many banks defaulted and the Indian Bank Association (IBA) started regulating the call rate by fixing a ceiling from time to time in an informal manner.

With effect from May 1, 1989, call rates were freed from an administrative ceiling. Now the rate is freely determined by the demand and supply forces in the call money market.

A reference rate in the overall call money market has emerged recently through NSE and Reuters.

MIBOR

The National Stock Exchange (NSE) developed and launched the NSE Mumbai Inter-bank Bid Rate (MIBID) and the NSE Mumbai Inter-bank Offer Rate (MIBOR) for overnight money markets on June 15, 1998. NSE MIBID/MIBOR are based on rates pooled by the NSE from a representative panel of 31 banks/institutions/primary dealers. Currently, quotes are pooled and processed daily by the exchange at 9:40 (1ST), for the overnight rate and at 11.30 (IST) for the 14 day, 1 month, and 24 month rates. The rates pooled are then processed using the boost trap method to arrive at an efficient estimate of the reference rates. This rate is used as a benchmark rate for majority of the deals struck for floating rate debentures and term deposits. The benchmark is the rate at which money is raised in the financial markets. These rates are used in hedging strategies and as reference points in forwards and swaps.

Reuters MIBOR (Mumbai Inter-bank Overnight Average) is arrived at by obtaining a weighted average of call money transactions of 22 banks and other players.

MIBOR is an official benchmark rate for interest rate swaps (IRS) and forward rate agreements (FRAs). MIBOR is transparent, market-determined, and mutually acceptable to counter-parties as reference.

Call Rates Volatility

In India, money and credit situation is subject to seasonal fluctuation every year. The volume of call money transactions and the amount as well as call rate levels characterize seasonal fluctuation/volatility. A decrease in the call/notice money requirement is greater in the slack season (mid-April to mid-October) than in the buy season (mid-October to mid-April).

Factors Influencing Call Money Market Rate

Liquidity Conditions Liquidity conditions are governed by factors on both the demand and supply side of money. Liquidity conditions are governed by deposit mobilization, capital flows and reserve requirements on the supply side, and tax outflows, government borrowings programme, non-food credit off-take, and seasonal fluctuations on the demand side. When easy liquidity conditions prevail, call rates move around the Reserve Bank's repo rate. During times of tight liquidity, call rates tend to move up towards the bank rate.

Reserve Requirement Prescriptions and Stipulations Regarding Average Reserve Maintenance A cut in the CRR reduces call rates while an increase in the CRR increases call rates. Moreover, banks do not plan the demand for funds to meet their reserve requirements which increases call rate volatility. Till April 1997, inter-bank transactions were included in the reserve calculation. This led to a halt in the money market activity every second Friday (reserve calculation day) when banks tried to reduce their reserve requirement by eliminating inter-bank borrowing. Due to this, the overnight call rates fell to zero per cent every second Friday. This inhibited the development of liquid money market yield curve beyond 13 days.

Structural Factors Structural factors refer to issues like government legislation, conditions of the stock markets which affect the volatility of the call money rate.

Liquidity Changes and Gaps in the Foreign Exchange Market Call rates increase during volatile forex market conditions. This increase is a result of monetary measures for tightening liquidity conditions and short position taken by market agents in domestic currency against long positions in US dollars in anticipation of higher profits through depreciation of the rupee. Banks fund foreign

currency positions by withdrawing from the inter-bank call money market which leads to a hike in the call money rates.

Measures for Curbing High Volatility

The Reserve Bank has tried to curb or prevent the call rate volatility through various measures.

Through Repos The Reserve Bank is a major player and it moderates liquidity and volatility in the market through repos and refinance operations and changes in the procedures for maintenance of the CRR. The Reserve Bank resumed repo auctions in November 1996 to provide a reasonable floor to call money rates as also a short-term avenue for banks to park their surplus funds. Reverse repos are also employed to inject liquidity in the call market. The liquidity adjustment facility (LAF) was introduced from June 5, 2000 onwards to modulate short-term liquidity under varied financial market conditions and to impart stability to market conditions.

Freeing of Inter-bank Liabilities from Reserve Requirements Inter-bank liabilities were freed from reserve requirements in April 1997. This was expected to help generate a smooth yield curve and reduce volatility in the call rates which, till then, depicted a cyclical pattern with troughs on the reporting Fridays.

Call money rates have been volatile in the last 10 years and they rose sharply in 1995 and 1996 due to tight money market conditions. The major factors behind the overall tight conditions of call/notice money market were as follows.

- The mismatch between assets and liabilities of commercial banks arising out of massive demand for non-food bank credit as against sluggish growth of bank deposits.
- The Reserve Bank's intervention in the forex market to prevent the usual depreciation of rupee.
- The temporary withdrawal of the money market support to stabilize the forex market first.

The call money market remained orderly in the late-1990s with bouts of volatility. The call money rate moved within a limited range as the Reserve Bank conducted a series of reverse repo auctions under the LAF and brought about a monetary easing in the form of bank rate and CRR cuts. In general, the movement was confined to repo reverse repo corridor. The repo rate effectively sets the floor for call market movements.

Size of the Call Money Market The annual and average daily call money turnover indicate the size of the call money market. The annual turnover in the call money increased substantially. The average daily turnover in the call/notice money market rose sharply to ₹47,543 crore during April 2002 from ₹39,808 crore during March 2002. However, the average daily turnover declined to ₹22,852 crore during January 2005. Primary dealers (PDs), whose demand is related to the volume of the government's market borrowing programme, emerged as the largest class of borrowers in the call/notice money market in 2003–04.

There was an upward trend in the call money market turnover due to the following factors:

- Increase in the breadth and depth of the market leading to an increase in the number of players, owing to institutional reform measures taken during the 1990s.
- Growth in the activity of primary dealers supported by refinance facility from the Reserve Bank and its active operations in the market through repos which provided a floor for call rates and enhanced liquidity.

The call rates remained stable in 2003–04 and were below the reverse repo rate (earlier the repo rate). However, the call rates increased during October and November 2004 on account of higher non-food credit off-take. Increase in reserve requirement and seasonal festival cash demand which above the banks towards higher borrowings in the call money market. The call money rate was later stabilized by the Reserve Bank by switching to the LAF repo operations to inject liquidity in the system. Call rates edged up during the year 2005–06 with the increase in the fixed reverse repo rate and liquidity pressure. Again, call rates edged up during 2008–09 and 2011–12 due to tight liquidity conditions.

The average daily turnover in the call money market increased from ₹14,170 crore during 2004–05 to ₹17,979 crore in 2005–06 but subsequently declined to 21,394 crore in 2007–08 and to ₹13,824 crore during December 2009. More than 70 per cent of the activity shifted to Collateralized Borrowing and Lending Obligation (CBLO) segment as the CBLO rakes are lower than call money rates and non-bank entities have been phased out of this market with effect from August 6, 2005. The share of the call money market in the total overnight market transactions declined from 51 per cent in April 2005 to 20 per cent in March 2009. But during 2011−12, share of call money in total overnight money market volume increased while that of CBLO declined.

Box 4.1 Phasing Out of Non-banks from the Call/Notice Money Market

Stage I : Effective May 5, 2001, non-bank institutions (*i.e.*, financial institutions, mutual funds, and insurance companies) were allowed to lend upto 85 per cent of the average, daily call lending during 2000–01; corporates were allowed to route call transactions through primary dealers upto June 30, 2001.

Stage II : Effective June 14, 2003, the limit of non-bank lending in the call/notice money market was scaled down to 75 per cent of average daily call lending during 2000–01.

Stage III : Access of non-banks to the call/notice money market was lowered to 60 per cent of the average daily call lending during 2000–01 effective December 27, 2003 and to 45 per cent with effect from June 26, 2004.

Stage IV : Effective August 6, 2005, non-bank participants, (except primary dealers) were phased out from the call money market completely.

Source: RBI, *Annual Report*, 2005–06.

Call and Notice Money Market

1. Introduction The money market is a market for short-term financial assets that are close substitutes of money. The most important feature of a money market instrument is that it is liquid and can be turned into money quickly at low cost and provides an avenue for equilibrating the short-term surplus funds of lenders and the requirements of borrowers. The call/notice money market forms an important segment of the Indian money market. Under call money market, funds are transacted on an overnight basis and under notice money market, funds are transacted for a period between 2 days and 14 days.

2. Participants Scheduled commercial banks (excluding RRBs), co-operative banks (other than Land Development Banks) and Primary Dealers (PDs), are permitted to participate in call/notice money market both as borrowers and lenders.

3. Prudential Limits

3.1 The prudential limits in respect of both outstanding borrowing and lending transactions in call/notice money market for scheduled commercial banks, co-operative banks and PDs are as follows:-

TABLE 4.3 Prudential Limits for Transactions in Call/Notice Money Market

Sr. No.	*Participant*	*Borrowing*	*Lending*
1	Scheduled Commercial Banks	On a daily average basis in a reporting fortnight, borrowing outstanding should not exceed 100 per cent of capital funds (i.e., sum of Tier I and Tier II capital) of latest audited balance sheet. However, banks are allowed to borrow a maximum of 125 per cent of their capital funds on any day, during a fortnight.	On a daily average basis in a reporting fortnight, lending outstanding should not exceed 25 per cent of their capital funds. However, banks are allowed to lend a maximum of 50 per cent of their capital funds on any day, during a fortnight.
2	Co-operative Banks	Outstanding borrowings of State Co-operative Banks/District Central Co-operative Banks/ Urban Co-operative Banks in call/notice money market, on a daily basis should not exceed 2.0 per cent of their aggregate deposits as at end March of the previous financial year.	No limit.
3	PDs	PDs are allowed to borrow, on daily average basis in a reporting fortnight, up to 225 per cent of their Net Owned Funds (NOF) as at end-March of the previous financial year.	PDs are allowed to lend in call/notice money market, on daily average basis in a reporting fortnight, up to 25 per cent of their NOF.

3.2 Banks/PDs/ Co-operative banks may, with the approval of their Boards, arrive at the prudential limits for borrowing/lending in call/notice money market in terms of guidelines given in

paragraph 3.1 above. The limits so arrived at may be conveyed to the Clearing Corporation of India Ltd. (CCIL) for setting of limits in NDS-CALL System, under advice to Financial Markets Regulation Department (FMRD), Reserve Bank of India.

3.3 Non-bank institutions (other than PDs) are not permitted in the call/notice money market.

4. Interest Rate

4.1 Eligible participants are free to decide on interest rates in call/notice money market.

4.2 Calculation of interest payable would be based on the methodology given in the *Handbook of Market Practices* brought out by the Fixed Income Money Market and Derivatives Association of India (FIMMDA).

5. Dealing Session Deals in the call/notice/term money market can be done from 9:00 am to 5:00 pm on each business day or as specified by RBI from time to time.

6. Documentation Eligible participants may adopt the documentation suggested by FIMMDA from time to time.

7. Trading The call/notice money transactions can be executed either on NDS-Call, a screen–based, negotiated, quote-driven electronic trading system managed by the Clearing Corporation of India (CCIL), or Over The Counter (OTC) through bilateral communication.

8. Reporting Requirement

8.1 All dealings in call/notice/term money executed on the Negotiated Dealing System-Call, i.e., NDS-Call (a screen -based, negotiated, quote-driven system), do not require separate reporting.

8.2 It is mandatory that all the OTC call/notice/term money deals be reported over the reporting platform of NDS-Call by the parties who are having NDS-Call membership.

8.3 OTC deals should be reported within 15 minutes on NDS-Call reporting platform, irrespective of the size of the deal or whether the counter party is a member of the NDS-Call or not.

8.4 Parties, who are not having NDS-Call membership, are advised to report the deals to Financial Markets Regulation Department, RBI in the reporting format.

8.5 The reporting time for all OTC call/motice/term money deals on NDS-Call is up to 5:00 p.m. on each business day or as decided by RBI from time to time.

8.6 In case of any misreporting or repeated reporting of OTC deals by a party, the same should be immediately brought to the notice of Financial Markets Regulation Department, Reserve Bank of India, Central Office, Fort, Mumbai.

Term Money Market

Beyond the call/notice money market is the term money market. This money market is one beyond the overnight tenor, with a maturity ranging between three months to one year. In other words, a term money market is one where funds are traded upto a period of three to six months. The term money market in India is still not developed. The turnover in this market remained mostly below ₹200 crore in 2001–02. The average daily turnover in the term money market rose by 52 per cent to ₹526 crore in 2004–05 from ₹341 crore in 2003–04. The volumes are quite small in this segment as there is little participation from large players and a term money yield curve is yet to develop. Banks do not want to take a view on term money rates as they feel comfortable with dealing only in the overnight money market. Foreign and private sector banks are in deficit in respect of short-term resources; hence they depend heavily on the call/notice money market. The public sector banks are generally in surplus and they exhaust their exposure limit to them thereby constraining the growth of the term money market. Corporates prefer 'cash credit' rather than 'loan credit,' which forces banks to deploy a large amount of resources in the call/notice money market rather than in the term money market to meet their demands.

The Reserve Bank has permitted select financial institutions such as IDBI, ICICI, IFCI, IIBI, SIDBI, EXIM Bank, NABARD, IDFC, and NHB to borrow from the term money market for three- to six-months maturity. In April 1997, banks were exempted from the maintenance of the CRR and SLR on inter-bank liabilities to facilitate the development of the term money market. However, market participants are reluctant to increase their exposure in the term money market as the market is too shallow.

As stated earlier, the Reserve Bank has converted the call/notice money market into a pure inter-bank market. Hence, many non-bank entities who have been phased out of the call money market have shifted their focus to the term money market. Moreover, banks have been forced to reduce their exposure to the

overnight call money market. These surplus funds of banks may shift to the term money market. Increased participation and sufficient liquidity could lead to the development of the term money market.

From April 30, 2005, all NDS members are required to report their term money deals on the NDS platform.

COLLATERALIZED BORROWING AND LENDING OBLIGATION (CBLO)

The Clearing Corporation of India Limited (CCIL) launched a new product–Collateralized Borrowing and Lending Obligation (CBLO)—on January 20, 2003 to provide liquidity to non-bank entities hit by restrictions on access to the call money market. CBLO is a discounted instrument available in electronic book entry form for the maturity period ranging from 1 day to 19 days. The maturity period can range up to one year as per the RBI guidelines. The CBLO is an obligation by the borrower to return the borrowed money, at a specified future date, and an 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. The eligible securities are central government securities including treasury bills with a residual maturity period of more than six months. There are no restrictions on the minimum denimination as well as lock-in period for its secondary market transactions.

Banks, Cooperative Banks, Financial institutions, Insurance Companies, Mutual Funds, and Primary Dealers who are members of negotiated dealing system (NDS) are allowed to participate in CBLO transactions. Non-members like corporates, NBFCs, pension/provident funds, and trusts are allowed to participate by obtaining associate membership to CBLO segment. Associate members are entities not eligible to maintain current account and SGL account with the Reserve Bank. Members can access CBLO Dealing System through INFINET connectivity whereas associate members can access CBLO Dealing System through internet. CBLO Dealing System is an automated order driven, online anonymous matching system provided by Clear Corp Dealing System (CCDS) to enable members to borrow and lend funds against CBLO. It also disseminates online information regarding deals concluded, volumes, rates, etc., and such other notifications as relevant to CBLO market. Associate members are required to open a current account with a settlement bank designated by CCIL for settlement of funds.

There are two types of markets available for trading in CBLO: the normal market and the auction market. The normal market is a continuous market where members can borrow and lend on an ongoing basis. The buy and sell orders in this market get executed online in accordance with order matching principles of time and yield priority. Under normal market, there are two settlement cycles available to members, *viz*, T+0 and T+1. Normal market is available for all members including associate members. The normal market can be accessed for borrowing funds to the extent of their available borrowing limit. Members can also sell CBLOs held by them to meet their funds requirement instead of holding till maturity. Members intending to sell CBLOs (borrow funds) place their offers directly through order entry form on the CBLO system indicating the amount and rate for a specific CBLO. Likewise, members willing to buy CBLOs (lend funds) place their bids through order entry form specifying the amount and rate for a particular CBLO. The matching of bids and offers takes place on Best Yield—Time Priority basis. Under the auction market, members based on the borrowing limits fixed by CCIL, enter borrow requests to CCDS through CBLO system indicating clearly the amount, maturity, and the cap rate before commencement of the auction session, *i.e.* from 10:30 a.m. to 11:00 a.m. These borrow requests are then bid for during the auction session. These 'bids'-order for lending funds and 'offers' order for borrowing funds are through an auction screen which remains open for a limited time on working days. Associate members are not allowed to borrow and lend funds in auction market. Auction market is available only to NDS members for overnight borrowing and settlement on T+0 basis. Currently the minimum order lot for auction market is fixed at ₹50 lakh and in multiples of ₹5 lakh thereof. The minimum order lot for normal market is fixed at ₹5 lakh and in multiples of ₹5 lakh thereof. Order lot refers to the minimum amount that is required to constitute a successful trade in the auction and normal market.

- Liabilities of scheduled commercial banks arising out of transaction in CBLO are subject to maintenance of CRR.

As the repayment of borrowing under CBLO segment is guaranteed by CCIL, all CBLO members have to maintain collateral or cash margin with the CCIL as cover. CCIL sets up borrowing limits for the members against their deposits of government securities as collaterals. Collateral means the physical security which is given as a guarantee from an acceptable bank and delivered to the CCIL for a value to the extent prescribed by CCIL for participating in the transactions. These collaterals are subject to haircuts and revalued on a daily basis. Hair-cut is stipulated by CCIL to protect itself from potential losses arising on account of decline in market value of security held as collateral. Any shortfall in the value of collateral (to cover outstanding borrowings) is collected through the end of the day margin call.

The interest rates on the CBLOs mirror call money rates. The borrowing costs in the CBLOs are low as compared to the call market.

Mutual funds and insurance companies have emerged as the largest supplier of funds as they are flush with liquidity. The cooperative banks, public and private sector banks, and primary dealers are large borrowers in this market on account of favourable borrowing cost in the CBLO segment vis-à-vis the call market.

The average daily turnover in the CBLO market has gone up on account of fall in the CBLO rates. Rates on CBLOs fall when there is a fall in overnight call money rates. When CBLO rates fall, forex dealers borrow rupees from the CBLO market to buy dollars and simultaneously agree to sell it a day later. The money is then invested in overnight dollar deposits with banks abroad which give a higher return.

The daily average turnover in the CBLO segment increased from ₹2,506 crore in March 2004 to a peak of ₹1,09,125 crore in March 2009. Volumes in CBLOs have increased tremendously due to the Reserve Bank's move to bar non-bank entities from the call money market. From August 6, 2005, non-banks (except PDs) were completely phased out from the call money market.

The CBLO market emerged as the preferred overnight market in 2005–06 since it offers anonymity to market participants and provides funds at a lower cost. The interest rates averaged 5.20 per cent in the CBLO segment during 2007–08 as compared with 6.07 per cent in the call money market and 5.5 per cent in market repos (outside the LAF). It is now the predominant segment of the money market and acccounted for nearly 80 per cent of the total volume during 2007–08. Enchanced transparency and real time basis of deals have attracted a large number of market participants to this segment. During 2011-12, the volumes in the CBLO segment declined as a new operating procedure of policy instruments was introduced by the RBI and call money rate stabilized.

In order to increase the depth and liquidity in the CBLO market, CCIL is planning to introduce an internet-based trading platform for its CBLO product which would provide access to corporates and other non-banking entities to the institutional lending and borrowing segment of money markets.

LINK BETWEEN THE MONEY MARKET AND THE MONETARY POLICY IN INDIA

Direct Instruments

- Reserve requirements
- Limits on refinance
- Administered interest rates
- Qualitative and quantitative restrictions on credit.

The monetary policy represents policies, objectives, and instruments directed towards regulating money supply and the cost and availability of credit in the economy. In the monetary policy framework, broad objectives are prescribed and an operating framework of policy instruments to achieve them is prepared. The monetary policy in India is an adjunct of the economic policy. The objectives of the monetary policy are not different from those of the economic policy. The three major objectives of economic policy in India have been growth, price stability, and social justice. The emphasis between the first two objectives has changed from year to year, depending upon the conditions prevailing in that year and the previous year. The objectives of the monetary policy are also price stability and growth. The government of India tries to manipulate its monetary policy through the Reserve Bank, the monetary authority in India. The objectives of the monetary policy are pursued by ensuring credit availability with stability in the external value of the rupee as well as an overall financial stability. Monetary policy actions are transmitted to the rest of the economy through changes in financial prices (e.g., interest rates, exchange rates, yields, asset prices, equity prices) and financial quantities (money supply, credit aggregates, supply of government bonds, foreign denominated bonds). Worldwide, the interest rate channel is the key channel of transmission. There is an intrinsic link between monetary policy and money market. It is through the money market that monetary policy affects the real economy.

The Reserve Bank seeks to influence monetary conditions through management of liquidity by operating in varied instruments. These instruments can be categorized as direct and indirect market-based instruments.

Indirect Instruments

- Open market operations
- Repos

In an administered or controlled regime of money and financial markets, the Reserve Bank directly influences the cost, availability, and direction of funds through direct instruments. The management of liquidity is essentially through direct instruments such as varying cash reserve requirements, limits on refinance, administered interest rates, and qualitative and quantitative restrictions on credit.

Since 1991, the market environment has been deregulated and liberalized wherein the interest rates are largely determined by market forces. In such an environment, the Reserve Bank influences monetary conditions through market-based, indirect instruments such as open market operations and refinance (standing facilities) / discount (market-based discount windows)/repo windows. For example, if the Reserve bank desires to inject liquidity for a short period, it could resort to repos–providing funds to the banks in exchange of securities at a predetermined interest rate and reversing the transactions at a predetermined time. Similarly, if the Reserve Bank wants to influence liquidity on an enduring basis, it could resort to open market operations, involving outright purchase (or sale) of securities. The other indirect instruments such as standing facilities and market-based discount window are used (operated) by the Reserve Bank at the discretion of market participants generally banks. Standing facilities provide limited liquidity to eligible market participants and market-based discount window makes available reserves either through direct lending or through rediscounting or purchase of financial assets held by banks.

The success of market-based indirect instruments depends upon the existence of a vibrant, liquid, and efficient money market that is well integrated with the other segments of financial markets such as government securities market and foreign exchange market. The effectiveness of the monetary policy depends on the market and institutional framework available for transmitting monetary policy impulses.

The financial sector in India is still in a state of transition because of ongoing reforms. However, a growing integration among the different segments of the financial markets has been witnessed. Still, the markets do not have adequate depth and liquidity—a major constraint in the conduct of the monetary policy. The Reserve Bank, therefore, still relies on the cash reserve ratio as an operating instrument. The bank activated the bank rate in 1997 as a reference rate and as a signaling device to reflect the stand point of the monetary policy. The interest rates on different types of accommodation from the Reserve Bank including refinance are linked to the bank rate. The announcement impact of bank rate changes has been manifested in the prime lending rates (PLRs) of commercial banks.

The Reserve Bank also set up a framework of the interim liquidity adjustment facility (ILAF) which helped in injecting liquidity through the collateralized lending facility (CLF) to banks, export credit refinance to banks, and liquidity support to primary dealers. All these facilities were formula-based and depended on the bank rate. The ILAF was gradually converted into a full-fledged LAF. The liquidity adjustment facility (LAF) has evolved as an effective mechanism for absorbing and/or injecting liquidity on a day-to-day basis in a more flexible manner.

With the evolution of a regime of market-determined interest rates in the 1990s, new transmission channels opened up. Indirect monetary control instruments gained importance. Open market operations and repos operations emerged for the first time as instruments of monetary control. These operations have been increasingly used to bring about a contraction of liquidity in the system and neutralize the expansion impact of capital inflows. Repo rates, apart from reflecting liquidity conditions, provide a floor for overnight call money rate. In the event of tight liquidity conditions, the Reserve Bank's liquidity support to primary dealers enables it to directly intervene in the market, thereby moderating pressures on the overall call money rates. LAF has also facilitated bringing down the CRR of banks without endangering liquidity pressure.

Fixed rate repos were introduced by the Reserve Bank to absorb liquidity. They were supplemented by open market operations in government dated securities and treasury bills. Both the LAF and the OMO were effectively used by the Reserve Bank to manage liquidity till 2003–04. Owing to large inflow of dollars and high liquidity in the system, the stock of government securities available with the Reserve Bank declined and the burden of sterilization increasingly fell on the LAF operations. In order to absorb liquidity of enduring nature, the Reserve Bank operated a new scheme Market Stabilization Scheme (MSS). This scheme has provided further flexibility to the Reserve Bank in its market operations.

Thus, the Reserve Bank uses multiple instruments to ensure that appropriate liquidity is maintained in the system.

Unencumbered Approved Securities or SLR Securities Include

- T-bills of the GOI
- Dated securities of the GOI issued from time to time under the market borrowing programme and the market stabilization scheme (MSS).
- State Development Loans of the State Governments.
- Any other instrument as may be notified by the RBI.

Demand Liabilities Include

- Current Deposits
- Demand liabilities portion of savings bank deposits
- Margins held against letters of credit/ guarantees
- Balances in overdue fixed deposits
- Cash certificates
- Outstanding telegraphic transfers, mail transfers, demand drafts, unclaimed deposits,
- Credit balances in the Cash Credit Account and deposits held as security for advances which are payable on demand.

- At present, the CRR is 4 per cent and the SLR is 23 per cent of NDTL.

Time Liabilities Include

- Fixed deposit
- Cash certificates
- Cumulative and recurring deposits
- Time liabilities portion of savings bank deposits
- Staff security deposits
- Gold deposits

TOOLS FOR MANAGING LIQUIDITY IN THE MONEY MARKET

Reserve Requirements

Reserve requirements are of two types: (i) cash reserve requirements (CRR) and (ii) statutory liquidity ratio (SLR). They are techniques of monetary control used by the Reserve Bank to achieve specific macro-economic objectives. CRR refers to the cash that banks have to maintain with the Reserve Bank as a certain percentage of their total demand and time liabilities (DTL) while SLR refers to the mandatory investment that banks have to make in government securities. CRR refers to the level of reserves banks need to hold against their liabilities while SLR refers to liquid assets that banks have to hold.

The statute governing the CRR under section 42(1) of the Reserve Bank of India Act requires every bank in the second schedule to maintain an average daily balance with the Reserve Bank of India, the amount of which shall not be less than 3 per cent of the total demand and time liabilities. CRR is an instrument to influence liquidity in the system as and when required. SLR is the reserve that is set aside by the banks for investment in cash, gold, or unencumbered approved securities. It is mandatory under Section 24(2A) of the Banking Regulation Act, 1949, as amended by the Banking Laws (Amendment) Act, 1983 for banks to maintain this reserve. The reserve is supposed to provide a buffer in case of a run on the bank. The CRR for non-scheduled banks and non-scheduled cooperative banks is governed by provisions of Section 18 and 56, respectively, of the Banking Regulation Act, 1949. These banks have to maintain CRR equivalent to 3 per cent of their NDTL as on the last Friday of the preceding fortnight..

The CRR was brought down from 15 per cent in March 1991 to 4.75 per cent in October 2002 and to 4.5 per cent in April 2003, and subsequently raised to 7.00 per cent in August 2007, while the SLR was brought down from its peak of 38.5 per cent in April 1992 to 25 per cent on October 25, 1997. Thus, till the early 1990s, both the CRR and SLR were preempting around 63.5 per cent of the incremental deposits. Even though the SLR has been brought down to 25 per cent, most banks currently hold a volume of government securities higher than required

under the SLR as the interest rate on government securities is increasingly market-determined. Commercial banks' holdings of SLR securities were 27.8 of their net demand and time liabilities (NDTL) at end-March 2008.

The CRR rate was hiked by 3 per cent between April 2007 and August 2008 to contain inflationary expectations and absorb excess liquidity. In order to ease the unprecedented liquidity crunch faced by banks due to the sub-prime mortgage crisis , the RBI cut the CRR by 250 basis points (2.5 per cent) with effect from October 11, 2008. This was the first time since June 2003 that the RBI reduced CRR. The RBI also allowed banks to borrow short-term funds against their SLR bonds holding upto 1 per cent to infuse liquidity, thus bringing the SLR down to 24 per cent. On March 19, 2013 the CRR was brought down to 4 per cent of NDTL.

The daily minimum CRR was reduced from 85 per cent to 70 per cent of the average daily required reserves for a reporting fortnight on all days of the fortnight to enable a smooth adjustment of liquidity between the surplus and the deficit segment and better cash management to avoid a sudden increase in the overall call rates. Banks can maintain upto 70 per cent of reserve requirements towards the CRR during the reporting fortnight, provided on the reporting Friday, they are able to square the CRR maintenance to 100 per cent. Banks report their net demand and time liabilities (NDTL) on alternate Fridays. A lag of one fortnight in the maintenance of stipulated CRR by banks has been introduced to enable banks to improve the cash management.

A cut in the CRR increases the liquidity in the economy. It also means lower cost for the banks which translates into lower PLRs. It also sets a broad direction for interest rates in the future. Since October 2001, the interest rate paid on eligible balances under the CRR was linked to the bank rate. From August 11, 2001, the inter-bank term liabilities with an original maturity of 15 days and upto one year were exempted from the prescription of the minimum CRR requirement of 3 per cent.

Section 3 of the Reserve Bank of India Act, 1934 was amended in June 2006 and notified by the Government of India in March 2007. This amendment gives discretion to the Reserve Bank to decide the percentage of scheduled banks' demand and time liabilities as CRR without any ceiling or floor. From April 1, 2007, the floor of 3 per cent and a ceiling of 20 per cent stipulated in case of CRR have been removed. Also, the Reserve Bank is not required to make interest payment on CRR balances. The Banking Regulation Amendment Act, 2007 removed the floor rate of 25 per cent for SLR to be prescribed by the RBI and empowered it to determine the SLR eligible assets.

The Reserve Bank has announced that it would like to see the CRR level down to 3 per cent. The key constraint in reducing the CRR is the continuing high level of fiscal deficit which cannot be financed entirely by the market and, therefore, requires substantial support by the Reserve Bank.

CRR is an inflexible instrument of monetary policy as it does not distinguish between banks having surplus cash balances from those that are deficient. However, the CRR will continue to be used in both directions for liquidity management in addition to other instruments.

Other Demand and Time Liabilities Include

- Interest accrued on deposits
- Bills payable
- Unpaid Dividends
- Net credit balances in branch adjustment account.
- Amounts due to the Banking System which are not in the nature of deposits or borrowing.
- Margin money on bills purchased/ discounted.
- Gold borrowed by banks from abroad.

Interest Rates

Interest rate is one of the distinct monetary transmission channels. An administered interest rate structure was the central feature of the Indian monetary and credit system during the 1980s. The rationale behind the administered rate structure was to enable certain preferred or priority sectors to obtain funds at concessional rates of interest. This brought about an element of cross-subsidization resulting in higher lending rates for the non-concessional commercial sector. The deposit rates also had to be maintained at a low level. This system became complex with the proliferation of sectors and segments to which concessional credit was to be provided.

Following the recommendations of the Chakravarty Committee, set up in 1985, deposit rates were made attractive to avoid financial repression associated with near zero real deposit rates. However, the interest rate structure remained complicated. There were about 50 lending categories and a large number of stipulated interest rates depending on the loan size, usage, and type of borrowers.

In 1991, the Narasimham Committee recommended that concessional interest rates should not be a vehicle for subvention and there should be real interest rates. In view of this recommendation, interest rate reforms were undertaken in money, credit, and government securities market.

Since the beginning of 1992–93, interest rates in the government securities market were progressively deregulated with the introduction of an auction system. The structure of interest rates for commercial banks was simplified. The bank rate was reactivated in April 1997, linked with deposit rates (up to one year maturity) initially. Since then it has become a signaling rate.

Moreover, with a deregulation of interest rates, borrowings by the government since 1992 have been at market-related yields. Public sector undertakings and financial institutions which were largely dependent on budgetary support for their resources, now resort to the market to raise their resource requirement.

Thus, with deregulation, the interest rate has emerged as a major instrument of resource allocation.

Base Rate

The Benchmark Prime Lending Rate (BPLR), the minimum lending rate charged by the bank from its best corporate customers or prime borrowers was introduced in 2003. It was expected to serve as the benchmark rate for pricing of loan products by reflecting the actual cost of funds for banks and thereby bringing transparency to lending rates. The BPLR system, however, fell short of its original objective of bringing transparency to lending rates as banks started lending at rates below the BPLR known as the sub-BPLR system, however, fell short of its original objective of bringing transparency to lending rates as banks started lending at rates below the BPLR known as the sub-BPLR rates. The share of sub-BPLR lending (excluding export credit and small loans) of scheduled commercial banks was as high as 77 per cent in September 2008, which dropped to 70 per cent during the quarter ended June 2010. As a result, it was difficult to assess the transmission of policy rates of the Reserve Bank to lending rates of banks. The Reserve Bank constituted a Working Group (Chairman: Shri Deepak Mohanty) in the Annual Policy Statement of 2009−10 to review the BPLR system and suggest changes to make credit pricing more transparent. The Working Group submitted its Report in October 2009 and based on the recommendations of the Group and the suggestions from various stakeholders, the Reserve Bank issued guidelines on the Base Rate system in April 2010. The system of Base Rate, that came into effect on July 1, 2010, replaced the BPLR system.

Under the new system, the actual lending rate charged to borrowers is the Base Rate plus borrower-specific charges. The Base Rate is the minimum rate for all loans and banks are not permitted to resort to any lending below the Base Rate except some specified categories such as: (a) Differential Rate of Interest (DRI) advances, (b) loans to banks' own employees, (c) loans to banks' depositors against their own deposits, (d) interest rate subvention given by government to agricultural loans and rupee export eredit, and (e) some specific cases of restructured loans. The interest rates on small loans up to ₹2 lakh and rupee export credit have been deregulated to increase the flow of credit to small borrowers and exporters at reasonable rates. With these measures, the Reserve Bank achieved complete deregulation of interest rates relating to rupee lending by commercial banks. The Base Rate system has facilitated better pricing of loans, enhance transparency in lending rates and improve the assessment of the transmission of monetary policy.

Methodology for Computing Base Rate

From April 1, 2016, the banks shall follow the following guidelines for pricing their advances:

a) Internal Benchmark

(i) All rupee loans sanctioned and credit limits renewed w.e.f. April 1, 2016 will be priced with reference to the **Marginal Cost of Funds based Lending Rate (MCLR)** which will be the internal benchmark for such purposes.

(ii) The MCLR will comprise of:
   (a) Marginal cost of funds;
   (b) Negative carry on account of CRR;
   (c) Operating costs;
   (d) Tenor premium.

(iii) **Marginal Cost of funds:** The marginal cost of funds will comprise of Marginal cost of borrowings and return on networth. The methodology for calculating Marginal cost of funds is shown in Table 4.4 below.

(iv) **Negative Carry on CRR:** Negative carry on the mandatory CRR which arises due to return on CRR balances being nil, will be calculated as under:
Required CRR x (marginal cost)/(1- CRR): The marginal cost of funds arrived at (iii) above will be used for arriving at negative carry on CRR.

(v) **Operating Costs:** All operating costs associated with providing the loan product including cost of raising funds will be included under this head. It should be ensured that the costs of providing those services which are separately recovered by way of service charges do not form part of this component.

(vi) **Tenor premium:** These costs arise from loan commitments with longer tenor. The change in tenor premium should not be borrower specific or loan class specific. In other words, the tenor premium will be uniform for all types of loans for a given residual tenor.

(vii) Since MCLR will be a tenor linked benchmark, banks shall arrive at the MCLR of a particular maturity by adding the corresponding tenor premium to the sum of Marginal cost of funds, Negative carry on account of CRR and Operating costs.

(viii) Accordingly, banks shall publish the internal benchmark for the following maturities:

(a) overnight MCLR,
(b) one-month MCLR,
(c) three-month MCLR,
(d) six month MCLR,
(e) One year MCLR.

In addition to the above, banks have the option of publishing MCLR of any other longer maturity.

b) Spread

(i) Banks should have a Board approved policy delineating the components of spread charged to a customer. The policy shall include principles:
  (a) To determine the quantum of each component of spread.
  (b) To determine the range of spread for a given category of borrower/type of loan.
  (c) To delegate powers in respect of loan pricing.

(ii) For the sake of uniformity in these components, all banks shall adopt the following broad components of spread:
  (a) **Business strategy:** The component will be arrived at taking into consideration the business strategy, market competition, embedded options in the loan product, market liquidity of the loan etc.
  (b) **Credit risk premium:** The credit risk premium charged to the customer representing the default risk arising from loan sanctioned should be arrived at based on an appropriate credit risk rating/scoring model and after taking into consideration customer relationship, expected losses, collaterals, etc.

(iii) The spread charged to an existing borrower should not be increased except on account of deterioration in the credit risk profile of the customer. Any such decision regarding change in spread on account of change in credit risk profile should be supported by a full-fledged risk profile review of the customer.

(iv) The stipulation contained in sub-paragraph (iii) above is, however, not applicable to loans under consortium/multiple banking arrangements.

c) Interest Rates on Loans

(i) Actual lending rates will be determined by adding the components of spread to the MCLR. Accordingly, there will be no lending below the MCLR of a particular maturity for all loans linked to that benchmark

(ii) The reference benchmark rate used for pricing the loans should form part of the terms of the loan contract.

d) Exemptions from MCLR

(i) Loans covered by schemes specially formulated by Government of India wherein banks have to charge interest rates as per the scheme, are exempted from being linked to MCLR as the benchmark for determining interest rate.

(ii) Working Capital Term Loan (WCTL), Funded Interest Term Loan (FITL), etc. granted as part of the rectification/restructuring package, are exempted from being linked to MCLR as the benchmark for determining interest rate.

(iii) Loans granted under various refinance schemes formulated by Government of India or any Government Undertakings wherein banks charge interest at the rates prescribed under the schemes to the extent refinance is available are exempted from being linked to MCLR as the benchmark for determining interest rate. Interest rate charged on the part not covered under refinance should adhere to the MCLR guidelines.

TABLE 4.3 Interest Rates in the Money Market (May 2017)

Base Rate	*Policy Repo Rate*	*Reverse Repo Rate*	*Marginal Standing Facility Rate*	*Bank Rate*	*CRR*	*SLR*	*Call Rates*	*91 day T-bills*	*182 day T-bills*	*364 day T-bills*	*CP*	*CD*
9.10%–9.60%	6.25%	6.00%	6.50%	6.50%	4.00%	20.50%	3.50%–6.40%	6.2735%	6.3946%	6.4800%	5.99%–13.33%	6.21%–6.70%

TABLE 4.4 Methodology for calculating Marginal Cost of Funds

Sl	*Source of funds (excluding equity)*	*Rates offered on deposits on the date of review/ rates at which funds raised (1)*	*Balance outstanding as on the previous day of review as a percentage of total funds (other than equity) (2)*	*Marginal cost (1) x (2)*	*Remarks*
A	Marginal Cost of Borrowings				
1	Deposits				
a	Current Deposits				The core portion of current deposits identified based on the guidelines on Asset Liability Management issued vide circular dated October 24, 2007 should be reckoned for arriving at the balance outstanding.
b	Savings Deposits				The core portion of savings deposits identified based on the guidelines on Asset Liability Management issued vide circular dated October 24, 2007 should be reckoned for arriving at the balance outstanding.
c	Term deposits (Fixed Rate)				Term deposits of various maturities including those on which differential interest rates are payable should be included.
d	Term deposits (Floating Rate)				The rate should be arrived at based on the prevailing external benchmark rate on the date of review.
e	Foreign currency deposits				Foreign currency deposits, to the extent deployed for lending in rupees, should be included in computing marginal cost of funds. The swap cost and hedge cost of such deposits should be reckoned for computing marginal cost.
2	Borrowings				
a	Short term Rupee Borrowings				Interest payable on each type of short term borrowing will be arrived at using the average rates at which such short term borrowings were raised in the last one month. For eg. Interest on borrowings from RBI under LAF will be the average interest rate at which a bank has borrowed from RBI under LAF during the last one month.
b	Long term Rupee Borrowings				Option 1: Interest payable on each type of long term borrowing will be arrived at using the average rates at which such long term borrowings were raised. Option2: The appropriate benchmark yield for bank bonds published by FIMMDA for valuation purposes will be used as the proxy rate for calculating marginal cost.
c	Foreign Currency Borrowings including HO borrowings by foreign banks (other than those forming part of Tier-I capital)				Foreign currency borrowings, to the extent deployed for lending in rupees, should be included in computing marginal cost of funds. The all-in-cost of raising foreign currency borrowings including swap cost and hedge cost would be reckoned for computing marginal cost of funds.
	Marginal cost of borrowings				The marginal cost of borrowings shall have a weightage of 92% of Marginal Cost of Funds while return on networth will have the balance weightage of 8%.

(*continued*)

TABLE 4.4 Continued

Sl	Source of funds (excluding equity)	Rates offered on deposits on the date of review/ rates at which funds raised (1)	Balance outstanding as on the previous day of review as a percentage of total funds (other than equity) (2)	Marginal cost (1) x (2)	Remarks
B	Return on networth	Amount of common equity Tier 1 capital required to be maintained for Risk Weighted Assets as per extant capital adequacy norms shall be included for computing marginal cost of funds. Since currently, the common equity Tier 1 capital is (5.5% +2.5%) 8% of RWA, the weightage given for this component in the marginal cost of funds will be 8%. In case of newly set up banks (either domestic or foreign banks operating as branches in India) where lending operations are mainly financed by capital, the weightage for this component may be higher ie in proportion to the extent of capital deployed for lending. This dispensation will be available for a period of three years from the date of commencing operations. The cost of equity will be the minimum desired rate of return on equity computed as a mark-up over the risk free rate. Banks could follow any pricing model such as Capital Asset Pricing Model (CAPM) to arrive at the cost of capital. This rate can be reviewed annually.			

Marginal cost of funds = 92% x Marginal cost of borrowings + 8% x Return on networth

(iv) The following categories of loans can be priced without being linked to MCLR as the benchmark for determining interest rate:
   (a) Advances to banks' depositors against their own deposits.
   (b) Advances to banks' own employees including retired employees.
   (c) Advances granted to the Chief Executive Officer / Whole Time Directors.
   (d) Loans linked to a market determined external benchmark.
   (e) Fixed rate loans granted by banks. However, in case of hybrid loans where the interest rates are partly fixed and partly floating, interest rate on the floating portion should adhere to the MCLR guidelines.

e) Review of MCLR

(i) Banks shall review and publish their Marginal Cost of Funds based Lending Rate (MCLR) of different maturities every month on a pre-announced date with the approval of the Board or any other committee to which powers have been delegated.

(ii) However, banks which do not have adequate systems to carry out the review of MCLR on a monthly basis, may review their rates once a quarter on a pre-announced date for the first one year i.e. upto March 31, 2017. Thereafter, such banks should adopt the monthly review of MCLR as mentioned in (i) above.

f) Reset of interest rates

(i) Banks may specify interest reset dates on their floating rate loans. Banks will have the option to offer loans with reset dates linked either to the date of sanction of the loan/credit limits or to the date of review of MCLR.

(ii) The Marginal Cost of Funds based Lending Rate (MCLR) prevailing on the day the loan is sanctioned will be applicable till the next reset date, irrespective of the changes in the bench-mark during the interim.

(iii) The periodicity of reset shall be one year or lower. The exact periodicity of reset shall form part of the terms of the loan contract.

g) Treatment of interest rates linked to Base Rate charged to existing borrowers

(i) Existing loans and credit limits linked to the Base Rate may continue till repayment or renewal, as the case may be.

(ii) Banks will continue to review and publish Base Rate as hitherto.

(iii) Existing borrowers will also have the option to move to the Marginal Cost of Funds based Lending Rate (MCLR) linked loan at mutually acceptable terms. However, this should not be treated as a foreclosure of existing facility.

Bank Rate

The rate of discount fixed by the central bank of the country for the rediscounting of eligible paper is called the bank rate. It is also the rate charged by the central bank on advances on specified collateral to banks.

The bank rate is defined in Section 49 of the Reserve Bank of India Act, 1934, as the standard rate at which the bank is prepared to buy or rediscount bills of exchange or other commercial papers eligible for purchase under this act.

The bank rate was revised only three times in the period between 1975–96. It was reactivated in April 1997 with deposit rates (up to one year maturity) linked to it initially. With effect from April 16, 1997, the maximum term deposit rate (up to one year) of scheduled commercial banks was set at 2 per cent below the bank rate and all interest rates on advances from the Reserve Bank were linked to the bank rate. The deposit rates were completely deregulated in October 1997; the other rates continued to be linked to the bank rate. From 1997, the bank rate emerged as a signaling rate to reflect the stance of the monetary policy.

The interest rates on different types of accommodation from the Reserve Bank including refinance were linked to the bank rate. The bank rate was the central bank's key rate signal, which banks used to price their loans. The impact of bank rate announcements was pronounced in the PLRs of commercial banks.

The bank rate was brought down from a high of 9.00 per cent in May 1998 to 6.5 per cent in October 2001. The Reserve Bank cut the bank rate to 6.25 per cent in October 2002, its lowest level since 1973. The bank rate was further brought down to 6.00 per cent in April 2003.

The Bank Rate had remained unchanged at 6 per cent since April 2003. Since discounting/rediscounting of bills of exchange by the Reserve Bank has remained in disuse, the Bank Rate has not been active. Moreover, even for the conduct of monetary policy, monetary policy signalling was done through modulation in the reverse repo rate and the repo rate under the Liquidity Adjustment Facility (LAF) (till May 3, 2011) and the policy repo rate under the revised operating procedure of monetary policy (from May 3, 2011 onwards).

The RBI revised the operating procedure of policy instruments and under it, the marginal standing facility (MSF), instituted at 100 basis points above the policy repo rate, serves the purpose of the Bank Rate. The Bank Rate is now aligned to the MSF rate from February 13, 2012. All penal interest rates on shortfall in reserve requirements, which are specifically linked to the Bank Rate, also stand revised accordingly. The Bank Rate on May, 2017 was 6.5 percent.

The interest rate, as an instrument of monetary policy, is evolving. As interest rates in the economy cover credit, money, and securities markets, there should be linkages not only among these markets but among the rates as well. A low interest rate is the objective of the monetary policy. Low interest rates are subject to stable inflationary expectations which, in turn, depend on price stability. There are many constraints which impede the lowering of interest rates, diminishing the effectiveness of this tool. The major constraints are high intermediation costs of the banking system, large non-performing assets (NPAs) of the banks, and the government's massive borrowing programme.

Standing Liquidly Facilities for Banks/Primary Dealers

The Reserve Bank uses refinance to relieve liquidity shortages in the system, control monetary and credit conditions, and direct credit to selective sectors. The quantum and cost of the refinance facility provided to scheduled commercial banks depends upon the degree of liquidity in the banking system and the need for ensuring credit flow to select sectors. Both the quantum and cost of the refinance facility reflect the stance of the monetary policy in response to market conditions. The Reserve Bank has directed certain sector-specific refinance facilities such as food credit, export credit, government securities, and discretionary standby refinance to scheduled banks. Currently, there are only two reference schemes: Export Credit refinance and Special Export credit refinance schemes avaibable to banks/PDs.

Export Credit Refinance (ECR) Facility

1. Introduction

1.1 The Reserve Bank of India (RBI) provides export credit refinance facility to banks under Section 17(3A) of the Reserve Bank of India Act 1934. This facility is given on the basis of banks' eligible outstanding rupee export credit both at the pre-shipment and post-shipment stages. The quantum of refinance is fixed from time to time based on the stance of monetary policy of the RBI.

2. Eligible Institutions

2.1 All scheduled banks (excluding RRBs), which are authorized dealers in foreign exchange and have extended export credit are eligible to avail of the export credit refinance facility.

3. Limit

3.1 At present, the scheduled banks are provided export credit refinance to the extent of 50.0 per cent of the outstanding export credit eligible for refinance as at the end of the second preceding fortnight.

This limit has increased from 15.0 per cent to 50.0 per cent, effective fortnight beginning June 30, 2012, to enhance credit flows to the export sector. The definition of outstanding export credit eligible for refinance is given in Annex I.

4. Interest Rate
   4.1 Export credit refinance facility is available at the Repo Rate under the Liquidity Adjustment Facility (LAF), as announced from time to time.
   4.2 Interest shall be payable with monthly rests and the amounts of such interest calculated on daily balances would be debited to the current account of the banks at the end of respective month or earlier when the balance outstanding is wiped out.
5. Margin Requirement
   5.1 No margin is required to be maintained.
6. Duration
   6.1 The ECR is repayable on demand or on the expiry of fixed periods not exceeding one hundred and eighty days.
7. Collateral
   7.1 RBI extends the export credit refinance against the Demand Promissory Note (DPN) of banks supported by a declaration that they have extended export credit and the outstanding amount eligible for refinance is not less than the loan/advance from the RBI.
8. Minimum Amount of Availment
   8.1 The minimum amount of availment under this facility is Rupees one lakh and multiples thereof.
9. Place of Availment
   9.1 This facility can be availed of at centres wherever the Reserve Bank has a Banking Department.
10. Penalties
   10.1 In the event of a scheduled bank having irregular availment of export credit refinance, a penal rate of interest as decided by the Reserve Bank from time to time will be charged on the outstanding loan or loans.
   10.2 An illustrative (but not exhaustive) list of instances on which penal rate would be applicable for irregular availment of export credit refinance is set out below:
      a) Utilization of ECR exceeding the total limit.
      b) Wrong calculation/reporting of refinance limit by banks.
      c) Non-repayment of refinance within 180 days.
      d) Delay in reporting excess utilization by banks.

The Standing Liquidity Facilities provided to banks under Export Credit Refinance (ECR) and Special Export Credit Refinance (SECR) and to Primary Dealers (PDs) (collateralized liquidity support) from the Reserve Bank is available at the revised repo rate, *i.e.*, at 7.5 per cent with effect from March 19, 2013.

The ECR scheme has been reviewed from time to time based on the stance of monetary policy. It has been merged with the system level liquidity provision with effect from the fortnight beginning on February 7, 2015.

Special Export Credit Refinance Facility

A US Dollar-Rupee swap facility has been introduced to support incremental Pre-shipment Export Credit in Foreign Currency (PCFC). Scheduled banks (excluding RRBs) have the option to access rupee refinance to the extent of the swap with RBI under a special export credit refinance facility. This Facility has been introduced on January 21, 2013.The salient features of the new swap facility are as under:

(a) The swap facility is available to scheduled banks (excluding RRBs) from January 21, 2013 till June 28, 2013 for fixed tenor of 3/6 months. During any particular month, the maximum amount of dollars that banks would be eligible to avail of from RBI through swaps would be equal to the incremental PCFC disbursed with reference to a base date (November 30, 2012), subject to a limit. The limits would be communicated to eligible individual banks separately. The limits would be reviewed periodically based on actual utilization and other relevant factors.

(b) Under the swap arrangement, a bank can buy US Dollars, up to its eligible swap limit, from RBI and simultaneously sell the same amount of US Dollar forward as per the term of the swap at the prevailing market rates for swaps of similar tenor. At the end of the swap term, the bank will exchange with RBI the US Dollars against Rupee. Reserve Bank's decision regarding the pricing of the swap shall be final and no request for any modification/revision to the same would be entertained.

(c) Banks desirous of availing the swap facility will have to furnish a declaration duly signed by their authorized signatories that they have actually disbursed the eligible incremental PCFC during the preceding month (s).

(d) The swap facility will be operationalized by the Financial Markets Department of the Bank at Mumbai. Depending upon the prevailing market conditions, RBI would exercise the right to decide on the day of operation, number of banks that can avail of the facility on any particular day, the maximum amount of swap that RBI would undertake with the banks on any particular day and the maximum quantum of swap that each bank can do on any particular day keeping in view the market conditions and other relevant factors.
(e) Banks desirous of availing refinance under special export credit refinance facility may approach the Regional Office of the RBI at Fort, Mumbai with the required promissory note and a declaration indicating that they have availed the swap facility and the amount of refinance sought does not exceed the amount of swap outstanding under the swap facility.

Marginal Standing Facility–Scheme–This facility is effective from May 9, 2011.

1. Eligibility: All Scheduled Commercial Banks having Current Account and SGL Account with Reserve Bank, Mumbai are eligible to participate in the MSF Scheme.

2. Tenor and Amount: Under the facility, the eligible entities can avail overnight, up to one per cent of their respective Net Demand and Time Liabilities (NDTL) outstanding at the end of the second preceding fortnight. But for the intervening holidays, the MSF facility will be for one day except on Fridays when the facility will be for three days or more, maturing on the following working day. In the event, the banks' SLR holdings fall below the statutory requirement up to one per cent of their NDTL, banks will not have the obligation to seek a specific waiver for default in SLR compliance arising out of use of this facility in terms of notification issued under sub section (2A) of Section 24 of the Banking Regulation Act, 1949.

3. Timing: The Facility is available on all working days in Mumbai, excluding Saturdays between 3.30 p.m. and 4.30 p.m.

4. Rate of Interest: The rate of interest on amount availed under this facility is 100 basis points above the LAF repo rate, or as decided by the Reserve Bank from time to time.

5. Discretion to Reserve Bank: The Reserve Bank reserves the right to accept or reject partially or fully, the request for funds under this facility.

6. Mechanics of Operations:

(i) The requests will be submitted electronically in the Negotiated Dealing System (NDS). Eligible members facing genuine system problem on any specific day, may submit physical requests in sealed cover in the box provided in the Mumbai Office, Reserve Bank of India, to the Manager, Reserve Bank of India, Securities Section, Public Accounts Department (PAD), Mumbai.
(ii) The NDS provides for submission of single or multiple applications by the member. However, as far as possible only one request should be submitted by an applicant.
(iii) The MSF is conducted as 'Hold-in-Custody' repo, similar to LAF-Repo.
(iv) On acceptance of MSF requests, the applicant's RC SGL Account will be debited by the required quantum of securities and credited to Bank's RC SGL Account. Accordingly, the applicant's current account will be credited with the MSF application amount. The transactions will be reversed in the second leg. In case the second leg falls on a holiday, the reversal date will be the next working day.
(v) The MSF transactions between Reserve Bank and counter parties which would involve operation of the RC SGL Account would not require separate SGL forms.
(vi) Pricing of all securities including Treasury Bills will be at face value for MSF operations by Reserve Bank. Accrued interest as on the date of transaction will be ignored for the purpose of pricing of securities.

7. Minimum Request Size: Requests will be received for a minimum amount of ₹1 crore and in multiples of ₹1 crore thereafter.

8. Eligible Securities: MSF will be undertaken in all SLR-eligible transferable Government of India (GoI) dated Securities/Treasury Bills and State Development Loans (SDL).

9. Margin Requirement: A margin of five per cent will be applied in respect of GoI dated securities and Treasury Bills. In respect of SDLs, a margin of 10 per cent will be applied. Thus, the amount of securities offered on acceptance of a request for ₹100 will be ₹105 (face value) of GoI dated securities and Treasury Bills or ₹110 (face value) of SDLs.

10. Settlement of Transactions: The settlement of all applications received under the MSF Scheme will take place on the same day after the closure of the window for acceptance of applications.

11. SLR and Securities held in Repo SGL Account: The extant instructions issued by the Department of Banking Operations and Development (DBOD) of the Reserve Bank will apply on the securities offered by scheduled commercial banks for MSF operations.

The Marginal Standing Facility (MSF) rate, determined with a spread of 100 basis points above the repo rate, stands adjusted to 9.00 per cent with effect. from January 29, 2014.

Liquidity Adjustment Facility The Narasimham Committee on Banking Sector Reforms (Report II, 1998) recommended that the Reserve Bank provide support to the market through an LAF scheme. This facility would help in the development of a short-term money market with adequate liquidity. As per the committee's recommendation, the Reserve Bank decided to introduce the LAF in phases.

The interim LAF, introduced in April 1999, provided a mechanism for liquidity management through a combination of repos, export credit refinance, supported by open market operations at set rates of interest. Banks could avail of a collateralized lending facility of up to 0.25 per cent of the fortnightly average outstanding aggregate deposits available for few weeks at the bank rate. Primary dealers were provided liquidity support against a collateral of government securities. These facilities were available subject to quantitative limits (formula-based) for a specific duration and at the bank rate. Additional limits could be availed by banks under the additional collateralized lending facility (ACLF) and by primary dealers at 2 per cent points above the bank rate.

- The LAF was operated through overnight fixed rate repo and reverse repo.

The interim LAF was gradually converted into a full-fledged LAF scheme. It was implemented in three phases: in the first phase, the general refinance facility was replaced by the ACLF for banks and primary dealers; in the second stage, CLF for banks and primary dealer was replaced by variable reverse repo auctions; and in the final stage, with the operationalization of the real time gross settlement sysem (RTGS), the LAF is operated at different timings of the same day if necessary.

The LAF was introduced from June 5, 2000 impart greater stability and facilitate the emergence of a short-term rupee yield curve for pricing fixed income securities. The LAF is operated through repos and reverse repos. The LAF is a tool of day-to-day liquidity management through the injection or absorption of liquidity by way of sale or purchase of securities followed by their repurchase or resale under the repo/reverse repo operations. Repo/reverse repo auctions are conducted on a daily basis except on Saturdays. The tenor of repos is one day except on Fridays and days preceding holidays. Interest rates in respect of both repos and reverse repos are decided through cut-off rates emerging from auctions conducted by the Reserve Bank on a multiple price auction basis. The auction format for the LAF was changed from the uniform price auction method to the multiple price auction method to ensure more responsible bidding. Since February 15, 2002, members of the NDS submit LAF bids in an electronic form instead of a physical form. In August 2000, repo auctions of tenor ranging from three to seven days were introduced. In October 2003, repos for a longer tenure of 28 days were also conducted for five consecutive days. The Reserve Bank also has the option of introducing long-term repos of up to 14 days as and when required and to switch over to fixed rate repos on an overnight basis. The minimum bid size for the LAF was reduced from ₹10 crore to ₹5 crore to facilitate the participation of small operators. LAF operations are conducted in the forenoon between 9.30 a.m. and 10.30 a.m. Operations under the LAF require the availability of adequate stock of government securities with the Reserve Bank.

- The LAF helped to develop interest rate as an important instrument of monetary transmission and, also provided greater flexibility to the RBI in determining the quantum of liquidity by responding to the needs of the system on a daily basis.

The Reserve Bank operationalized the second liquidity adjustment facility (SLAF), in November 28, 2005, to provide market participants a second window to adjust their liquidity requirements. The SLAF was withdrawn with effect from August 6, 2007. It was reintroduced on reporting Fridays with effect from August 1, 2008, where in the bids for SLAF were received between 4:00 p.m and 4:30 p.m. and discontinued it on May 9, 2011 with the introduction of MSF.

- The LAF has become the principal operating instrument for modulating liquidity conditions on a daily basis.

LAF helps the RBI to adjust the structure of interest rates (through fixed rate repos) in response to evolving market conditions and moderate sudden liquidity shocks. LAF has facilitated systematic movement of interest rates in the overnight call markets which, in turn, help reduce the volatility in the government securities market making gilt funds more attractive. It helps the market participants to overcome mismatches in supply and demand from time to time. As this facility is available to market participants at different timings, it enables them to undertake their own liquidity management. Banks can also structure their interest rates on a floating rate basis. Further, they are not required to undertake the market risk involved in purchase of securities.

The LAF operations combined with the judicious use of open market operations have emerged as the principal operating instrument of the monetary policy.

- Repo is a transaction in which the borrower gets funds against the collateral of securities placed with the lender. The maturity period of repos range from 1–14 days. At the maturity, the securities revert to the borrower, after he repays the dues.

Repos

The major function of the money market is to provide liquidity. To achieve this function and to even out liquidity changes, the Reserve Bank uses repos. Repo is a useful money market instrument enabling the smooth adjustment of short-term liquidity among varied market participants such as banks and financial institutions.

Repo refers to a transaction in which a participant acquires immediate funds by selling securities and simultaneously agrees to the repurchase of the same or similar securities after a specified time at a specified price. In other words, it enables collateralized short-term borrowing and lending through sale/purchase operations in debt instruments. It is a temporary sale of debt involving full transfer of ownership of the securities, *i.e.*, the assignment of voting and financial rights. Repo is also referred to as a ready forward transaction as it is a means of funding by selling a security held on a spot basis and repurchasing the same on a forward basis.

Reverse repo is exactly the opposite of repo—a party buys a security from another party with a commitment to sell it back to the latter at a specified time and price. In other words, while for one party the transaction is repo, for another party it is reverse repo. A reverse repo is undertaken to earn additional income on idle cash. In India, repo transactions are basically fund management/SLR management devices used by banks.

The difference between the price at which the securities are bought and sold is the lender's profit or interest earned for lending the money. The transaction combines elements of both a securities purchase/sale operation and also a money market borrowing/lending operation. It signifies lending on a collateral basis. It is also a good hedge tool because the repurchase price is locked in at the time of the sale itself. The terms of contract is in terms of a 'repo rate,' representing the money market borrowing/lending rate. Repo rate is the annual interest rate for the funds transferred by the lender to the borrower. The repo rate is usually lower than that offered on unsecured inter-bank rate as it is fully collateralized. The factors which affect the repo rate are the creditworthiness of the borrower, liquidity of the collateral, and comparable rates of other money market instruments.

Importance of Repos Repos are safer than pure call/notice/term money and inter-corporate deposit markets which are non-collateralized; repos are backed by securities and are fully collateralized. Ownership titles of eligible securities is immediately transferred. Thus, the counter party risks are minimum. Since repos are market-based instruments, they can be utilized by central banks as an indirect instrument of monetary control for absorbing or injecting short-term liquidity. Repos help maintain an equilibrium between demand and supply of short-term funds. The repos market serves as an equilibrium between the money market and securities market and provides liquidity and depth to both the markets. By promoting greater integration between the money market and the government securities market, it helps in developing a short-term yield curve. It is a widely used instrument by central governments to adjust market liquidity. Monetary authorities can transmit policy signals through repos to the money market which has a significant influence on the government securities market and foreign exchange market. Hence, internationally, it is a versatile and the most popular money market instrument. In India too, it was a rapidly developing and thriving market until the scam of 1992–93, where this facility was grossly misused.

Types of Repos Two types of repos are currently in operation—market repos and RBI repos.

1. Market repos: The Reserve Bank itself, allowed banks to resort to repo transactions among themselves and with DFHI, and STCI. All government securities and PSU bonds were eligible for repos till 1988. Between April 1988 and mid-June 1992, only Inter-bank repos were allowed in all government securities. Market repos were popular in 1991–92 as banks did not wish to buy the securities outright because of the risk of depreciation. Moreover, since there were not many money market instruments of different maturities, repos served as a hedge against interest rate fluctuations.

Repos were misused by banks and brokers during the 1992 securities scam. Repo deals were subsequently banned in all securities except treasury bills. In June 1995, the ban was lifted, allowing restricted eligible participants and instruments, *i.e.*, repo deals were initially allowed in treasury bills and five dated securities on the NSE. Banks, along with primary dealers, were permitted to undertake ready forward transactions. These transactions were allowed only in Mumbai provided they were routed through the SGL accounts maintained by the Reserve Bank. These restrictions were liberalized gradually. Now, all central and state government dated securities and treasury bills of all maturities are eligible for repo. The participants are required to actually hold the securities in their portfolio before undertaking repo transactions.

Banks, along with primary dealers, were permitted to undertake ready forward transactions. These transactions were allowed only in Mumbai provided they were routed through the SGL accounts maintained by the Reserve Bank.

Market Repo Transactions in Government Securities Market

The RBI has permitted the following transactions:

Gilt account holders (GAH) may enter into a repo transaction with its custodian or another GAH of the same custodian;

Co-operative banks may enter into repo transactions with all eligible market participants, including NBFCs;

Listed companies may borrow or lend under repos with all eligible market participants (including banks) without the minimum tenor restriction of seven days;

Eligible unlisted companies may borrow from any eligible market participant against special Government of India securities issued to them;

NBFCs registered with RBI, including Government companies as defined in sub-section (45) of section 2 of the Companies Act, 2013 which adhere to the prudential norms prescribed for NBFCs by the Department of Non-Banking Regulation, Reserve Bank of India, may borrow/lend under repos with all eligible market participants.

2. RBI repos: It is a mechanism through which the Reserve Bank lends/borrows money to/from banks against government securities. Repo implies injection of liquidity and reverse repo absorption of liquidity. In other words, repo is a mechanism through which the RBI lends money to the banks against government securities (by repurchasing government securities from banks) to inject liquidity in the economy and through reverse repos, it borrows money by selling government securities to absorb excess liquidity in the economy. The Reserve Bank conducts repo auctions to:

- Now repo implies injection of liquidity and reverse repo absorption of liquidity.

1. provide banks with an outlet for managing short-term liquidity;
2. even out short-term liquidity fluctuations in the money market; and
3. optimise return on short-term surplus liquid funds.

The Reserve Bank provides liquidity support to primary dealers, and 100 per cent gilt mutual funds in the form of repo facility. The Reserve Bank also undertakes repo/reverse repo operations with primary dealers and scheduled commercial banks as part of its open market operations.

The Reserve Bank indirectly interferes in the call money market through LAF repo/reverse repo operations to ease undue pressure on overnight call money rates and moderate liquidity conditions in the call money market. This also enables the repo market to forge close links between the money market and securities market.

The Reserve Bank introduced reverse repo operations (selling government securities to repurchase later) on December 10, 1992 to influence short-term liquidity. It is a mechanism through which the Reserve Bank absorbs excess liquidity from the economy. This is apart from the liquidity support extended by the Reserve Bank to primary dealers through refinance/reverse repo facility at a fixed price.

These reverse repo auctions were introduced in December 1992. They were conducted for a period ranging from 1 day to 14 days between 1992 and 1995. From August 1993, the period of repo stabilized at 14 days consistent with the reserve make up period for banks. In February 1995, auctions were discontinued due to lack of demand on account of tight money market conditions resulting from a decline in capital inflows and sharp expansion in non-food credit. Reverse repo auctions were reintroduced on November 4, 1996, to absorb excess liquidity in the economy. Auctions of a 3 to 4 day cycle were introduced again in early 1997. The Reserve Bank switched over from discriminatory price auction repos to a daily fixed rate repo auction system in November 1997. In discriminatory price auctions, bidders submit multiple price quantity sealed bids. The auction results were announced on the same day; payment by the successful bidders at or below the cut-off repo rate was made the following day. Under the fixed rate repos system, the repo rates are pre-announced and banks/financial institutions are required to submit bids indicating the volume of repos. The results of fixed rate repos are announced on the date of submitting the bids.

- Repo is permitted in dated securities, t-bills and state development loans to persons or entities maintaining either a SGL or CSGL accounts and unlisted companies which have been issued special securities by the GOI and maintain gilt accounts with scheduled commercial banks.

Fixed rate repos indicate money market rates, bring down volatility in the foreign exchange market, and impart stability to short-term interest rates by setting a floor and ceiling for call money rates. The fixed rate auction reverse repo system was used to prevent speculative activity during foreign exchange volatility and thereby to ward off the spread of that activity during the south-east Asian crisis. Initially, the reverse repo rate was fixed at 4.5 per cent but was successively raised to reach 7 per cent with effect from December 11, 1997, and further to 9 per cent with effect from January 17, 1998. Subsequently, as the forex market stabilized, the reverse repo rate was brought down in stages to 6 per cent with effect from March 1999 to 5.5 per cent in October 2002 and 4.5 per cent in August 2003 and then hiked to 5 per cent on April 29, 2005 and 6 per cent on July 25, 2006. The reverse repos got integrated with the ILAF introduced in April 1999. The absorption of liquidity was at fixed rate reverse repos and the system of injecting liquidity through various ways, including refinance, was at interest rates linked to the bank rate, which was reactivated in April 1997. With the introduction of the liquidity adjustment facility from June 5, 2000, the Reserve Bank has been injecting liquidity into the system through repos on a daily basis at a fixed rate.

Types of Repo Rates

- Variable rate repos
- Fixed rate repos
- Repo Rate 6.25 per cent
- Reverse Repo Rate 6.00 per cent

The Reserve Bank scrapped the 7 and 14 day repo in October 2004. At present, repo is only overnight to give banks greater flexibility in liquidity management. In case of tight liquidity conditions, the RBI conducts 2/3/7 day repo/reverse repo auctions under additional LAF. The repo auctions are conducted on all working days except Saturdays and restricted to scheduled commercial banks and primary dealers. A system of announcing the calendar of repo auctions was also introduced in January 1997. All forms of liquidity support except ways and means advances (WMA) are at the repo rate.

The reverse repo rate acts as the floor and the bank rate and repo rates as the cap for the money market. Changes in repo and reverse repo rates effect the movement of market interest rates and asset prices as they convey information about future monetary policy and liquidity. The Repo along with the CRR has emerged as an important tool of liquidity and monetary managament.

The RBI has issued the draft **Tri-party repo** (Reserve Bank) Directions, 2017 on April 11, 2017.

Tri-Party repo is a type of repo contract where a third entity (apart from the borrower or lender), called a Tri-party agent, acts as an intermediary between the two parties to the repo to facilitate services like collateral selection, payment and settlement, custody and management during the life of the transaction.

1. **Eligible underlying collateral for repo in Tri-party repo**
   (a) Listed corporate debt securities of original maturity of more than one year which are rated 'AA' or above by the rating agencies registered with Securities and Exchange Board of India (SEBI), that are held in the security account of the repo seller, in demat form.
   (b) Commercial Papers (CPs), Certificates of Deposit (CDs) and Non-Convertible Debentures (NCDs) of original maturity upto one year which are rated A2 or above by the rating agencies registered with SEBI.
   (c) Bonds which are rated 'AA' or above, by the rating agencies registered with SEBI or internationally recognized rating agencies, and which are issued by multilateral financial institutions like the World Bank Group (e.g., IBRD, IFC), the Asian Development Bank or the African Development Bank and other such entities as may be notified by the Reserve Bank of India from time to time.
2. **Eligible Participants:** The following entities shall be eligible to undertake repo transactions in Tri-Party Repo:
   (a) Any scheduled commercial bank excluding RRBs and LABs;
   (b) Any primary dealer authorized by the Reserve Bank of India;
   (c) Any non-banking financial company registered with the Reserve Bank of India (other than government companies as defined in sub-section (45) of section 2 of the Companies Act, 2013);
   (d) All-India Financial Institutions, namely, Exim Bank, NABARD, NHB and SIDBI;
   (e) India Infrastructure Finance Company Limited;
   (f) Any scheduled urban cooperative bank subject to adherence to conditions prescribed by Reserve Bank of India;
   (g) Other regulated entities, subject to the approval of the regulators concerned, viz.,
      (i) Any mutual fund registered with the Securities and Exchange Board of India;
      (ii) Any housing finance company registered with the National Housing Bank; and
      (iii) Any insurance company registered with the Insurance Regulatory and Development Authority
   (h) Any other entity specifically permitted by the Reserve Bank.

3. **Trading Venue:** Tri-party repo can be traded Over-the-counter (OTC) including on electronic platforms.
4. **Reporting of Trades:** All tri-party repos shall be reported within 15 minutes of the trade to the tri-party agent.
5. **Documentation:** The participants shall enter into standard bilateral master repo agreements. Separate agreements between a participant and a tri-party agent would be required as per the documentation prescribed by the tri-party agent which shall stipulate terms of trades.
6. **Tenor:** Repos in Tri-Party Repo shall be for a minimum period of one day and a maximum period of one year.
7. **Settlement of trades**
   (a) All repo trades in Tri-Party Repo shall settle either on a T + 0, T + 1 or T + 2 basis under DvP I (gross basis) framework.
   (b) Repo transactions in Tri-Party Repo shall be settled through the clearing house of the National Stock Exchange (NSE), i.e., the National Securities Clearing Corporation Limited (NSCCL), the clearing house of the Bombay Stock Exchange (BSE), i.e., Indian Clearing Corporation Limited (ICCL), and the clearing house of the MCX-Stock Exchange, i.e., MCX-SX Clearing Corporation Limited (CCL), as per the norms specified by NSCCL, ICCL and CCL from time to time.
   (c) On the date of reversal of repo trades, the clearing houses shall compute the obligations of the parties and facilitate settlement on DvP-I basis.
8. **Haircut:** A rating based minimum haircut as prescribed by Reserve Bank of India (or higher as may be decided by the participants depending on the term of the repo and the remargining frequency) shall be applicable on the market value of the Tri-Party Repo prevailing on the date of 1st leg of repo trade. Presently, the minimum haircut prescribed is as under:

Rating	*AAA/A1*	*AA+/A2+*	*AA/A2*
Minimum haircut	7.5%	8.5%	10%

9. **Tri-Party Agent:**
   I. Eligible Tri-Party Agents
      A. All tri-party agents need authorization from RBI to act in that capacity, before they commence operations.
      B. Scheduled commercial banks are eligible to be tri-party agents.
      C. Other entities regulated by RBI or SEBI subject to meeting the following criteria:
         (a) Regulatory Approval
            (i) The applicant should have approval from the concerned regulator to conduct business of tri-party agent.
            (ii) An applicant will not be eligible for authorisation, if within the last 5 years, it has been subject to litigation or adverse regulatory action or punitive action that the Reserve Bank considers material.
         (b) Financial Criteria
            (i) The applicant should have minimum net owned funds of ₹25 crore which should be maintained at all times.
            (ii) The foreign shareholding, if any, of the applicant entity would be as per the extant foreign investment policy.
         (c) Experience
            The applicant should have past experience of at least five years in the financial sector, India or abroad, preferably in offering custodial services.
         (d) Infrastructure
            Tri-party agents should have adequate system infrastructure to carry out their roles and obligations stated below. They should submit documentation/certification to this effect.
      D. Roles and Obligations:
            (i) The agent shall be responsible for revaluation of the collateral, margining, income payments on the collateral, as well as substitution of any collateral as per terms and conditions prescribed in the agreement.
            (ii) The agent shall be required to put in place transparent and reliable collateral valuation norms.

(iii) The agent would be responsible for reporting the trades to the designated trade repository. It is required to set up a mechanism to ensure flow of trade details to the authorised trade repository and the settlement system. The agent should report trades to the trade repository within 15 minutes of receiving intimation of trade from counterparties to the trade. However, the agent would not be involved in settlement of tri-party repo transactions, unless it is a bank.
(iv) The agent shall be required to maintain records of trades in easily retrievable media for at least 8 years.
(v) The agent should take all reasonable measures to ensure adherence to RBI's repo directions.

The Revised Guidelines for Repo, Reverse Repo and Re-repo are as Under

Eligibility:

(i) Repo transactions may be undertaken in i) dated securities and treasury bills issued by the Government of India and ii) dated securities issued by the state governments.
(ii) Repo transactions in the above-mentioned securities may be entered into by:
  (a) Persons or entities maintaining a Subsidiary General Ledger (SGL) account with the Reserve Bank of India; and
  (b) Entities, as specified below maintaining gilt accounts with a bank or any other entity permitted by the Reserve Bank of India to maintain Constituent Subsidiary General Ledger Account (the custodian) with its Public Debt Office.

List of entities maintaining gilt accounts and which are permitted to undertake repo transactions in Government securities

(i) Any scheduled bank
(ii) Any primary dealer authorised by the Reserve Bank of India
(iii) Any non-banking financial company registered with the Reserve Bank of India, including government companies as defined in sub-section (45) of section 2 of the Companies Act, 2013 which adhere to the prudential norms prescribed for NBFCs by the Department of Non-Banking Regulation, Reserve Bank of India
(iv) Any mutual fund registered with the Securities and Exchange Board of India
(v) Any housing finance company registered with the National Housing Bank (NHB)
(vi) Any insurance company registered with the Insurance Regulatory and Development Authority of India
(vii) Any pension fund/provident fund regulated by the Pension Fund Regulatory and Development Authority
(viii) Any non-scheduled urban co-operative bank
(ix) Any state and district central co-operative bank
(x) Any all India Financial Institution (FIs), viz., Exim Bank, NABARD, NHB and SIDBI
(xi) Any listed company having gilt account with a scheduled commercial bank
(xii) Any unlisted company which has been issued special securities by the Government of India
(xiii) Any other entity specifically permitted by the Reserve Bank of India

(iii) Accordingly repo transactions are now allowed between the following permitted entities:
  (a) SGL A/c holders
  (b) A SGL A/c holder and its own Gilt Account Holder (GAH)
  (c) A SGL A/c holder and a GAH under another custodian
  (d) GAHs under the same custodian
  (e) GAHs under two different custodians

Trading and Settlement:

(a) Repo transactions can be undertaken either on an approved electronic platform or bilaterally in the OTC market.
(b) All repo transactions executed in the OTC market must be reported on the prescribed reporting platform within 15 minutes of the execution of trade.
(c) In respect of repo transactions involving GAH, including those between the custodian and its own GAH and two GAHs of the same custodian, the custodian with whom the gilt accounts are

maintained shall be responsible for reporting the deals on the reporting platform on behalf of the GAH.

(d) All repo transactions shall be settled in the SGL Account/CSGL Account maintained with the Reserve Bank of India with the Clearing Corporation of India Ltd (CCIL) acting as the central counterparty. However, the security leg of repo transactions between the custodian and its GAH as also those between two GAHs of the same custodian shall be settled bilaterally, in the books of RBI and the custodian respectively.

(e) Listed companies can now lend and borrow funds under repo for periods less than seven days, including overnight.

(f) Eligible unlisted companies can only borrow under repos specifically against the collateral of the special securities issued to them by the Government of India.

General Requirements:

(i) Banks can undertake repo transactions only in securities held in excess of the prescribed Statutory Liquidity Ratio (SLR) requirements.

(ii) Custodians should put in place an effective system of internal control and concurrent audit and ensure compliance.

(iii) Regulated entities are required to adhere to the prudential guidelines prescribed by the respective regulator for undertaking repo transactions.

Re-repo of securities acquired under reverse repo will continue to be permitted for the SGL account holders. However, entities, other than SGL account holders are not permitted to re-repo securities borrowed under reverse repo transaction.

Re-repo: The RBI permitted market participants to re-issue government securities with the objective of developing the term money market. If any market participant parks money with the RBI in the form of reverse repo, where in, the RBI issues the government securities in return for funds parked with it. In case, the market participant is in need of funds, then it can re-issue the securities received under reverse repo, which is called re-repo.

Re-repo is permitted in government securities, including state development loans and treasury bills, acquired under reverse repo, subject to following conditions:

(a) Scheduled commercial banks and Primary Dealers (PDs) maintaining Subsidiary General Ledger (SGL) account with the Reserve Bank of India will be permitted to re-repo the securities acquired under reverse repo;

(b) Mutual funds and insurance companies maintaining SGL account with the Reserve Bank of India will also be permitted to re-repo the securities acquired under reverse repo, subject to the approval of the regulators concerned;

(c) Re-repo of securities can be undertaken only after receipt of confirmation/matching of first leg of repo transaction;

(d) Re-repo period should not exceed the residual period of the initial repo;

(e) Eligible entities undertaking re-repo transactions should 'flag' the transactions as a re-repo on the authorized reporting platform. Participants may review their systems and controls to ensure strict compliance with the requirement of reporting of re-repo transactions.

To enable the re-repoing of securities received in the RBI reverse repo auctions, the participants would be able to transfer the securities from their Reverse Repo Constituent (RRC) account to their SGL account.

For the purpose of re-repo, the participant would be able to withdraw securities from the RRC account up to two working days (i.e., days when G-Sec market is functional) prior to the 2nd leg settlement date of the concerned term reverse repo.

Re-repo of securities received in overnight reverse repo auctions is not allowed.

The amount of securities which the participant can withdraw from its RRC account will be net of the margin amount, ascertained at the 1st leg of the transactions (currently 4% for Central Govt. securities and 6% for SDLs). If multiple securities are provided in the RBI term reverse repo auctions, margin would apply security-wise for withdrawal from the RRC account as illustrated below:

Illustration A: Maximum amount of securities which can be withdrawn for Re-Repo. (i) On 06/09/2016, a participant has offered ₹400 crore in a 8 day RBI term reverse repo auction (2nd leg settlement on 14/09/2016) and has received ₹94,54,80,000 F.V. of Central Govt. security 8.33% GS 2026, ₹103,96,40,000 F.V. of Central Govt. security 6.97% GS 2026, ₹104,18,30,000 F.V. of 364 day treasury bill with residual maturity of 10 days and ₹130,36,70,000 F.V. of principal STRIP 'PS 02 JAN 2020', from RBI in the

1st leg (the securities are the same as given at Annex-I). (ii) The securities can be withdrawn for re-repo on any day from 06/09/2016 to 09/09/2016 (because on 10, 11 & 13/09/2016 G-Sec markets are closed and the securities can be used for re-repo only up to two working days (i.e., days when G-Sec market is functional) prior to the 2nd leg settlement of the term reverse repo). (iii) The maximum amount of securities allowed to be withdrawn for the purpose of Re-Repo, during the tenor of the RBI Term Reverse Repo after excluding applicable 4% margin and rounding-down in multiples of ₹10,000 would be, ₹90,91,10,000 F.V. of Central Govt. security 8.33% GS 2026, ₹99,96,50,000 F.V. of Central Govt. security 6.97% GS 2026, 100,17,50,000 F.V. of 364 day treasury bill with residual maturity of 10 days and 125,35,20,000 F.V. of principal STRIPS 02 JAN 2020'.

Operational Guidelines for Reckoning the Market Value of Collateral in Repo/Reverse Repo Transactions with RBI

1. The guidelines mentioned hereunder will be applicable to all types of repo/reverse repo transactions with RBI including Liquidity Adjustment Facility (LAF), variable rate operations and Marginal Standing Facility (MSF).
2. All SLR-eligible Government of India dated Securities/ State Development Loans (SDL) and Treasury Bills (T-Bill) are eligible for repo/reverse repo transactions with RBI.
3. The valuation of securities used as collateral would be based on market value of the securities w.e.f. November 26, 2016.
4. The data published by Fixed Income Money Markets and Derivatives Association of India (FIMMDA) regarding price/yield of G-Secs/Treasury Bills on a daily basis (on all working days when the G-Secs are traded) would be used for valuation.
5. For all the repo/reverse repo operations carried out on any day, the applicable prices for valuation of securities would be based on the FIMMDA prices published on the previous working day.
6. For calculating the dirty price (clean price + accrued interest) of the G-Secs, '30/360' day count convention would be used.
7. For calculating the price of the T-Bills, the 'Actual/365' day count convention would be used.
8. T-Bill prices for intermediate tenors would be derived using linear interpolation on the FIMMDA T-Bill yields data for the available tenors.
9. The initial margin for Central Government Securities and SDLs will be at 4 per cent and 6 per cent respectively, subject to review in future.
10. If for any reason the FIMMDA price/yield files of the day is not available, the latest available previous data would be used for valuation.
11. The yield/price would be approximated by rounding-off to 4 decimals. The collateral to be exchanged both in case of repos and reverse repos would be in multiples of 10,000 (after rounding up) to ensure that such transactions are not undercollateralized.
12. Illustrative examples for valuation based on market value for Central Government Securities/ DLs, T-Bills and STRIPS, respectively are furnished below.

Illustration A: Valuation of Central Government Securities/SDLs. (i) Example: For a successful bid of ₹100 crore in RBI term repo auction on 06/09/2016, a participant provides a Central Government security, 8.33% GS 2026 (maturity date– 09/07/2026, date of last coupon – 09/07/2016). (ii) The price of the security published by FIMMDA on 02/09/2016 (03, 04 and 05/09/2016, G-Sec market was closed) is ₹108.6792. (iii) Accrued Interest from 09/07/2016 (date of last coupon) to 06/09/2016 (date of Repo transaction) for 57 days would be ₹1.3189 (8.33 × 57/360). (iv) Accordingly, the dirty price of the security would be ₹109.9981 (108.6792 + 1.3189). Therefore, the face value (F.V.) of securities to be debited from Repo Constituent (RC) account after applying 4% margin and rounding-up to multiples of 10,000 would be ₹94,54,80,000 (1.04 × 100,00,00,000 × 100/109.9981). (v) The mechanism for computing the dirty price for the SDLs would be on similar lines with the applicable initial margin.

Illustration B: Valuation of T-Bills. (i) FIMMDA publishes benchmark yields (YTM & Discount Yield) only for select tenors (7, 14, 30, 60, 90, 120, 150, 180, 210,240, 270, 300, 330 & 364 days). For residual maturities, linear interpolation would be used to derive the yield. For example, if the yield of 10 days residual tenor (Tx) has to be derived, then the FIMMDA yields of 7 days (T1) and 14 days (T2), respectively would be used. For residual tenor less than 7 days, the 7 day YTM would be used. (ii) Formula for linear interpolation of yield at tenor Tx (T1 < Tx < T2) = Yield for T 1 + [{(Yield for T2 - Yield for T 1)/ (T2 – T1)} × (Tx – T1)]. (iii) Price = 100/(1+ YTM in percentage × days to maturity of the T-Bill/365). (iv) Example: For a successful bid of ₹100 crore in a term repo auction on 06/09/2016, a participant provides a 364 day T-Bill maturing on 16/09/2016 (residual maturity of 10 days). As per

data published in the FIMMDA on 02/09/2016 (3, 4 & 5/09/2016, GSec market was closed), the YTM for 7 day tenor is 6.4138% and the YTM for 14 day tenor is 6.4232%. Based on linear interpolation for 10 days, the YTM would be 6.4178% and accordingly, the price can be derived as ₹99.8245. (v) Therefore, the F.V. of the particular T-Bill to be debited from RC account of the participant after applying 4% margin and rounding-up to multiples of 10,000 would be ₹104,18,30,000 (1.04 × 100,00,00,000 × 100/99.8245).

Illustration C: Valuation of STRIPS (i) FIMMDA publishes the prices of STRIPs on a daily basis. (ii) Example: For a successful bid of ₹100 crore fund in RBI Term Repo auction on 06/09/2016, a participant provides a principal STRIP 'PS 02 JAN 2020' (maturity - 02/01/2020). The FIMMDA price on 02/09/2016 (on September 3, 4 and 5, 2016, GSec market was closed) is ₹79.7749. Therefore the F.V. of securities to be debited from RC account of the participant after applying 4% margin and rounding-up to multiples of 10,000 would be ₹130,36,70,000 (1.04 × 100,00,00,000 × 100/79.7749).

Security Substitution Facility for term repos conducted by Reserve Bank of India under the Liquidity Adjustment Facility

The securities offered for substitution by the market participants shall be of similar market value based on the latest prices published by the Fixed Income Money Market and Derivatives Association of India (FIMMDA).

Illustration: Substitution of securities in term repos under the liquidity adjustment facility

April 18, 2017

i. For a successful bid of ₹200 crore in 14 day term repo auction on April 18, 2017, a participant provides a Central Government security 8.40% GS 2024 worth ₹ 208 crore market value (including 4% margin for Central Government security).
ii. The dirty price of the security is calculated based on the latest file published by FIMMDA, i.e., of April 17, 2017. Assume the price to be ₹110.
iii. Therefore, the face value of security 8.40% GS 2024, that is, debited from Repo Constituent (RC) account (after rounding-up) would be ₹189.091 crore (208 × 100 /110).

April 20, 2017

iv. The participant chooses to substitute ₹100 crore face value of the security 8.40% GS 2024 with a new security 8.83% GS 2023 on April 20, 2017.
v. The dirty price of 8.83% GS 2023 would be based on the latest available FIMMDA price in the system, i.e., the file published on April 19, 2017. Assume the price to be 115.
vi. The amount of security 8.83% GS 2023 which has to be provided by the market participant in his Repo constituent in order to substitute the security 8.40% GS 2024 would be calculated as follows: Required face value of new security to be substituted = (Market value of the security intended to be withdrawn, i.e., 8.40% GS 2024, based on April 17, 2017 price) × 100/(latest market price of the security offered as substitution, i.e., 8.83% GS 2023, based on April 19, 2017 price = 110 * 100/115 = 95.652
vii. Therefore, in order to substitute ₹100 crore face value of security 8.40% GS 2024, the participant has to provide ₹95.652 crore face value of new security 8.83% GS 2023.

State Government security

viii. If a state government security is offered for substitution, then it would attract 6% margin as hitherto.

Market Stabilization Scheme To manage the foreign exchange rate, the Reserve Bank intervenes in the forex market by buying dollars flowing into the economy. This leads to a release of large rupee supply in the system which results in a flood of rupee liquidity. In order to dry off a part of this rise supply, the Reserve Bank then sells bonds to banks. In the year 2003–04, there was a sharp fall in the level of the Central Government's market borrowing programme which exhausted the stock of bonds with the Reserve Bank. The Reserve Bank's stock of government securities fell to ₹4,626 crore in 2003–04 from ₹1,67,308 crore in May 2001. There was a persistent flow of foreign exchange and this was absorbed through the Liquidity Adjustment Facility (LAF) and the open Market Operations (OMOs) conducted by the Reserve Bank. However, a depletion in the stock of securities hampered the LAF and the Open market operations of the Reserve Bank. To make up for this, the Reserve Bank signed in March 2004, a memorandum of understanding (MOU) with the Government of India for issuance of dated government securities of a maturity of less than two years and treasury bills

Large Capital Flows

- Lead to sharp increase in money supply.
- Lead to inflation.
- Make monetary management difficult.
- Lead to like in interest rates.
- Tend to appreciate rupee which makes exports less competitive.

including cash management bills under the MSS. The scheme came into effect from April 1, 2004. The main purpose of introducing the scheme was to absorb surplus liquidity of a more enduring nature, thus reducing the burden of sterilization on the LAF window. These bonds have a tenor of two years and the proceeds from them remain in a separate account of the Reserve Bank. This account is utilized solely for redeeming the principal amount of market stabilization bonds. The liability of the government is restricted to interest payments.

Response to Large Capital Flows

- The RBI buys dollars to prevent rupee appreciation. This leads to a large supply of rupees in the market which can create inflation and cause asset prices to go up.
- To prevent a rise in inflation, the RBI issues bonds to mop up the rupee released in the system. This is known as sterilization process.

The ceiling on the outstanding amount under MSS was fixed initially at ₹80,000 crore on October 14, 2004 but is subject to revision through mutual assessment of the liquidity in the system. The ceiling has been since enhanced to ₹2,50,000 crores in view of large and continuous capital inflows. The Reserve Bank also issues an indicative schedule for the issuance of securities under the MSS to provide transparency and stability in the financial markets. The MOU on the MSS was amended on February 26, 2009 to permit the transfer of the sequestered liquidity from the MSS cash account to the normal cash account of the government. Liquidity management was supported by an increase in the limit on securities under the market stabilisation scheme (MSS) from ₹0.3 trillion to ₹6 trillion on November 29, 2016.

This scheme has enabled the Reserve Bank to improve liquidity management in the system, maintain stability in the foreign exchange market, and conduct monetary policy in accordance with the stated objectives. Liquidity Adjustment Facility (LAF) coupled with open market operations (OMOs) and Market Stabilization Scheme (MSS) has helped the transition from direct instruments to indirect instruments, stabilization of short-term money market rates, enabled to affect demand for funds, and modulate the supply of funds on a daily basis to meet day-to-day liquidity mismatches.

New Operating Procedure of Policy Instruments

The operating procedure of monetary policy in India has witnessed significant changes. In mid-1980s, reserve money was used as operating target and broad money (M3) as an intermediate target. With structural reforms in 1990s, interest rates were used to transmit policy signals. With changes in liquidity conditions brought about by financial sector reforms, the LAF was introduced in June 2000 and emerged as the principal operating procedure of monetary policy, with the repo and the reverse repo rates as the key instruments for signalling the monetary policy stance. LAF, was well supported by instruments such as the CRR, OMO and MSS in liquidity management. The LAF operated through repo (during tight liquidity conditions) and reverse repo (during surplus liquidity conditions) and the overnight interest rates were highly volatile in extreme conditions. This created a lot of confusion and uncertainty about the desired policy impact as the policy rate alternated between repo and reverse repo rates. Moreover, in the last decade, large volatility in capital flows and sharp fluctuations in government cash balances posed several challenges to liquidity management by the Reserve Bank and thereby, a need for new operating procedure. It was decided to revise the LAF framework as there was a lack of a single policy rate and a firm corridor.

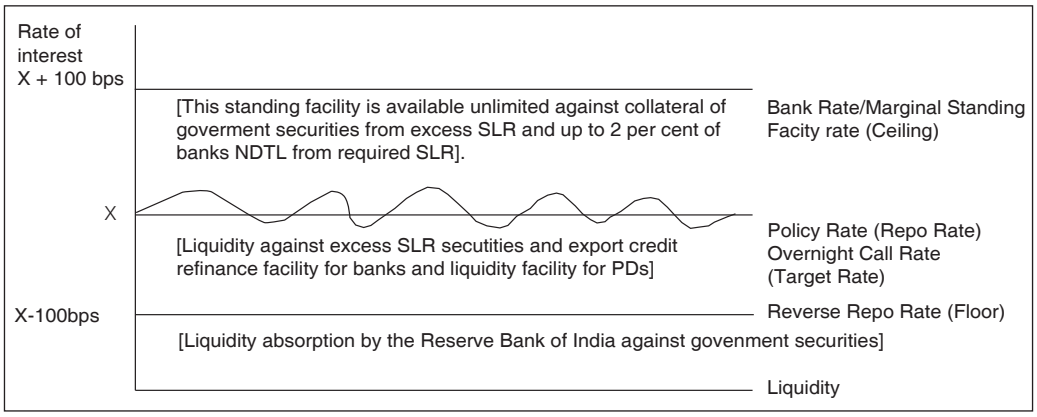
The Reserve Bank introduced a new operating procedure of monetary policy in May 2011 to have an explicit operating target, a single policy rate and a formal corridor system with a 100 bps spread on either side of the policy rate to replace the earlier system of repo and reverse repo as policy rates without having an explicit target and a fixed-width formal corridor. Under the new operating framework,

- The weighted average overnight call money rate is now the operating target of monetary policy.
- The repo rate has acquired the status of being the only one independently varying policy rate.
- A new marginal standing facily (MSF) has been instituted from which scheduled commercial banks can borrow overnight up to 1.0 per cent of their respective NDTL at 100 basis points above the repo rate. This facility will provide a safety valve against unforeseen liquidity shocks.

The revised corridor has a fixed width of 200 basis points. The repo rate has been placed in the middle of the corridor, with the reverse repo rate 100 basis points below it and the MSF rate 100 basis points above it. However, the Reserve Bank will have the flexibility to change the width of the corridor, should monetary conditions so warrant. (Figure 4.2)

In April 2016, the liquidity management framework was revised to progressively move to a position closer to neutrality. The policy rate corridor around the repo rate was narrowed to +/- 50 bps.

With the implementation of the new operating procedure of monetary policy, the call rate stabilized, hovered within the fixed corridor and moved with other money market rates, thereby bringing about a greater integration of financial markets.



Source: Mohanty Deepak, Money Market and Monetary Operations in India, RBI Bulletin, December 2012.

Figure 4.2 Revised LAF Farmework

Monetary Policy Framework

On February 20, 2015, the Government of India and the Reserve Bank signed an agreement on the Monetary Policy Framework (MPFA). The agreement makes price stability the primary objective of monetary policy; defines price stability numerically—below 6 per cent CPI inflation for 2015–16 (to be achieved by January 2016) and 4 +/- 2 per cent for all subsequent years; sets out what will constitute a failure in achieving the target; and specifies that the Reserve Bank in the event of failure will report to the government on: (a) reasons for deviation of inflation from the target over three consecutive quarters, (b) remedial measures, and (c) an estimated time frame over which inflation will be brought back to the target. Flexible Inflation Targeting (FIT) has been formally adopted in India.

The MPFA also requires the Reserve Bank to establish an operating target and an operating procedure for monetary policy through which the operating target is to be achieved. The Reserve Bank shall be seen to have failed to meet the target if inflation remains above 6 per cent or below 2 per cent for three consecutive quarters. In such circumstances, the Reserve Bank is required to provide the reasons for the failure, and propose remedial measures and the expected time to return inflation to the target. The Reserve Bank shall publish a document explaining the sources of inflation as well as forecasts of inflation for the next six to eighteen months.

The agreement represents a fundamental institutional reform in India as it mandates the Reserve Bank to pursue FIT with transparency, predictability and accountability. The government's commitment to the agreement also enhances the credibility of the framework, bringing confidence about the process of fiscal consolidation and supply management, both of which are highly relevant for maintaining price stability.

AN OVERVIEW OF THE MONEY MARKET

The development of a money market is a prerequisite for improving the operational effectiveness of the monetary policy. The objective of reforms in the money market was to remove structural liquidities and inefficiencies so as to increase participation and strengthen inter-linkages between the money market segments and other financial markets. This called for the introduction of sophisticated financial instruments and innovations in market prices to ensure liquidity in various segments of the money market and for the development of a short-term yield curve.

A review of the money market development and current efforts for further development show that a base has been created with a variety of products introduced in the market. The treasury bills market has expanded in terms of size and volume of growth. The markets for commercial paper, certificates of deposit, and commercial bills are less liquid. The call money market has not only become more active but the call money rate has also become more volatile in recent years. With the deregulation of interest rates, the rates have

emerged as an important mechanism for asset allocation. New indirect tools of managing liquidity like repos and liquidity adjustment facility operations have emerged and are increasingly used by the Reserve Bank. Agencies like the NSE and Reuters have taken the initiative in creating overnight Mibor rates as benchmark/refinance rates. New players such as non-bank entities, foreign institutional investors, primary dealers, satellite dealers, and others have been permitted to operate in the money market. New hedging instruments such as interest rate swaps and forward rate agreements have been introduced to hedge the interest rate risk.

In the second phase of reforms, the Reserve Bank's objective has been to develop a short-term rupee yield curve. To this end, a fourfold strategy has been adopted which includes conducting of LAF operations with a view to keeping short-term interest rates within a corridor, development of the call money market as a pure inter-bank market, rationalization of the traditional, sector-specific refinance support, and developing the repo market so that non-bank participants get an access to this market.

Inspite of an increase in the number of instruments and players and the recent efforts as mentioned above, the money market has not acquired the required depth in terms of volume and liquidity. Partly, it was the Reserve Bank's policy which inhibited the growth of the money market. The Reserve Bank's decisions of banning repos after the securities scam of 1992, resorting to a tight monetary policy during the busy season credit policy of 1995, and defending the rupee in the wake of the South-east Asian crisis took a severe toll on the money markets and the institutions that operate in it.

Besides this, there was delay in the technological upgradation of the money market. Technology is a prerequisite for the development of financial markets. The establishment of the VSAT network and electronic dealing system will go a long way in expanding the market and help in bringing about transparency.

The money market cannot be liquid and deep without the necessary instruments to hedge the risk. The derivative market cannot flourish without a deep and liquid money market. This calls for the following measures.

- Development of a transparent benchmark.
- Development of term money market which will help in the development of benchmark inter-bank term money market rate which is vital for integrating money and foreign exchange markets.
- Development of policies that provide incentives for banks and financial institutions to manage risk and maximize profit.
- Increasing secondary market activity in CPs and CDs: In case of CPs, underwriting should be allowed and revolving underwriting finance facility and floating rate CPs should be introduced. In case of CDs, the tenure of those of the financial institutions CDs should be rationalized. Moreover, floating rate CDs can be introduced.
- Rationalization of the stamp duty structure. Multiple prescription of stamp duty leads to an increase in the administrative costs and administrative hassles.
- Change in the regulatory mindset of the Reserve Bank by shifting the focus of control from quantity of liquidity to price which can lead to an orderly development of money market.
- Good debt and cash management on the part of the government which will not only be complementary to the monetary policy but give greater freedom to the Reserve Bank in setting its operating procedures.

KEY TERMS

Auctions
Bank Rate
Call/Notice Money Market
Call Rates
Cash Reserve Ratio
Certificates of Deposit
Commercial Bills
Commercial Paper
Competitive Bids
Forward Rate Agreements
Implicit Yield at Cut-Off Prices
Interest Rate Swaps
Liquidity Adjustment Facility
Money market
Multiple-price Auction
Non-competitive Bids
Prime Lending Rate
Repos
Reverse Repos
Statutory Liquidity Ratio
Term Money Market
Treasury Bills
Uniform-price Auction

SUMMARY

1. The money market is a market for financial assets that are close substitutes for money. It is a market for overnight to short-term funds and instruments having a maturity period of one or less than one year.
2. A money market provides a balancing mechanism to even out the demand for and supply of short-term funds, a focal point for central bank intervention for influencing liquidity and general level of interest rates in the economy, and reasonable access to suppliers and users of short-term funds to fulfill their borrowings and investment requirements at an efficient market clearing price.
3. The instruments traded in the Indian money market are treasury bills (T-bills), call/notice money market—call (overnight) and short notice (up to 14 days), commercial papers (CPs), certificates of deposits (CDs), commercial bills (CBs), and collateralized borrowing and lending obligations (CBLOs).
4. Treasury bills are short-term instruments issued by the Reserve Bank on behalf of the government to tide over short-term liquidity shortfalls. There are three categories of T-bills: on-tap bills, ad hoc bills, and auctioned T-bills. The development of T-bills is at the heart of the growth of the money market. The Reserve Bank of India, banks, mutual funds, financial institutions, primary dealers, provident funds, corporates, foreign banks, and foreign institutional investors are all participants in the T-bills market. The state governments can invest their surplus funds as non-competitive bidders in T-bills of all maturities. The sale of T-bills is conducted through an auction. At present, there are two types of T-bills: 91-day and 364-day. There are two types of auctions: (i) multiple-price auction and (ii) uniform-price auction.
5. A commercial paper is an unsecured short-term promissory note, negotiable and transferable by endorsement and delivery with a fixed maturity period. It is generally issued at a discount by the leading creditworthy and highly rated corporates to meet their working capital requirements.
6. Commercial bill is a short-term, negotiable, and self-liquidating instrument with low risk. It enhances the liability to make payment on a fixed date when goods are bought on credit. In India, the bill market did not develop due to (i) the cash-credit system of credit delivery where the onus of cash management rests with banks and (ii) an absence of an active secondary market.
7. Certificates of deposit are unsecured, negotiable, short-term instruments in bearer form, issued by commercial banks and development financial institutions. CDs are issued by banks during periods of tight liquidity, at relatively high interest rates.
8. Comparing the outstanding amount in case of both CD and CP, there is an inverse relationship between the two. When the outstanding amount of CD increased, the outstanding amount of CP decreased.
9. Call/notice money market is by far the most visible market as the day-to-day surplus funds, mostly of banks, are traded there. The call money market is a market for very short-term funds repayable on demand and with a maturity period varying between one day to a fortnight. Commercial banks borrow money from other banks to maintain a minimum cash balance known as cash reserve requirement (CRR).
10. The interest rate paid on call loans is known as the 'call rate.' It is a highly volatile rate. In India, the money and credit situation is subject to seasonal fluctuation every year. The volume of call money transactions and the amount as well as call rate levels characterize seasonal fluctuation/volatility. A decrease in the call/notice money requirement is greater in the slack season (mid-April to mid-October) than in the buy season (mid-October to mid-April).
11. A four-phased exit of non-bank institutions from the call money market commenced from May 5, 2001. With effect from August 6, 2005, non-bank participants, except PDs, were completely phased out from the call/notice money market.
12. A term money market is one where funds are traded upto a period of three to six months. The term money market in India is still not developed.
13. CBLO operates under a guarantee from the CCIL. CCIL members open constituent SGL (CGSL) account with the CCIL for depositing securities, which are offered as collateral for borrowing purposes. The borrowing limits are fixed on the basis of market value of the securities deposited in the account. Similarly, borrowers can avail of funds to the extent of the marked-to-market value of securities offered as collateral. The usual tenor for trading in the bonds is between overnight to fourteen days, though technically the maturity can extend upto one year.
14. MMMFs bridge the gap between small individual investors and the money market. MMMF mobilizes savings from small investors and invests them in short-term debt instruments or money market instruments.
15. The Reserve Bank seeks to influence monetary conditions through management of liquidity by operating in varied instruments. These instruments can be categorized as direct and indirect market-based instruments.
16. The management of liquidity is essentially through direct instruments such as varying cash reserve requirements, limits on refinance, administered interest rates, and qualitative and quantitative restrictions on credit. The Reserve Bank also influences monetary conditions through market-based, indirect instruments such as open market operations and refinance (standing facilities)/discount (market-based discount windows)/repo windows.
17. Reserve requirements are of two types: (i) cash reserve requirements (CRR) and (ii) statutory liquidity ratio (SLR). They are techniques of monetary control used by the Reserve Bank to achieve specific macroeconomic objectives. The CRR refers to the cash that banks have to maintain with the Reserve Bank as a certain percentage of their total demand and time liabilities (DTL) while SLR refers to the mandatory investment that banks have to make in government securities.
18. The prime lending rate (PLR) is the minimum lending rate charged by the bank from its best corporate customers or prime borrowers. Prime lending rates have been deregulated gradually since April 1992 and the interest rate structure for commercial banks simplified. The six categories of lending rates were reduced to four in April 1992 and to three in April 1993.
19. The rate of discount fixed by the central bank of the country for the rediscounting of eligible paper is called the bank rate. It is also the rate charged by the central bank on advances on specified collateral to banks.
20. Currently, there are only two refinance schemes available to banks—export credit refinance and general refinance.
21. LAF (Liquid Adjustment Facility) is operated through repos and reverse repos. The LAF is a tool of day-to-day liquidity management through the absorption or injection of liquidity by way of sale or purchase of securities followed by their repurchase or resale under the repo/reverse repo operations. It provides a mechanism for injection and absorption of liquidity available to banks and to overcome mismatches in supply and demand from time to time.
22. Repo is a transaction in which the borrower gets funds against the collateral of securities placed with the lender. The maturity period of repos range from 1 to 14 days. At maturity, the securities revert to the borrower, after he repays the dues. Since repos are market-based instruments, they can be utilized by central banks as an indirect instrument of monetary control for absorbing or injecting short-term liquidity. Repos help maintain an equilibrium between demand and supply of short-term funds. The repos market serves as an equilibrium between the money market and securities market and provides liquidity and depth to both the markets. The repo rate, along with the CRR and bank rate, emerged as important tool of liquidity and monetary management.

23. An interest rate swap (IRS) is a financial contract between two parties, exchanging or swapping a stream of interest payments for a notional principal amount during a specified period. Such a contract involves exchange or swapping of a 'fixed to floating' or 'floating to fixed' interest rate. If participants feel that rates will fall, they could receive fixed and pay floating rates. The converse is beneficial if interest rates rise.
24. A forward rate agreement (FRA) is a financial contract between two parties where the interest at a predetermined rate for a notional principal amount and for a specified period is exchanged at the market interest rate prevailing at the time of settlement. The market interest rate is an agreed benchmark/reference rate prevailing on the settlement date. In India, the NSE/Reuters Mibor is used as a reference rate.
25. The number of contracts and the notional amount in case of both IRSs and FRAs has increased tremendously.

REVIEW QUESTIONS

1. What is a money market? What steps have been taken to develop the Indian money market?
2. 'Treasury bills are an important short term source of finance for the government.' Discuss.
3. Compare certificates of deposit and commercial Papers?
4. Why has the commercial bills market not developed in India?
5. What steps have been taken to curb the call money market volatility?
6. What are repos? State the different types of repos. How does the Reserve Bank use repos as a tool for managing liquidity in the money market?
7. 'The market for interest rate swaps and forward rate agreements have not grown at the anticipated pace.' Discuss.
8. What is Market Stabilization Scheme? Why was it introduced by RBI?
9. What is Liquidity Adjustment Facility and what are its objectives? State the tools of LAF?
10. What is CRR? What is the implication of a cut in CRR? What is the indication of a hike in CRR?
11. Discuss the link between monetary policy and money market?
12. What is CBLO? How has it emerged as a predominant segment in money market?
13. What are the prudential limits laid down by the RBI for transactions in the call money market by banks?
14. State the link between call money market and other financial markets?
15. Write short notes on
    a. Certificate of Deposit
    b. Commercial paper
    c. Treasury bills
16. Which sectors are relatively immune to interest rate shifts?
17. Which sectors are affected by interest rate changes?

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20. Mallikarjunan, K (2006) 'CBLO': A leader with a 'Haircut' in the Money Market' *Treasury Management*, Sept 2006. pp. 43–45.The Reserve Bank has announced that it would like to see the CRR level down to 3 per cent. The key constraint in reducing the CRR is the continuing high level of fiscal deficit which cannot be financed entirely by the market and, therefore, requires substantial support by the Reserve Bank.