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4

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*
- *Collateralised 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.

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.

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.

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. 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.

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

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 Rs. 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 (organised) and informal (unorganised) 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 characterised 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, organisation, 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. 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 minimum lock-in period for money market instruments was brought down to 7 days.
- The Reserve Bank started repos both on auction and fixed interest rate basis for liquidity management. Since June 5, 2000, the newly introduced liquidity adjustment facility has been effectively used to influence short-term rates by modulating day-to-day liquidity conditions. The transition to LAF was facilitated by the experiment with the interim liquidity adjustment facility (ILAF) from April 1999. This provided a mechanism for liquidity management through a combination of repos, export credit refinance, and collateralised lending facilities.
- 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 operationalised as a money market instrument through the CCIL on January 20, 2003.

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 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 rationalised. 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. Call/notice money market—Call (overnight) and short notice (up to 14 days);
3. Commercial Papers (CPs)
4. Certificates of Deposits (CDs)
5. Commercial Bills (CBs)
6. Collateralised 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 Rs. 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~~

~~The Reserve Bank publishes implicit yields in its weekly bulletins.~~

~~Table 4.8 presents and compares the implicit cut-off yield in case of 91-day auction T-bills and 364-day T-bills for the period 1992–93 to 2007–08.~~

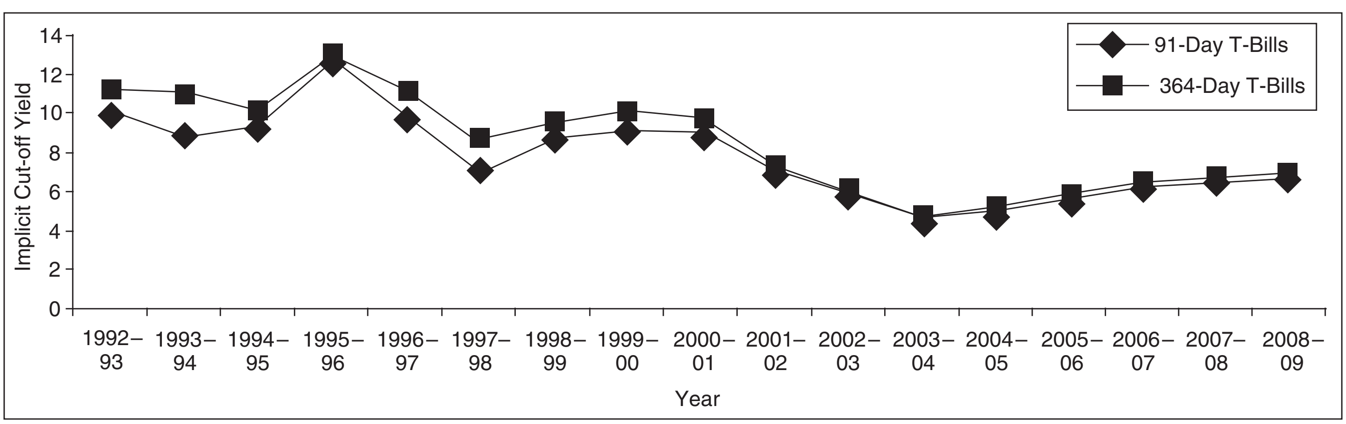
~~In case of both 91-day and 364-day T-bills, the implicit yield rose in the years 1994–95 and 1995–96. The implicit yield at cut-off prices reached its peak in the year 1995–96 due to a spell of tight money market conditions. The yield declined in the next two years as liquidity conditions eased and the Reserve Bank contained the interest rate through its policy. However, in the year 1998–99, to contain the pressure in the forex market, there was a sharp 3 per cent rise in the repo rate, which led to an increase in implicit yields. With easing in liquidity conditions and gradual cuts in CRR, implicit yields declined in 2000–01.~~

~~Table 4.8 brings out a noteworthy trend. The long-term yields (364-days T-bill yields) were attractive and higher than the short-term yields (91-day T-bill yields). As seen in Figure 4.1, the spread between the two yields have narrowed and are almost convergent since 2001–02. The average cut-off yield of all the T-bills increased during 2005–06 and 2007–08 indicating tight liquidity conditions. Yields on T-bills hardened in 2007–08 on account of high inflation and inflation expectations, and hikes in the cash reserve ratio (CRR).~~

~~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.~~

~~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.~~



~~**Figure 4.1** Implicit Cut-off Yield (Average) in Per Cent~~

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

COMMERCIAL PAPER

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 dematerialised 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.

There was a sharp increase in the share of FIs also. Their share increased from a meagre 1 per cent in 2001–02 to a high of 18 per cent in 2003–04 and 20 per cent in March 2005. Their share substantially reduced to 10.5 per cent in March 2006 but again increased to 16 per cent in June 2009.

The CP market is dominated by corporates having tangible net-worth of Rs. 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 authorising 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 authorised 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 mobilised 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.~~

~~Guidelines Relating to CPs~~

~~With experience, refinements were made to this instrument by the Reserve Bank by measures such as removing/easing a number of restrictions on maturity, size of the commercial paper, requirement of minimum current ratio, and restoration of working capital finance.~~

~~The maturity period has been brought down from 91 days-6 months to 15 days-1 year. The maturity period was further brought down to 7 days in April 2004. The minimum size of the paper has been reduced from Rs. 1 crore to Rs. 5 lakh.~~

~~Until October 1994, a commercial paper was an important corporate instrument for financing working capital requirements. Corporates could have access to funds at rates lower than the PLRs through a CP. This low interest rate advantage was due to the stand-by facility wherein banks were required to restore the cash credit limit on the maturity of the paper, guaranteeing the issuer funds at the time of redemption. This stand-by facility was withdrawn in October 1994. The corporates were asked to access funds through a commercial paper on their own repayment strength. This withdrawal also imparted independence to the commercial paper as a money market instrument and its credit rating reflected the intrinsic strength of the issuer. The withdrawal of this stand-by facility led to a crash in the primary market for commercial papers in 1994–95.~~

~~Later, the CP was carved out of the Cash Credit (CC) limits of the maximum permissible bank finance (MPBF) that the corporates had with banks. Hence, if a corporate issued a CP, the cash credit that it had with its bank was reduced by the same amount, thereby lowering the attractiveness of this instrument for the corporates. This issuance limit was delinked from the cash credit limit in October 1996. Corporates now have the freedom to utilise their entire banking limits for issuing commercial papers.~~

~~New guidelines were released in October 2000 for providing flexibility, depth, and vibrancy to the commercial paper market. The Reserve Bank converted the paper into a stand-alone product to enable companies in the services sector to meet their short-term working capital needs more easily. Banks and financial institutions now have the flexibility to fix working capital limits after taking into account the resource pattern of a company's financing including CPs. An important feature of the revised guideline was the flexibility given to banks and financial institutions to provide stand-by assistance/credit, back-stop facility to issuers. This stand-by facility was provided to aid the long-term growth of the CP market. In addition, this facility assists banks to increase their fee-based income. The Ahmedabad Electricity Company was the first company to issue CPs worth Rs. 40 crore with a stand-by facility provided by the bank. Both the issuer and the bank provided unconditional stand-by facility to the extent of Rs. 40 crore for the entire period during which the paper remained outstanding. This issue was assigned a P1 rating by CRISIL.~~

~~Banks, financial institutions, primary dealers, and satellite dealers have been permitted to make fresh investments and hold a CP only in dematerialised form, effective from June 30, 2001. In order to provide flexibility to both issuers and investors in the CP market, the Reserve Bank allowed non-bank entities including corporates to provide an unconditional and irrevocable guarantee for credit enhancement for CP issue. The guarantor has to get a credit rating atleast one notch higher than that of the issuer from an approved credit rating agency. The offer document for the CP has to disclose the net worth of the guarantor names of the companies to which the guarantor has issued similar guarantees, the extent of the guarantees offered and the conditions under which the guarantee will be invoked. Banks were allowed to invest in CP guaranteed by non-bank entities provided their exposure remained within the regulatory ceiling for unsecured exposures.~~

Summary of Guidelines for Issuance of a CP

With a view to providing flexibility to participants and adding depth and vibrancy to the CP market, the Reserve Bank issued new guidelines for the issuance of the CP in October 2000.

Eligibility Corporates, primary dealers, and all-India financial institutions are eligible to issue a CP. For a corporate to be eligible, it should have tangible net worth of Rs. 4 crore and a sanctioned working capital limit from a bank or a financial institution and the borrowal account is a standard asset.

Rating Requirement The minimum credit rating shall be P2 of CRISIL or such equivalent rating by other approved agencies.

Maturity Initially, corporates were permitted to issue a CP with a maturity between a minimum of three months and a maximum upto six months. At present, the maturity period has been brought down to a minimum of 7 days and a maximum of upto one year from the date of issue.

Denomination Minimum of Rs. 5 lakh and multiples thereof. Amount invested by a single investor should not be less than Rs. 5 lakh (face value).

Limits and Amount A CP can be issued as a 'stand-alone' product. Banks and financial institutions will have the flexibility to fix working capital limits duly taking into account the resource pattern of companies financing including CPs.

Issuing and Paying Agent (IPA) Only a scheduled commercial bank can act as an IPA. It verifies all original certificates viz., credit rating certificates, letter of offer, and the board resolution authorising issue of the CP. It holds custody of original of credit support document if it is in the form of stand-by assistance/back stop facility with relevant declaration and confirms that the documents are in order. After authentication of the entire CP document, IPA issues an 'IPA certificate' to all subscribers of the CP in the primary market and then reports the issue to the RBI.

Investment in a CP A CP may be held by individuals, banks, corporates, unincorporated bodies, NRIs, and FIIs. Investment by FIIs would be within the limits set for their investments by the SEBI.

Mode of Issuance A CP can be issued as a promissory note or in a dematerialised form. Underwriting is not permitted. CP will be issued at a discount to face value as may be determined by the issuer. The total amount of CP proposed to be issued should be raised within a period of 2 weeks from the date on which the issuer opens the issue for subscription. Every issue of CP, including renewal, should be treated as a fresh issue.

Preference for Demat Issuers and subscribers are encouraged to prefer exclusive reliance on demat form. Banks, financial institutions and primary dealers are advised to invest only in demat form.

Stand-by Facility It is not obligatory for banks or financial institutions to provide stand-by facility. They can provide credit enhancement facility within the prudential norms.

The Reserve Bank publishes, on a monthly as well as a weekly basis, effective interest rates on CPs issued during a fortnight. At present, issuers decide on the discount rates of their CPs taking into account the Reuters/Tele rate CP reference rate as well as supply/demand forces prevailing in the market.

In order to improve transparency and strengthen efficiency reporting of all CP deals on the Negotiated Dealing System (NDS) has been made compulsory. It is proposed to rationalise and standardise various aspects of processing, settlement and documentation of CP issuance with a view to achieving the settlement atleast on T+1 basis.

~~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 Rs. 577 crore in March 1993 to a peak of Rs. 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 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.

~~Commercial Paper: A Comparative Position~~

~~Countries~~	~~USA~~	~~United Kingdom~~	~~France~~	~~India~~
~~Legal Basis~~	~~Securities Act~~	~~English Common Law~~	~~1. French Financial and Monetary Code~~ ~~2. Decree and CRBF Regulation~~	~~1. Non Banking (Acceptance of Deposit through CP) Direction, 1989.~~ ~~2. Section 45K of RBI Act, 1934.~~
~~Maturity Period~~	~~No Minimum and Maximum Period But in Effect Ranges from 1 Day to 270 Days~~	~~Less than 365 Days~~	~~Between One Day and Up to One Year~~	~~7 Days and Up to 1 Year~~
~~Denomination~~	~~No Required Minimum Denomination But Market Practice of \$ 1,00,000~~	~~EUR 40,000~~	~~A Unit Value Equivalent at Least EUR 1,50,000~~	~~Denominations of Rs. 5 Lakh or Multiples thereof. Amount Invested by a Single Investor Should not be Less than Rs. 5 Lakh (Face Value)~~
~~Issuers~~	~~Both Financial and Non financial Corporation~~	~~No Restriction~~	~~Investment Firms, Companies Making Public Offer, EIG, Public Companies, Community Institutions, and International Organisation of which France is Member.~~	~~Corporates, Primary Dealers (PDs) and FIs.~~

~~*Source:* www.rbi.org.in~~

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 two years could borrow money at sub-PLR 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~~

~~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.~~

~~Types of Commercial Bills~~

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

~~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 Rs. 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~~

- ~~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 are short-term tradable time-deposits issued by commercial banks and financial institutions

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 mobilised 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~~

~~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 Rs. 2,500 crore.~~

~~Effective from May 3, 1997, an umbrella limit for the mobilisation of resources by way of term money borrowings, CDs, term deposits, and inter-corporate deposits was prescribed for three financial 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 Rs. 5 lakh to Rs. 1 lakh in June 2002. From June 30, 2002, banks and financial institutions were required to issue CDs only in the dematerialised 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.~~

~~TABLE 4.16 Certificate of Deposit and Commercial Paper: A Comparison~~

Year (End March)	CD Interest Rate (Per Cent)	CD Outstanding (Rs. in Crore)	CP Interest Rate (Rs. in Crore)	CP Outstanding (Rs. in Crore)
1993	12.5–16.5	9,803	15.8–16	577
1994	7–12.2	5,571	11–12	3,264
1995	10–15	8,017	14–15	604
1996	12–22.3	16,316	20.2	76
1997	7–14.3	12,134	11.3–12.3	646
1998	7.2–26	14,296	14.2–15.5	1,500
1999	8–12.5	3,717	9.1–13.3	4,770
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	3.09–11.5	3,39,279	2.83–12.5	75,506

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

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.

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.

- ~~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~~

Why Call Money

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.

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

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.

~~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.~~

- ~~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) Hand book of market practices~~

~~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 reporting 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 Rs. 20 crore to Rs. 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. At present, the eligible participants are banks and primary dealers.

~~Reporting of Call/Notice Money Transactions~~

- ~~It is mandatory for all NDS members to report their call/notice money market deals within 15 minutes on NDS. All dealings on NDS-CALL do not require seperate reporting~~

~~In order to improve transparency in the call/notice money market, reporting of call/notice money market transactions on the NDS was made mandatory with effect from the fortnight beginning May 3, 2003. Any transaction irrespective of whether executed on the NDS or outside and whether the counter party is a member of the NDS or not is to be reported on the NDS. A screen-based negotiated quote-driven system for all dealings in the call/notice and term money market (NDS-CALL) was launched on September 18, 2006. NDS-CALL accounts for more than 75 per cent of total call-notice transactions.~~

~~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.

Ca~~ll 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 characterise 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 mobilisation, 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~~

~~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.~~

COLLATERALISED BORROWING AND LENDING OBLIGATION (CBLO)

The Clearing Corporation of India Limited (CCIL) launched a new product–Collateralised 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 Rs. 50 lakh and in multiples of Rs. 5 lakh thereof. The minimum order lot for normal market is fixed at Rs. 5 lakh and in multiples of Rs. 5 lakh thereof. Order lot refers to the minimum amount that is required to constitute a successful trade in the auction and normal market.~~

~~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 Rs. 2,506 crore in March 2004 to a peak of Rs. 57,320 crore in March 2009 (Table 4.18). 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.~~

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

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.

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

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.

Direct Instruments

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

The Reserve Bank seeks to influence monetary conditions through management of liquidity by operating in varied instruments. These instruments can be categorised 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 liberalised 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.

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 stabilisation scheme (MSS)
- State Development Loans of the State Governments
- Any other instrument as may be notified by the RBI

The Reserve Bank also set up a framework of the interim liquidity adjustment facility (ILAF) which helped in injecting liquidity through the collateralised 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 neutralise 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 sterilisation increasingly fell on the LAF operations. In order to absorb liquidity of enduring nature, the Reserve Bank operated a new scheme Market Stabilisation Scheme (MSS). This scheme has provided further flexibility to the Reserve Bank in its market operations.

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

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

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~~

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 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 the maturity, the securities revert to the borrower, after he repays the dues

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 collateralised 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 collateralised. 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-collateralised; repos are backed by securities and are fully collateralised. Ownership titles of eligible securities is immediately transferred. Thus, the counter party risks are minimum. Since repos are market-based instruments, they can be utilised 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 liberalised 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.~~