Indira Gandhi National Open University
School of Management Studies

FTKMC
FINANCIAL TECHNOLOGIES KNOWLEDGE MANAGEMENT CO.

MFP-4 CURRENCY AND DEBT MARKETS

Introduction to Debt Markets

3

" शिक्षा मानव को बन्धनो से मुक्त करती है और आज के युग में तो यह लोकतंत्र की भावना का आधार भी है। जन्म तथा अन्य कारणो से उत्पन्न जाति एंव वर्गगत विषमताओं को दूर करते हुए मनुष्य को इन सबसे ऊपर उठाती है "

–इंदिरा गांधी

"Education is a liberating force, and in our age it is also a democratising force, cutting across the barriers of caste and class, smoothing out inequalities imposed by birth and other circumstance."

--Indira Gandhi

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INTRODUCTION TO DEBT MARKETS

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BLOCK 3 INTRODUCTION TO DEBT MARKETS

The debt market plays a pivotal role in the economy as it helps in efficient mobilization and allocation of resources in the economy, besides financing the development activities of the Government. There is a well-segmented debt market in India comprising Government Securities (G-Sec) Market, Corporate Bond Market and Money Market. Indian debt market is predominantly a wholesale market, with dominant institutional investor participation. The units explains the structure ,products,players in the Indian Debt Market.

Unit 9 starts with an introduction to Indian Debt market and explain the various segments of the debt market such as G-Sec market, Corporate Debt market and Money market. It also gives a brief overview about factors impacting debt market.

Unit 10 explains the significance of money market and covers all the money market products including repo, reverse repo ,commercial paper, certificate of deposits,inter bank participation certificates etc.

Unit 11 focuses on G-Sec market and explains in detail different types of debt instruments such as fixed income securities, floating rate securities, zero coupon bonds etc.

Unit 12 deals with the issuance process of Government securities in the primary market through auçtion and the different methods of auction and it also explains trading , clearing and settlement of securities in the secondary market.

UNIT 9 DEBT MARKETS IN INDIA

Objectives

After studying this unit, you should be able to:

- explain the evolution and Significance of Debt Markets in India;
- understand different Debt market segments;
- discuss features of Debt Market Products; and
- identify different debt Market Players, Intermediaries and Regulators.

Structure

9.1 INTRODUCTION

Debt market plays a vital role in building a country's financial system and is intricately interwoven with the other segments of the financial market. Debt market has been in existence for several centuries and in earlier days, kings and emperors borrowed heavily to finance their wars. In the 14th century, for example, Edward I financed his wars through bond issues launched in Italy by the then big banking families. Centuries later, the great coalition against Louis XIV led by William of Orange was financed by a group of Dutch families operating from The Hague. Later, the Rothschild's became famous for supporting the British war effort against Napoleon I through their European family network. In the Middle-Ages, several Italian city-states commenced issuing marketable Government Securities. In the middle of the 13th century, Venetian bankers began to trade in government securities. In 1351, the Venetian Government outlawed spreading rumours intended to lower the price of government funds.

In the fourteenth century, the Republic of Venice issued the 5% bonds, which were traded above par, for a few years. Kind Frederick of Austria borrowed at 80% interest. Traders in Pisa, Verona, Genoa and Florence also began trading in government securities. In the fifteenth century, Charles VIII of France paid 100% interest in Italy for a war loan. Merchants in Italy could borrow at interest rates between 5% and 10%. In the seventeenth century, records indicate that Holland repaid its state debt that it had borrowed. Dutch merchants could borrow at rates as less as 1.75%. The debt market in most developed countries is many times larger than other financial markets - including the equity markets.

Debt market can be categorized into different classes based on the nature of the market, nature of the issuer, and nature of issuance. They can be classified as primary debt market and secondary debt market based on the nature of the market; government and corporate bond market based on the nature of the issuer; and domestic, foreign, and euro bond market based on the nature of bond issuance. Internationally, there is still no unified bond market and international bond market is divided into three broad bond market groups viz domestic bonds, foreign bonds and euro bonds. Domestic bonds are issued locally by a domestic borrower and are denominated in the local currency of the country of issue. Foreign bonds are issued on a local market by a foreign borrower and are usually denominated in the local currency and foreign bond issues and trading are under the supervision of local authorities. Debts arranged through a syndicate of banks of international repute and placed in the countries not corresponding to the currency of issue are called Euro bonds. The history of Eurobonds dates back to the early 1960s, when Euro dollar bonds (USD bonds issued outside US) dominated the Euro bond market. The first Euro bond was issued in 1957. Presently, Euro bonds are denominated in almost all the major currencies. Today, the Euro bond markets are well developed and more sophisticated than they were at their inception.

9.2 EVOLUTION OF DEBT MARKETS IN INDIA

The debt market in India, more particularly the government securities market, dates back to 1859 when the British Government took over the East India Company and there has been active debt issuing by the government both before and after independence. Corporate Bonds, mainly debentures, were being issued by companies of good standing in the pre-war and post-war years. Following the arrival of term lending institutions in the sixties and seventies that supplied the bulk of the medium and long term funding requirements of the private sector, there was a decline in corporate bond issues during the period. The public sector's long term funding needs were met by the State. The corporate bond market started reviving in 1980s and, today, there is a well-segmented debt market in India comprising: Government Securities (G-Sec) Market, Corporate Bond Market and Money Market.

Components of Indian Debt Market

In the post reforms era, since the liberalization of the Indian economy in 1991, following debt market segments have emerged:

- Private Corporate Debt Market
- PSU Debt Market
- Government Securities Markets (usually referred to as the G-Sec market)

The G-Sec market commands over 90% of the volume of transactions in the debt market – it is the principal segment of the debt market in India. An integral aspect of the financial liberalization initiated in the early 1990s was the process of reforming the debt market. Two of the main reasons for this reform are as follows: (1)Realization that the growing budget deficit would have to be funded through a liquid, efficient government securities market, and (2) Recognition that sustained economic growth will require a significant improvement of the nation's infrastructure, which itself will require a deep and liquid domestic debt market.

The Indian debt market and the government securities market in particular, is at a turning point in India with significant changes taking place in the domestic economic environment.

The first such significant change is the prohibition of RBI's subscription to Government securities in the primary market effective April 1, 2006, as mandated by the Fiscal Responsibility and Budget Management (FRBM) Act. which completed the transition to a fully market based issuance of Government securities, a process that was initiated in the early 1990s with the introduction of auctions. As a consequence of the recommendations of the Twelfth Finance Commission, the role of the Central Government as a financial intermediary for State Governments is effectively ending and thus State Governments' borrowing will be more and more market determined. This is perhaps the beginning of the emergence of a vibrant sub-national debt market.

The Government securities market before the 1990s was characterized by administered interest rates, high SLR requirements that led to the existence of captive investors and the absence of a liquid and transparent secondary market for G-Secs. Low coupon rates were offered on Government securities to keep Government borrowing costs down, which made real rates of return negative for several years till the mid-1980s. During the 1980s, the volume of Government debt expanded considerably, particularly short-term debt, due to automatic accommodation to Central Government by the Reserve Bank, through the mechanism of ad hoc Treasury Bills. However, with a captive investor base and low interest rates, the secondary market for Government bonds remained dormant. Artificial yields on Government securities affected the yield structure of financial assets in the system, and led to an overall high interest rate environment in the rest of the market. As a result of gradual reform measures taken over the years, the Indian G-Sec market has seen a transition for the better, with the market becoming increasingly broad based, characterised by an efficient auction process, an active secondary market and a liquid yield curve up to 30 years The market is now supported by an active Primary Dealer (PD) system and electronic trading and settlement technology that ensure safe settlement with STP and central counterparty guarantee. At a more macro level, the reforms fostered integration of the different segments of the domestic markets as well as some degree of integration of the domestic financial markets with international markets. The holding of G-secs among financial institutions has been more diversified, particularly, with the emergence of insurance and pension funds as a 'durable' investor class for the long-term securities. This became possible due to the sustained efforts devoted to elongating the maturity profile of Government securities by developing a smooth and robust yield curve.

Recent developments

First, security settlement has migrated to Delivery against payment (III) (DVP III), enabling net settlement of securities and funds, resulting in efficient liquidity management. Net settlement has also enabled selling of securities that are already contracted for purchase, in the same settlement cycle, which greatly mitigates the price risk faced by participants. Second, rollover of repos has been enabled thus furthering the participants' ability to manage their fund positions more efficiently. Third, a uniform T+1 settlement cycle has been adopted for the settlement of outright transactions in Government securities. This will give participants more processing time for transactions and will thus enable better funds as well as risk management. Fourth, in order to further widen the repo market in Government Securities, its access has been extended to listed companies and non-scheduled urban cooperative banks. Fifth, the facility of selling stock acquired in primary auctions on the same day, which was hitherto available only for (Subsidary General Ledger) SGL account holders, has been extended to (Centralised Subsidiary General Ledger) CSGL account holders also.

NDS-OM

As part of its constant endeavor to improve the facilities for trading and settlement in the Government securities market, RBI had formally launched, on August 1, 2005, an electronic Order Matching trading module for Government securities on its Negotiated Dealing System (NDSOM). The system is an anonymous order matching system in which the identity of parties is not revealed, the Clearing Corporation of India Ltd. CCIL becomes the central counterparty to each trade done on the system and the system allows straight-through processing (STP). The NDS-OM is an additional facility available to the participants and the participants continue to have the option of using the current reporting and trading platform of the NDS. The settlements of both types of transactions are, however, integrated. NDS-OM which was initially open only for the RBI regulated entities has been extended to all insurance entities in the second phase. The Order Matching system has been well received by market participants and it now accounts for a significant share of the total traded volume in G-secs .

9.3 MONEY MARKET AND DEBT MARKETS

Debt Markets involve issuance, trading and settlement of fixed income securities such as bonds of various tenors. Debt Market instruments can be issued by Central and State Governments, Public Sector Units, Statutory Corporations, Banks, Financial Institutions and Corporate Bodies.

The Money Market is defined as a market for overnight to short-term money and for financial assets that are close substitute for money. The meaning of "short-term" refers to a duration of less than or equal to 1 year. The phrase "close substitute for money" denotes any financial asset that can be quickly converted into money with minimum transaction cost and without loss of value. Participants in this market either have excess funds which they would like to invest for short duration (from overnight to 1 year) or have an immediate shortage of funds and would like to borrow in the short-term. The market is a wholesale market for a collection of different short term debt instruments. Its principal feature is the credit worthiness of the participants.

Significance of Money Markets

Until the early 1990s, participation in Money Market in India was restricted to banks, LIC and UTI. There were no other participants who could actively trade in the short term money market instruments. The only available money market instruments were the call / notice money, interbank deposits / loans, commercial bills and 91-day Treasury bill. The interest rates were controlled directly by the RBI or involuntarily by means of agreement between banks through the Indian Banks Association.

The pre-requisites for an efficient money markets system is the availability of low-risk but highly liquid short term money market instruments, deregulated interest rates, flexibility in transactional procedures and also an existence of a number of participants including market makers - to create liquidity for the instruments.

After 1990, a liquid money market emerged in India. Specialized institutions called Primary Dealers (PD) were established. This also coincided with the formation of the Money Market Mutual Fund (MMMF). Interest rates were also deregulated and eligible participants were enlarged. Also many new instruments were launched. Presently, the structure of the Indian money market instruments consists of the following:

- Call / notice money market
- Commercial bills market
- Treasury Bills (T-Bills)
- Commercial Papers (popularly known as CP)
- Certificates of Deposit (CD), and
- The Repo Market

The RBI uses open market operations (OMO), bank rate, Cash Reserve Ratio (CRR), Statutory Liquidity Ratio (SLR), repo transactions as active instruments of monetary policy. The key objective of money markets is:

- To facilitate an equilibrium between demand and supply of short term funds.
- Provide a focal point for central bank intervention for influencing liquidity in the economy.
- Facilitate easy access for users and suppliers of short term funds to meet their requirements at an efficient market clearing price.

A well functioning debt market and money market is critical for inter-temporal resource allocation and is therefore significant for economic development. Mobilization and efficient pricing of debt is important for overall efficient allocation of resources. It comprises the primary as well as the secondary market for debt instruments - both sovereign and corporate.

Inter-linkages between Money Market and Debt Market

Money market is a market dealing in short term debt instruments (with maturity period up to 1 year), whereas, the debt Market is a market for long-term instruments (more than one year). The money market supports the long term debt market by increasing the liquidity of securities. A developed money market is a prerequisite for the development of a debt market.

9.4 ISSUANCE OF GOVERNMENT DEBT

The central government is the largest issuer of debt. The growing national budget deficit has required the increased issuance of government securities. The annual primary (gross) issuance of central Government debt increased 18 times during the 15 years since the reform process began, from Rs. 8,989 Crores in FY1991 to Rs. 160,018 Crores in FY2006. In FY2008, this figure touched an all time high of Rs. 188,205 Crores and was at Rs. 175,780 Crores in FY2009. In addition, the growing needs of the state governments have led to their growing issuance (gross basis) in the debt market. The annual issuance of state government debt has increased as much as 20 times, from Rs. 2,569 Crores in FY1991 to Rs. 50,521 Crores in FY2004. In FY2008, this figure touched an all time high of Rs. 67,779 Crores and was Rs. 59,062 Crores in FY2009.

Although the Indian private corporate sector raises a large part of their financial requirements through bank loans, there has been increasing reliance on both the debt and equity markets. Within the debt market, especially the corporate bond market, issuances by state-owned public sector undertakings have persistently outstripped those by private companies. Further, there has been a strong preference for the private placement route for corporate bond issues rather than public issues owing to lesser regulatory requirements in private placements. Also, the high cost associated with public issuance deters corporate entities from accessing funds through this route.

The Government started the reforms by borrowing from the market at rates determined through auctions. Other reforms include introduction of new instruments such as - zero coupon bonds, floating rate bonds, capital index bonds; establishment of specialized institutions such as Discount and Finance House of India (DFHI) and Securities Trading Corporation of India (STCI), setting up of the Negotiated Dealing System (NDS), etc.

While these reforms have resulted in increased trading volumes in the debt market (total turnover in Government of India dated securities increased from Rs. 10,21,536 Crores in 2006-07 to Rs. 21,60,233 Crores in 2008-09), yet the trading volume has remained low in comparison to the developed markets. However, the repo market volume exploded from Rs. 25,56,501 Crores in 2006-07 to Rs. 40,94,286 Crores in 2008-09. There is a strong need to further deepen and widen the market by offering a wide range of products. There is a strong need to further deepen and widen the market by offering a wide range of products.

The major reforms that took place in the 1990's in the Govt Securities market were:

a) Introduction of the auction system for sale of dated government securities in June1992. This signaled the end of the era of administered interest rates.

b) The RBI moved to computerize the SGL and implement a form of a 'delivery versus payment' (DvP) system. The DvP enabled mitigating of settlement risk in securities and ensured the smoothness of settlement by synchronizing the payment and delivery of securities. Innovative products in form of Zero Coupon Bonds and Capital Indexed Bonds (Ex. Inflation Linked) were issued to attract a wider gamut of investors. However, the pace of innovation suffered due to non-sophistication of the markets and lack of persistence with some of the new bonds like Inflation Indexed bonds after the initial lukewarm response. The system of Primary Dealers was established in March 1995. These primary dealers have since then acquired a large chunk of share in the GOI bond market and have played the role of market makers.

c) The RBI setup "trade for trade" regime, a strong regulatory system which required that every trade must be settled with funds and bonds. All forms of netting were prohibited.

d) Wholesale Debt Market (WDM) segment was set up at NSE, A limited degree of transparency came about through the WDM at NSE, where roughly half the trading volume of India's GOI bond market is reported.

e) The Ways And Means agreement put an end to issuance of ad hoc treasury bills, the government's favourite instrument of funding its profligacy.

9.5 CORPORATE DEBT MARKET

In the last decade, a number of innovations have taken place in the corporate bond market, such as securitized products, corporate bond strips and a variety of floating rate instruments with floors, caps, and bonds with embedded put and call options. However, the secondary market has not yet developed in the debt segment of the Indian capital market. Furthermore, the corporate debt market in India remains underdeveloped as large domestic institutional investors, such as pension funds and the insurance sector, are restricted from allocating large portions of their investment funds in the corporate bond segment.

A number of policy initiatives were taken during the 1990s to activate the corporate debt market in India. The interest rate ceiling on corporate debentures was abolished in 1991, paving the way for market-based pricing of corporate debt issues. In order to improve the quality of debt issues, ratings were made mandatory for all publicly issued debt instruments, irrespective of their maturity. The role of trustees in bond and debenture issues has strengthened over the years. All privately placed debt issues are required to be listed on the stock exchanges and follow the disclosure requirements. However, despite the policy initiatives, corporate debt still constitutes a small segment of the debt market in India. Whereas, the primary market for debt securities is dominated by the private placement market, the secondary market for corporate debt is characterized by poor liquidity – although this has relatively improved over the years. Corporations in India continue to prefer private placement of debt issues rather than floating public issues. The dominance of private placement has been attributed to several factors, such as ease of issuance, cost efficiency, primarily institutional demand, and so forth. About 90% of outstanding corporate debt is usually privately placed.

The development of a corporate bond market in India has lagged behind in comparison with other financial market segments owing to many structural factors. While primary issuances have been significant, most of these were accounted for by public sector financial institutions and were issued on a private placement basis to institutional investors. The secondary market, therefore, has not developed commensurately and market liquidity has been an issue.

FIIs with 100% Debt Schemes were allowed to invest in GOI Securities and T-Bills while other FIIs were allowed 30% investment in these instruments.

Year	*Reform Initiated*	*Objective*
Jun-92	Commenced auction of Central Government Securities at market determined rates for the first time	To induce transparency into the process
Jan-93	91 day Treasury Bills offered through auctions at market determined rates	To offer an instrument for managing the liquidity
Jan-94	Issued Zero coupon Bond for the first time. Securities Trading Corporation of India (STCI) commenced operations	To add new instruments and intermediaries
Aug-94	A historic agreement was signed between RBI and the government on the net issue of adhoc treasury bills	To pave way for abolition of adhoc treasury bills
Mar-95	Guidelines and procedures for enlistment of primary dealers issued	To strengthen the market
Jul-95	Delivery-versus-Payment (DVP) in G-secs was introduced	To reduce settlement risk
Sep-95	Floating Rate Bonds (FRBs) was introduced	To add more instruments
Jan-97	Technical Advisory Committee (TAC) was constituted	To advise RBI on developing G-sec market
Mar-97	Historical agreement between Government and RBI to, inter alia, discontinue adhoc T-Bills	To discontinue automatic monetization
Apr-97	FIMMDA was established. Repo was permitted in all G-secs to SGL a/c holders	Self regulation To deepen the repo market and to shift the money market from Call to collateralized repo market
Jul-97	FIIs were permitted to invest in G-secs	To broaden the market
Dec-97	Capital Indexed Bonds were issued PDAI was formed	To help investors hedge the risk
Apr-00	Sale of securities allotted in primary issues on the same day	To improve secondary market
Jun-00	Introduction of Liquidity Adjustment Facility (LAF)	To manage short liquidity mismatches
Feb-02	Negotiated Dealing System (NDS) (Phase I) operationalised Clearing Corporation of India Ltd.(CCIL) was operationalised	For improved trading and settlement/Guaranteed Settlement by a CCP.

May-02	Compulsory holding of G-secs in demat form by RBI regulated entities	To reduce the settlement risk
Jun-02	PDs were brought under the BFS jurisdiction	To offer variety instruments
Jul-02	G-secs with call and put option was introduced	To offer variety instruments
Oct-02	Trade data of NDS is being made available on RBI website	To improve transparency
Jan-03	Trading of G-secs on stock exchanges	To facilitate easier access and wider participation
Feb-03	Eligibility to participate in the repo market was extended to non-banks	To widen the market
Jun-03	Interest Rate Derivatives (IRD) have been introduced	To facilitate the market to hedge their market risk
Jul-03	Government Debt Buy-Back scheme was successfully implemented	To reduce interest burden of government and to market participants offload their illiquid securities
Mar-04	RTGS system trial run and final implementation	Real time, online, value inter-bank payment and settlements
Dec-07	Enactment of Government Securities Act, 2006 and Government Securities Regulations, 2007.	Investments in Government Securities become investor-friendly
Apr-08	Increase in inflation leads to increasing repo / reverse repo rates, CRR	Yield rates of bonds increase
Dec-08	Decrease in inflation; Commencement of decrease in repo / reverse repo rates	Bonds become attractive due to decrease in yield rates and increasing bond prices

Debt market transactions can also be broadly classified as follows

Exchange Markets	*Over-the-counter Markets*
Exchange markets are the organized marketplace with rules and regulations for trading in financial products and instruments.	In Over-the-counter (OTC) markets all transactions that are directly negotiated between entities (also referred to as counterparties to the transaction) outside the exchange trading platform. Such transactions result in counterparty default risk and liquidity risk.
Exchange markets are organized trading platforms, whereby, buyers and sellers can transact. The financial products and instruments are standardized in terms of quantity and quality. It is easy to buy and sell contracts (and to reverse positions) and no direct negotiation is required – it is a continuous auction system. These are highly regulated markets, with no possibility of default by market participants.	The over-the-counter market is largely a direct market between two counterparties who know and trust each other. Contracts are directly negotiated, tailor-made for the needs of the parties, and are often not easily reversed. Since OTC transactions are directly entered into by counterparties, there is a high risk of default.

The most common form of organized trading of futures and options, the open-outcry system with its shouting and hand waving by traders on the exchange trading-floor, is highly transparent. The market reacts very fast and prices and transactions are monitored every second. Prices on the open-outcry market are almost instantly distributed worldwide.	In contrast, public price quotations for the over-the-counter market are only just being introduced, and the quotations are only for the more heavily traded instruments. Even these quotations are not instantaneous, only indicative (as opposed to futures market quotations, which represent prices at which deals actually took place). To get a fair deal on the over-the-counter market, good information gathering and negotiation skills are required.
A clearinghouse guarantees transactions on organized exchanges; a default by an intermediary is unlikely to lead to losses for market users.	Over-the-counter market transactions are guaranteed only by the reputation of the counterparty; if the counterparty goes bankrupt (and some very large trading houses and banks have gone bankrupt in recent years), large losses may ensue.
Examples of Exchange Market transactions: Purchase / Sale of Interest Rate Futures contracts on Stock Exchange	Examples of Over-The-Counter Market transactions: Purchase and Sale of Government Securities, Repo transactions, Reverse Repo Transactions

The following table illustrates that performance in the Indian Debt Market is better than global performance in percentage terms.

Bond Market (Exchange Traded)						
2004	*2005*	*2006*	*2007*	*2008*	*Growth*	
Global	1,16,44,371	1,30,03,062	1,40,47,070.30	1,51,55,407.70	1,90,04,464.10	13.03%
India	2,09,097	1,41,269.60	46,378.80	59,960.80	68,619.70	24.31%
Value of Bond Trading (USD million)						

Source: World Federation Exchange, MCX & Bloomberg

Government Securities Market in India

Indicator	*1991-92*	*1995-96*	*2000-01*	*2003-04*	*2004-05*	*2005-06*
Outstanding stock (end-March) (Rs. crore)	76,908	1,69,526	4,53,668	8,24,612	9,29,612	10,32,296
Outstanding stock as ratio of GDP (end-March) (Per cent)	11.8	14.3	21.6	29.8	29.7	28.9
Outstanding stock as ratio of GDP Turnover / GDP (Per cent)	--	-	49.7	115.2	56.7	37.9
Average maturity of the securities issued during the year (Years)	-	5.7	10.6	14.94	14.13	16.89
Weighted average cost of the securities issued during the year (Per cent)	11.78	13.75	10.95	5.71	6.11	7.34
PD share in government securities market # (Per cent): (a) Primary market	-	-	-	51.47	52.88	40.36
PD share in government securities market # (Per cent): (b) Secondary market turnover	-	-	-	23.91	28.24	31.13

* Central Government securities, #: Pertain to Central and State Governments.

Source: RBI

PSU Bonds

The PSU bonds were generally treated as surrogates of sovereign paper, sometimes due to explicit guarantee of government, and often due to the comfort of government ownership. In the recent past, local bodies such as municipalities have also begun to tap the debt markets for funds. The PSU bonds are generally treated as surrogates of sovereign paper, sometimes due to explicit guarantee and often due to the comfort of public ownership. Some of the PSU bonds are tax free, while most bonds including government securities are not tax-free.

9.6 ECONOMIC RATIONALE AND FACTORS IMPACTING DEBT MARKET

The debt market plays a pivotal role in the economy as it helps in efficient mobilization and allocation of resources in the economy, besides financing the development activities of the Government. It transmits signals for implementation of the monetary policy and facilitate liquidity management in tune with overall short term and long term objectives. As the Government securities are issued to meet the financial needs of the government, they are not only used as instruments for raising debt, but have emerged as key instruments for internal debt management, monetary management and short term liquidity management. The returns earned on the government securities are normally taken as the benchmark rates of returns and are referred to as the risk free return in financial theory. The risk free rates obtained from the G-sec rates are often used to price the other non-govt. securities in the financial markets. In modern economies, disruptions in the flow of credit are detrimental to economic activity, and lead to unemployment, reduced investment plans and even recession

Functions of Debt Markets in India

The key functions of Debt Markets are:

- Efficient mobilization and allocation of resources in the economy.
- Financing the development activities of the Government.
- Transmitting indications for implementation of the monetary policy.
- Facilitating liquidity management in tune with overall short term and long term objectives.
- Reduction in the borrowing cost of the Government and enable mobilization of resources at a reasonable cost.
- Provide greater funding avenues to public-sector and private sector projects and reduce the pressure on institutional financing.

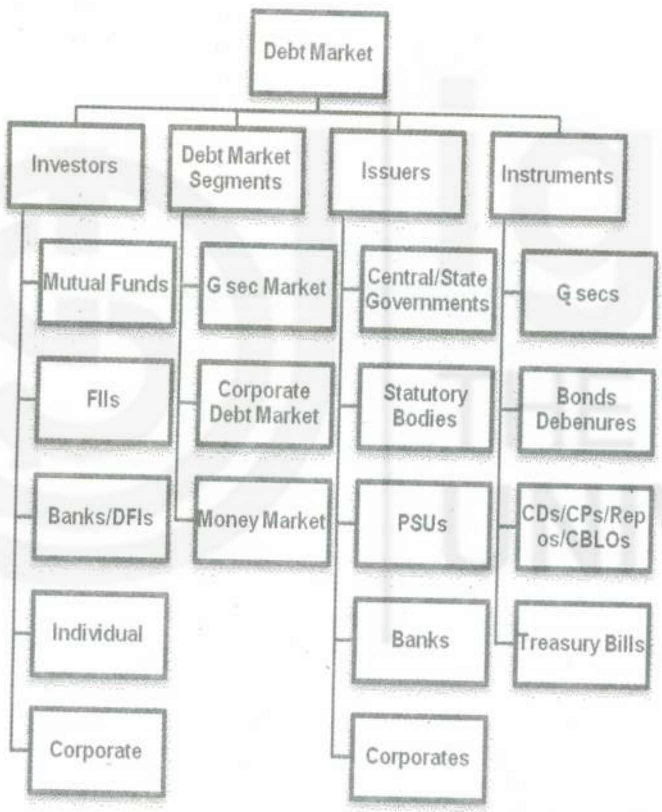
There is a multitude of factors which influence the debt market and the following are the most prominent among them.

- Sound fiscal and Monetary Policy
- Effective legal, tax and regulatory infrastructure
- Competitive market structure
- Low transaction costs
- Low levels of fragmentation
- Robust market infrastructure
- High level of heterogeneity among market participants
- Liberalized financial system with competing intermediaries

- Diversified investor base the more investors, the more trading activity
- Availability of hedging instruments such as interest rate futures and swaps
- Reliable benchmark yield curve to price long term risk
- Robust clearing system and settlement system
- Availability of public information to assess credit quality

9.7 STRUCTURE

There is a well-segmented debt market in India comprising Government Securities (G-Sec) Market, Corporate Bond Market and Money Market. The market for government securities is the oldest and most dominant in terms of market capitalization, outstanding securities, trading volume and number of participants. Money market is a short term market where financial assets upto one year are traded and are generally used for funding the transactions in other markets including Government securities market and meeting short term liquidity mismatches. The corporate bond market in India is very small in size in comparison with other two segments of the debt market.



The market for government securities is the oldest and most dominant in terms of market capitalization, outstanding securities, trading volume and number of participants. It not only provides resources to the government for meeting its short term and long term needs, but also sets benchmark for pricing corporate paper of varying maturities and is used by RBI as an instrument of monetary policy. The instruments in this segment are fixed coupon bonds, commonly referred to as dated securities, treasury bills, floating rate bonds, zero coupon bonds and inflation index bonds. Both Central and State government securities comprise this segment of the debt market.

9.8 PRODUCTS

The instruments in debt segment are fixed coupon bonds, commonly referred to as dated securities, treasury bills, floating rate bonds, zero coupon bonds and inflation index bonds. Both Central and State government securities comprise this segment of the debt market. The issues by government sponsored institutions like, Development Financial Institutions, as well as the infrastructure-related bodies and the PSUs, who make regular forays into the market to raise medium-term funds, constitute the second segment of debt markets. The preferred mode of issue has been private placement, barring an occasional public issue. Banks, financial institutions and other corporate have been the major subscribers to these issues.

The products in the debt market in India are categorized according to the market segments, as shown below:

Govt. Security Market	Fixed coupon bonds,commonly refferred as dated security
	Floating rates Bonds
	Zero Coupon Bonds
	Capital Indexed bonds
Money Market	Call Money
	Certificate of Deposits
	Treasury bills
	Repos &reverse Repos
	Bankers acceptancy/Commercial bills
	Inter corporate Funds
	CBLO (colaterlised borrowing & Lending Obligation)
Corporate Debt Market	Commercial Paper
	Corporate bonds/Debentures
	Non-convertible Debuntures
	Partly convertable debuntures/fully convertible
	Debentures convertible into equity shares
	Secured premium Notes
	Debuntures with warrants
	Deep Discount Bonds
	PSU Bonds/Tax Free bonds

Activity 1

1) List five products actively traded in the Indian Money market.

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2) List the three major participants in the G Sec market.

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9.9 PARTICIPANTS

Indian debt market is pre-dominantly a wholesale market, with dominant institutional investor participation. The participants in the wholesale debt market comprise banks, financial institutions, mutual funds, provident funds, insurance companies and corporates. The smaller number of large players has resulted in the debt markets being fairly concentrated. Most debt issues are privately placed or auctioned to the participants. Secondary market dealings are mostly done on telephone, through negotiations. The retail debt market in India is not very active.

The market participants in the debt market are:

- Reserve Bank of India.
- Primary Dealers.
- Public Sector Undertakings .State Governments, Municipalities and Local Bodies.
- Corporate.
- Public sector financial institutions such as NABARD, NHB etc.
- Banks.
- Mutual funds.
- Foreign Institutional Investors.
- Provident funds.
- Insurance Companies, Charitable Institutions, Trusts and Societies 11. Individual investors also invest in the debt market, although their share is insignificant.

Indian Debt market is a wholesale market, with dominant institutional investor participation. The investors in the debt markets comprise banks, financial institutions, mutual funds, provident funds, insurance companies and corporate. Many of these participants are also issuers of debt instruments. The smaller number of large players has resulted in the debt markets being fairly concentrated, and evolving into a wholesale negotiated dealings market. Most debt issues are privately placed or auctioned to the participants. Secondary market dealings are mostly done on telephone, through negotiations.

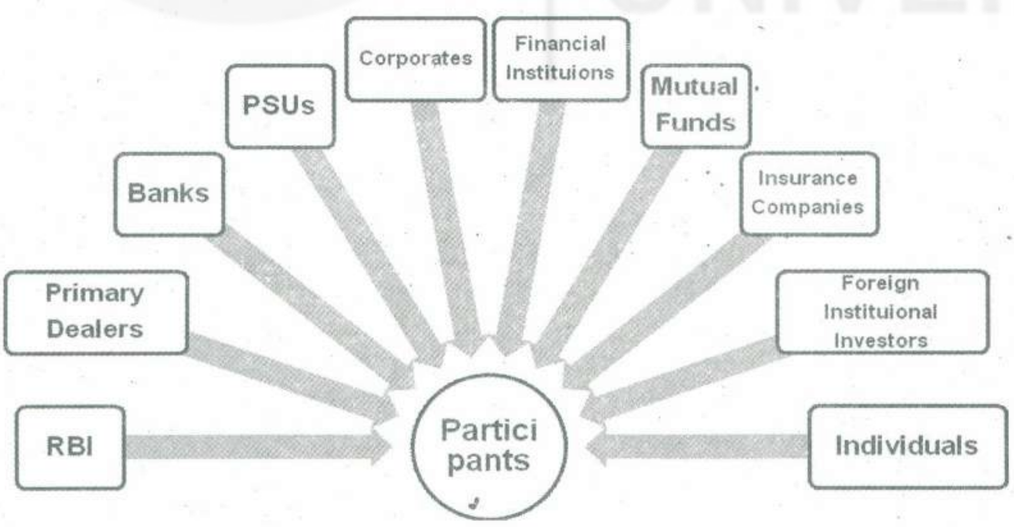

Figure 9.1: Debt Market Participants

The market participants in the debt market are:

1) **Central and State Governments**, raising money through bond issuances, to fund budgetary deficits and other short and long term funding requirements.

2) **Reserve Bank of India**, as investment banker to the government, raises funds for the government through bond and T-bill issues, and also participates in the market through open- market operations, in the course of conduct of monetary policy. The RBI regulates the bank rates and repo rates and uses these rates as tools of its monetary policy. Changes in these benchmark rates directly impact debt markets and all participants in the market.Reserve Bank's operations in the government securities market are governed by Sections 20, 21 and 21A of the Reserve Bank of India Act, 1934. Under these provisions, the Reserve Bank is entrusted with the function of management of public debt and issue of new loans of the Union Government and the State Governments. The legal framework for Reserve Bank's conduct of open market operations is provided under Section 17(8) of the Reserve Bank of India Act, 1934, under which the Reserve Bank is authorised to purchase and sell securities of the Union Government or a State Government of any maturity and the security of a local authority specified by the Central Government on the recommendations of the Central Board of the Reserve Bank. Central Government securities are used by the Reserve Bank for its open market operations and liquidity adjustment facility (LAF). Effective April 3, 2007, the State Development Loans were also permitted as eligible securities for LAF operations. The new Chapter III-D of the Reserve Bank of India (Amendment) Act, 2006 has empowered the Reserve Bank to determine policy relating to interest rate products and regulate the agencies dealing, inter alia, in securities.The Reserve Bank derives its regulatory power over the government securities market from Section 16 of the Securities Contract (Regulation) Act (SCRA), 1956, amended in March 2000, under which the Government has delegated the powers exercisable by it to the Reserve Bank. The Reserve Bank is, thus, authorised to regulate dealings in government securities, money market securities, gold related securities and securities derived from these securities as also ready forward contracts in debt securities.The Government Securities Act, which seeks to replace the Public Debt Act, 1944, was passed in August, 2006. This Act envisages the consolidation and amendment of the law relating to issue and management of government securities by the Reserve Bank. The Act includes the provisions of the erstwhile Public Debt Act relating to issuance of new loans, payment of half-yearly interest, retirement of rupee loans and all matters pertaining to debt certificates and registration of debt holdings. Besides, the new Act gives flexibility for holding government securities in depositories, while at the same time specifically excluding government securities from the purview of the Depositories Act, 1996. The Act enables lien marking and pledging of securities for raising loans against government securities, recognises electronic form of record maintenance, enlarges dematerialisation facility through Bond Ledger Account and liberalises norms relating to nomination and legal representation. The Act also provides the Reserve Bank with substantive powers to design and introduce an instrument of transfer suited to the computer environment. It also allows the Reserve Bank to issue duplicate securities, new securities on conversion, consolidate with other like government securities, subpide the securities and renew, strip (separately for interest and principal) or reconstitute the securities. The Act, however, is yet to come into force, pending notification of Rules under it. Recognising the importance of the government securities market, the Reserve Bank, in consultation with the Government, undertook wide ranging reforms to develop this market. The major objectives of reforms were to (i) grant operational autonomy to the Reserve Bank; (ii) improve institutional infrastructure; (iii) impart liquidity and increase the depth of the market; (iv) improve market microstructure;

(v) create an enabling sound legal and regulatory framework; and (vi) increase transparency (Reddy, 2000). Keeping these objectives in view, reforms were undertaken to strengthen the primary and the secondary segments of the government securities market. In the primary segment, measures were taken to raise resources from the market in a cost effective manner, particularly in the light of the transition to market related interest rate structure from the administered interest rate regime. In the secondary segment, measures were initiated to improve liquidity in the market. Measures were also undertaken to improve the trading systems, clearing and settlement infrastructure and the risk management framework.

3) **Primary dealers:** who are market intermediaries approved by Reserve Bank of India who underwrite and quote two way prices in government securities and have access to the call markets and repo markets for funds.

4) **Municipalities and local bodies:** This issues securities in the debt markets to fund their developmental projects, as well as to finance their budgetary deficits.

5) **Public sector units:** Public sector units are large issuers of debt securities, for raising funds to meet the long term and working capital needs. These corporations are also investors in bonds issued in the debt markets.

6) **Corporate treasuries**: Corporate treasuries issue short and long term paper to meet the financial requirements of the corporate sector. They are also investors in debt securities issued in the market.

7) **Public sector financial institutions:** Public sector financial institutions regularly access debt markets with bonds for funding their financing requirements and working capital needs. They also invest in bonds issued by other entities in the debt markets.

8) **Banks:** Banks are the largest investors in government securities. In terms of the SLR provisions of the Banking Regulation Act, 1949, banks are required to maintain a minimum of 25 per cent of their net demand and time liabilities (NDTL) in liquid assets such as cash, gold and unencumbered government securities or other approved securities as Statutory Liquidity Ratio (SLR). The minimum SLR stipulation for scheduled urban co-operative banks (UCBs) is the same as for scheduled commercial banks (SCBs) from April 1, 2003. However, for non-scheduled UCBs, the minimum SLR requirement is 15 per cent for banks with NDTL of over Rs.25 crore and 10 per cent for the remaining non-scheduled UCBs. The minimum SLR stipulation for regional rural banks (RRBs) is the same as for SCBs. From April 1, 2003, the coverage under the SLR has also been made akin to SCBs. All deposits with sponsor banks, which were earlier considered as part of the SLR, were to be converted into approved securities on maturity in order to be reckoned for the SLR purpose. Recently, the Banking Regulation Amendment Act, 2007 has removed the floor limit of 25 per cent for SLR for scheduled banks.

9) **Insurance Companies:** The second largest category of investors in the government securities market is the insurance companies. According to the stipulations of the Insurance Regulation and Development Authority of India (IRDA), all companies carrying out the business of life insurance should invest a minimum of 25 per cent of their controlled funds in government securities. Similarly, companies carrying on general insurance business are required to invest 30 per cent of their total assets in government securities and other guaranteed securities, of which not less than 20 per cent should be in Central Government securities. For pension and general annuity business, the IRDA stipulates that 20 per cent of their assets should be invested in government securities.

10) **Provident Funds:** The non-Government provident funds, superannuation funds and gratuity funds are required by the Central Government from January 24, 2005 to invest 40 per cent of their incremental accretions in Central and State government

securities and/or units of gilt funds regulated by the Securities and Exchange Board of India (SEBI) and any other negotiable securities fully and unconditionally guaranteed by the Central/State Governments. The exposure of a trust to any impidual gilt fund, however, should not exceed five per cent of its total portfolio at any point of time.

11) **Non-banking financial companies (NBFCs):** Non-banking financial companies (NBFCs) accepting public deposits are required to maintain 15 per cent of such outstanding deposits in liquid assets, of which not less than 10 per cent should be maintained in approved securities, including government securities and government guaranteed bonds. Investment in government securities should be in dematerialised form, which can be maintained in Constituents' Subsidiary General Ledger (CSGL) Account of a SCB/Stock Holding Corporation of India Limited (SHCIL). In order to increase the security and liquidity of their deposits, residuary non-banking companies (RNBCs), are required to invest not less than 95 per cent of their aggregate liability to depositors (ALD) as outstanding on December 31, 2005 and entire incremental deposits over this level in directed investments, which include government securities, rated and listed securities and debt oriented mutual funds. From April 1, 2007, the entire ALD is required to be invested in directed investments only.

12) **Mutual Funds:** Mutual funds have emerged as another important player in the debt markets, owing primarily to the growing number of bond funds that have mobilized significant amounts from the investors. Most mutual funds also have specialized bond funds such as gilt funds and liquid funds. Mutual funds are not permitted to borrow funds, except for very short-term liquidity requirements. Therefore, they participate in the debt markets pre-dominantly as investors, and trade on their portfolios quite regularly.

13) **Foreign Institutional Investors:** Foreign Institutional Investors are permitted to invest in Dated Government Securities and Treasury Bills within certain specified limits.

14) **Charitable Institutions, Trusts and Societies:** These are also large investors in the debt markets. They are, however, governed by their rules and byelaws with respect to the kind of bonds they can buy and the manner in which they can trade on their debt portfolios.

15) **Individual:** Individual investors also invest in the debt market, although their share is marginal.

9.10 REGULATORS

The responsibility of regulating the various segments of the debt market is shared by the following:

- Reserve Bank of India — There is a comprehensive legal framework which defines the role of RBI.
- Securities Exchange Board of India — As debt instruments are listed and traded on the stock exchanges such as BSE and NSE, they also come under the regulatory purview of SEBI.
- Department of Economic Affairs
- Department of Company Affairs

The Ministry of Finance and the Ministry of Corporate Affairs have some over arching powers over the debt market. An element of self regulation is in place through the Fixed Income Money market and Derivative association of India (FIMMDA) and the Primary Dealers Association of India (PDAI).

The Fixed Income Money Market and Derivatives Association of India (FIMMDA), an association of Commercial Banks, Financial Institutions and Primary Dealers, was incorporated as a Company under section 25 of the Companies Act,1956. FIMMDA is a voluntary market body for the bond, money and derivatives markets. It represents market participants and aids the development of the bond, money and derivatives markets. It acts as an interface with the regulators on various issues that impact the functioning of these markets. It also undertakes developmental activities, such as, introduction of benchmark rates and new derivatives instruments, etc. FIMMDA releases rates of various Government securities that are used by market participants for valuation purposes. FIMMDA also plays a constructive role in the evolution of best market practices by its members so that the market as a whole operates transparently as well as efficiently.

Debt securities in the secondary market are traded via electronic trading platforms through the following stock exchanges. There is a whole sale debt market segment (WDM) and a retail debt market (RDM) segment.

- Bombay Stock Exchange (BSE)
- National Stock exchange (NSE

Activity 2

1) Explain the role of FIMMDA.

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2) What is NDS-OM?

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9.11 SUMMARY

The debt market plays a pivotal role in the economy as it helps in efficient mobilization and allocation of resources in the economy, besides financing the development activities of the Government. There is a well-segmented debt market in India comprising Government Securities (G-Sec) Market, Corporate Bond Market and Money Market. Indian debt market is pre-dominantly a wholesale market, with dominant institutional investor participation. The participants in the wholesale debt market comprise banks, financial institutions, mutual funds, provident funds, insurance companies and corporate. In the primary market, government securities are issued through auctions which will be conducted by Reserve Bank of India, Mumbai Office.

9.12 SELF ASSESSMENT QUESTIONS

1) What are the economic variables that impact debt market?
2) What are the segments of Indian Debt Market?
3) Who are the major participants in the Indian Debt Market?
4) What is the role of FIMMDA?
5) Who are the major players in the wholesale debt market?
6) Choose the appropriate answer (answer marked as ****)

1) Government of India securities are issued by

   a) Public sector banks

   b) State Bank of India.

   c) State governments

   d) Reserve Bank of India**** .

2) Debt market comprises..................

   a) money market

   b) G Sec market

   c) Corporate Debt market

   d) All the above *****

3) When the security being issued is already in existence, the auction is ....

   a) Price based auction****

   b) Coupon rate auction

   c) Book building auction

   d) Fixed price auction

4) RBI issues ....

   a) G secs

   b) T Bills

   c) Corporate bonds.

   d) a& b only ****

5) Which of the following is a money market instrument?

   a. Fixed coupon bonds

   b. Floating rates bonds

   c. Zero coupon bonds

   d. Treasury bills****

6) Compared to equity & preference stock holders, debenture holders have

   a) Prior legal claim on the assets of the company

   b) Lower claim on the assets

   c) Equal claim on the assets

   d) No claim on the assets.

9.13 FURTHER READINGS

1) Moorad Choudhry, *An Introduction to Bond Markets*, 3rd Edition.

2) Miles Livingston, *Bonds and Bond Derivatives*, 2nd Edition.

3) Stephen J. Antczak, Douglas J. Lucas, Erank J. Fabozzi, *Leveraged Finance: Concepts, Methods, and Trading of High-Yield Bonds, Loans, and Derivatives.*

4) Moorad Choudhry, Ricardo J. Rodriguez, *Analysing and Interpreting the Yield Curve*.

5) Sharon Saltzgiver Wright, *Getting Started in Bonds, 2nd Edition.*

6) Frank J. Fabozzi, *Professional Perspectives on Fixed Income Portfolio Management*, Volume 4.

7) *RBI Report on Currency and Finance.*

UNIT 10 MONEY MARKETS IN INDIA

Objectives

After studying this unit, you should be able to:

- understand the meaning and functions of money market;
- identify money market Instruments and participants;
- describe Repo and Reverse Repo; and
- explain different Corporate Debt Market Products.

Structure

10.1 INTRODUCTION

The basic function of the money market is to provide efficient facilities for adjustment of liquidity positions of commercial banks, non-bank financial institutions, business firms and other investors. It meets the short-term fund requirements of the borrowers and provides liquidity to the lenders. An efficient money market, functioning smoothly fosters the flow of funds to the most important uses throughout the nation and the world, and throughout the range of entire economic activities. In the process, interest rate differentials are narrowed, both geographically and industrially, and economic growth is promoted. In contrast with customer loans, the markets are entirely objective and free from personal considerations. Obligations are bought from dealers who offer to sell at lowest prices (highest yields) and are sold to dealers who bid to buy at the highest prices (Lowest yields).

Money Markets refers to a segment of the financial market for raising and deploying short-term resources, with maturity of funds generally not exceeding one year. The money market is sub-divided into call money, notice money and term money market. Call money refers to overnight placements, i.e., funds borrowed by banks need to be repaid on the next working day. Notice money refers to placement of funds beyond overnight for periods not exceeding 14 days. Term money market is for placement of funds with banks for periods in excess of 14 days, but not exceeding 1 year. Typically term money placements range from 1 month to 6 months, and placements for longer periods are not very common.

Until the late 1980's the money market remained dormant and lacked depth because of administered interest rates and a paucity of instruments. The dominant part of the market was the overnight call money market. With liberalisation and the introduction of new instruments, the market has diversified and currently its various segments including the call/ notice money market ,term money, market, repo, collateralised lending and borrowing obligations (CBLO), bill rediscounting, forward rate agreement (FRA)/interest rate swap (IRS), inter-bank participatory certificates, treasury bills, commercial paper (CP) and certificates of deposit (CDs). But the dominance of the overnight market (call, CBLO, market repo) still continues.

Reserve Bank of India is the regulator of the money market and the introduction of Section 45W in the RBI Act in 2006 has brought in further clarity to its powers to regulate, monitor and supervise the money market and all its constituents. Transparency has improved with the OTC market being replaced by screen-based trading. The Reserve Bank introduced the Negotiated Dealing System (NDS) in 2002. All NDS members were mandated to report their transactions in call/notice money markets within 15 minutes of a deal conclusion. The NDS-CALL was introduced by Clearing Corporation of India Limited on September 18, 2006. The NDS-CALL is a screen-based order-matching system which also enables instantaneous price dissemination. The trading in Collateralised Borrowing and Lending Obligation (CBLO) operates on an electronic platform and ensures immediate price dissemination to the market. Further advantage of the CBLO segment is that the market is anonymous. This helps in reducing volatility.

Money market is considered to be a risk-free market, though in reality, the banks do carry counter-party risk. However, for practical purposes, inter-bank market carries lowest risk, next only to sovereign risk; hence the interest rates prevailing in inter-bank market constitute 'bench-mark' rates. Inter-bank markets are in the fore front of financial markets and are the first to signal any changes in money supply and the resultant liquidity in the system. On any particular day the call money transactions reflect the liquidity available in the system. The call money rate, as indicated by the overnight Mumbai Inter-bank Offered Rate (O/N MIBOR) is most widely accepted bench mark rate for corporate debt paper, as also for bank credit extended on floating rate basis.

A notable feature of the money market is that trading in the various obligations takes place almost entirely in over-the counter markets rather than organised exchanges. Screen based trading is open to all participants and there is no concept of a market driven by an exchange.

The money market serves the following objectives:

- It provides an equilibrating mechanism for evening out short-term surpluses and deficits.
- It provides a focal point for central bank intervention for influencing liquidity in the economy.
- It provides reasonable access to users of short-term money to meet their requirements at a realistic price.

10.2 PARTICIPANTS IN THE MONEY MARKET

Theoretically any one can participate in the market. Yet market practices and regulatory pronouncements have placed certain restriction on participation for each of the sub markets in the money market. For example, call money market is open to only banks. Financial Institutions, Insurance companies and Mutual funds can only lend in the market.

It would therefore be useful to know the participants in each of the sub markets of money market. Given below is the list and profile of the participants which participate both in the Money Market as well as the debt portion of the Capital Market. While all resident entities are participants in these markets this section covers the larger and major participants.

Central Government

The Central Government is an issuer of Government of India Securities (G-Secs) and Treasury Bills (T-bills). These instruments are issued to finance the government budget deficit as well as for managing the Governments cash flow. G'Secs are dated (dated securities are those which have specific maturity and coupon payment dates embedded into the terms of issue) debt obligations of the Central Government. These bonds are issued by the RBI on behalf of the Government so as to finance the latter's budget requirements, deficits and public sector development programmes. These bonds are issued throughout the financial year. The calendar of issuance of G'Secs is decided at the beginning of every half of the financial year.

T-bills are short-term debt obligations of the Central Government. These are discounted instruments. These may form part of the budgetary borrowing or be issued for managing the Government's cash flow. T-bills allow the government to manage its cash position since revenue collections are bunched whereas revenue expenditures are dispersed.

State Government

The State Governments issue securities termed as State Development Loans (SDLs), which are medium to long-term maturity bonds floated to enable state Governments to fund their budget deficits.

Public Sector Undertakings

Public Sector Undertakings (PSUs) issue bonds which are medium to long-term coupon bearing debt securities. PSU Bonds can be of two types: taxable and tax-free bonds. These bonds are issued to finance the working capital requirements and long-term projects of public sector undertakings. PSUs can also issue Commercial Paper to finance their working capital requirements. Like any other business organization, PSUs generate large cash surpluses. Such PSUs are active investors in instruments like Fixed Deposits, Certificates of Deposits and Treasury Bills. Some of the PSUs with long-term cash surpluses are also active investors in G Secs and bonds.

Scheduled Commercial Banks (SCBs)

Banks issue Certificates of Deposit (CDs) which are unsecured, negotiable instruments. These are usually issued at a discount to face value. They are issued in periods when bank deposits volumes are low and banks perceive that they can get funds at low interest rates. Their period of issue ranges from 7 days to 1 year. SCBs also participate in the overnight (call) and term markets. They can participate in the call market both as lenders and borrowers in the call and term markets. These banks use these funds in their day-to-day and short-term liquidity management. Call money is an important tool to manage CRR commitments. Banks invest in Government securities to maintain their Statutory Liquidity Ratio (SLR), as well as to invest their surplus funds. Therefore, banks have both mandated and surplus investments in G-Sec instruments. Currently banks have been mandated to hold 25% of their Net Demand and Time Liabilities (NDTL) as SLR. A bulk of the SLR is met by investments in Government and other approved securities. Banks participate in PSU bond market as investors of surplus funds. Banks also take a trading position in the G-Sec and PSU Bond market to take advantage of rate volatility. Banks account for the largest share of these markets.

Private Sector Companies

Private Sector Companies issue commercial papers (CPs) and corporate debentures. CPs are short-term, negotiable, discounted debt instruments. They are issued in the form of unsecured promissory notes. They are issued when corporations want to raise their short-term capital directly from the market instead of borrowing from banks. Corporate debentures are coupon bearing, medium to long term instruments which are issued by corporations when they want to access loans to finance projects and working capital requirements. Corporate debentures can be issued as fully or partly convertible into shares of the issuing corporation. Bonds which do not have convertibility clause are known as non-convertible bonds. These bonds can be issued with fixed or floating interest rates. Depending on the stipulated availability of security these bonds could be classified as secured or unsecured. Private Sector Companies with cash surpluses are active investors in instruments like Fixed Deposits, Certificates of Deposit and Treasury Bills. Some of these companies with active treasuries are also active participants in the G-Sec and other debt markets.

Provident Funds

Provident funds have short term and long term surplus funds. They invest their funds in debt instruments according to their internal guidelines on how much they can invest in each instrument category. The instruments that Provident funds can invest in are:

i) G-Secs

ii) State Development Loans

iii) Bonds guaranteed by the Central or State Governments

iv) Bonds or obligations of PSUs, SCBs, and Financial Institutions (FIs)

v) Bonds issued by Private Sector Companies carrying an acceptable level of rating by at least two rating agencies.

General Insurance Companies

General insurance companies (GICs) have to maintain certain funds which have to be invested in approved investments. They participate in the G-Sec, Bond and short term money market as lenders. It is seen that generally they do not access funds from these markets.

Life Insurance Companies

Life Insurance Companies (LICs) invest their funds in G-Sec, Bond or short term money markets. They have certain pre determined thresholds as to how much they can invest in each category of instruments.

Mutual Funds

Mutual funds invest their funds in money market and debt instruments. The proportions of the funds which they can invest in any one instrument vary according to the approved investment pattern declared in each scheme.

Non-banking Finance Companies

Non-banking Finance Companies (NBFCs) invest their funds in debt instruments to fulfill certain regulatory mandates as well as to park their surplus funds. NBFCs are required to invest 15% of their net worth in bonds which fulfill the SLR requirement.

Primary Dealers (PDs)

The organization of Primary Dealers was conceived and permitted by the Reserve Bank of India (RBI) in 1995. These are institutional entities registered with the RBI. The roles of a PD are:

- To commit participation as Principals in Government of India issues through bidding in auctions.
- To provide underwriting services and ensure development of underwriting and market- making capabilities for government securities outside the RBI.
- To offer firm buy/sell or bid/ask quotes for T-Bills & dated securities and to improve secondary market trading system, which would contribute to price discovery, enhance liquidity and turnover and encourage voluntary holding of government securities amongst a wider investor base and to strengthen the infrastructure in the government securities market in order to make it vibrant, liquid and broad based and to make PDs an effective conduit for conducting open market operations.

10.3 CALL MONEY MARKET

The call/notice money market forms an important segment of the Indian Money Market. Under call money market, funds are transacted on overnight basis and under notice money market funds are transacted for the period between 2 days and 14 days.

Participants

Participants in call/notice money market currently include banks (excluding RRBs) and Primary Dealers (PDs), both as borrowers and lenders.

Prudential Limits

The prudential limits in respect of both outstanding borrowing and lending transactions in call/notice money market for banks and PDs are as follows:

- On a fortnightly average basis, 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 fortnightly average basis, 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.

Primary Dealers (PDs)

PDs are allowed to borrow, on average in a reporting fortnight, up to 200 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 average in a reporting fortnight, up to 25 per cent of their NOF. Non-bank institutions are not permitted in the call/notice money market with effect from August 6, 2005.

Interest Rate

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

Dealing Session

Deals in the call/notice money market can be done upto 5.00 p.m. on weekdays and 2.30 p.m. on Saturdays or as specified by RBI from time to time.

Characteristics of the Indian Call Money Market

Call money is the most important segment of the Indian financial system. It consists of overnight money and money at short notice for a period of upto 14 days. The call money market essentially serves the purpose of equilibrating the short-term liquidity position of banks and other participants. It is also the focal point through which the RBI attempts to influence the short-term interest rates. In this market, while banks and primary dealers (PDs) are allowed to both borrow and lend, the demand for funds in this market is mainly governed by the banks' need for resources to meet their statutory reserve requirement; it also offers to some participants a regular funding source for building up short-term assets. The call money market is quite lopsided in both borrowing and lending segments. In other words, despite the market having good turnover in Indian money market, it lacks depth and liquidity as absence of one or two major participants in either of the segments may have the potential to cause sharp volatility in the market. This not only impairs efficient price discovery process in the market, it also necessitates more active liquidity management practices in order to keep interest rates within a reasonable corridor.

10.4 REPO (REPURCHASE AGREEMENTS)

Repo is a money market instrument, which enables collateralised short term borrowing and lending through sale/purchase operations in debt instruments. Under a repo transaction, a holder of securities sells them to an investor with an agreement to repurchase at a predetermined date and rate. In the case of a repo, the forward clean price of the bonds is set in advance at a level which is different from the spot clean price by adjusting the difference between repo interest and coupon earned on the security.

In the money market, this transaction is nothing but collateralised lending as the terms of the transaction are structured to compensate for the funds lent and the cost of the transaction is the repo rate. In other words, the inflow of cash from the transaction can be used to meet temporary liquidity requirement in the short term money market at comparable cost.

Repos also called repurchase agreements are short term, usually overnight borrowing. The minimum time period for repo transaction was three days at one point of time but now it has been brought down to 1 day. Under a repo transaction there are two counter parties – a lender and a borrower. The borrower in a repo transaction borrows cash and pledges securities. The lender lends cash and purchases the securities and is said to enter into a reverse repo transaction. The borrower in the transaction is short of cash and has excess of SLR whereas the lenders are in opposite position means they have excess of cash and short of SLR.

Reserve Bank of India (RBI) is conducting Repo transactions every working day. All transferable Government of India dated securities (G-secs) and T-bills are the eligible securities for repo auctions. All schedule commercial banks (excluding RRBs) and PDs (Primary Dealers) maintaining SGL and current accounts with the RBI at Mumbai are eligible to participate in the repo auctions.

- Repo auctions: Sell of security
- Reverse repo auctions: Purchase of Security

Note: The operations whereby RBI injects liquidity in the system are termed as "Repo" and whereby the Central bank absorbs liquidity are termed as "Reverse repo".

Repo rate is nothing but the annualised interest rate for the funds transferred by the lender to the borrower. Generally, the rate at which it is possible to borrow through a repo is lower than the same offered on unsecured (or clean) interbank loan for the reason that it is a collateralised transaction and the credit worthiness of the issuer of the security is often higher than the seller. Other factors affecting the repo rate include the credit worthiness of the borrower, liquidity of the collateral and comparable rates of other money market instruments.

A reverse repo is the mirror image of a repo. For, in a reverse repo, securities are acquired with a simultaneous commitment to resell. Hence whether a transaction is a repo or a reverse repo is determined only in terms of who initiated the first leg of the transaction. When the reverse repurchase transaction matures, the counterparty returns the security to the entity concerned and receives its cash along with a profit spread. One factor which encourages an organisation to enter into reverse repo is that it earns some extra income on its otherwise idle cash.

A repo is also sometimes called a ready forward transaction as it is a means of funding by selling a security held on a spot (ready) basis and repurchasing the same on a forward basis.

When an entity sells a security to another entity on repurchase agreement basis and simultaneously purchases some other security from the same entity on resell basis it is called a double ready forward transaction.

Pricing

In a repo transaction where there are two legs of transactions viz. selling of the security and repurchasing of the same, in the first leg of the transaction for a nearer date, sale price is usually based on the prevailing market price for outright deals. In the second leg, which is for a future date, the price will be structured based on the funds flow of interest and tax elements of funds exchanged. This is on account of two factors. First, as the ownership of securities passes on from seller to buyer for the repo period, legally the coupon interest accrued for the period has to be passed on to the buyer. Thus, at the sale leg, while the buyer of security is required to pay the accrued coupon interest for the broken period, at the repurchase leg, the initial seller is required to pay the accrued interest for the broken period to the initial buyer.

Transaction-wise, both the legs are booked as spot sale/purchase transactions. Thus, after adjusting for accrued coupon interest, sale and repurchase prices are fixed so as to yield the required repo rate. The excess of the coupon at the first leg of repo would represent the coupon interest for the repo period. Thus, the price adjustment depends directly upon the relationship between the net coupon and the repo amount worked out on the basis of the repo interest agreed upon the total funds transferred. When repo rate is higher than current yield repurchase price will be adjusted upward signifying a capital loss. If the repo rate is lower than the current yield, then the repurchase price will be adjusted downward signifying a capital gain.

If the repo rate and coupon are equal, then the repurchase price will be equal to the sale price of security since no price adjustment at the repurchase stage will be required. If the repo rate is greater than the coupon, then the repurchase price is adjusted upward (with reference to sale price) to the extent of the difference between the two. And, if the repo rate is lower than the coupon then, the repurchase price is adjusted downward (with reference to sale price). Specifically, in terms of repo rate, there will be no price adjustment when the current yield on security calculated on the basis of sale value (including accrued coupon) is equivalent to repo rate.

Eligible Instruments

Different instruments can be considered as collateral security for undertaking the ready forward deals and they include Government dated securities, Treasury Bills, corporate bonds, money market securities and equity.

Types of Repos

Broadly, there are four types of repos available in the international market when classified with regard to maturity of underlying securities, pricing, term of repo etc. They comprise buy-sell back repo, classic repo bond borrowing and lending and tripartite repos.

Under a buy-sell repo transaction the lender actually takes possession of the collateral. Here, a security is sold outright and bought back simultaneously for settlement on a later date. In a buy-sell repo the ownership is passed on to the buyer and hence he retains any coupon interest due on the bonds. The forward price of the bond is set in advance at a level which is different from the spot clean price by actually adjusting the difference between repo interest and coupon earned on the security. The spot buyer/borrower of securities in effect earns the yield on the underlying security plus or minus the difference between this and the repo interest rate.

Classic repo is an initial sale of securities with a simultaneous agreement to repurchase them at a later date. In the case of this type of repo the start and end prices of the securities are the same and a separate payment of "interest" is made. Classic repo makes it explicit that the securities are only collateral for the loan of the cash. Here the coupon income will be accrued to the seller of the security.

Under a hold in custody repo the counterparties enter into an agreement whereby the securities sold are held in custody by the seller for the buyer until maturity of the repo thus eliminating the settlement requirements.

In a bond lending/borrowing transaction, the customer lends bonds for an open ended or fixed period in return for a fee. The fee charged would depend on the type of underlying instrument, size and term of the loan and the credit rating of the counterparty. The transaction would be taken care of by an agreement on securities lending and cash or other securities of equal value could be provided as collateral in the transaction.

Under a Tripartite repo a common custodian /clearing agency arranges for custody, clearing and settlement of repos transactions. They operate under a standard global master purchase agreement and provides for DVP system, substitution of securities, automatic marking to market, reporting and daily administration by single agency which takes care of the risk on itself and automatic roll over while does not insist on disclosing the identities by counterparties. The system starts with signing of agreements by all parties and the agreements include Global Master Repurchase and Tripartite Repo Service Agreements. This type of arrangement minimises credit risk and can be utilised when dealing with clients with low credit rating.

Repo Period

Repo period could be overnight term, open or flexible. Overnight repo lasts only one day. If the period is fixed and agreed in advance, it is a term repo where either party may call for the repo to be terminated at any time although requiring one or two days' notice. Though there is no restriction on the maximum period for which repos can be undertaken generally term repos are for an average period of one week. In an open repo there is no such fixed maturity period and the interest rate would change from day to day depending on the money market conditions. In such cases the lender agrees to provide money for an indefinite period and the agreement can be terminated on any day. Under flexible repos the lender places funds, but they are withdrawn by the borrower as per his requirements over an agreed period.

Risks

As far as risks are concerned although repos are collateralised transactions they are still exposed to counterparty risk and the issuer risk associated with the collateral. As far as the counterparty risk is concerned, the investor should be able to liquidate the securities received as collateral, thus largely offsetting any loss. Against this the seller/lender of bonds will hold cash or other securities as protection against nonreturn of the lent securities. In both the cases it is to be ensured that the realisable value equals or exceeds the exposure. There is also the concentration risk resulting from illiquid issues which are used as collateral in the transaction.

Again, even where global agreements are signed full transfer of ownership as per contractual protections could be enforced only where a clean legal opinion is available in respect of jurisdiction concerned. In other words, repos are also prone to legal risks if care is not taken.

Accounting

Generally, norms are laid down for accounting of repos and valuation of collateral are concerned. While there are standard accounting norms, generally the securities used as collateral in repo transactions are valued at current market price plus accrued interest (on coupon bearing securities) calculated to the maturity date of the agreement less "margin" or "haircut". The hair cut is to take care of market risk and it protects either the borrower or lender depending upon how the transaction is priced. The size of the haircut will depend on the repo period, riskiness of the securities involved and the coupon rate of the underlying securities.

Since fluctuations in market prices of securities would be a concern for both the lender as well as the borrower it is a common practice to reflect the changes in market price by resorting to marking to market. Thus, if the market value of the repo securities decline beyond a point the borrower may be asked to provide additional collateral to cover the loan. On the other hand, if the market value of collateral rises substantially, the lender may be required to return the excess collateral to the borrower.

Dealing and Settlement

A suitable dealing and settlement system is an integral part of a repo market. There are a number of alternative approaches followed by countries ranging from the development of an in house solution through to the purchase of an existing solution. The key features of the system incorporated are always the delivery versus payment mechanism, confirmation and matching of trades with automated settlement, an extensive registry/ sub registry system with full reporting capabilities on holders, turnover, closing of books and record dates, securities reconciliation etc.

Uses

There are a variety of advantages repos can provide to the financial market in general, and debt market, in particular as under:

- An active repo market would lead to an increase in turnover in the money market, thereby improving liquidity and depth of the market.
- Repos would increase the volumes in the debt market as it is a tool for funding transactions. It enables dealers to deal in higher volumes. Thus, repos provide an inexpensive and most efficient way of improving liquidity in the secondary markets for underlying instruments. Debt market also gets a boost as repos help traders to take a position and go short or long on security. For instance, in a bullish scenario one can acquire securities and in a bearish environment dispose them of thus managing cash flows taking advantage of flexibility of repos.
- For institutions and corporate entities repose provide a source of inexpensive finance and offers investment opportunities of borrowed money at market rates thus earning a good spread.

- Tripartite repos will offer opportunities for suitable financial institutions to intermediate between the lender and the borrower.
- A large number of repo transactions for varying tenors will effectively result in a term interest rate structure, especially in the interbank market. It is well known that absence of term money market is one of the major hindrances to the growth of debt markets and the development of hedging instruments.
- Central banks can use repo as an integral part of their open market operations with the objective of injecting/withdrawing liquidity into and from the market and also to reduce volatility in short term in particular in call money rates. Bank reserves and call rates are used in such instances as the operating instruments with a view to ultimately easing /tightening the monetary conditions.

Repo Market in India

Repo is a money market mechanism, which enables collateralised short term borrowing and lending through sale/purchase operations in debt instruments. Unlike call deposits and T. Bills, repo is not an instrument in the market. It is a process wherein a number of instruments such as G-Sec, PSU Bond and other securities can be used as underlying securities to borrow and lend in the money market. Under a repo transaction, a holder of securities sells them to an investor with an agreement to repurchase back the same securities for a same amount at a predetermined date. It is essentially a lending and borrowing transaction at an agreed rate of interest known as repo rate. In view of this, the forward clean price of the bonds is set, at the time of sale, at a level which is different from the spot clean price by adjusting the difference between repo interest (known as repo rate) and coupon income on the security. The rate of interest on repo will be market related.

In the money market, a repo transaction is nothing but collateralised lending as the terms of the transaction are structured to compensate for the funds lent and the cost of the transaction is the repo rate. In other words, the inflow of cash from the transaction can be used to meet temporary liquidity requirement in the short term money market at comparable cost.

Repo rate is the annualised interest rate for the funds lent by the buyer of the securities (lender) to the seller of the securities (borrower). Generally, the repo rate is lower than the same offered on unsecured (or clean) interbank loan for the reason that it is a collateralised transaction and the credit worthiness of the issuer of the underlying security is often higher than the seller. Other factors that may affect the repo rate include the credit worthiness of the borrower, liquidity of the collateral and comparable rates of other money market instruments.

A reverse repo is the mirror image of a repo. REPO viewed from the angle of borrower is known as reverse repo. Thus, in a reverse repo, securities are acquired with a simultaneous commitment to resell. Hence whether a transaction is a repo or a reverse repo is determined in terms of who initiated the first leg of the transaction. When the reverse repurchase transaction matures, the counterparty returns the security to the entity concerned and receives its cash along with a profit spread. One factor which encourages an organisation to enter into reverse repo is that it earns some extra income on its otherwise idle cash. A repo is sometimes called a **ready forward** transaction as it is a means of funding by selling a security held on a spot (ready) basis and repurchasing the same on a forward basis. When an entity sells a security to another entity on repurchase agreement basis and simultaneously purchases some other security from the same entity on resell basis it is called a **double ready forward** transaction.

REPO is also undertaken by RBI for controlling liquidity in the market as also to help banks in need of liquidity. The banks can borrow funds from RBI by doing a REPO. This is a reverse repo for RBI and it is known as **LAF** (Liquidity Adjustment Facility).

RBI varies the REPO rate frequently. In fact LAF is a monetary tool in the hands of RBI.

Participants in the LAF market are those which are indicated by RBI. As against this, repo in the market can be between banks and financial institutions. Non Banking participants can lend money to other eligible counterparties through repo. Repo is also allowed in PSU bonds and private corporate debts provided the debts are held in dematerialized form.

Repo Pricing

In a repo transaction there is a spot sale and a forward purchase. These transactions are complete when SGLs are exchanged or transfer in demat form is complete and the ownership of the securities is transferred to the buyer for the period of repo and sold back to the seller at the end of the agreed period. Often the reversal of the transaction is automatic and will be done by the clearing corporation or the securities holding company.

As indicated, in a repo there are two legs of transactions viz., selling of the security and repurchasing of the same. In the first leg of the transaction for a nearer date, sale price is usually based on the prevailing market price for outright deals. In the second leg, which is for a future date, the price will be structured based on the funds flow of interest and tax elements of funds exchanged. This is because, as the ownership of securities passes on from seller to buyer for the repo period, legally the coupon interest accrued for the period has to be passed on to the buyer. Thus, at the sale leg, while the buyer of security is required to pay the accrued coupon interest for the broken period, at the repurchase leg, the initial seller is required to pay the accrued interest for the broken period to the initial buyer.

Transaction-wise, both the legs are booked as spot sale/purchase transactions. Thus, after adjusting for accrued coupon interest, sale and repurchase prices are fixed so as to yield the required repo rate. Essentially, the price adjustment depends on the relationship between the net coupon and the repo amount worked out on the basis of the repo interest agreed upon the total funds transferred. When repo rate is higher than current yield repurchase price will be adjusted upward signifying a capital loss. If the repo rate is lower than the current yield, then the repurchase price will be adjusted downward signifying a capital gain.

If the repo rate and coupon are equal, then the repurchase price will be equal to the sale price of security since no price adjustment at the repurchase stage will be required. In such cases the out go (dirty price) in the first leg will be clean price + accrued interest. In the reversal leg also the out go will be calculated as price plus accrued interest. Accrued interest will be higher as the repo period will be added to the original broken period.

If the repo rate is greater than the coupon, then the repurchase price is adjusted upward (with reference to sale price) to the extent of the difference between the two. And, if the repo rate is lower than the coupon then, the repurchase price is adjusted downward (with reference to sale price). Specifically, in terms of repo rate, there will be no price adjustment when the current yield on security calculated on the basis of sale value (including accrued coupon) is equivalent to repo rate.

In case the coupon payment day falls within the repo period suitable adjustments in the price should be made. It should be particularly remembered that whereas the price at the time of first leg is taken from the market, the second leg price is prefixed and may not be market related.

As indicated previously, a Repo transaction is also called a Ready Forward transaction i.e., a transaction having a "Ready" leg and a "Forward" leg. The ready forward transaction is in two legs:

i) **Ready Leg:** The borrower of funds sells securities at the prevailing market price to the lender. Before the sale the borrower and lender agree on the tenor and rate of the Repo Transaction.

ii) **Forward Leg:** The borrower of funds buys back the securities sold in the Ready leg from the lender at a computed price so that the lender (seller of securities) gets an amount which includes the amount lent on the Ready leg plus the interest for the amount lent at the agreed interest rate for the tenor of the Repo.

The repo transaction therefore, should have:

1) Present sale or purchase with a commitment to repurchase or resell respectively at a future date;
2) Contract between the same parties;
3) Same securities with the same quantum; and
4) Transactions must be entered on the same day for both legs.

The following example will clarify the **Repo transaction** computation:

Bank A agrees to borrow approximately Rs. 10 crore from Bank B for a period of 3 days at an interest rate of 5%.

Borrower:	Bank A	
Lender:	Bank B	
Tenor:	3 days	
Repo Rate:	5.00%	
Security:	6.85% GOI 2012 (Government of India security with a coupon rate of 6.85% and maturing on 05 April 2012)	
Ready Leg Date:	15 November, 2009	
Forward Leg Date:	18 November, 2009	
Ready Leg Computation		
Ready Leg Price of Security:	Rs. 100/-	
Face Value of Security:	Rs.10,00,00,000/-	
Principal Value of Security:	Rs. 10,00,00,000/-	....A
Last Interest Date:	05 October 2009	
Accrued Interest on Security:	Rs.7,61,111.11	.....B
Ready Leg Proceeds (A+B):	Rs.10,07,61,111.11	C
Forward Leg Computation		
Repo Interest Amount:	(Rs.10,07,61,111.11)x.05x3/365	
	Rs.41,408.68	.....D
Forward Leg Proceeds (C+D):	Rs.10,08,02,519.79	.....E
Accrued Interest on Security:	Rs.8,18,194.44	.....F
Interest from Oct 15 to Nov 18		
Number of days 44		
Rate of int 6.85%		
Day count convention 30/360		
Interest amount $\frac{100000000*44*6.85}{36500}$	= Rs 8,18,194.44	

Principal Value of Security (E-F):	Rs.9,99,84,325.35	.....G
Forward Leg Price of Security:	[G/ (100000000)] x100	
	Rs.99.9843	

The above example illustrates how the forward leg price is derived for a Repo transaction.

Activity 1

1) What is a reverse repo?

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2) What is call money market?

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10.5 TYPES OF MONEY MARKET INSTRUMENTS

Collateralised Borrowing and Lending Obligation (CBLO)

"Collateralised Borrowing and Lending Obligation (CBLO)", a money market instrument as approved by RBI, is a product developed by CCIL for the benefit of the entities who have either been phased out from interbank call money market or have been given restricted participation in terms of ceiling on call borrowing and lending transactions and who do not have access to the call money market. CBLO is a discounted instrument available in electronic book entry form for the maturity period ranging from one day to ninety Days (can be made available up to one year as per RBI guidelines). In order to enable the market participants to borrow and lend funds, CCIL provides the Dealing System through Indian Financial Network (INFINET), a closed user group to the Members of the Negotiated Dealing System (NDS) who maintain Current account with RBI and through Internet for other entities who do not maintain Current account with RBI.

CBLO can be defined as, "an obligation by the borrower to return the money borrowed, at a specified future date" It can be also explained as 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, or an underlying charge on securities held in custody (with CCIL) for the amount borrowed/lent.

Membership (including Associate Membership) of CBLO segment is extended to banks, financial institutions, insurance companies, mutual funds, primary dealers, NBFCs, non-Government Provident Funds, Corporates etc. The Members are required to open Constituent SGL (CSGL) Account with CCIL for depositing securities which are offered as collateral / margin for borrowing and lending of funds. Besides, Associate Members are required to open a current account with a Settlement Bank designated by CCIL for settlement of funds. Eligible Securities are Central Government securities including Treasury Bills.

10.6 COMMERCIAL PAPER

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 enabling highly rated corporate borrowers to diversify their sources of short-term borrowings and to provide an additional instrument to investors. Subsequently, primary dealers, and all-India financial institutions were also permitted to issue CP to enable them to meet their short-term funding requirements for their operations.

Guidelines for Issue of Commercial Paper

Eligibility

Corporates, primary dealers (PDs) and the all-India financial institutions (FIs) that have been permitted to raise short-term resources under the umbrella limit fixed by the Reserve Bank of India are eligible to issue CP. A corporate would be eligible to issue CP provided:

a) The tangible net worth of the company, as per the latest audited balance sheet, is not less than Rs.4 crore;

b) Company has been sanctioned working capital limit by bank(s) or all-India financial institution(s); and

c) The borrowable account of the company is classified as a Standard Asset by the financing bank(s)/institution(s).

Rating Requirement

All eligible participants shall obtain the credit rating for issuance of Commercial Paper from either the Credit Rating Information Services of India Ltd. (CRISIL) or the Investment Information and Credit Rating Agency of India Ltd. (ICRA) or the Credit Analysis and Research Ltd. (CARE) or the FITCH Ratings India Pvt. Ltd. or such other credit rating agencies as may be specified by the Reserve Bank of India from time to time, for the purpose. The minimum credit rating shall be P-2 of CRISIL or such equivalent rating by other agencies. The issuers shall ensure at the time of issuance of CP that the rating so obtained is current and has not fallen due for review.

Maturity

CP can be issued for maturities between a minimum of 7 days and a maximum up to one year from the date of issue. The maturity date of the CP should not go beyond the date up to which the credit rating of the issuer is valid.

Denominations

CP can be issued in denominations of Rs.5 lakh or multiples thereof. Amount invested by a single investor should not be less than Rs. 5 lakh (face value).

Limits and the Amount of Issue of CP

- CP can be issued as a "stand alone" product. The aggregate amount of CP from an issuer shall be within the limit as approved by its Board of Directors or the quantum indicated by the Credit Rating Agency for the specified rating, whichever is lower. Banks and FIs will, however, have the flexibility to fix working capital limits duly taking into account the resource pattern of companies' financing including CPs.
- An FI can issue CP within the overall umbrella limit fixed by the RBI, i.e., issue of CP together with other instruments, viz., term money borrowings, term deposits

certificates of deposit and inter-corporate deposits should not exceed 100 per cent of its net owned funds, as per the latest audited balance sheet.

- 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. Every issue of CP, including renewal, should be treated as a fresh issue.

Investment in CP

CP may be issued to and held by individuals, banking companies, other corporate bodies registered or incorporated in India and unincorporated bodies, Non-Resident Indians (NRIs) and Foreign Institutional Investors (FIIs). However, investment by FIIs would be within the limits set for their investments by Securities and Exchange Board of India (SEBI).

Mode of Issuance

CP can be issued either in the form of a promissory note (Schedule I) or in a dematerialised form through any of the depositories approved by and registered with SEBI. CP will be issued at a discount to face value as may be determined by the issuer. No issuer shall have the issue of CP underwritten or co-accepted. However, with effect from June 30, 2001, banks, FIs and PDs are required to make fresh investments and hold CP only in dematerialised form.

Procedure for Issuance

Every issuer must appoint an IPA for issuance of CP. The issuer should disclose to the potential investors its financial position as per the standard market practice. After the exchange of deal confirmation between the investor and the issuer, issuing company shall issue physical certificates to the investor or arrange for crediting the CP to the investor's account with a depository. Investors shall be given a copy of IPA certificate to the effect that the issuer has a valid agreement with the IPA and documents are in order.

Role and Responsibilities

The role and responsibilities of issuer, issuing and paying agent (IPA) and credit rating agency (CRA) are as follows:

a) **Issuer**

Issuers have to ensure that the guidelines and procedures laid down for CP issuance by RBI are strictly adhered to.

b) **Issuing and Paying Agent (IPA)**

i) IPA would ensure that issuer has the minimum credit rating as stipulated by RBI and amount mobilised 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.

ii) IPA has to verify all the documents submitted by the issuer, viz., copy of board resolution, signatures of authorised executants (when CP in physical form) and issue a certificate that documents are in order. It should also certify that it has a valid agreement with the issuer (Schedule III).

iii) Certified copies of original documents verified by the IPA should be held in the custody of IPA.

iv) IPAs, which are NDS member, should report the details of CP issue on NDS platform within two days from the date of completion of the issue.

v) All scheduled banks, acting as an IPA, will continue to report CP issuance details within three days from the date of completion of the issue to the satisfaction of RBI.

c) **Credit Rating Agency (CRA)**

i) Code of Conduct prescribed by the SEBI for CRAs for undertaking rating of capital market instruments shall be applicable to them (CRAs) for rating CP.

ii) The credit rating agency would the discretion to determine the validity period of the rating depending upon its perception about the strength of the issuer. Accordingly, CRA shall at the time of rating, clearly indicate the date when the rating is due for review.

iii) While the CRAs can decide the validity period of credit rating, they would have to closely monitor the rating assigned to issuers vis-a-vis their track record at regular intervals and would be required to make their revision in the ratings public through their publications and website.

10.7 TERM MONEY MARKET

Term Money refers to those borrowing/lending transactions between the inter-bank participants which have tenors greater than 14 days. The reasons for the transactions and other aspects are the same as those for the call/notice money transactions. However there is no regulatory limit on the amount an inter-bank participant can lend and borrow money in the term money market.

Scheduled Commercial Banks (SCBs) and Co-operative banks accept term deposits for a period of 7 days and above. The rates of interest on such deposits vary from bank to bank. Deposits are issued by bank branches. The depositor gets a Fixed/Term Deposit Receipt (FDR) or an advice from the bank which accepts the deposit. These deposits are not transferable. However the depositor has an option to liquidate the deposit prior to its contracted maturity subject to penalty which varies from bank to bank.

Anybody can invest funds in a fixed deposit. In a strict sense a fixed deposit is not a money market instrument since it cannot be traded. However, often banks and FIs make investment in FDs. This is done when funds are available for a specified period and rates in FD market are more favourable than other markets. FD investments can be foreclosed at a stipulated penalty in terms of loss of interest. Therefore, banks look to FDs it they can lock the funds for a period. FDs are mentioned here as it is a short-term alternate investment option and it does have limited liquidity in the sense that the investor can redeem the FD at the bank at any point in time.

10.8 CERTIFICATE OF DEPOSITS

Certificates of Deposit (CDs) is a negotiable money market instrument and issued in dematerialised form or as a Usance Promissory Note, for funds deposited at a bank or other eligible financial institution for a specified time period. Guidelines for issue of CDs are governed by various directives issued by the Reserve Bank of India .

Eligibility

CDs can be issued by (i) scheduled commercial banks excluding Regional Rural Banks (RRBs) and Local Area Banks (LABs); and (ii) select all-India Financial Institutions that have been permitted by RBI to raise short-term resources within the umbrella limit fixed by RBI.

Aggregate Amount

Banks have the freedom to issue CDs depending on their requirements. An FI may issue CDs within the overall umbrella limit fixed by RBI, i.e., issue of CD together with other instruments, viz., term money, term deposits, commercial papers and inter-corporate deposits should not exceed 100 per cent of its net owned funds, as per the latest audited balance sheet.

Minimum Size of Issue and Denominations

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

Investors

CDs can be issued to individuals, corporations, companies, 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.

Maturity

The maturity period of CDs issued by banks should be not less than 7 days and not more than one year. The FIs can issue CDs for a period not less than 1 year and not exceeding 3 years from the date of issue.

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 are 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.

Transferability

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

Loans/Buy-backs

Banks/FIs cannot grant loans against CDs. They cannot buy-back their own CDs before maturity.

Format of CDs

Banks/FIs should issue CDs only in the dematerialised form.

Payment of CDs

The holders of dematted CDs will approach their respective depository participants (DPs) and have to give transfer/delivery instructions to transfer the demat security represented by the specific ISIN to the 'CD Redemption Account' maintained by the issuer. The holder should also communicate to the issuer by a letter/fax enclosing the copy of the delivery instruction it had given to its 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 holder / transferor by way of Banker's cheque / high value cheque, etc.

Issue of Duplicate Certificates

In case of the loss of physical certificates, duplicate certificates can be issued after compliance with the following:

a) 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.

The duplicate certificate should only be issued 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 ________").

10.9 BILL REDISCOUNTING (BRDS)

Banks, in their normal course of business discount bills of exchange. To provide liquidity and to promote the bills culture in the economy the RBI formulated a scheme whereby a bank may raise funds by issue of Usance Promissory Notes in convenient lots and maturities on the strength of genuine trade bills discounted by it. This scheme is known as the Bills Rediscounting Scheme (BRDS). Banks and permitted financial entities may invest by way of rediscounting trade bills of other eligible banks against a Usance Promissory Note issued by such bank. The minimum tenor of a BRDS transaction is 15 days and the maximum tenor is 90 days. The bank borrowing under the BRDS scheme issues a Usance Promissory Note to the lender as well as a certificate that the bank holds eligible bills, equal to the amount of the transaction on its books. The UPN should be backed by unencumbered Usance Bills of Exchange of atleast equal value not fallen due for payment drawn or endorsed in favour of the subscriber/lender arising out of bonafide commercial or trade transaction on which the required stamp duty is paid. The discounting bank will hold and continue to hold such unencumbered usance bills till the date of maturity of the Usance Promissory Note. In case any of the bills mature during the currency of the derivative UPN, such bills should be replaced by fresh eligible bills discounted by the bank issuing such derivative UPN.

The bank availing of rediscounting facilities against bills earlier discounted by it, is required to maintain a register containing true and full particulars of usance bills held by it in respect of each promissory note so that the entries in the register can be verified.

Banks can only rediscount eligible bills which have the following features:

- The bill of exchange should have arisen on account of a bonafide trade transaction. House bills and bills of finance companies are not eligible as cover for BRDS.
- The bill of exchange should be unencumbered.
- The unexpired tenor of the bill should not be more than 90 days.

The advances of a bank borrowing under the BRDS get reduced to the extent of the borrowing while it shows as an advance on the lender's books. The BRDS transaction is carried out on a discounted basis and has the following features:

- Interest is calculated on a actual/365 basis.
- Interest is calculated on a front-end basis and rounded off to the nearest Rupee.
- The borrower receives an amount which is the Principal Amount less the interest/ discount.
- The lender receives the Principal Amount, from the borrower, on the maturity of the transaction.
- The effective yield on the bills discounting is higher than the discount rate.

10.10 INTER-BANK PARTICIPATION CERTIFICATE (IBPCS)

IBPC is yet another short-term money market instrument whereby the banks can raise money/deploy short-term surplus. In the case of IBPC the borrowing bank passes/sells on the loans and credit that it has in its book, for a temporary period, to the lending bank. IBPCs are of two types. They are:

i) With risk sharing basis

ii) Without risk sharing

Only Scheduled Commercial Banks can issue IBPCs. The various features of this instrument are given below:

1) The minimum period shall be 91 days and maximum period 180 days in the case of IBPCs on risk sharing basis and in the case of IBPCs under non-risk sharing basis the total period is limited to 90 days.

2) The maximum participation in loan/cash credit under IBPC would be 40% of the amount outstanding or the limit sanctioned whichever is lower. The participation however, should be in "standard asset" only.

3) Documents to be executed by the borrower in favour of the Issuing Bank shall provide a clause that the issuing bank shall have liberty to shift at its discretion without notice to the borrower, from time to time during the subsistence of the cash credit/loan account, a part or portion of the outstanding in the said account, to another bank/bank's participating in the scheme.

4) Interest rates are determined between issuing bank and the participating bank.

5) The issuing bank and the participating bank have to enter into participation contracts in the format prescribed.

6) IBPCs are not transferable.

7) IBPCs cannot be redeemed before due date.

8) In case the balance in the cash credit/loan account on which IBPCs have been issued comes down, at any point of time, the issuing bank has to repay the portion of the IBPCs issued to the participating bank such that the participation is not more than 40% of the balance outstanding in the said account/s.

9) On the date of maturity the issuing Bank makes payment of the IBPC along with agreed rate of interest to the participating bank except in the case where in the case risk has materialised where the issuing bank in consultation with the participating bank may share the recoveries proportionately. In the case of non-risk sharing IBPCs the issuing bank will pay the amount of the participating bank irrespective of defaults, if any, in advance in question.

Activity 2

1) What is a Certificate of Deposit?

....

....

....

....

2) What is a CBLO?

....

....

....

....

10.11 SUMMARY

Money market instruments are those instruments, which have a maturity period of less than one year. Some of the Money Market Instruments are as follow:

1) Call/Notice Money
2) Repo & Reverse Repo
3) CBLO
4) Certificate Of Deposits
5) Commercial Paper

Call money or notice money refers to the short term funds with maturity period ranging between 1 and 14 days. Repos also called repurchase agreements are short term, usually overnight borrowing. The commercial paper is a short term unsecured negotiable instrument which is issued by highly rated companies in India

10.12 SELF ASSESSMENT QUESTIONS

1) What is meant by money market?
2) What is the eligibility criterion to issue commercial paper?
3) What is an inter bank participation certificate?
4) What is the minimum amount for which a certificate of deposit can be issued?
5) What is reverse repo?
6) Answer the following (Answer shown as ****)
   1) Commercial paper (CP) is issued by
      a) Corporates and Primary dealers****
      b) State governments
      c) Public sector banks
      d) Government of India through RBI
   2) A repo transaction includes the following
      a) A forward contract
      b) A spot sale
      c) A put option
      d) A spot sale and a forward purchase****

3) A .... is a contract to buy securities today and sell them back on a future date at a price fixed today.

   a) Futures
   b) Option
   c) Repo*
   d) Reverse Repo

4) Identify the instrument

   1) This instrument is used for short term borrowings of the Government of India.
   2) It is issued through auctions by the RBI.
   3) It is issued at a discount to par value.

      a) Commercial Paper
      b) Certificate of Deposits
      c) Treasury Bills****
      d) G Secs

5) Money market is a market for ....

   a) Securities of long term nature
   b) Laundering money
   c) Securities of short term nature****
   d) None of the above

FURTHER READINGS

1) Moorad Choudhry, *An Introduction to Bond Markets*, 3rd Edition.
2) Miles Livingston, *Bonds and Bond Derivatives*, 2nd Edition.
3) Stephen J. Antczak, Douglas J. Lucas, Frank J. Fabozzi, *Leveraged Finance: Concepts, Methods, and Trading of High-Yield Bonds, Loans, and Derivatives*.
4) Moorad Choudhry, *Analysing and Interpreting the Yield Curve*, Wiley Finance.
5) Sharon Saltzgiver Wright, *Getting Started in Bonds*, 2nd Edition.
6) Frank J. Fabozzi, *Professional Perspectives on Fixed Income Portfolio Management*, Volume 4.

UNIT 11 DEBT PRODUCTS

Objectives

After studying this unit, you should be able to:

- understand the meaning of Treasury Bills and its features;
- identify Fixed Income Securities and different types of G Secs;
- discuss Corporate Debt Market Products; and
- analyse features of a bond.

Structure

11.1 INTRODUCTION

An understanding of fixed income securities and their markets is useful for many reasons. First, nearly two-thirds of the market value of all the securities outstanding in the world is classified as fixed income securities. This means that a substantial amount of savings are invested in fixed income securities. Second, most participants in corporate and financial sectors also participate in the fixed income securities markets to varying degrees. Third, while corporations have the choice between the issue of equity and fixed income securities, the federal governments, state governments and municipalities do not have that choice; they issue only debt securities and such securities form the core part of the fixed income securities.

Debt market is much more popular than equity markets in most part of the world, but in India, the reverse has been true. The Indian debt market has two segments: Government Securities (G-Secs) market and corporate debt market. A Government security is a tradable security issued by the Reserve Bank of India (RBI) on behalf of Central Government or the State Governments. The Central Government raises funds by issuing securities to finance its fiscal deficit. Such securities can be short term (Usually called Treasury Bills, with original maturities of less than 1 year) or long term (usually called Government bonds or dated securities with original maturity of one year or more). In India, Central Government issues both Treasury Bills and bonds or dated securities while the State Governments issue only bonds or dated securities, which are called the State Development Loans (SDLs). Government securities carry practically no risk of default and hence are called risk-free securities. A corporate bond is issued by corporations. In India the size of corporate debt market is very small in comparision to Government securities.

11.2 TREASURY BILLS (T-BILLS)

T-bills are short term money market instrument issued by the Central Government. T-bills are issued discount-to-face value. Investors buy the bills at a discount from the stated maturity value (Known as face value) and At the maturity period the holder of the T-bill receives the payments from the government that is equal to the face value of the bill. T-bills are issued with initial maturities of 14, 91, 182 and 364 days. 14-days T-bills had been discontinued recently and 182 days T-bills were not reintroduced. So currently only 91 and 364 days T-Bills are available. The face value of the T-bills is Rs. 100 and they are issued for a minimum value of Rs. 25,000 and multiple thereof. All T-bill issuances represent market borrowings of the central government.

Treasury Bills, which are money market instruments, are short term debt instruments issued by the Government of India and are presently issued in three tenors, viz., 91 day, 182 day and 364 day. Treasury Bills are zero coupon securities and pay no coupon. They are issued at a discount and redeemed at the face value at maturity. For example, a 91 day Treasury Bill of Rs.100/- (face value) may be issued at a discount of say, Rs.1.80, that is Rs.98.20 and redeemed at the face value of Rs.100/-. The return to the investors is, therefore, the difference between the maturity value or face value (i.e., Rs.100) and the issue price . Treasury Bills are issued through auctions conducted by the Reserve Bank of India usually every Wednesday and payments for the Treasury Bills purchased have to be made on the following Friday. The Treasury Bills of 182 days and 364 days' tenure are issued on alternate Wednesdays, that is, Treasury Bills of 364 day tenure are issued on the Wednesday preceding the reporting Friday while Treasury Bills of 182 days tenure are issued on the Wednesday prior to a non-reporting Friday. Currently, the notified amount for issuance of 91 day and 182 day Treasury Bills is Rs.500 crore each whereas the notified amount for issuance of 364 day Bill is higher at Rs.1000 crore. Government, at its discretion, can also decide to issue additional amounts of the Treasury Bills by giving prior notice. An annual calendar of T-Bill issuances for the following financial year is released by the Reserve Bank of India in the last week of March. The Reserve Bank of India also announces the issue details of Treasury bills by way of press release every week.

The difference between the purchase price and ultimate maturity value constitutes the investor's earnings. For Example: A T-bill of Rs. 100 face value issued for Rs. 92 (maturity period is 364 days) gets redeemed at the end of its tenure at Rs. 100. so in this case the profit for investor is Rs. 8 (Rs. 100 – Rs. 92).

91 days T-Bills are auctioned under uniform price auction method and 364 days T-Bills are auctioned under multiple price auction method.

Chronology of Developments in T-bills

Type of T-Bill	Introduced	Discontinued
91 days T-Bill on weekly auction	Before 1950s	Mid- 1950s
91 days Ad-hoc T-Bill	Mid 1950s	April,1997
91 days T-Bill on Tap	Mid 1950s	March, 1997
182 days T-Bill on weekly auction	November, 1986	April,1992
14 days T-Bill on weekly auction	April, 1997	May, 2001
364 days T-Bill on fortnightly auction	April, 1992	continuing
91 days T-Bill on weekly auction	January, 1993	continuing
182 days T-Bill on weekly auction	Re-introduced in June,1999	continuing

Treasury bill is a short-term money market instrument issued by the Government of India (GOI) through the RBI. The T-Bill issuance calendar is announced for each half-year. The T-Bill is a discounted instrument i.e., it is issued at a discount to its face value which is usually Rs.100. The T-Bills are issued in the primary market by the Reserve Bank of India periodically. Normally, there are T-Bill auctions every week. The market participants have to bid for a discounted price in the auction. The cut-off price for the auction is determined by the RBI at a level where the notified amount of the auction is fully bid for. Thus the cut-off is, under normal circumstances, determined by the market forces. T-Bills have a moderately active secondary market. The secondary market trades in T-Bills on a yield basis. The price of the T-Bill is then computed from the yield at which it has been dealt. In recent times, the notified amount in T-Bill auction is also included as part for the Market Stabilisation Scheme (MSS). The MSS was introduced in order to enable the RBI to mop up excess liquidity from the system.

Treasury Bills are issued by Government of India through Reserve Bank of India for maturities of 91-days and 364-days, for pre-determined amounts. The interest is by way of discount, so the bills are priced below Rs.100 (e.g., T-bill of 91 days is priced at 99.26 yielding interest at 5.16% p a , which is known as implicit yield). The price of T-bills is determined through an auction process where banks and primary dealers are the participants. Each issue of 91-day T-bill is for Rs. 500 cr. and the auction is conducted weekly on Wednesdays. Each issue of 364-day is for Rs. 1000 cr. and is auctioned fortnightly on alternate Wednesdays. T-bills is a convenient way of parking short-term surpluses in risk-free investment and T-bills are also open for investment by corporates, high net worth individuals and NRIs, hence, it is possible to trade T-bills in secondary market. However, T-bill market is not very liquid as the issue amount is limited and it is possible to buy T-bills in primary market, i.e., in the weekly and fortnightly auctions at market determined prices. Nevertheless, T-bills being sovereign paper and preferred investment of banks, the implicit yield of T-bills is accepted as a benchmark for term money lending. The T-bill, like other government securities, is in electronic form and is to be held in a *SGL account* / constituent SGL account maintained by banks with Reserve Bank of India (though, depository participants are also now permitted to operate through SGL account to facilitate retail sales of government securities). The payment for T-bills is made and received through Clearing Corporation of India Ltd. (CCIL).

Calculation of Yield:

The yield of a Treasury bill is calculated as per the following formula:

$$Y = \frac{(100-P)*365*100}{P*D}$$

Where Y = discounted yield
P= Price
D= Days to maturity

Illustration

ABC bank wishes to buy 91 Days Treasury Bill Maturing on Dec. 6, 2009 on Oct. 12, 2009. The rate quoted by seller is Rs. 99.1489 per Rs. 100 face value. The YTM can be calculated as following:

The days to maturity of Treasury bill are 55 (October - 20 days, November - 30 days and December - 5 days)

YTM = (100-99.1489) x 365 x 100/(99.1489*55) = 5.70%

11.3 GOVERNMENT SECURITIES

A Government security is a tradable security issued by the Reserve Bank of India (RBI) on behalf of Central Government or the State Governments. The Central Government raises funds by issuing securities to finance its fiscal deficit. Dated government securities are longer-term securities, which are issued and maintained by RBI on behalf of central government. The maturity period of dated government securities are up to 30 years. The term government securities encompass all Bonds & T-bills issued by the Central Government and State Governments. These securities are normally referred to, as "gilt-edged" as repayments of principal as well as interest are totally secured by sovereign guarantee. 'Gilt Securities' are issued by the RBI, the central bank, on behalf of the Government of India. Being sovereign paper, gilt securities carry absolutely no risk of default.

Government Securities are issued by Public Debt Office of Reserve Bank of India on behalf of Government of India. State Governments also issue State Development Bonds through RBI. Government Securities are sold through auctions conducted by RBI. The interest is paid on face value of the bonds (expressed as percentage; minimum value of bonds is Rs. 10,000) at coupon rate, but the price of the bonds is determined in the auction conducted by RBI. RBI arrives at a cut-off price based on the bids submitted by banks and primary dealers (constituting demand for the bonds) and the price may be higher or lower than the face value of Rs.100. Government securities are actively traded in secondary market; hence the price and yield of the bonds would be constantly changing depending on the demand for bonds (which in turn depends on the liquidity available in the system). The yield on bonds is therefore different from coupon rate of interest.

The Government of India borrows from public by issue of securities, to finance its deficit which is the difference between Government's income and expenses. RBI uses government securities to control liquidity in the market in order to influence the interest rates. RBI may absorb liquidity by selling the securities from the market and may infuse liquidity by buying the securities from the public. These are known as open market operations (OMO) of the central bank. Since the OMO are limited by the number of Government securities available in the market, the RBI has recently commenced a Market Stabilisation Scheme, under which RBI issues Sterilization Bonds purely for the purpose of controlling excess liquidity in the market (i.e., the funds so raised are not utilized by the government, and do not add to the public debt).

Banks and institutional investors actively buy and sell government securities in anticipation of price changes. The view on prices/interest rate is based on the rate of inflation, GDP growth and other economic indicators. Over the last two years treasuries have reaped large profits on securities trading. The G-sec market became so attractive that as at end of March '04, the banks' investment in government securities amounted to 41% of their total assets, as against minimum SLR requirement of only 25%. However, more recently the interest rate trend has changed, and yields have started rising (with G-sec prices falling), as a result banks are hesitating to take positions in the securities market.

RBI has also used the G-sc market to develop the debt markets. Since G-sec yields set benchmark rates for corporate bonds, RBI has issued bonds for various maturities ranging from 1 year to 30 years, and has also issued a variety of bonds, with step-up coupons or coupons linked to inflation index, or floating rate coupons. Current proposals include issue of STRIPS (Separately Registered Interest and Principal Securities), where the principal and interest are traded as separate zero-coupon securities.

Investing in Government securities has the following advantages:

- Besides providing a return in the form of coupons (interest), Government securities offer the maximum safety as they carry the Sovereign's commitment for payment of interest and repayment of principal.

- They can be held in book entry, i.e., dematerialized/ scripless form, thus, obviating the need for safekeeping.
- Government securities are available in a wide range of maturities from 91 days to as long as 30 years to suit the duration of a bank's liabilities.
- Government securities can be sold easily in the secondary market to meet cash requirements.
- Government securities can also be used as collateral to borrow funds in the repo market.
- The settlement system for trading in Government securities, which is based on Delivery versus Payment (DvP), is a very simple, safe and efficient system of settlement. The DvP mechanism ensures transfer of securities by the seller of securities simultaneously with transfer of funds from the buyer of the securities, thereby mitigating the settlement risk.
- Government security prices are readily available due to a liquid and active secondary market and a transparent price dissemination mechanism.
- Besides banks, insurance companies and other large investors, smaller investors like Co-operative banks, Regional Rural Banks, Provident Funds are also required to hold Government securities.

Dated Government securities are longer term securities and carry a fixed or floating coupon (interest rate) paid on the face value, payable at fixed time periods (usually half-yearly). The tenor of dated securities can be up to 30 years. The Public Debt Office (PDO) of the RBI acts as the registry / depository of Government securities and deals with the issue, interest payment and repayment of principal at maturity. Most of the dated securities are fixed coupon securities. The nomenclature of a typical dated fixed coupon Government security has the following features – coupon, name of the issuer, maturity and face value. For example, 7.49% GOI 2017 would have the following features.

- Date of Issue: April 16, 2007
- Date of Maturity: April 16, 2017
- Coupon : 7.49% paid on face value
- Coupon Payment Dates: Half-yearly (October16 and April 16) every year
- Minimum Amount of issue/ sale: Rs.10,000

11.4 FEATURES OF GOVERNMENT SECURITIES

A Government security is a tradable security issued by the Central Government or the State Governments, acknowledging the Government's debt obligation. Such securities can be short term (usually called Treasury Bills, with original maturities of less than 1 year) or long term (usually called Government bonds or dated securities with original maturity of one year or more). In India, the Central Government issues both Treasury Bills and bonds or dated securities while the State Governments issue only bonds or dated securities, which are called the State Development Loans (SDLs). Government securities carry practically no risk of default and, hence, are called risk-free instruments. Government of India also issue savings instruments (Savings Bonds, National Saving Certificates (NSCs), etc.) or special securities (Oil bonds, FCI bonds, fertiliser bonds, power bonds, etc.). Some of the features of bonds issued by Government are:

Face Value

Normally, the face value of a bond is the minimum denomination at which it is issued. This could be Rs.10, Rs. 100, Rs. 1000 and so on. However, normally, in the market the face value of bonds is usually taken as Rs.100 and all pricing is done based on this assumption. In the case of a bond transaction, the Face Value is referred to as the total amount (in terms of face value) of the bonds being transacted. Thus, a 5 crore bond transaction will mean that Rs. 5 crore face value of bonds are traded. As bonds have, as per market convention a face value of Rs. 100 a Rs. 5 crore bonds transaction will mean that 500,000 bonds of face value of Rs. 100 each aggregating to Rs. 5 crores is traded. The price and or outflow of funds security is not invoked when reporting a sale of a security. SGL of a security is also maintained for par/face value.

Coupon Rate

This is the rate of interest stipulated payable on a bond. Thus, a bond carrying a coupon rate of 7% p.a. will pay Rs.7 on a face value of Rs. 100. The interest is usually paid annually, semi-annually or quarterly. Securities nomenclatures are prefixed with coupin. For example 10.5% 2014 G-Sec will mean a security carrying a coupon of 10.5 % p.a and maturing for payment on the stipulated date in the year 2014. Each security will, normally have two coupon payment dates in a year.

Redemption Amount

It is the amount payable by the issuer of the bond to the investor holding the bond on the redemption date. Usually the redemption amount is equal to or greater than the face value of the bond. In the latter case, for a non zero-coupon bond, the part of the redemption amount which is greater than the face value is termed as redemption premium.

Tenor

The tenor of the bond is the time period from the date of issue to the redemption date.

Interest Payment (IP) Date(s)

IP Dates are the date(s) on which the coupon is due. On the coupon date the bond is traded ex-interest. There could some days prior to the IP date for which either the bond is not traded or trades are not settled. This period is termed as the shut period.

Redemption Date(s)

These are the dates when either the full or partial redemption amounts are due to be paid by the issuer to the holder of the bond on that date.

Bullet v/s Staggered or Amortised Redemption

When the redemption amount of a bond is payable on one particular date it is termed as "Bullet Redemption". On the other hand there are bonds wherein the redemption amount is payable over more than one date. In such cases, the redemption amounts are paid either monthly, quarterly, semi-annually or annually. These bonds are said to have "Staggered or Amortised Redemption."

Clean Price

The clean price of the bond is the price payable for the face value of the bond. For example if the clean price of a bond is Rs. 101/- this mean for the bond of face value Rs.100 the buyer needs to pay Rs. 101/-.

Dirty Price

The dirty price of a bond is the clean price plus the accrued interest from the last IP date till the date of settlement.

Trade Date

This is the date on which the bond transaction is concluded between the buyer and seller.

Settlement Date

This is the date on which the buyer and seller in a bond transaction exchange the bond for funds.

Settlement Proceeds

The settlement proceeds is the amount that the buyer of a bond needs to pay the seller on the settlement date. The settlement proceeds for a bond transaction are calculated as follows:

Settlement Proceeds = [(Price of bond/100) * (Total Face Value of the transaction)] + [Accrued interest on the total face value of a transaction].

G-Secs

Central Government Loans form a part of the Government's borrowing programme in a given year. Reserve Bank of India is vested with the power of offering various issues to the institutions/public on an on-going basis as per the notification issued by the central government in that connection. At the beginning of every half of the Financial Year viz., April–September and October–March, the government announces an issue calendar for dated securities. This calendar usually is for all or a major part of the budgeted borrowing programme. The calendar consists of approximate dates of issue, the amount and tenor (given in range of years e.g., 5-9 years, 10-14 years , 20+ years etc.) of each issue. Closer to the dates specified in the calendar, the Reserve Bank will announce the actual details of the security/securities to be issued. These details include the quantum, the coupon, date of issue, date of redemption, the calendar of interest payments etc. Securities are usually issued by way of an auction process. The security being issued could be a security already in existence or it could be a new security. In the former case, it is a price based auction in which the investors bid the price at which they are willing to buy the security. In the latter case investors bid for the coupon rate for which they are willing to buy the security.

The auction conducted by the RBI is usually a variable price auction (or French auction) wherein applicants submit bids at their desired price. The cut-off price is usually the price at which the entire issue amount is fully bid. At times, as part of signaling RBI may indicate a cut off (a higher price or a lower coupon) wherein the bids may not result in the issue being fully subscribed. In such cases the issue will partially or fully devolve on RBI. These securities could be later sold by RBI to market based on market movement of rates.

All successful bidders, i.e., those bidders who have bid at or above the cut-off prices have to buy the securities at the prices at which they had bid. Thus, each bidder gets the security at a price which could be different from another bidder. Sometimes, the RBI conducts a uniform price auction (or Dutch auction). In this the successful bidders are al all allotted the security at the cut-off price or yield. This implies that every bidder gets the security at a uniform price or yield. In both the above cases, the bidders who have bid at a price higher than the cut-off price will get the full quantum of securities bid by them, while those who had bid at the cut-off price could get partial allotment of the quantity bid as the allotment is restricted to the notified amount.

The GOI issues are also underwritten, either fully or partially, by the Primary Dealers. Prior to the auction date each PD quotes amounts and underwriting commission for the issue. The RBI determines the amount underwritten and the share of each PD in the underwritten amount. In the case the issue is undersubscribed, the undersubscribed portion devolves on the PDs in the ratio of their share in underwriting the issue. Any shortfall over and above this is taken up by the RBI on its own books. As indicated earlier, RBI could decide to reject all bids and take the entire amount of issue on its own books or even cancel an announced auction.

At times the Government may directly place securities with Reserve Bank of India on a Private Placement basis. The Reserve Bank of India in turn may sell these securities at a later date through their open market window albeit at a different yield.

The RBI could also come out with an On-tap issue. Under this scheme of arrangements after the initial primary placement of a security, the issue remains open to yet further subscriptions. The period for which the issue remains open may be sometimes time specific or volume specific.

The Central Government dated securities are accounted for in the Subsidiary General Ledger (SGL). This accounting is in the book form and not in the scrip form. The Reserve Bank of India, however, issues scrips (certificates) to the investor on request where the investor is not having or is not permitted to have SGL account with the Reserve Bank of India or on the basis of specific request of the SGL account holder. The SGL account is credited in the case of subscription/purchase by the account holder and debited in the case of sale/redemption or conversion to the scrips form as this is treated as sale. For all SGL account holders, all purchases at sales are dealt with in electronic form, with delivery against payment (DVP).

State Development Loans (SDLs)

This closely follows the Central Government Loans. The quantum of the loan depends upon the estimated requirements of various State Governments in a given year as submitted by the respective state governments and notified by the Central Government to the Reserve Bank of India. These issues take place periodically during the year. The Reserve Bank of India while announcing the State Loans issue notifies the quantum, the coupon, the date of issue, the date of redemption, calendar of interest payments etc. Usually, the SDLs are issued at a fixed coupon which is announced for the issue. However, in recent times, in some issues the coupon was determined through auction mechanism. On the issue date the successful bidders are required to deposit money at the counters of Reserve Bank of India. On the basis of amount received the Reserve Bank of India decides to retain the notified amount and refund the excess received or to retain the entire subscription and allots. The accounting of the State Loans is in the SGL form as is in the case of Central Loans.

Public Sector Undertakings' (PSU) Bonds

These are Medium or long term debt instruments issued by Public Sector Undertakings (PSUs). The term usually denotes bonds issued by the central PSUs (i.e., PSUs funded by, and under the administrative control of, the Government of India). Most of the PSU Bonds are sold on Private Placement basis to the targeted investors at Market Determined Interest Rates. Often investment bankers are roped in as arrangers to this issue. Most of the PSU Bonds are transferable by endorsement and delivery and are issued in the form of Usance Promissory Note. The Public Sector Undertakings raise money for their projects or for their expansion programmes through issuance of bonds in an open market. The term or period of bonds is generally between 5 to 10 years with or without options for early redemption. Compared to Government Securities the coupon would be higher as they rank for full risk weight in terms of the capital adequacy. The instrument may be also rated for its financial viability by the rating agency. Sometimes the issue may be guaranteed by the Central or the respective State Government to provide further financial strength. Such guarantees are called as "structured obligations". The bonds are issued in the form of scrips. The bonds are be listed on the National Stock Exchange (NSE) and/or the Stock Exchange, Mumbai.(BSE). These are fairly actively traded in the secondary market. The bonds can be privately sold in the secondary market; but if they are listed on the NSE it is obligatory for the bank to send information to the NSE on buying or selling the bond. The bonds are either taxable or tax-free. In the latter case, a specific permission to issue tax-free bonds is obtained by the PSU and this fact is mentioned in the offer document. The tax concession in the case of a tax free bond accrues to the investor. Thus, in the hands of the investor, post-tax yield of the taxable bond will be lower than its coupon, whereas the post-tax yield in the case of the tax-free bond would be higher than the coupon to the extent of the tax benefit enjoyed by the investor.

In recent times most of these bonds are available in the dematerialized form and the transfer of these bonds happen through the depository participants and the central depositories.

Apart from public sector undertakings, Financial Institutions are also allowed to issue bonds. They access the market in 2 ways:

1) Through public issues targeted at retail investors and trusts.
2) Through private placements to large institutional investors.

FIs offer bonds with different features to meet the different needs of investors e.g., Monthly Return Bonds, Quarterly Coupon Bearing Bonds, Cumulative Interest Bonds, Step up Bonds etc. Some of these FIs are allowed to issue bonds (as per provisions in their respective Acts) in the form of Book entry. Hence, PFIs like IDBI, EXIM Bank, NHB, issue Bonds in physical and in electronic form (in the form of holding certificate or debenture certificate, as the case may be, in book entry form) PFIs who have provision to issue bond in the form of book entry are permitted under the respective Acts to design a special transfer form to allow transfer of such securities. Nominal stamp duty / transfer fee is payable on transfer transactions.

11.5 DIFFERENT TYPES OF GOVERNMENT SECURITIES

The different types of Government Securities are:

Dated Securities are generally fixed maturity and fixed coupon securities usually carrying semi-annual coupon. These are called dated securities because these are identified by their date of maturity and the coupon, e.g., 11.03% GOI 2012 is a Central Government security maturing in 2012, which carries a coupon of 11.03% payable half yearly. The key features of these securities are:

- They are issued at face value.
- Coupon or interest rate is fixed at the time of issuance, and remains constant till redemption of the security.
- The tenor of the security is also fixed.
- Interest /Coupon payment is made on a half yearly basis on its face value. The security is redeemed at face value.

Zero Coupon bonds are bonds issued at discount to face value and redeemed at par. These were issued first on January 19, 1994. The key features of these securities are:

- They are issued at face value.
- Coupon or interest rate is fixed at the time of issuance, and remains constant till redemption of the security.

- The tenor of the security is also fixed.
- Interest /Coupon payment is made on a half yearly basis on its face value. The security is redeemed at face value

Partly Paid Stock is stock where payment of principal amount is made in instalments over a given time frame. It meets the needs of investors with regular flow of funds and the need of Government when it does not need funds immediately. The first issue of such stock of eight year maturity was made on November 15, 1994 for Rs. 2000 crore. Such stocks have been issued a few more times thereafter. The key features of these securities are:

- They are issued at face value, but this amount is paid in instalments over a specified period.
- Coupon or interest rate is fixed at the time of issuance, and remains constant till redemption of the security.
- The tenor of the security is also fixed.
- Interest /Coupon payment is made on a half yearly basis on its face value.
- The security is redeemed at par (face value) on its maturity date.

Floating Rate Bonds are bonds with variable interest rate with a fixed percentage over a benchmark rate. There may be a cap and a floor rate attached thereby fixing a maximum and minimum interest rate payable on it. Floating rate bonds of four year maturity were first issued on September 29, 1995, followed by another issue on December 5, 1995. Recently RBI issued a floating rate bond, the coupon of which is benchmarked against average yield on 364 Days Treasury Bills for last six months. The coupon is reset every six months. The key features of these securities are:

- They are issued at face value.
- Coupon or interest rate is fixed as a percentage over a predefined benchmark rate at the time of issuance. The benchmark rate may be Treasury bill rate, bank rate etc.
- Though the benchmark does not change, the rate of interest may vary according to the change in the benchmark rate till redemption of the security.
- The tenor of the security is also fixed.
- Interest /Coupon payment is made on a half yearly basis on its face value.
- The security is redeemed at par (face value) on its maturity date.

Fixed Rate Bonds

These are bonds on which the coupon rate is fixed for the entire life of the bond. Most Government bonds are issued as fixed rate bonds. For example, 8.24% GS2018 was issued on April 22, 2008 for a tenor of 10 years maturing on April 22, 2018. Coupon on this security will be paid half-yearly at 4.12% (half yearly payment being the half of the annual coupon 8.24%) of the face value on October 22 and April 22 of each year.

Capital indexed Bonds

These are bonds where interest rate is a fixed percentage over the wholesale price index. These provide investors with an effective hedge against inflation. These bonds were floated on December 29, 1997 on tap basis. They were of five year maturity with a coupon rate of 6 per cent over the wholesale price index. The principal redemption is linked to the Wholesale Price Index. The idea behind these bonds is to make them attractive to investors by removing the uncertainty of future inflation rates, thereby maintaining the real value of their invested capital.All entities registered in India like banks, financial institutions, Primary Dealers, firms, companies, corporate bodies, partnership firms, institutions, mutual funds, Foreign Institutional Investors, State Governments, Provident Funds, trusts, research organisations, and individuals are eligible to purchase Government Securities. They are highly liquid instruments available both in the primary and secondary market.

- They are issued at face value.
- Coupon or interest rate is fixed as a percentage over the wholesale price index at the time of issuance. Therefore, the actual amount of interest paid varies according to the change in the Wholesale Price Index.
- The tenor of the security is fixed.
- Interest /Coupon payment is made on a half yearly basis on its face value.
- The principal redemption is linked to the Wholesale Price Index.

STRIPS

A STRIP is the acronym for **Separate Trading of Registered Interest and Principal of Securities** and is basically "zero-coupon" securities where the investor receives a payment at maturity only. A STRIP allows investors to hold and trade the individual interest and principal components of eligible Government securities as separate securities of varying tenors. They are popular with investors who want to receive a known payment on a specific future date and want to hold securities of desired maturity. STRIPS are instruments wherein each cash flow of the fixed coupon security is converted into a separate tradable Zero Coupon Bond and traded. For example, when Rs.100 of the 8.24%GS2018 is stripped, each cash flow of coupon (Rs.4.12 each half year) will become coupon STRIP and the principal payment (Rs.100 at maturity) will become a principal STRIP. These cash flows are traded separately as independent securities in the secondary market.

Activity 1

1) What is a T Bill?

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....

2) What is dirty price?

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....

Forms of Issuance of Government Securities

- Banks, Primary Dealers and Financial Institutions have been allowed to hold these securities with the Public Debt Office of Reserve Bank of India in dematerialized form in accounts known as Subsidiary General Ledger (SGL) Accounts.
- Entities having a Gilt Account with Banks or Primary Dealers can hold these securities with them in dematerialized form.

In addition government securities can also be held in dematerialized form in demat accounts maintained with the Depository Participants of NSDL.

Minimum Amount

In terms of RBI regulations, government dated securities can be purchased for a minimum amount of Rs. 10,000/- only. Treasury bills can be purchased for a minimum amount of Rs. 25,000/- only and in multiples thereof. State Government Securities can be purchased for a minimum amount of Rs. 1,000/- only.

Repayment

Government securities are repaid at par on the expiry of their tenor. The different repayment methods are as follows:

- For SGL account holders, the maturity proceeds would be credited to their current accounts with the Reserve Bank of India.
- For Gilt Account Holders, the Bank/Primary Dealers would receive the maturity proceeds and they would pay the Gilt Account Holders.
- For entities having a demat account with NSDL, the maturity proceeds would be collected by their DP's and they in turn would pay the demat Account Holders.

Day Count

For government dated securities and state government securities the day count is taken as 360 days for a year and 30 days for every completed month. However, for Treasury bills it is 365 days for a year.

Example : A client purchases 7.40% GOI 2012 for face value of Rs. 10 lacs.@ Rs.101.80, i.e., the client pays Rs.101.80 for every unit of government security having a face value of Rs. 100/- The settlement is due on October 3, 2009. What is the amount to be paid by the client?

The security is 7.40% GOI 2012 for which the interest payment dates are 3rd May, and 3rd November every year.

The last interest payment date for the current year is 3rd May 2009. The calculation would be made as follows:

Face value of Rs. 10 lacs.@ Rs.101.80%.

Therefore, the principal amount payable is Rs.10 lacs X 101.80% =10,18,000

Last interest payment date was May 3, 2009 and settlement date is October 3, 2009. Therefore the interest has to be paid for 150 days (including 3rd May, and excluding October 3, 2009)

(28 days of May, including 3rd May, up to 30th May + 30 days of June, July, August and September + 2 days of October). Since the settlement is on October 3, 2009, that date is excluded.

$$\text{Interest payable} = \frac{10 \text{ lacs X } 7.40\% \text{ X } 150}{360 \text{ X } 100} = \text{Rs. } 30833.33.$$

Total amount payable by client =10,18,000+30833.33=Rs. 10,48,833.33

Government securities (G-secs) are sovereign securities which are issued by the Reserve Bank of India on behalf of Government of India. Central Government borrows funds to finance its 'fiscal deficit'. The market borrowing of the Central Government is raised through the issue of dated securities and 364 days treasury bills either by auction or by floatation of loans. In addition to the above, treasury bills of 91 days are issued for managing the temporary cash mismatches of the Government. These do not form part of the borrowing programme of the Central Government.

11.6 CORPORATE DEBT MARKET

The development of a corporate bond market in India has lagged behind in comparison with other financial market segments owing to many structural factors. While primary issuances in corporate debt have been significant, most of these were accounted for by public sector financial institutions and were issued on a private placement basis to institutional investors. The secondary market, therefore, has not developed commensurately and market liquidity has been an issue. The Government had constituted a High Level Committee on Corporate Bonds and Securitization (R.H.Patil Committee) to identify the factors inhibiting the development of an active corporate debt market in India and the recommendations have been accepted in principle by the Government, RBI and SEBI and are under various stages of implementation.

Debentures

A Debenture is a debt security issued by a company (called the Issuer), which offers to pay interest on the money borrowed for a certain period. In essence it represents a loan taken by the issuer who pays an agreed rate of interest during the lifetime of the instrument and repays the principal normally, unless otherwise agreed, on maturity. These are long-term debt instruments issued by private sector companies. These are issued in denominations as low as Rs. 1,000 and have maturities ranging between one and ten years. Long maturity debentures are rarely issued, as investors are not comfortable with such maturities. Debentures enable investors to reap the dual benefits of adequate security and good returns. Unlike other fixed income instruments such as Fixed Deposits, Bank Deposits, debentures can be transferred from one party to another by using transfer from. However, it should be noted that debentures are not negotiable. Debentures are normally issued in physical form. However, of late, Corporates/PSUs have started issuing debentures in Demat form. Generally, debentures are less liquid as compared to PSU bonds and their liquidity is inversely proportional to the residual maturity. Debentures can be secured or unsecured.

Debentures are divided into different categories on the basis of: convertibility clause of the instrument and security offered to protect the investors.

Convertibility is with reference to the possibility of replacing the debt by equity of the company. Debentures can be classified on the basis of convertibility into:

Non-Convertible Debentures (NCD): These instruments retain the debt character and cannot be converted in to equity shares

Partly Convertible Debentures (PCD): A part of these instruments are converted into Equity shares in a future date at notice of the issuer. The issuer decides the ratio and the date for conversion. This is normally decided at the time of subscription.

Fully Convertible Debentures (FCD): These are fully convertible into Equity shares at the issuer's notice. The ratio of conversion is decided by the issuer. Upon conversion the investors enjoy the same status as ordinary shareholders of the company.

Optionally Convertible Debentures (OCD): The investor has the option to either convert these debentures into shares at price decided by the issuer/agreed upon at the time of issue.

On basis of Security, debentures are classified into:

Secured Debentures: These instruments are secured by a charge on the fixed assets of the issuer company. So if the issuer fails on payment of the principal or interest amount, his assets can be sold to repay the liability to the investors

Unsecured Debentures: These instruments are unsecured in the sense that if the issuer defaults on payment of the interest or principal amount, the investor will be treated as unsecured creditors of the company.

Non-convertible debentures

NCD's deserve a better understanding. The Companies issue NCDs generally, to augment funds to finance new projects, expansion of the existing facility, or for the purpose of working capital requirements. The tenor of the NCDs varies from 18 months to 9-10 years although there is really no ceiling on maturity. At times NCDs can be issued for periods less than 18 months also. Whereas NCDs of 18 months and below are generally unsecured and not rated, the other long term NCDs are generally secured and need to be compulsorily rated.

Besides, in case of NCDs for a period beyond 18 months the following requirements are also mandatory:

1) A Debenture Redemption Reserve must be created.
2) (Realty, infrastructure companies are exempted)
3) Appointment of Trustees.

The rate of interest on debentures is freely determined. It is generally higher than the coupon for the Government Securities and either equal to or marginally below the interest rate for the PSU bonds. For issue of debentures, the rules framed under Companies Act in connection with the debentures have to be mandatorily followed. These rules include obtaining of necessary Board resolution, resolution from the general body where the borrowing powers exceed the paid up capital and free reserves of the company, creation of security within 6 months of the date of issue of the debentures and beyond 6 months subject to payment of interest @ 2% penal interest if the security is not created within 18 months. Beyond 18 months however, if the security is not created the company should hold debenture holders meeting within 21 days after completion of 18 months, explain the reasons for delay and date by which the security would be created and concurrence of the debenture holders to such an assurance should be obtained at the meeting. The Trustees are required to ensure the creation of the security and the debenture redemption reserve. Issuing company should submit to the debenture holders a certificate issued by the company's auditors once a year, in respect of utilisation of funds during the implementation of the project. In the case of debentures of 18 months and below which are unsecured in nature, they constitute direct, unsubordinated obligations of the company ranking pari passu with other existing and future such debts of the company. Issue of debentures for financing acquisition of shares or for providing loans to any company belonging to the same group is not permitted.

11.7 BONDS VS DEBENTURES

Debentures and bonds are debt instruments, issued by corporate bodies, literally with a charge on specific assets. However, the literal meaning has been lost in practice and debentures and bonds can be issued with or without security. It is fairly common that the debt instruments are also issued with a floating charge or a lien on assets - where security is more of a technical nature to give comfort to the investors.

In India, conventionally, debentures are debt instruments issued by corporates in private sector, while bonds are issued by institutions in public sector, which distinction really has no meaning in international market. Bonds, though issued by public sector companies, do not imply guarantee by the government, unless it is so mentioned specifically in the terms of the issue, as also on the face of the bond.In domestic market, there are material differences in debentures and bonds. Debentures are governed by relevant provisions of Company Law and are transferable only by registration. Bonds on the other hand are **negotiable** instruments governed by law of contracts, and are generally transferable by endorsement.

Long-term debt securities issued by the Government of India or any of the State Government's or undertakings owned by them or by development financial institutions are called as bonds. Instruments issued by other entities are called debentures. The difference between the two is actually a function of where they are registered and pay stamp duty and how they trade.

Debenture stamp duty is a state subject and the duty varies from state to state. There are two kinds of stamp duties levied on debentures viz issuance and transfer. Issuance stamp duty is paid in the state where the principal mortgage deed is registered. Over the years, issuance stamp duties have been coming down. Stamp duty on transfer is paid to the state in which the registered office of the company is located. Transfer stamp duty remains high in many states and is probably the biggest deterrent for trading in debentures in physical segment, resulting in lack of liquidity.

On issuance, stamp duty is linked to mortgage creation, wherever applicable while on transfer, it is levied in accordance with the laws of the state in which the registered office of the company in question is located. A debenture transfer, has to be effected through a transfer form prescribed for under Companies Act.

Issuance of stamp duty on bonds is under Indian Stamp Act 1899 (Central Act). A bond is transferable by endorsement and delivery without payment of any transfer stamp duty.

Debentures and bonds may be issued with differing structures in order to enhance the marketability of the instruments as also to reduce the cost of issue. The variations include structured obligations, with put/call or convertibility options, zero coupon bonds, floating rate bonds, deep discount bonds and instruments with step up coupons. Debentures and bonds are also issued with redemption in installments over a period (sometimes called period bonds) and also with a premium on redemption in addition to coupon rate of interest. Debentures which are not secured by mortgages, but are secured by stocks or other collateral, are also referred to as collateralised obligations. Finally, there are also bonds with put/call option and step up coupons, with the incentive of higher interest for non redemption of the bonds in early stages.

The debenture and bond holders have, like other creditors, prior legal claim over the equity and preference stock holders, on the assets of the company. The issuer appoints a Trustee, most commonly when the debentures and bonds are secured, who would act in fiduciary capacity to protect the interests of the debenture and bond holders. The Trustee, by virtue of the Trust Deed executed by the issuer, holds charge of the security and would be instrumental in initiating legal action for recovery of principal/interest in case of any default. The Trustees, as per SEBI guidelines, are to be vested with requisite powers for protecting the rights of the debenture and bond holders, and have a right to appoint a nominee director on the board of the issuing company.

Companies issuing unsecured debentures and bonds are required to comply with the provisions of the Companies Acceptance of Deposits Rules, 1975.

Issue of Prospectus for public offer of debentures and bonds is governed by relevant provisions of Companies' Act, similar to the provision for offer of equity. SEBI has also evolved a framework of detailed guidelines for protection of investors' rights.

11.8 FEATURES OF FIXED INCOME INSTRUMENTS

There is a variety of financial instrument available in the market for mobilisation of long term and short term resources. While the shares and debentures have been conventional instruments, there are different structures available, some of which are:

- Interest rate can be fixed or floating. Floating rates are variously linked with call rates, bank rate or government security rate, though a firm reference note is not yet available in the market. There are also instruments where interest rates are linked with index of inflation so that real interest rate return stands protected.
- Interest rate stated on the face of the debt instrument is called coupon rate. Some debentures/bonds are issued with step-up coupons, where interest rate varies from

period to period within the maturity date - generally on an ascending scale from year to year.

- Debentures/bonds may be secured or unsecured. While conventionally, security is by way of mortgage, or floating charge on fixed assets, some of the new instruments are structured with charge on receivables (generally deposited in an escrow account) pertaining to a specific activity or generated in a specific area. Clean instruments with guarantee by government or parent company are also gaining popularity.

Securitised bonds are instruments with an underlying asset, income from which would go to meet obligations under the bond, and are commonly issued through a special purpose vehicle/company. For instance, a bank may issue bonds representing all its mortgage receivables through this route. Securitised bonds are preferred by the issuers for credit enhancement and for obtaining liquidity from the existing assets.

Options: A debt instrument can have various options. Convertibility option refers to conversion of debt into equity (always at the option of the investor if the conversion is to take place after 18 months of issue), either in full or in part. A put option is an option in favour of holder of the instrument to redeem the investment on a particular date, or during a specified period, before maturity. Call option is the right of the issuer to prepay the debt (i.e., to call back the debt paper) similarly before maturity date.

The options infuse flexibility into the debt issues so that the issuer/holder can take advantage of the prevailing market conditions.

Tax status*:* Certain securities (e.g., in infrastructure sector) have been exempted from income tax/capital gains tax. Pricing of such securities takes into account the tax exemption, with the result that the cost of the issue is lower, while the holder would relatively have higher pretax yields. Bonds and debentures which are exempt from tax directly compete with redeemable preference shares, as the dividend from the latter is also exempt from tax.

Risk weight: Bonds/debentures may also differ according to their risk weight for the purpose of Banks' capital adequacy requirement. For instance, SLR securities have negligible capital requirements, while PSU Bonds of some financial institutions bear 20% risk weight, while corporate bonds have been assigned 100% weight.

11.9 ISSUES IMPACTING DEBT MARKET GROWTH

Market Repo

Currently, market repo is allowed only in respect of government securities. In order to develop the repo market further, the pool of eligible securities could be broad-based by allowing AAA-rated corporate bonds to be repo-able, with appropriate haircuts, if required. This would also require a reasonably well-developed corporate bond market along with a transparent and efficient clearing and settlement system which, in turn, could facilitate the induction of corporate bonds in the pool of eligible securities.

Derivatives Segment

There is a need for introducing different hedging instruments for effective mitigation of interest rate risk across the gamut of market participants. Expediting development of hedging instruments like credit default swaps could be considered. To enhance liquidity in credit default swap markets, shorting within specified limits for banks and primary dealers could be allowed taking into account recent developments in international financial markets.

Commercial Paper

Though it is not obligatory on the part of financial institutions to provide any 'stand-by' facility to issuers of corporate papers, the existence of an appropriate liquidity back-up is imperative to mitigate risks in the commercial paper market. All corporate papers should be rated keeping in view the availability of appropriate liquidity back-up. In the interests of market discipline, disclosure of the nature of liquidity back-up by the issuers in their prospectus may be made compulsory to prevent liquidity and other contagion risks.

Term Money Market

The term money market remains inactive due to the inability of market participants to take a medium-term view on interest rates and liquidity, the absence of a credible benchmark, skewed distribution of market liquidity, corporate preference for 'cash credit' over other modes of loan disbursements, and a tendency on the part of banks to deploy their surplus funds in LAF (Liquidity Adjustment Facility) auctions rather than in the term money market. This has been also one of the reasons for non-emergence of a short-term yield curve.

Diversification

Consequent to the phased reduction in SLR and other statutory preemptions, there is a need to diversify the investor base to the non-bank and retail segments. Broadening the investor base by developing retail and mid-segment long-term investors would also make the market more diverse and less unidirectional.

Tax Issues

- Security Transaction Tax (STT)

  The STT is applicable at different rates on the value of the "taxable securities transaction," which is defined to mean a transaction of purchase and sale of securities including government securities entered into in a recognized stock exchange in India. Abolition of STT would act as an incentive and improve the turnover in debt market.

- Tax Deducted at Source (TDS)

  There is a need to abolish TDS in corporate bonds as this would bring corporate bonds at par with government securities and facilitate secondary market trading

- Withholding Tax

  All FII debt investments are subject to a withholding tax deduction on coupons. A withholding tax of 20% clearly makes investments in Indian Government securities uneconomical. If the cost of hedging exchange risk is now factored, returns from government debt drop to unacceptably low levels. Withholding tax exemptions are routinely given for interest payments made by Indian companies on their foreign currency debt. FII debt investment, in contrast, places no incremental exchange risk on the country. This should be incentivized by removing withholding tax on all debt investments made by FIIs.

Accounting issues

- **Securities-Available for Sale (AFS) category**

  Banks are the most active players in the Government Securities market and they are reluctant to hold government securities in the AFS (Available For Sale) category in a rising interest rate scenario, as the depreciation of securities is required to be charged to the Profit & Loss (P&L) account, while appreciation is to be ignored.

If depreciation as well as appreciation is permitted to be charged to the Reserve Account instead of P&L account, banks would have a greater incentive to hold/ trade in government securities than at present. International Accounting Standard (IAS) 39 permits charging of depreciation on AFS securities to the equity account. Similarly, in line with the international practice, the fair value accounting method recognizes both gains and losses on the HFT portfolio, thereby affording flexibility to market participants.

- **Securities-Mark to Market (MTM) category**

  Introduction of AS 30 (requiring banks to recognize both Mark To Market (MTM) gains and losses in their trading book) would result in an increase in tradable assets.

Activity 2

1) What is a secured debenture?

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2) Distingusih between bond and debenture.

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11.10 IMPACT OF TECHNOLOGY ON THE DEBT MARKET

Owing to extensive use of technology, the quality of the trading, payment and settlement infrastructure in India is considered on par with the best international practices. The following technology initiatives have helped in the expansion of the debt market in terms of volume, players and turnover. Initially, the Negotiated Dealing System (NDS) was introduced by RBI to provide a screen-based electronic dealing and reporting system for transactions in secondary market for government securities as well as money market instruments such as call money and repo transactions. It has helped in achieving paperless settlement of secondary market transactions and has brought about significant improvements in transactional efficiency and transparency. Subsequently an anonymous order matching trading system on NDS, called NDS-OM, was launched from August 1, 2005 to supplement the telephone trading. Open to NDS member banks and institutions (PDs, MFs, Insurance companies etc), this system has improved transparency in the pricing process. The Clearing Corporation of India Limited (CCIL) is made the central counterparty to each trade done on the system. After the introduction of RTGS (Real Time Gross Settlement) in 2004, all bilateral inter-bank settlements are being settled through RTGS and the associated risks to the system have been considerably reduced. The settlement of government securities transactions in secondary market is being done on a Delivery versus Payment (DvP) basis (to eliminate settlement risk) in the books of RBI. Various stages of DvP evolved culminating in the DvP III version in 2005 under which both funds and securities settle on a net basis. The payment and settlement system has been bench marked against internationally established CPSS-IOSCO principles for securities settlement system.

The development of debt market is an ongoing process. The following are the trends which will impact the Debt Market in India in the near future are as follows:

- Expansion of the Retail Trading platform to enable trading in a wide range of government and non-government debt securities.
- Development of the secondary market in Corporate Debt.
- Introduction of Interest Rate Derivatives based on a wide range of underlying in the Indian Debt and Money Markets.
- Development of the Secondary Repo Market.
- Introduction of Credit Derivatives.

Debt market will play an even more important role in future to sustain the current growth momentum being experienced by the Indian economy. Financing of the large investment needs of the growing economy will depend heavily upon the ability of the financial markets to raise resources from savers and allocate them efficiently for the most productive uses. Accordingly, development of the term money market, greater flexibility in the use of derivatives, development of the corporate bond market, diversification of investor base through entry of long-term institutional players such as insurance companies and pension funds are some of the aspects of market development that would need to be given due attention for imparting more depth and liquidity to the domestic financial markets.

Growing integration of domestic debt market with international financial markets across the globe also poses the threat of contagion. Issues of financial stability are, thus, likely to assume even greater importance in future.

11.11 SUMMARY

Treasury bill is a short-term money market instrument issued by the Government of India (GOI) through the RBI. Government securities (G-secs) are sovereign securities which are issued by the Reserve Bank of India on behalf of Government of India. Dated Securities are generally fixed maturity and fixed coupon securities usually carrying semi-annual coupon. Government securities are issued through auctions conducted by the RBI. Auctions are conducted on the electronic platform called the Public Debt Office Negotiated Dealing System (PDO-NDS). Debentures and bonds are debt instruments, issued by corporate bodies, with a charge on specific assets.

11.12 SELF ASSESSMENT QUESTIONS:

1) What is meant by STRIPS?
2) What is a zero coupon bond?
3) What is the difference between clean price and dirty price?
4) What is meany by NDS-OM?
5) What is a debenture?
6) Choose the correct one? (correct answer marked as ****)
   1) The price of a debt instrument excluding interest for the period elapsed since the last coupon was paid is called ....
      a) Clean price*
      b) Dirty Price
      c) Ex. Interest Price
      d) Coupon price

2) Which of the following is not true in respect of zero coupon bond?

   a) A debt instrument which does not have a coupon, i,e., it does not pay interest at periodic intervals.

   b) The interest is cumulated, i.e. added to the principal and paid on maturity.

   c) Traded at a discount to the face value depending on the rate of interest for the period left to maturity

   d) The instrument is issued at face value only *

3) Which is not a feature of STRIPS?

   a) Separation of interest from principal in a fixed - income instrument. Each interest payment till maturity is converted into a security, which is priced on prevailing market interest rates for that maturity.

   b) The principal becomes a separate security representing a one-off payment on maturity and is similarly priced.

   c) A stripped security becomes, in essence, a series of zero coupon securities representing interest and principal cash flows from the security.

   d) A stripped security cannot be sold until the maturity of the principal sum ***

4) Debt Market is a market for................,

   a) Raising capital for long term use and trading in the same

   b) Lending and borrowing money****

   c) Dealing in foreign currency

   d) None of the above

5) Debt instruments carries ....

   a) Floating rate and fixed rate of interest****

   b) Only fixed rate of interest

   c) Bank rate fixed by RBI

   d) Only floating rate of interest

11.14 FURTHER READINGS

1) Moorad Choudhry, *An Introduction to Bond Markets*, 3rd Edition.

2) Miles Livingston, *Bonds and Bond Derivatives*, 2nd Edition.

3) Stephen J. Antczak, Douglas J. Cucas, Frame. J. Faboggi, *Leveraged Finance: Concepts, Methods, and Trading of High-Yield Bonds, Loans, and Derivatives*.

4) Moorad Choudhry, Analysing and Interpreting the Yield Curve.

5) Sharon Saltzgiver Wright , *Getting Started in Bonds*, 2nd Edition.

6) Frank J. Fabozzi , *Professional Perspectives on Fixed Income Portfolio Management*, Volume 4.

UNIT 12 PRIMARY AND SECONDARY MARKETS FOR DEBT INSTRUMENTS

Objectives

After studying this unit, you should be able to:

- understand meaning and role of Primary and Secondary Debt Market in India;
- explain the issuance process;
- discuss Trading, Clearing and settlement procedures; and
- analyse Debt Market practices.

Structure

12.1 INTRODUCTION

Primary markets are those where securities or debt instruments are offered to the public by the issuer with the intention of raising money. On the other hand, secondary market refers to the market where trading of already existing securities take place. In a primary market, the securities, or bonds are bought directly from the issuer and are usually bought at a "par value" or at a discount or premium, depending on the terms of issue. In the secondary market, the existing debt securities are traded again. For instance, if an individual had purchased bonds or any other debt instruments from the primary market a year back and the individual now wants to avail of the principal amount the bonds may be sold off in secondary market. In the event when the price of the bonds rise, the individual intending to dispose off the bonds needs to do it at a discounted rate. On the other hand, if the price of bonds increases, the individual selling the shares will be benefited and may sell it at a premium rate.

In the primary market, Government securities are issued through auctions conducted by the RBI. Auctions are conducted on the electronic platform called the Public Debt Office Negotiated Dealing System (PDO-NDS). Commercial banks, scheduled urban cooperative banks, Primary Dealers, insurance companies and provident funds, who maintain funds account (current account) and securities accounts (SGL account) with RBI, are members of this electronic platform. All members of PDO-NDS can place their bids in the auction through this electronic platform. All non-NDS members including non-scheduled urban co-operative banks can participate in the primary auction through scheduled commercial banks or Primary Dealers. For this purpose, the urban co-operative banks need to open a securities account with a bank/Primary Dealer – such an account is called a Gilt Account. A Gilt Account is a dematerialized account maintained by a scheduled commercial bank or Primary Dealer for its constituent (e.g., a non-scheduled urban co-operative bank). The RBI, in consultation with the Government of India, issues an indicative half-yearly auction calendar which contains information about the amount of borrowing, the tenor of security and the likely period during which auctions will be held. A Notification and a Press Communique giving exact particulars of the securities, viz., name, amount, and type of issue and procedure of auction are issued by the Government of India about a week prior to the actual date of auction. RBI places the notification and a Press Release on its website (www.rbi.org.in) and also issues an advertisement in leading English and Hindi newspapers. Information about auctions is also available with the select branches of public and private sector banks and the Primary Dealers.

12.2 ISSUANCE PROCESS

Prior to introduction of auctions as the method of issuance, the interest rates were administratively fixed by the Government. With the introduction of auctions, the rate of interest (coupon rate) gets fixed through a market based price discovery process. An auction may either be yield based or price based.

Yield based auction

A yield based auction is generally conducted when a new Government security is issued. Investors bid in yield terms up to two decimal places (for example, 7.85 per cent, 7.87 per cent, etc.). Bids are arranged in ascending order and the cut-off yield is arrived at the yield corresponding to the notified amount of the auction. The cut-off yield is taken as the coupon rate for the security. Successful bidders are those who have bid at or below the cut-off yield. Bids which are higher than the cut-off yield are rejected. An illustrative example of the yield based auction is given below:

Yield based auction of a new security. (Maturity Date: September 8, 2018 ,Coupon: It is determined in the auction (8.22% as shown in the illustration below)Auction date: September 5, 2008' Auction settlement date: September 8, 2008*, Notified Amount: Rs.1000 Crores)* September 6 and 7 being holidays, settlement is done on September 8, 2008 under T+1 cycle. Details of bids received in the increasing order of bid yields.

Bid No.	*Bid Yield*	*Cumulative of bid (Rs. crore)*	*Amount amount (Rs.Crore)*	*Price* with coupon as 8.22%*
1	8.19%	300	300	100.19
2	8.20%	200	500	100.14

3	8.20%	250	750	100.13
4	8.21%	150	900	100.09
5	8.22%	100	1000	100.00
6	8.22%	100	1100	100.00
7	8.23%	150	1250	99.93
8	8.24%	100	1350	99.87

The issuer would get the notified amount by accepting bids up to 5. Since the bid number 6 also is at the same yield, bid numbers 5 and 6 would get allotment pro-rata so that the notified amount is not exceeded. In the above case each would get Rs. 50 crore. Bid numbers 7 and 8 are rejected as the yields are higher than the cut-off yield.

Price Based Auction

A price based auction is conducted when Government of India re-issues securities already issued earlier. Bidders quote in terms of price per Rs.100 of face value of the security (e.g., Rs.101.02, Rs.100.95, Rs.99.80, etc., per Rs.100/-). Bids are arranged in descending order and the successful bidders are those who have bid at or above the cut-off price. Bids which are below the cut-off price are rejected. An illustrative example of price based auction is given below:

Price based auction of an existing security 8.24% GS 2018 (Maturity Date: April 22, 2018, Coupon: 8.24%, Auction date: September 5, 2008, Auction settlement date: September 8, 2008*, Notified Amount: Rs.1000 crore,* September 6 and 7 being holidays, settlement is done on September 8, 2008 under T+1 cycle. Details of bids received in the decreasing order of bid price

Bid no.	*Price of bid*	*Amount of bid (Rs. Crore)*	*Implicit yield*	*Cumulative amount*
1	100.31	300	8.1912%	300
2	100.26	200	8.1987%	500
3	100.25	250	8.2002%	750
4	100.21	150	8.2062%	900
5	100.20	100	8.2077%	1000
6	100.20	100	8.2077%	1100
7	100.16	150	8.2136%	1250
8	100.15	100	8.2151%	1350

The issuer would get the notified amount by accepting bids up to 5. Since the bid number 6 also is at the same yield, bid numbers 5 and 6 would get allotment in proportion so that the notified amount is not exceeded. In the above case each would get Rs. 50 crore. Bid numbers 7 and 8 are rejected as the price quoted is less than the cut-off price.

Depending upon the method of allocation to successful bidders, auction could be classified as Uniform Price based and Multiple Price based. In a Uniform Price auction, all the successful bidders are required to pay for the allotted quantity of securities at the same rate, i.e., at the auction cut-off rate, irrespective of the rate quoted by them. On the other hand, in a Multiple Price auction, the successful bidders are required to pay for the allotted quantity of securities at the respective price/ yield at which they have bid. In the example under (ii) above, if the auction was Uniform Price based, all bidders would get allotment at the cut-off price, i.e., Rs.100.20. On the other hand, if the auction was Multiple Price based, each bidder would get the allotment at the price he/ she have bid, i.e., bidder 1 at Rs.100.31, bidder 2 at Rs.100.26 and so on.

An investor may bid in an auction under either of the following categories:

Competitive Bidding

In a competitive bidding, an investor bids at a specific price/yield and is allotted securities if the price/yield quoted is within the cut-off price/yield. Competitive bids are made by well informed investors such as banks, financial institutions, primary dealers, mutual funds, and insurance companies. The minimum bid amount is Rs.10,000 and in multiples of Rs.10,000 thereafter. Multiple bidding is also allowed, i.e., an investor may put in several bids at various price/yield levels.

Non-Competitive Bidding

With a view to providing retail investors an opportunity to participate in the auction process, the scheme of non-competitive bidding in dated securities was introduced in January 2002. Non-competitive bidding is open to individuals, HUFs, RRBs, co-operative banks, firms, companies, corporate bodies, institutions, provident funds, and trusts. Under the scheme, eligible investors apply for a certain amount of securities in an auction without mentioning a specific price / yield. Such bidders are allotted securities at the weighted average price / yield of the auction. In the illustration given under 4.1 (ii) above, the notified amount being Rs.1000 crore, the amount reserved for noncompetitive bidding will be Rs.50 crore (5% of the notified amount). Non-competitive bidders will be allotted at the weighted average price which is Rs.100.26 in the given illustration. The participants in non-competitive bidding are, however, required to hold a gilt account with a bank or PD. Regional Rural Banks and co-operative banks which hold SGL and Current Account with the RBI can, also, participate under the scheme of non-competitive bidding without holding a gilt account.

In every auction of dated securities, a maximum of 5 per cent of the notified amount is reserved for non-competitive bids. In the case of auction for Treasury Bills, the amount accepted for non-competitive bids is over and above the notified amount and there is no limit placed. However, non-competitive bidding in Treasury Bills is available only to State Governments and other select entities and is not available to the co-operative banks. Only one bid is allowed to be submitted by an investor either through a bank or Primary Dealer. For bidding under the scheme, an investor has to fill in an undertaking and send it along with the application for allotment of securities through a bank or a Primary Dealer. The minimum amount and the maximum amount for a single bid is Rs.10,000 and Rs. 2 crore respectively in the case of an auction of dated securities. A bank or a Primary Dealer can charge an investor up to maximum of 6 paise per Rs.100 of application money as commission for rendering their services. In case the total applications received for non-competitive bids exceed the ceiling of 5 per cent of the notified amount of the auction for dated securities, the bidders are allotted securities on a pro-rata basis.

The Public Debt Office (PDO) of the Reserve Bank of India, Mumbai acts as the registry and central depository for the Government securities. Government securities may be held by investors either as physical stock or in dematerialized form. From May 20, 2002, it is mandatory for all the RBI regulated entities to hold and transact in Government securities only in dematerialized (SGL) form.

Physical form: Government securities may be held in the form of stock certificates. A stock certificate is registered in the books of PDO. Ownership in stock certificates cannot be transferred by way of endorsement and delivery. They are transferred by executing a transfer form as the ownership and transfer details are recorded in the books of PDO. The transfer of a stock certificate is final and valid only when the same is registered in the books of PDO.

Demat form: Holding government securities in the dematerialized or scrip less form is the safest and the most convenient alternative as it eliminates the problems relating to custody, viz., loss of security. Besides, transfers and servicing are electronic and hassle free. The holders can maintain their securities in dematerialsed form in either of the two ways:

SGL Account: Reserve Bank of India offers Subsidiary General Ledger Account (SGL) facility to select entities who can maintain their securities in SGL accounts maintained with the Public Debt Offices, of the Reserve Bank of India.

Gilt Account: As the eligibility to open and maintain an SGL account with the RBI is restricted, an investor has the option of opening a Gilt Account with a bank or a Primary Dealer which is eligible to open a Constituents' Subsidiary General Ledger Account (CSGL) with the RBI. Under this arrangement, the bank or the Primary Dealer would maintain the holdings of its constituents in a CSGL account (which is also known as SGL II account) with the RBI as a custodian on behalf of the Gilt Account holders. The servicing of securities held in the Gilt Accounts is done electronically, facilitating hassle free trading and maintenance of the securities. Receipt of maturity proceeds and periodic interest is also faster as the proceeds are credited to the current account of the custodian bank / PD with the RBI and the custodian (CSGL account holder) immediately passes on the credit to the Gilt Account Holders (GAH). Investors also have the option of holding Government securities in a dematerialized account with a depository (NSDL/ CDSL, etc.). This facilitates trading of Government securities on the stock exchanges.

12.3 TRADING IN GOVERNMENT SECURITIES

There is an active secondary market in Government securities. The securities can be bought / sold in the secondary market either

i) Over the Counter (OTC) or

ii) Through the Negotiated Dealing System (NDS) or

iii) The Negotiated Dealing System-Order Matching (NDS-OM).

Over the Counter (OTC)/ Telephone Market

In this market, a participant, who wants to buy or sell a government security, may contact a bank / Primary Dealer / financial institution either directly or through a broker registered with SEBI and negotiate for a certain amount of a particular security at a certain price. Such negotiations are usually done on telephone and a deal may be struck if both counterparties agree on the amount and rate. In the case of a buyer, like an urban co-operative bank wishing to buy or sell a security, the bank's dealer (who is authorized by the bank to undertake transactions in Government Securities) may get in touch with other market participants over telephone and obtain quotes. Should a deal be struck, the bank should record the details of the trade in a deal slip and send a trade confirmation to the counterparty. The dealer must exercise due diligence with regard to the price quoted by verifying with available sources. All trades undertaken in OTC market are reported on the secondary market module of the NDS.

Negotiated Dealing System

The Negotiated Dealing System (NDS) for electronic dealing and reporting of transactions in government securities was introduced in February, 2002. It facilitates the members to submit electronically, bids or applications for primary issuance of Government Securities when auctions are conducted. NDS also provides an interface to the Securities Settlement System (SSS) of the Public Debt Office, RBI, Mumbai thereby facilitating settlement of transactions in Government Securities (both outright and repos) conducted in the secondary market. Membership to the NDS is restricted to members holding SGL and/ or Current Account with the RBI, Mumbai.

Negotiated Dealing System-order Matching (NDS-OM)

In August, 2005, RBI introduced an anonymous screen based order matching module on NDS, called NDS-OM. This is an order driven electronic system, where the participants can trade anonymously by placing their orders on the system or accepting the orders already placed by other participants. NDS-OM is operated by the Clearing Corporation of India Ltd. (CCIL) on behalf of the RBI Direct access to the NDS-OM system is currently available only to select financial institutions like Commercial Banks, Primary Dealers, Insurance Companies, Mutual Funds, etc. Other participants can access this system through their custodians, i.e., with whom they maintain Gilt Accounts. The custodians place the orders on behalf of their customers like the urban co-operative banks. The advantages of NDS-OM are price transparency and better price discovery.

Gilt Account holders have been given indirect access to NDS through custodian institutions. A member (who has the direct access) can report on the NDS the transaction of a Gilt Account holder in government securities. Similarly, Gilt Account holders have also been given indirect access to NDS-OM through the custodians. However, currently two gilt account holders of the same custodian are not permitted to undertake repo transactions between themselves.

Auction

In the primary market, government securities are issued through auctions which will be conducted by Reserve Bank of India, Mumbai Office. Auctions are conducted through an electronic platform known as Public Debt Office-Negotiated Dealing System (PDO-NDS). G-secs are issued by RBI in either a yield-based (participants bid for the coupon payable) or price-based (participants bid a price for a bond with a fixed coupon) auction basis. The Auction can be either a Multiple price (participants get allotments at their quoted prices/yields) Auction or a Uniform price (all participants get allotments at the same price).In addition, a non-competitive bidding facility is available for retail investors in G-Secs through which non-competitive bids will be allowed up to 5 per cent of the notified amount in the specified auctions of dated securities

- **Multiple Price Auction (French Auction)**

In French auction, buyers typically submit bids that specify a quantity and a price (or a yield) at which they wish to purchase the desired quantity. Once submitted, these bids are ranked from the highest to the lowest price (or from the lowest to the highest yield) and the quantity for sale is awarded to the best bids (i.e. highest prices or lowest yields) up to the cut-off price (partial allotment being resorted to in case the quantum of securities left over are less than the amount bid at cut-off price). Under the multiple price auctions, each successful bidder will pay the actual price at which he has bid which would thus be a price higher than or equal to the cut-off price arrived at in the auction.

- **Uniform Price Auction (Dutch Auction)**

The process is similar to the Multiple Price Auction except that the each successful bidder (who has bid above the cut-off price) pays the lowest price (cut-off price) accepted by the debt manager. All the successful bidders will pay the same price, irrespective of their actual bid price.

- **Private Placement**

After having discovered the coupon through the auction mechanism, if on account of some circumstances the Government / Reserve Bank of India decides to further issue the same security to expand the outstanding quantum, the government usually privately places the security with RBI. The RBI in turn may sell these securities at a later date through their open market window albeit at a different yield.

- **On-tap issue**

Under this scheme of arrangements after the initial primary placement of a security, the issue remains open to yet further subscriptions. The period for which the issue remains open may be sometimes time specific or volume specific

12.4 PRICING IN PRIMARY MARKETS

In the primary market, pricing is decided through "auction". Auction is a process of calling of bids with an objective of arriving at the market price. It is basically a price discovery mechanism. Auction can be price based or yield based. In French Auction System, after receiving bids at various levels of yield expectations, a particular yield level is decided as the coupon rate. Auction participants who bid at yield levels lower than the yield determined as cut-off will get full allotment at a premium. The premium amount is equivalent to price equated differential of the bid yield and the cut-off yield. Applications of bidders who bid at levels higher than the cut-off levels are out-righted rejected. This is primarily a Yield based auction. Dutch Auction System is identical to the French Auction System and the only difference being that the concept of premium does not exist. This means that all successful bidders get a cut-off price of Rs. 100.00 and do not need to pay any premium irrespective of the yield level bid for.Non-competitive bidding means the bidder would be able to participate in the auctions of dated government securities without having to quote the yield or price in the bid. The allotment to the non-competitive segment will be at the weighted average rate that will emerge in the auction on the basis of competitive bidding. It is an allocating facility wherein a part of total securities are allocated to bidders at a weighted average price of successful competitive bid.

Activity 1

1) What is non-competitive bidding?

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2) What is French Auction?

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12.5 SETTLEMENT OF TRADES IN THE PRIMARY MARKET

Once the allotment process in the primary auction is finalized, the successful participants are advised of the consideration amounts that they need to pay to the Government on settlement day. The settlement cycle for dated security auction is T+1, whereas for that of Treasury bill auction is T+2. On the settlement date, the fund accounts of the participants are debited by their respective consideration amounts and their securities accounts (SGL accounts) are credited with the amount of securities that they were allotted. In case of retail participants/individuals who do not maintain accounts with the RBI, they can tender a cheque, the proceeds of which will be collected through clearing process after which securities are issued to them.

12.6 SETTLEMENT OF TRADES IN THE SECONDARY MARKET

The transactions relating to government securities are settled through the member's securities / current accounts maintained with the RBI, with delivery of securities and payment of funds being done on a net basis. The Clearing Corporation of India (CCIL) guarantees settlement of trades on the settlement date by becoming a central counter-party to every trade through the process of novation, i.e., it becomes seller to the buyer and buyer to the seller. All outright secondary market transactions in Government Securities are settled on T+1 basis. However, in case of repo transactions in government securities, the market participants will have the choice of settling the first leg on either T+0 basis or T+1 basis as per their requirement.

12.7 ROLE OF THE CLEARING CORPORATION OF INDIA LIMITED (CCIL) IN SETTLEMENT

The CCIL is the clearing agency for Government securities. It acts as a Central Counter Party (CCP) for all transactions in Government securities by interposing itself between the two counterparties. In effect, during settlement, the CCP becomes the seller to the buyer and buyer to the seller of the actual transaction. All outright trades undertaken in the OTC market and on the NDS-OM platform are cleared through the CCIL. Once CCIL receives the trade information, it works out participant-wise net obligations on both the securities and the funds leg. The payable / receivable position of the constituents (gilt account holders) is reflected against their respective custodians. CCIL forwards the settlement file containing net position of participants to the RBI where settlement takes place by simultaneous transfer of funds and securities under the 'Delivery versus Payment' system. CCIL also guarantees settlement of all trades in Government securities. That means, during the settlement process, if any participant fails to provide funds / securities, CCIL will make the same available from its own means. For this purpose, CCIL collects margins from all participants and maintains 'Settlement Guarantee Fund'.

12.8 'WHEN ISSUED' MARKET

'When Issued', a short term of "when, as and if issued", indicates a conditional transaction in a security notified for issuance but not as yet actually issued. All "When Issued" transactions are on an "if" basis, to be settled if and when the actual security is issued. 'When Issued' transactions in the Central Government securities have been permitted to all NDS-OM members and have to be undertaken only on the NDS-OM platform. 'When Issued', a short form of "when, as and if issued ", indicates a conditional transaction in a security authorized for issuance but not as yet actually issued. All "when issued" transactions are on an "if" basis, to be settled if and when the actual security is issued. 'When Issued' market has two basic advantages:

a) It facilitates the distribution process for Government securities by stretching the actual distribution period for each issue and allowing the market more time to absorb large issues without disruption.

b) 'When Issued' market also facilitates price discovery process by reducing uncertainties surrounding auction "When, as and if issued" (commonly known as "when-issued" (WI)) security refers to a security that has been authorized for issuance but not yet actually issued. WI trading takes place between the time a new issue is announced and the time it is actually issued. All "when issued" transactions are on an "if" basis, to be settled if and when the actual security is issued.

Mechanics of Operation

Transactions in a security on a 'When Issued' basis shall be undertaken in the following manner.

- WI transactions will be undertaken only in the case of securities that are being reissued. WI trading for issue of new securities will be considered at a later date.
- WI transactions would commence on the notification date and it would cease on the working day immediately preceding the date of issue.
- All WI transactions for all trade dates will be contracted for settlement on the date of issue.
- At the time of settlement on the date of issue, trades in the WI security can be netted off with trades in the existing security.
- 'WI' transactions may be undertaken only on NDS-OM.
- Any WI trade must have a Primary Dealer (PD) as a counterparty (both counterparties can be PDs). In other words, non-PDs cannot be both buyer and seller in a WI transaction.
- Only PDs can take a short position in the WI market. Non-PD entities can sell the WI security only if they have a preceding purchase contract for equivalent or higher amount.
- Open Positions in the WI market are subjected to the following limits:
- Non-PD entities - Long Position, not exceeding 5 per cent of the notified amount.
- PDs - Long or Short Position, not exceeding 10 per cent of the notified amount.
- In case a PD is unable to deliver securities to the buyer after the auction on the settlement (or issue) date, the transaction will be settled as per the default settlement mechanism of CCIL.
- In the event of cancellation of the auction for whatever reason, all WI trades will be deemed null and void ab initio on grounds of force majeure

12.9 SECONDARY MARKET TRADING IN DEBT INSTRUMENTS

The trading platform of a stock exchange is accessible only to brokers. They play a significant role in the secondary market by bringing together the buyers and sellers. The brokers input buy/sell orders either on their own account or on behalf of clients. The clients may place their orders either with brokers directly or through a sub-broker indirectly. The exchange can admit a broker as its member only on the basis of the terms specified in the Securities Contracts (Regulation) Act, 1956, the SEBI Act 1992, the rules, circulars, notifications, guidelines, and the byelaws, rules and regulations of the concerned exchange. No stock broker or sub-broker is allowed to buy, sell or deal in securities, unless he or she holds a certificate of registration from the SEBI. The stock exchanges, however, are free to stipulate stricter requirements than those stipulated by the SEBI.

Trading hours The market timings are as given below:

Trading Days	Same day Settlement	Other day Settlement
Monday to Friday	10.0 .m. to 3.00 p.m.	10.00 a.m. to 5.45 p.m.

Trading on Wholesale Debt Market segment is divided into three phases as under:

Pre-Open Market Phase: The pre-open period commences from 9.00 a.m.

This period allows the trading member/Participant to:

1) Set up counter party exposure limits
2) Set up Market Watch (the security descriptor)
3) Make inquiries

Market Open Phase

The system allows for inquiries of the following activities when the market is open for trading:

1) Order Entry
2) Order Modification
3) Order Cancellation
4) Negotiated Entry
5) Trade Cancellation
6) Setting up counter party exposure limits

Post Market Phase (also called SURCON)

During the period of SURCON (SURveillance and CONtrol) a trading member gets only inquiry access with a facility to request for trade cancellation. On completion of SURCON the trading system processes data and gets the system ready for the next day.

Trading process

There is an active secondary market in Government securities. The securities can be bought / sold in the secondary market either (i) Over the Counter (OTC) or (ii) through the Negotiated Dealing System (NDS) or (iii) the Negotiated Dealing System-Order Matching (NDS-OM).Trading in Retail Debt Market is permitted under Rolling Settlement, wherein each trading day is considered as a trading period and trades executed during the day are settled based on the net obligations for the day. Settlement is on a T+2 basis i.e., on the 2nd working day. For example, trades taking place on Monday are settled on Wednesday, Tuesday's trades settled on Thursday and so on.

Clearing process

The transactions in secondary market pass through three distinct phases, *viz.*, trading, clearing and settlement. While the stock exchanges provide the platform for trading, the clearing corporation determines the funds and securities obligations of the trading members and ensures that the trade is settled through exchange of obligations. The clearing banks and the depositories provide the necessary interface between the custodians/clearing members for settlement of funds and securities obligations of trading members. The clearing process involves determination of what counter-parties owe, and which counter-parties are due to receive on the settlement date, thereafter the obligations are discharged by settlement. Several entities, like the clearing corporation, clearing members, custodians, clearing banks, depositories are involved in the process of clearing.

The role of each of these entities is explained below:

- **Clearing Corporation:** The clearing corporation is responsible for post-trade activities such as the risk management and the clearing and settlement of trades executed on a stock exchange.
- **Clearing Members:** Clearing Members are responsible for settling their obligations as determined by the Clearing Corporation. They do so by making available funds

and/or securities in the designated accounts with clearing bank/depositories on the date of settlement.

- **Custodians:** Custodians are clearing members but not trading members. They settle trades on behalf of trading members, when a particular trade is assigned to them for settlement.

Settlement process

The settlement process begins as soon as members' obligations are determined through the clearing process. The settlement process is carried out by the Clearing Corporation with the help of clearing banks and depositories. The Clearing Corporation provides a major link between the clearing banks and the depositories. This link ensures actual movement of funds as well as securities on the prescribed pay-in and pay-out day. This requires members to bring in their funds/securities to the Clearing Corporation.

The Clearing Members (CM) makes the securities available in designated accounts with the two depositories. (NSDL and CSDL). The depositories move the securities available in the pool accounts to the pool. Account of the Clearing Corporation. Likewise CMs with funds obligations make funds available in the designated accounts with clearing banks. The Clearing Corporation sends electronic instructions to the clearing banks to debit designated CMs' accounts to the extent of payment obligations. The banks process these instructions, debit accounts of CMs and credit accounts of the Clearing Corporation. This constitutes pay-in of funds and of securities. After processing for shortages of funds/securities and arranging for movement of funds from surplus banks to deficit banks through RBI clearing, the Clearing Corporation sends electronic instructions to the depositories/clearing banks to release pay-out of securities/funds. The depositories and clearing banks debit accounts of the Clearing Corporation and credit accounts of CMs. This constitutes pay-out of funds and securities. Settlement is deemed to be complete upon declaration and release of pay-out of funds and securities.

Delivery process

A depository is an entity where the securities of an investor are held in electronic form. The person who holds a demat account is a beneficiary owner. In case of a joint account, the account holders will be beneficiary holders of that joint account. Depositories help in the settlement of the dematerialized securities. There are e two depositories viz NSDL and CCIL. The depository runs an electronic file to transfer the securities from accounts of the custodians/clearing member to that of clearing corporation of the stock exchanges. Each custodian/clearing member is required to maintain a clearing pool account with the depositories and is required to make available the required securities in the designated account on settlement day.

Pricing in secondary markets

The price of a Government security keeps fluctuating in the secondary market as the price is determined by demand and supply of the securities and is influenced by the level and changes in interest rates in the economy and other macro-economic factors, such as, expected rate of inflation, liquidity in the market, etc. Developments in other markets like money, foreign exchange, credit and capital markets also affect the price of the government securities. Further, developments in international bond markets, specifically the US Treasuries affect prices of Government securities in India. Policy actions by RBI (e.g., announcements regarding changes in policy interest rates like Repo Rate, Cash Reserve Ratio, Open Market Operations etc.) can also affect the prices of government securities.

Type of transactions

In debt market, transactions are classified into wholesale market and retail market transactions and bulk of the transactions are wholesale market transactions. The debt market is broad-based with the participation of banks, primary dealers, insurance companies, mutual funds, provident funds, and corporate and individual investors and this has contributed to an active interest across market segments. However, the issue of opening up the corporate debt market to foreign investors is yet to be addressed by the regulators of debt market.

12.10 RISK MANAGEMENT

One of the most critical components of risk containment mechanism is the margining system followed by exchanges and following are the different types of margins collected by the exchanges from the members. Initial margin is collected to cover the likely risk from future adverse movements in prices of the concerned securities. It is computed based on security specific (Initial) margin factor. The margin factor for a security is approximately equal to the 3-day Value at Risk for the security. For offsetting trades in a security for a settlement date, netting is allowed for arriving at the initial margin. Mark to Market (MTM) margin is collected to cover the notional loss (i.e., the difference between the current market price and the contract price of the security covered by the trade) already incurred by a member. MTM margin imposed on a day is payable on the next business day, barring certain exceptions. Additional Initial Margin: Sometimes trades are conducted at prices which are different from the prevailing prices in the market. This increases risk to the system as the liability in the case of a default is guaranteed. A provision is being created to subject such trades to additional initial margin (AIM) for an amount equal to the difference between the trade consideration and the value of the trade at such MTM price. The margin would be an intra-day margin and released at the end of the day, after such trades are subjected to the MTM margining. In addition to these margins, the CCIL can also collect volatility margin and concentration margin.

- **Volatility Margin:** To take care of sudden volatility in the market, CCIL may also impose a volatility margin. Volatility margins would be imposed after advising the members of such imposition through notifications to be sent through CCIL report server and CCIL website. Volatility margin rates would either be a percentage of existing margin factors or at rates specified for the individual securities and would be calculated in the same way as initial margin. Once imposed, all outstanding trades will be subjected to volatility margin. Volatility margin can also be withdrawn anytime during the day.
- **Concentration Margin:** This constitutes the margin obligation required to be fulfilled by a member in relation to its outstanding exposure to a security or to a group of securities, for a settlement date or for a number of settlement dates, beyond pre-determined limit(s).

The Reserve Bank of India, vide its circular DBOD.FSC.BC.No. 39 /24.76.002/2000 dated October 25, 2000 permitted the Banks and the Financial Institutions in India to undertake transactions in debt instruments among themselves or with non-bank clients through the members of Stock Exchanges .This notification paved the way for the Exchanges such as BSE and NSE to commence trading in Government Securities and other fixed income instruments. The settlement for the various trades is finally carried out through the SGL of the RBI except for transfers between the holders of Constituent SGL A/cs in a particular Bank or Institution like intra-a/c transfers of securities held at the Banks and CCIL. As far as the Broker Intermediated transactions are concerned, the settlement responsibility for the trades in the Wholesale market is primarily on the clients i.e. the market participants and the broker has no role to play in the same. The member only has to report the settlement details to the Exchange for monitoring purposes. The Exchange reports the trades to RBI regularly and monitors the settlement of these trades. The Wholesale Debt Segment offers trading and reporting facilities through an automatic on-line trading system, which will over a period of time provide an efficient and reliable trading system for all the debt instruments of different types and maturities including Central and State Govt. securities, T-Bills, Institutional bonds, PSU bonds, Commercial Paper, Certificates of Deposit, Corporate debt instruments and the new innovative instruments like municipal securities, securitized debt, mortgage loans and STRIPs.

Activity 2

1) What is 'When issued' market?

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2) What is margin vis a vis secondary market trading?

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12.11 WHOLESALE DEBT SEGMENT

Trading in the Wholesale Debt Market is done through the following avenues: Order Grabbing System - which provides for active interaction between the market participants in keeping with the negotiated deal structure of the market. Negotiated Deal Module - which permits the reporting of trades undertaken by the market participants through the members of the Exchange.Cross Deal Module - permitting reporting of trades undertaken by two different market participants through a single member of the Exchange?

The Settlement for the securities traded in the Debt Segment would be on a Trade by Trade DVP basis. The primary responsibility of settling trades concluded in the wholesale segment rests directly with the participants who would settle the trades executed in the GILT system on their behalf through the Subsidiary Ledger Account of the RBI. Each transaction is settled individually and netting of transaction is not allowed. The Exchange would monitor the Clearing and Settlement process for all the trades executed or reported through the system. The Members need to report the settlement details to the Exchange for all the trades undertaken by them on the system.

12.12 RETAIL DEBT SEGMENT

Retail Trading in Government Securities takes place by electronic order matching based on price-time priority through the Online Trading System of the Exchanges with the continuous trading sessions from 9.55 a.m. to 3.30 p.m as is operational in the Equities Segment. The Retail Trading in G-secs is to be settled on a rolling settlement basis with a T+2 Delivery Cycle with effect from 1st April 2003.

Eligible Securities

All outstanding and newly issued central government securities are eligible to be traded on the automated, anonymous, order driven system of the eligible stock exchange. The Rules, Bye-Laws and Regulations of the Exchange provide for trading in Government securities as all G-secs are deemed to be admitted to dealings on the Exchange from the date on which they are issued.

- The Exchange will implement and monitor the suspension of trading during the shutdown period so that no settlements fall due in the no-delivery period which is on the T-3, T-2 and T-1 days for Government The G-Secs is traded on the system and settled at the same price, which will be inclusive of the accrued interest i.e. the Dirty Price as per the market parlance in the Wholesale Debt Market. This is similar to the trading on the cum-interest price as is witnessed in the case of corporate debentures. The minimum order size shall be 10 units of G-Secs with a face value Rs.100/- each equivalent to an order value of Rs. 1000/- and the subsequent orders will be in lots of 10 securities each. The members of the Retail Debt Segment are permitted gross exposure in government securities along their gross exposure in equity segment upto 15 times of their additional capital deposited by them with the Exchange. Transactions done by the members in this segment along with their transactions in the equity segment would form part of their Intra-day Trading Limits and are subject to a limit of 33.33 times of the capital deposited with the Exchange. However, institutional business would not form part of these Intra-Day & Gross Exposure limits. The clearing and Settlement mechanism for the Retail trading in G-Secs is based on the existing institutional mechanism available at the Stock Exchanges for the Equity Markets. The trades executed throughout the continuous trading sessions will be netted out at the end of the trading hours through a process of multilateral netting. The transactions will be netted out member-wise and then scrip-wise so as to determine the net settlement and payment obligations of the members.
- The Delivery obligations and the payment orders in respect of these members are generated by the Clearing and Settlement system of the Exchange. These statements indicate the pay-in and pay-out positions of the members for securities and funds who would then give the necessary instructions to their Clearing Banks and depositories.
- Custodial confirmation of the retail trades in G-Secs. by using 6A-7A mechanism as available in the Equity segment is also available. The schedule of various settlement related activities like obligation download, custodial confirmation, pay-in/pay-out of funds and securities is similar to what is at present applicable in the equities segment. As per an RBI Circular, the RBI regulated entities are to settle their transactions in the Retail Debt Segment at the Exchange through a Custodian. In the event of failure/shortage in delivery of securities, the Exchange would close-out such shortages at the ZCYC valuation for prices plus a 5% penalty factor which would be debited to the account of the member who has failed to deliver the securities against his sale obligation. The buyer in the event of non-delivery of securities by the seller would be eligible to receive the compensation/consideration which would be computed at the higher of either the highest trade price from the trade date to the date of close out or closing price of the security in the normal market on the close-out date plus interest calculated at the rate of overnight FIMMDA-NSE MIBOR for the close-out date. The difference between the amount debited to the seller and amount payable to the buyer on the basis discussed above would be credited to the Investor Protection Fund of the Exchange.
- **Margining Mark to Market:** The positions in the Retail Debt segment are marked to market until settlement and mark to market margin on net outstanding position of

the members is collected on all open net positions. The mark to market margin is calculated based on the prices derived from the Zero Coupon Yield Curve (ZCYC). This margin is to be collected on the T+1 day along with the margin on the outstanding positions in cash segment.

- **Margin exemption to Institutional business:** Institutional business (i.e., business done by members on behalf of Indian Financial Institutions, Foreign Institutional Investors, Scheduled Commercial Banks, Mutual Funds registered with SEBI) would be exempted from margin, as is applicable in the case of transactions in the equity segment, as the institutions are required under the relevant regulations to transact only on the basis of giving and taking delivery. The members would, however, be required to mark client type 'FI' at the time of order entry for availing of exemption from payment of margins and also exclusion of such trades from Intra-day Trading and Gross Exposure Limits. Custodial trades on behalf of Provident Funds transacting through a SGL-II account (Constituent SGL a/c) would also be eligible for margin exemption.
- **Margin Exemption against delivery:** Margin exemption for early pay-in of securities in case of sale transactions s applicable for the equities segment would also be available for this segment.

12.13 INVESTORS' PROTECTION

SEBI was established with the primary objective of protecting the interests of investors in securities. SEBI is empowered to specify the standards of disclosure required for the protection of investors in respect of issues and can issue directions to all intermediaries and other persons associated with the securities market in the interest of investors or of orderly development of the securities market. The Central Government has established a fund called Investor Education and Protection Fund (IEPF) in October 2001 for the promotion of awareness amongst investors and protection of the interest of investors. The exchanges maintain investor protection funds to take care of investor claims, which may arise out of non-settlement of obligations by a trading member for trades executed on the exchange.Exchanges have also set up a separate Surveillance Department to keep a close watch on price movement of securities, detect market manipulations like price rigging, etc., monitor abnormal prices and volumes which are not consistent with normal trading pattern and monitor the member-brokers' position to ensure that defaults do not occur. To protect investors from fraudulent companies, exchanges have created a new group of securities known as 'Z' group category. The 'Z' group covers the list of companies, which fail to comply with listing requirements and also fail to resolve investor complaints. In accordance with the guidelines issued by the Ministry of Finance, Government of India, exchanges have set up an Investor Protection Fund (IPF) to meet the claims of investors against defaulter members. The Exchange also assists in arbitration process both between members & investors and member's *inter-se*.

12.14 INVESTORS' GRIEVANCES REDRESSAL

Securities Exchange Board of India, Department of Economic Affairs, Department of Company Affairs and stock exchanges have set up investor grievance cells for redressal of investor grievance. SEBI has directed all the stork exchanges/registered brokers/ sub-brokers/depositories/ listed companies/registered depository participants to make a provision for a special e-mail/ID of the grievance redress division/compliance officer for the purpose of registering complaints by the investors. Besides this, all the aforesaid organizations have been advised to display this e-mail ID prominently on their websites and other promotional materials. In order to build up investor confidence and trust and to protect the investors, SEBI advised listed companies in July 1996 to appoint compliance officers who will liaise with SEBI in matters related to investor grievance. Keeping in view the objective of investor protection and also the importance of investment by NRIs, the SEBI created with effect from January 1, 1997, a separate "NRI cell" at SEBI Head Office, Mumbai to attend to the grievances that the NRI investors may have SEBI has set up a mechanism for redressal of investor grievances arising from the issue process. Investors may send their complaints by mail or may give them in person. The work relating to attending to investor grievances has, with effect from January 1997, been delegated to the Regional offices of SEBI at Calcutta, Chennai and New Delhi. As a part of the Investor Education programme and with a view to create a greater degree of awareness among the investors throughout the country, SEBI has been registering investors associations. SEBI is reviewing the policy of granting registration/ renewing the registration with a view to encouraging formation of more and effective investor associations SEBI provides "walk-in" service at its Head Office at Mumbai and at its regional offices at New Delhi, Chennai and Calcutta on all working days. Investors can meet the officials and get guidance relating to the grievances that they may have against issuers. Investors can also meet the higher officials of SEBI on specified working days.

12.15 MARKET PRACTICES: FIMMDA GUIDELINES

General Principles

All Principals and brokers shall maintain the highest standards of conduct so as to enhance the reputation of these markets. All participants must ensure that any individual who commits on behalf of the institution is acting within approved authorities. All institutions must stand by the commitment made by an individual acting on their behalf, the principle being 'My Word is my Bond'. Institutions must ensure that the individuals acting on their behalf are fully trained and completely aware of the rules and regulations, conventions, practices and the markets in which they deal. All individuals must comply with the rules and regulations governing the market and keep up-to-date with the changes that may happen from time to time. Trades done outside the NDS, between institutions who are members of the NDS should be entered in the NDS within a period of 15 minutes from the time of conclusion of the trade. The role of a broker is to bring together the counterparties for a fee. When brokers act as intermediaries, they are not expected to act as principals or in a discretionary capacity, even momentarily. Where the broking company is acting on its own account, it is expected to declare that it is dealing as a principal before negotiating the trade. Brokers and principals are expected to maintain confidentiality of the parties involved in the transactions. Settlement of the deals in fixed Income, Money Market and Rupee Derivatives will be subject to market conventions laid down by FIMMDA, irrespective of the counterparty being a member of FIMMDA or otherwise.

Know Your Counterparty

It is a good practice to conduct basic due diligence and "know your counterparty" checks before dealing. These checks should show a basic understanding of who the counterparty is and why the counterparty is dealing in the product. For derivatives transactions, firms should, in spirit of "duty of care" be satisfied that the company is aware of the risks involved in using those products and the person dealing is authorized by the company for executing those transactions.

Recording of Conversations

Experience has shown that recourse to tapes proves invaluable to the speedy resolution of differences and disputes. Members who do not tape all their front- office conversations should review this matter and introduce the system as soon as possible. When initially installing recording equipment, or taking on new clients or counterparties, firms should inform them that conversations will be recorded. Tapes should be kept at least for three months. Tapes relating to disputed/unconfirmed transactions should be retained until the disputes have been settled/confirmed. Management should ensure that access to the recording equipment, whether in use or in store, is strictly controlled so that they cannot be tampered with.

Off-Premise Dealing

As a practice, participants should deal only from their normal place of dealing, i.e. from their respective dealing rooms/office as the case may be. However, there may be occasions when the dealer may have to deal from other than his normal place of dealing. Management may lay down the guidelines, including specifying the staff that is authorized to deal from outside the normal place of dealing. The back-office should inform the management about such off-premises deals. Management should satisfy them of the need for such dealing. The dealer/official should, prior to dealing, inform the counterparty about dealing off-premises. The fact that the deal has been done off the premises should also be recorded in the deal confirmation and/or other relevant records.

Dealing Hours

The dealing hours will be from 9:00 a.m. to 5:30 p.m. from Monday to Friday and from 9:00 a.m. to 1:00 p.m. on Saturday or as prescribed by RBI. NDS also has the same timings for trading sessions. Deals done outside these hours should be reported to the management and management should satisfy them about the necessity of concluding such deals outside the prescribed hours.

Rate Scan

Market players shall not deal at rates which are not market related. Management should ensure that proper procedures, including the periodicity of taking rate scans, are in place to ensure this. Management should set up the "rate-bands" within which the actual traded rates should fall. A proper procedure to monitor the deals, which are outside the rate-bands, should be laid down. Usually this would be because of extraordinary volatility, or because the amount of the deal is small and transactional costs have been loaded into the price. The back-office should report these exceptions to the management and management must satisfy itself that the exceptions are for legitimate and comprehensible reasons.

Conflicts of Interest

It is possible that dealers may wish to make personal investments in the products, which the institution is dealing in or in the products covered by this handbook. Management should formulate a "Personal Investment Policy" and ensure adherence to the same. While framing the Personal Investment Policy the management may take into consideration the rules and regulations laid down by any statutory authority in respect of insider trading.

Rotation of Dealers

Dealers should not be kept too long on the same desk. Management should formulate suitable policy for rotation of dealers. Further a system of an annual compulsory leave of 15 days or longer may be introduced so that no dealer remains on the job continuously.

Confirmations

Firms should ensure that they have a process in place, which at the minimum ensures that deals recorded by the trader are confirmed independently by the back-office. All confirmations should include the date of the deal, the name of the counterparty and all other details of the deal. It is a good practice to also confirm all settlement details, even when some of these details do not change with each and every deal. The back -office must respond promptly to confirmations received for which they do not have a corresponding trade. It is proper to first check with the front office to ensure that no deal has been missed. They should then promptly advise the back-office of the counterparty of the absence of the trade. Any discrepancy between a confirmation and significant details of the trade, or even the existence of a trade, should be brought to the attention of the management. Management should satisfy themselves of the genuineness and accuracy of the trade. It is important that discrepancies should be promptly sorted out within a few minutes of the deal.

Dealing Procedures and Principles

Deals done in the Indian market should be conducted on the basis of FIMMDA handbook.In respect of deals done with overseas counterparties the counterparty should be made aware of the conventions, followed in India, in advance, to avoid any possible confusion.

Preliminary Negotiation of Terms

Dealers should clearly state at the outset, prior to a transaction being executed, any qualifying conditions to which the deal will be subject to. Where a firm quote has been indicated on the NDS, qualifying conditions cannot be specified after the conclusion of the deal. Typical examples of qualifications include: where a price is quoted subject to the necessary credit approval, limits available for the counterparty, inability to conclude a transaction because offices of the member in other centres are not open. This should be made known to the broker and the potential counterparty at an early stage and before names are exchanged by the broker.

Firmness of Quotation

Dealers, whether acting as principals, agent or broker, have a duty to make absolutely clear whether the prices they are quoting are firm or merely indicative. Prices quoted by brokers should be taken as indicative unless otherwise qualified. In respect of deals on the NDS, the dealer would put the quote as a "firm" quote or "indicative" quote. In case the dealer is willing to do the deal only with a certain set of counterparties, he should put the quote as "firm" only for preferred counterparties. In respect of other deals, a dealer quoting a firm price or rate either through a broker or directly to a potential counterparty is committed to deal at that price or rate in a marketable amount, provided, the counterparty name is acceptable. Generally, prices are assumed to be firm as long as the counterparty or the broker is on line. Members should clearly and immediately indicate when the prices are withdrawn.

In volatile markets, or when some news is expected, dealers quoting a firm price or rate should indicate the length of time for which their quote is firm. The price or the rate is usually for the marketable amount. If the quote is not for a marketable quantity, the dealer/broker should qualify the same while submitting the quote. A significant part of the volume transacted by brokers relies on mandates given by dealers acting on behalf of principals. The risk that the principal runs is that such an offer could get hit after an adverse market move has taken place.

The broker is expected to use the mandate in order to "advertise" the principal's interest to the entities that the broker expects will have an interest in the price. Generally, the broker is free to show the price to entities he deems fit, but members have the right to expect that if a smaller set is defined, the broker will adhere to such a smaller set.

Mandates shall not be for a period of more than 15 minutes unless otherwise specified. Brokers are expected to check with the principal from time to time to ensure that the mandate is still current. The broker shall reveal the name of the entity offering the mandate when the counterparty is firm to deal at the mandate price. The broker will then call the member who offered the mandate and confirm the deal. In the absence of any significant market movement, the member who has offered the mandate is expected to adhere to it. In case the price is not adhered to, it is the responsibility of the member who had offered the mandate to explain why the mandate is no longer valid. It is required of the member that the mandate price be withdrawn before the broker reveals the counterparty name. The only exception to this is when the counterparty name is not acceptable. The principal should call the broker if he wishes to withdraw the mandate before its expiry. The quote cannot be withdrawn after the broker has concluded the deal.

Delivery of the Securities/Funds

The dealers should agree upon the delivery conditions before concluding the deal. Delivery of the securities/funds is on a Delivery-versus-Payment (DVP) basis in respect of government securities and T-Bills. In respect of other securities, which are in demat form, since there is no DVP mechanism, the dealers should agree upon the priority of settlement of the securities and funds. Banks and primary dealers are currently not allowed to invest in securities, which are not in demat form. However, where physical securities are to be delivered, the dealers should agree before conclusion of the deal as to whether the settlement will be DVP or otherwise (in which case the priority of settlement needs to be agreed upon).

Concluding a Deal

Dealers should regard themselves as bound to honour a deal once the price, name acceptability, credit approval and any other key commercial terms have been agreed. Oral agreements/contracts are considered binding on all the parties concerned. In respect of deals done on the NDS, the deal would be considered as final as soon as any counterparty responds to a "firm" quote. Where quoted prices are qualified as being indicative or subject to negotiation of commercial terms, members should normally treat themselves as bound to honour the deal at the point when the terms have been agreed without qualification. Oral agreements are considered binding; the subsequent confirmation is evidence of the deal but should not override terms agreed to orally.

Making a transaction subject to documentation is not a good practice. In order to minimize the likelihood of disputes arising once documentation is prepared, dealers should make every effort to clarify all material points quickly during the oral negotiation of terms, and should include these in the confirmation. Where brokers are involved, members have the right to expect that the broker will make them aware immediately on conclusion of the deal. As a general rule, a deal should be regarded as has been 'completed/done' where the dealer positively acknowledges the broker's confirmation. It is expected that a broker shall not assume that a deal is done without oral confirmation from the dealer.

Passing of Names by Brokers

It is a good practice for dealers not to seek the names of the counterparty before transacting and for brokers not to divulge the names before concluding the deal. Dealers and brokers should at all times treat the details of transactions as absolutely confidential between the parties involved. To save time and avoid confusion, dealers should, wherever practical, give brokers prior indication of counterparties with whom, for whatsoever reason, they would be unwilling to do business. In all their transactions, brokers should aim to achieve a mutual and immediate exchange of names. In the repo markets, it is accepted that members may vary the price (second leg) depending on the counterparty. Hence it is acceptable for the member to know the name of the counterparty in advance. In the case of instruments like Certificate of Deposits and Commercial Papers, where the seller may not be the same entity as the issuer, the broker shall first disclose the issuer's name to the potential buyer. The name of the buyer shall be disclosed only after the buyer has accepted the seller's name. The seller has the right to refuse to transact with the buyer.

Reporting of Deals on the NDS

The dealers should enter the deals, concluded on the NDS or to be reported on the NDS, within a period of 15 minutes of the conclusion of the deal. Deals in government securities and T-Bills may be conducted either on the NDS or otherwise. However, once concluded, all the deals in government securities and treasury bills have to be reported on the NDS. Since the settlement of the deals amongst members will be through CCIL, it would have to be entered in the NDS. The dealer of the selling counterparty of the securities has to enter the deal into NDS and the dealer of the buying counterparty have to approve the deal. The back-office of both the counterparties have to then confirm the deal. It would be a good practice to conclude the approval of the deals within a period of 30 minutes from the time of conclusion of the deal. In any case the process should be completed before the time of closure of the NDS.

Oral Confirmations

No oral confirmation is essential in respect of deals entered in the NDS. In respect of other deals an oral confirmation of the deals by the back-office is a good practice. Absence or lack of response should not be construed as confirmation.

Written Confirmations

A written confirmation of each deal must be sent out at the earliest and a confirmation should also be received from the counterparty. The confirmation provides a necessary safeguard against dealing errors. Confirmations should be dispatched and checked promptly, even when oral deal confirmations have been undertaken. Confirmation of each deal must be sent out at the earliest. This is particularly essential if the dealing is for same day settlement. All participants of the wholesale markets should have in place the capability to despatch confirmations so that they are received and can be checked within a few hours from the time of striking the deal. Where the products involved are more complex, and so require more details to be included on the confirmation, this may not be possible; nevertheless it is in the interest of all concerned that such deals are confirmed as quickly as possible and in no case later than the next working day of the date of the deal. It is recommended that principals should inquire about confirmations not received within the expected time. All confirmations should include the trade date, value date, the name of the counterparty and all other details of the deal, including, wherever appropriate, the commission charged by the broker. All confirmations should state: "The settlement of the deals in Fixed Income, Money Market and Rupee Derivatives are subject to FIMMDA's market conventions irrespective of the counterparty being a member of FIMMDA".

It is an accepted practice for principals to confirm directly all the details of transactions arranged through a broker, who independently sends a contract/transaction confirmation to both counterparties. It is vital that principals, upon receipt of confirmations, immediately check the confirmations carefully so that discrepancies are quickly revealed and corrected. As a general rule, confirmations should not be issued by or sent to and checked by dealers. Confirmation is a back-office function.

Settlement of Differences

If all the procedures outlined above are adhered to, the incidence and size of differences would be reduced. Errors may occur, and they should be identified and corrected promptly. Failure to observe these principles could leave those responsible bearing the cost of any differences which arise. Where difference in payment arises because of errors in the payment of funds, firms should not attempt undue enrichment by retaining the funds. In case funds are retained, then compensation terms should be negotiated between the counterparties. The same principle is applicable in case of delivery of securities.

Rounding off

All interest receivable/payable should be rounded off to the higher rupee if the paise component is equal to or higher than 50 paise and should be ignored if the paise component is less than 50 paise. The rounding off of paise should also be done in respect of broken period interest receivable/payable.

12.16 SUMMARY

In the primary market, Government securities are issued through auctions conducted by the RBI. Auctions are conducted on the electronic platform called the Public Debt Office – Negotiated Dealing System (PDO-NDS. Depending upon the method of allocation to successful bidders, auction could be classified as Uniform Price based and Multiple Price based. 'When Issued', a short term of "when, as and if issued", indicates a conditional transaction in a security notified for issuance but not as yet actually issued. There is an active secondary market in Government securities. The securities can be bought / sold in the secondary market either (i) Over the Counter (OTC) or (ii) through the Negotiated Dealing System (NDS) or (iii) the Negotiated Dealing System-Order Matching (NDS-OM). SEBI was established with the primary objective of protecting the interests of investors in securities. SEBI is empowered to specify the standards of disclosure required for the protection of investors in respect of issues and can issue directions to all intermediaries and other persons associated with the securities market in the interest of investors or of orderly development of the securities market.

12.17 SELF ASSESSMENT QUESTIONS

1) What is meant by "French Auction"?
2) What is non competitive bidding?
3) What is yield based auction?
4) What is meant by volatility margin?
5) What is NDS-OM?
6) Choose the appropriate answer (Correct answer marked as***)
   1) A .... **auction** is generally conducted when a new Government security is issued.
      a) Yield-based***
      b) Price-based
      c) Coupon-based
      d) None of the above

2) A .... auction is conducted when Government of India re-issues securities already issued earlier
   a) Yield-based
   b) Price-based***
   c) Coupon-based
   d) All the above
3) A .... is an entity where the securities of an investor are held in electronic form
   a) Stock exchange
   b) Depository*****
   c) Clearing member
   d) Custodian
4) The .... is responsible for post-trade activities such as the risk management and the clearing and settlement of trades executed on a stock exchange
   a) Clearing Corporation ****
   b) Custodian
   c) Depository
   d) Banks
5) As per FIMMDA guidelines, all interest receivable/payable should be rounded off to the higher rupee if the paise component is equal to or higher than .... and should be ignored if the paise component is less than ....
   a) 50 paise ,50 paise
   b) 25 paise, 25 paise
   c) 75 paise,75 paise
   d) None of the above

12.18 RECOMMENDED READINGS

1) Moorad Choudhry, An Introduction to Bond Markets, 3rd Edition.
2) Miles Livingston, *Bonds and Bond Derivatives*, 2nd Edition.
3) Stephen J. Antczak, Douglas J. Lucas, Frank J. Fabozzi, *Leveraged Finance: Concepts, Methods, and Trading of High-Yield Bonds, Loans, and Derivatives*.
4) Moorad Choudhry, *Analysing and Interpreting the Yield Curve.*
5) Sharon Saltzgiver Wright, *Getting Started in Bonds*, 2nd Edition.
6) Frank J. Fabozzi, *Professional Perspectives on Fixed Income Portfolio Management*, Volume 4.
7) A primer on Government Securities Market – RBI Publication.

NOTES

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