RESERVE BANK OF INDIA
BOMBAY

REPORT
ON

DEVELOPMENT OF GOVERNMENT SECURITIES MARKET IN INDIA

BY

T. N. ANANTHARAM IYER
CONSULTANT
BOMBAY
20TH SEPTEMBER 1991

CONFIDENTIAL

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Table of contents

CHAPTER 1

INTRODUCTION AND SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

1.1 Introduction

In recent years there has been significant developments in the area of money market and capital market. In the money market area the considerable measures taken by the Reserve Bank of India have come to fruition in terms of significant developments in the area of instrument,institution, size of operations and liquidity. In the area of government securities market, there has not been any significant market development except for the fact that the coupon rates were raised in the mid 1980's.

While the scope for widening the market for government securities rests largely on the rate structure, even within the present rate structure, there are certain steps which could be taken to widen its use. Since detailed work is necessary to implement reform measures, the Reserve Bank considered it desirable to commission this study, with the following terms of reference.

1.2 Terms of Reference

i) To examine the present structure of the government securities market and to suggest any changes in the market structure.

ii) To identify procedural problems that have inhibited the growth and development of the securities market, and to suggest suitable changes in the existing procedures of issue, safe custody and trading of securities.

iii) To review the procedures for fixing sale/purchase prices of securities.

iv) To explore the possibilities of broadening the market and to examine the setting up of a suitable institutional structure including that of principal dealers; and

v) To examine the modalities of setting up of a separate securities house to develop a secondary market and the alternative of attaching this function to the Discount and Finance House of India Ltd.,

The study was commenced on May 2, 1991 and completed on

September 15, 1991.

1.3 The study is based on published and unpublished literature on the subject and in the related areas,records of the Secretary's Department, case studies of government securities portfolios of two banks, discussions with three large trading banks and two non-trading banks, discussions with two large broker-firm representatives, discussions with the Managing Director of the Stock Holding Corporation of India, Chief Executive, Bank of India Shareholding Ltd., Jt.General Manager,and Dy. Director of The Bombay Stock Exchange and a few senior officials of the Reserve Bank of India.

2.1 Organisation of the Report

The report is divided into ten chapters. The various terms of reference have been discussed in the report but not necessarily in the chronological order. This chapter is on "Introduction and Summary of Conclusions and Recommendations". The rest of the chapters are as follows :

Chapter 2 Government Debt Management Policy Objectives - A resume

Chapter 3 A Review of Literature on Debt (Internal), Deficits, Money, Output and Prices

Chapter 4 Coordination of Monetary Policy, Fiscal Policy and Debt Management Policy- Some Reflections on Indian Experience.

Chapter 5 Structure of Interest Rates and Interest Rate Policy.

Chapter 6 Role of Reserve Bank in Public Debt Policy and Management.

Chapter 7 Features of The Government Securities Market.

Chapter 8 Computation of Yield on Government Securities and Review of RBI Pricing of Central Government Securities.

Chapter 9 Development of Primary and Secondary Markets for Government Securities in India.

Chapter 10 Government Securities Trading House.

Basically in all chapters considerable attention is devoted to a discussion of the conceptual side of the issues before proceeding with a detailed discussion of the various aspects relative to the Indian situation.

2.2 Chapter 2 on "Government Debt Management Policy Objectives - A Resume" discusses the various technical aspects of debt management against the background of a market economy. The discussions gives us valuable insights into the use of tools and techniques for shaping our own debt policy.

2.3 Chapter 3 on a "Review of Literature on Debt (Internal), Deficits,Money , Output, and Prices" is a review of the contributions made in the research papers on the subject by Senior Officials of the Reserve Bank of India. Two of these four papers had been contributed by Dr. C. Rangarajan, Dy. Governor, jointly with an official/s of the Reserve Bank. This review is by a way of a background to the discussion in the next chapter. The main theme of the four papers is that excessive deficit financing and monetisation of debt would lead to an (internal) debt trap with its adverse consequences on the economy.

2.4 Chapter 4 on "Coordination of Monetary Policy, Fiscal Policy and Debt Management Policy - Some Reflections on Indian Experience" opens with the thesis that monetary policy and fiscal policy are closely interlinked and that internal debt management policy is closely integrated with monetary policy as well as fiscal policy. The monetary policy was a response to the fiscal policy. The extent of monetisation should not be determined outside the framework of monetary policy. The debt management policy should accept the monetary policy as given and the skill of debt management policy should be to minimise the cost of borrowing under a given monetary policy, which would independently determine the extent of monetisation. The debt management policy should be oriented towards financing the governments' requirements from the open market, thereby enabling the central bank to use open market operations for regulating monetary growth. This chapter draws heavily on the papers on the various related subjects presented by the former Governor, Shri R.N. Malhotra, Dy. Governor, Dr. C. Rangarajan, and Executive Director, Shri S.S.Tarapore at various conferences etc.

2.5 Chapter 5 on "Structure of Interest Rates and Interest Rate Policy" deals with the theory of interest rates and the term structure of interest rates in India. The recommendations of the Sukhamoy Chakravarti Committee and the deregulation and rationalisation of interest rates on advances, deposits and government securities which have been introduced during the past five years have been discussed. Changes in coupon rates have to be effected in a gradual manner and in alignment with the changes in interest rates on deposits and advances.

2.6 Chapter 6 on "Role of the Reserve Bank in Public Debt Policy and Management" deals with the important aspects of public debt policy, borrowing programme, ownership of debt securities, new loan issues, and open market operations and switch quotas.

2.7 Chapter 7 on "Features of the Government Securities Market" discussses the structure of the market,nature and volume of activity, trading and other practices, banks as large investors and the problems being faced by them because of heavy depreciation in the value of securities, inadequacies of the existing market structure and the irritants and impediments to the development of the market.

2.8 Chapter 8 on "Computation of yield on Government Securities and Review of RBI pricing of Central Government Securities" discusses the various concepts of yield and the uses of yield curves in investment management. The Reserve Bank has laid down an yield pattern for the purpose of fixing the sale price of securities which it would sell, and also buy (at a discount) under its market/switch quota operations. Market pricing is governed by supply and demand for SLR securities. As and when interest rates are freed and coupon rates are market-determined in an auction, investors may use YTM (yield to maturity), HPY period yield) etc. as tools of analysis along with other techniques for determining prices in the secondary market.

2.9 Chapter 9 On "Development of Primary and Secondary Markets for Government Securities in India" stresses the importance of an institutional structure for government securities market. A class of primary dealers and limited market-broker dealers and inter-dealer brokers would constitute the structure. Banks (selected), mutual funds, insurance companies (LIC & GIC) and investment companies in the private commercial sector would be eligible for primary dealership, subject to approval by the Reserve Bank.

2.10 The last chapter 10 on "Government Securities Trading House" stresses the need for a major market maker and examines whether the Discount and Finance House of India Ltd., (DFHI) could play the role of a major market-maker. Given the large initial capital requirement, the need for expertise in the field and full-time attention at top management level, it is observed that DFHI would not be in a position to take up this additional responsibility. A separate institution styled as "The Government Securities Trading House of India" set-up as a company under the Companies Act, 1956 would fulfill the role.

3.1 Recommendations

Strategy For Development of Securities Market

Institutional Structure for Government Securities Market

Development of securities market would hinge upon reforms and liberalisations in the financial sector. Bond auctions

would be the method for market-pricing of securities. With the development of the secondary market, open market operations would be facilitated.

Government of India and the Reserve Bank of India have key roles to play by ushering in needed legislative and procedural changes for bringing about the development of the market.

The Reserve Bank of India may in principle accept the need to build an institutional structure for the development of the government securities market with functionaries such as (i) Primary Dealers (ii) Broker Dealers (iii) Inter-dealer Brokers and (iv) Stock Exchange Money Brokers. It may proceed to lay down the regulations governing the recognition of the above functionaries. The regulations may, among other things, lay down for each category of operators, the capital requirements and the dealing and administrative expertise required, the privileges and obligations for being considered for dealership etc. by the Reserve Bank of India.

The category of stock exchange money brokers whose main function would be to arrange for lending of securities to primary dealers need not be inducted immediately as an essential part of the institutional market structure.

The proposed Securities Trading House and/or The Discount and Finance House of India may be able to provide the services which a money-broker would provide in the market.

Stock brokers and inter-dealer brokers would be registered brokers in the stock exchange and they have to be seperately recognised as such by the Reserve Bank. Both stock exchanges and over-the-counter market would deal in government securities.

Authorised dealers: They as a class may not be prepared or be in a position to provide the counterpart in the market in the event of heavy selling by ultimate investors. There would then be the need for an official institution to intervene, with a view to maintaining orderly market conditions. Though this task could be taken up by the Reserve Bank of India, stabilising interventions of this nature could conflict with the monetary policy objectives. Even if the existing institutional investors are recognised as authorised dealers an institution with a large capital base is necessary to pay a supportive role in the market. The proposed securities trading house could play the stabilisation role with the financial support that may be provided by the Reserve Bank of India.

The Reserve Bank may play the promotional role and set up the proposed Securities Trading House of India jointly with banks and financial institutions to deal in government ecurities and government guaranteed bonds. The Securities Trading House

should have a large initial capital of, say, Rs. 500 crores to be able to stock securities and provide repos facilities. The Reserve Bank may contribute 74% of the issued capital so that the initial burden on other shareholders would be less. The Reserve Bank may provide refinance facility to the securities trading house. It may consider providing finance to the other primary dealers against the holdings of the securities on repos basis. It may also provide on request funds or securities to the primary dealers for a period of 7 days at an interest rate equal to the market yield on the securities involved. Alternatively, the funds or securities as are required by other authorised dealers may be provided by the proposed securities trading house out of its own funds or portfolio or from funds/securities provided by the Reserve Bank. The Reserve Bank Act, 1934 may have to be amended to enable the Bank to lend to non-banks such as authorised dealers against their holdings in government securities etc.

The book entry form of maintaining investment in government securities may be extended to entities listed in the report of the Committee on Public Debt (Iyer Committee) , 1986 and all large-holders of securities may be advised to avail themselves of the book-entry facility without fail.

The Reserve Bank may pursue with the government the amendment of the Public Debt Act, 1944 so that the book-entry system for individual holders could be maintained by commercial banks.

The procedure of deduction of income-tax at source causes obstructions in the normal market making process and it may be rescinded so that trading in government securities could be activated.

Implementation Of Programme In Three Phases

The entire process of institutionalising the government securities market structure would take about 5-7 years. The implementation may therefore be carried out in phases. In the first phase the Reserve Bank may set up the government securities trading house with a large initial capital. The trading house may trade in central and state tovernment securities and in government guaranteed bonds. It may make outright purchases and sales and undertake repos transactions.

Government Securities Trading House

The development of the government securities market has to be the concern of a specialist body charged with the twin tasks of broadening the range and distribution of government debt securities and developing an efficient secondary market in government securities. The Discount And Finance House of India, it is observed, would not be best suited for carrying out the addi-

tional responsibility of developing the government securities market for three reasons : The initial financial requirements to start trading in government securities would be large, say, Rs. 500 crores (to hold stocks and to provide repos facility). DFHI's staffing pattern is on a slender scale and it is just adequate for its own needs. As the expertise needed for securities trading is of a vastly different order and range, the same would have to be built up assiduously. Further, a conflict of interest between money market operations and securities market transactions could emerge in day-to-day dealings . The DFHI may also have to assist in broadening the distribution of government securities which it would not be in a position to undertake. Development of the market would demand the full time attention of a Chief Executive and it is important in the early stages of organisation development.

The Reserve Bank may set up the Securities Trading House jointly with public sector banks, leading foreign banks, cooperative banks-scheduled state cooperative banks scheduled urban copoperative banks, central land mortgage banks, All-India financial institutions, mutual funds and investment companies in the private commercial sector. It may be set up as a company under the Companies Act, 1956. In view of the large capital needs of the Securities Trading House, the initial contribution of the Reserve Bank of India may be as high as 74% so that the burden on the other share holders would be less. There should be a provision to divest the holdings in excess of 51% to the existing share holders on a proportionate basis, after a period of, say, 5 years and if, necessary in two or three instalments.

The proposed trading house will serve as a major market dealer and trade in central and state government securities and government guaranteed bonds. It could also play a role in the development of primary market by arranging for wider distribution of new loans.

The proposed securities trading house could commence business within a period of 3-4 months of taking a decision in this regard, if it is registered as a company under the Indian Companies Act, 1956. The company type organisation would provide the necessary flexibility to operations and management.

In the second phase the Reserve Bank may take steps to frame regulations for recognition and registration of the various categories of market dealers. The gap between the first phase and the second phase need not be long. The outline of the programme in the second phase should be made known widely at the time of initiation of action for the implementation of the first phase of the programme. The Reserve Bank may consult (a set of regulations framed by the Bank of England is furnished separately with this report) the authorities of the large stock exchanges and the prospective primary dealers before finalising the regulations governing this category of dealers. The recognition of primary dealers and broker-dealers would provide the

minimum institutional frame-work for activating the secondary market. The need for recognising inter-dealer brokers can be considered in consultation with the authorised dealer group.

It may also make an appraisal of debt management objectives and reformulate its policy. It may introduce new instruments, with different characterists.

The proposed legal and procedural changes which are to be effected for the successful development of the securities market should be initiated in the second phase so that the stage would be set for speedy development of the market in the third phase.

In the third phase when the interest rate structure is totally freed, new loan issues may be made on an auction basis at market clearing rates.

3.2 Appraisal of Debt Management Objectives

In the context of the proces of deregulation and rationalisation of the administered interest rates which has been initiated in the past five years and the momentum it is likely to gain under the structural adjustment and financial reform programmes that would be launched by the Government and the Reserve Bank, government debt management policy objectives, would call for a fresh appraisal. Such appraisal may cover several aspects such as (i) Broadening the range and the distribution of government debt instruments (ii) Effective management of selling operations (iii) Efficient secondary markets for government securities (iv) Minimising borrowing costs, (v) Achieving a balanced maturity structure and (vi) Coordination with conjunctural economic policy.

Marketable government debt securities should have special features in regard to interest rates and maturity periods. A wide range of debt securities are now offered by governments elsewhere. There is need and scope for broadening the market, to diversify the instruments and sell them to different categories of investors. Coupon bonds would have to continue as the major debt instrument.

3.3 Monetary Policy, Fiscal Policy and Debt Management Policy

Monetary policy and fiscal policy are closely inerlinked. Internal debt management policy is closely integrated with monetary policy as well as fiscal plicy. Such links should be established by guidelines.

Public debt policy will have to be in accordance with the general objectives of economic policy and should not be such as to impede the achievement of intermediate objectives which may have been set in the monetary and financial field. It could be

considered appropriate to separate responsibilities in different areas of economic policy, so that debt management could remain as neutral as possible as regards its effects on different conjunctural situations.

It is important to ensure that debt management policy is oriented towards financing the government requirements from the open market, thereby enabling the central bank to use open market operations for regulating monetary growth. As a prerequisite for developing an active government securities market it is necessary to move towards market-clearing interest rate on government securities. The market clearing interest rate on government securities could be varied by Reserve Bank, through open market operations, to influence all other interest rates in the system which are no longer administered.

3.4 Terms Structure of Interest Rates

There is an urgent need for rationalisation of the interest rate structure in India. It should be done on a gradual basis. Banks and financial institutions are holding significant amounts in government securities. Any upward revision in interst rates has to be done in small doses; otherwise these institutional investors will incur heavy capital loss.

A gradual increase in interest rates on government bonds would enthuse non-bank investors to respond more and more to issues of government bonds. If government's dependence on the banking sector for financing its development expenditure is reduced, SLR could be reduced. This would leave much larger funds in the hands of banks for loaning as well as investment. There could then be a reduction in the interest rates on loans. The rationalisation would reduce the spread between the yield rates on long-dated government securities and all other short term rates.

It is necessary to ensure that the interest rates on public debt are broadly in alignment with the overall interest rate structure.

3.5 Changes In Securities Structure

Eventhough the market's preference is predominantly for long-dated securities, it is necessary to arrange the issue of various maturities. No doubt differentials in the coupon rates for different maturities will have to be maintained. Even within the framework of the existing administered interest rate structure scope exists for issuing securities with different characteristics. It should be possible to consider issuing securities with variable rates and for shorter maturities. The rates that would be applicable for a given year could be determined before the commencement of the ensuing fiscal year so that the cost of debt-servicing could be worked out for budgetary purposes. The variable rate for a five year bond could be, for instance, 0.25%

to -0.75%, above the average of the 182 Days Treasury Bill cut-off yield in the auctions held during the preceding six months.

When we move to a free market economy, the coupon rates would have to be determined on a different set of considerations. The formula suggested by the Sukhamoy Chakravarti Committee for pricing short, medium, and long-dated securities at real rates ranging from 1% to 3% , could be considered in the said context. Apart from standard coupon bond issues, non standard issues such as variable rate stocks, low-coupon bonds, zero coupon bonds, lottery bonds, convertible stocks, indexed bonds could also be considered so that different market segments' needs would be met.

3.6 Depreciation In Investments And Utilisation of Switch Quota

Banks are not able to make use of the switch quota provided by Reserve Bank of India fully to improve yields because such transactions would result in booking losses and current profits would be insufficient to absorb such losses. Since banks do not avail of the switch quotas fully, future investment incomes tend to be lower.

Creation of depreciation reserve and booking capital loss are the two practicable ways of handling fall in prices but declining profitability does not offer much scope for the same. Of the two, creation of reserve for depreciation is more costly because the provision is to be made from profits after tax. It would therefore be a prudent policy to book losses. If management decides to make provision for depreciation of, say, Rs. 50 lacs, then it is necessary to set aside further Rs. 50 lacs for payment of tax. Instead of paying tax on reserve it is preferable to use it also for writing off losses. Rs. 1 crore can thus be utilised in selling low-yielding securities at a capital loss and buying high yielding securities.

3.7 Removal Of Irritants And Impediments

There are a few major and a few minor irritants and impediments in the development of an active government securities market. Government of India and Reserve Bank of India have to play lead roles in bringing about legislative and procedural changes as are necessary in this regard. The establishment of a financially strong market-maker would help the process of development of the government securities market and the removal of some of the irritants and impediments. Legal and procedural changes as contemplated would remove some of the major irritants and impediments.

The stock exchanges have also a role to play in activating the market by ensuring that daily quotations and volumes

traded are published and that there is transparency in dealings.

3.8 Switch Quota And RBI Pricing Of Securities

The switch quota can be considered to be adequate. Even the existing quota is not fully utilised by many banks as their profits are not large enough to accommodate writing off capital losses entailed in switch operations. Reserve Bank has shown flexibility by providing additional switch quota wherever necessary. The Reserve Bank may also buy and sell state government securities under the switch quota. It may consider accepting these securities as an eligible asset in its banking department. Given the yield pattern which is in alignment with the coupon rates for short, medium and long-term maturities, the price fixed by the Reserve Bank for sale and purchase of Securities can not be faulted. The Reserve Bank prices cannot in any way be considered as market prices or support prices.

The Reserve Bank has no stabilisation role to play in the context of an administered interest rate structure. The Reserve Bank will be able to use the open market operations mechanism with a view to inject money or withdraw money from the financial system only when the interest rates are market determined and the authorised dealer net-work is in position. With the acceleration of the process of deregulation of interest rates the changes may be brought about speedily.

The government securities market can be activated only when an institutional structure is built up and a securities trading house is established with large capital resources to activate the market.

3.9 Pricing Of Securities In Switch Transactions

The Reserve has laid low an yield pattern for arriving at the sale prices of government securities which it would sell under the switch quota. The yield pattern is in consonance with the coupon rates for the three broad maturity periods. The securities which are included in the sale list are also purchased at a discount ranging from 5 paise to 25 paise depending on the balance period of maturity of the loan. The Reserve Bank has thus rationalised the procedure for fixation of sale/purchase price under the switch quota.

Market pricing is dependent upon supply and demand position in respect of SLR securities, money market conditions, yield and (tax) voucher value. Transactions which take place are mostly at negotiated prices. YTM (yield to maturity) and HPY (holding period yield) are not currently used as signif-

icant tools of analysis in market pricing.

The central loans are raised in 5-6 tranches. The banks which have to maintain SLR generally acquire the securities only to the extent necessary at the time of issue. As demand for SLR securities rise month after month, there are fluctuations in the prices of securities, depending on the prevailing money market rates. If loans are issued at shorter intervals,the large fluctuation in prices would be reduced.

An institutional market structure, and a regime of market determined interest rates would pave the way for active trade and competitive pricing of the instruments.

A detailed list of the recommendations would be prepared separately.

1.4 Acknowledgement

I would like to express my gratefulness to the Governor, and Deputy Governor, Dr. C. Rangarajan for entrusting me with this study, which would serve a national cause. I have accepted it with humility while considering it as an opportunity to associate myself with the Reserve Bank of India which I had the privilege to serve in various capacities for over 28 years. I had had opportunity to discuss the scope of study and the broad prospective thereof with Dr. C. Rangarajan, Dy. Governor, and Shri S.S.Tarapore, Executive Dirrector. They shared their thoughts and insights on the subject. I would like to express my sincere thanks to them for the same.

Mr. A. Seshan, Advisor, Department of Economic Analysis and Policy, Reserve Bank of India and Shri O. Bannerji, Research Officer drafted at my request the technical chapter 3, on "A review of literature on debt (internal) money, prices and output". The same has been reproduced in the text. I am grateful to them for the same. Kum. S. Gopalakrishnan, Director, Credit Planning Cell, furnished a update on liberalisation of interest rates. on deposits, advances, government securities etc. in the post-Sukhamoy Chakravarti Committee period. Shri P.Y.Padhye, Secretary, Secretary's Department, the officials and staff of Secretary's Department have extended their full cooperation and furnished information and data as were called for by me from time to time. Mrs. N.B. Shetge, Staff Officer, Management Services Department coached my secretary in the use of a P.C. I would like to thank each one of them for their cooperation and help. Senior Officials of banks etc. who were contacted willingly shared their experience and thoughts on the subject. I am not listing their names individually. I am grateful to all of them.

Mrs. Anita A. Teredesai, Secretary-Stenographer learnt the skill of using a p.c. while working in this project. This report is processed on a p.c. She worked with great diligence and devotion. I would like to thank her sincerely for her support and assistance in this study.

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CHAPTER-2

GOVERNMENT DEBT MANAGEMENT POLICY OBJECTIVES - A RESUME

A brief resume of the current thinking on public debt management objectives in free economies - in countries where interest rates on deposits and advances are de-regulated and are market-determined is presented below. The discussion has relevance to us in the context of the process of financial deregulation and liberalisation that has been initiated in the past five years and the momentum that is likely to gain under the structural adjustment and financial reform programmes launched by the Government and the Reserve Bank. The technical aspects of government debt management policy objectives relate to :(i) Broadening the range and the distribution of government debt instruments; (ii) Effective management of selling operations; (iii) Efficient secondary markets for government securities; (iv) Minimising borrowing costs; (v) Achieving a balanced maturity structure and (vi) Coordination with conjunctural economic policy. The other issues which are discussed are (i) Interest rate effects of debt operations (ii) Market based regime of public debt management and (iii) Considerations for issuing marketable debt instruments with different characteristics. These discussions give an insight into the various technical aspects of debt management policy, and offers tools and techniques that may be used in formulating public debt management policy objectives on an ongoing basis.

2.1 The technical aspects of Government Debt Management Policy objectives can be discussed under the following headings :

i) Broadening the range and the distribution of Government Debt Instruments

ii) Effective Management of selling operations

iii) Efficient secondary markets for government securities

iv) Minimising borrowing costs

v) Achieving a balanced maturity structure

vi) Coordination with conjunctural economic policy

2.2.1 Broadening the Market for Government Securities

The technical aspects of broadening the market for government bonds concern essentially with interest rates and their flexibility, maturities and related options of the isssuer and the holder, redemption features and techniques, tax features and the use of government bonds under mandatory or prudential investment regulations.

2.2.2 Flexibility in Interest Rates

Under conditions of increased volatility in interest rates, the government could make an attemp t to contribute to a broadening of the government bond market or to promote the sale of government bond under difficult market conditions, or to forestalling a shortening in maturities by making interest rates on medium and long-term bond issues more flexible. In this way the scope for a decline in bond prices in phases of rising interest rates could be reduced, which in turn could make such bonds more attractive to investors than bonds with coupon rates which are fixed for the whole life of the issue.

There are essentially two different ways of providing flexibility of interest rates on government bonds. In the first case, the interest rate is variable and may be tied to another interest rate or an interest rate index, or to another indicator such as a price index. In this case, the development of the interest rate could not be known in advance. In the second case, some flexibility in interest rates would be obtained by fixing in advance different coupon rates for different phases of the whole life of a bond issue.

Interest rates on government bonds could be made flexible by linking the coupon rate of interest to other interest rates, such as a specific money market interest rate, the central bank discount rate, or a specific bond yield index, thereby introducing what is called a "Floating Rate" or a "Variable Rate" note or bond. This feature could improve the attraction of government bonds because this would enable investors to benefit to some extent from a rise in short_term interest rates with less exposure to book losses on capital vis_a_vis competing short_term instruments. A "Floating Rate" governmnent bond could be made more attractive by applying a relatively high minimum rate of interest below which the coupon rate on a bond could not fall.

2.2.3 Flexibility in Maturities

In pursuing the objective of broadening the market for government bonds or maintaining a relatively high level of sales of government paper under conditions of uncertainty, government may take into account the difference in maturity preferences over time or as between different types of investors. This could be

done in different ways, depending in part on the issuing techniques which is being applied. If the technique of public offerings during a short subscription period were used , government could offer a package of several maturities, for example, a short_term note in the one to three years maturity range, a medium_term paper in the four to eight years range, and a long_term paper with maturities of over ten or fifteen years.

If it were difficult to asssess the market situation for each maturity class and fix the offering yields accordingly, an advantage may be seen in leaving the issue amounts open so that they could be determined by the market. If for one reason or another it were preferable to fix, and announce to the market, the over_all amount which government wanted to raise through a particular debt issue ,the distribution of the total among the different maturity tranches could nevertheless be determined by the market.

Some flexibility in maturities could be obtained by offering certain options regarding final maturity. Holders could be allowed to ask for early redemption after a short period of, say, five years. Thus the total life of a bond of, say, ten years could be split into two or more sub-periods during which coupon rates could be different. The bond may be issued with a relatively short maturity of, say, five years and the holder could be given the option to extend the holding for another five years period. Thus, the total life of the bond could be split into two or more sub_periods during which the coupon rates of interest could be different, thus providing some flexibility to interest rates. The conditions on which the exchange would be effected should be fixed in advance. The bond to be issued may be an entirely new issue, the terms of which were already fixed in advance or it could be one in which the coupon rate and the maturity could correspond to an issue which is already in the market.

2.2.4 Special Tax Features

With a view broadening the market for government bonds, special tax features could be added. The income from government bond may be made tax free or could be taxed at preferential rates. A more powerful measure would be to permit the deduction from taxable income of possibly limited amounts invested in government bonds. It would be necessary to take into account the implications of such steps on the bond market as a whole and the overall cost effects. The bond market would most likely be segmented in favour of government bonds. Whether it would entail some crowding out of issuers other than the Government would depend on a number of other circumstances. The effect of such tax features would essentially be to pass part of the cost of government borrowing on to other borrowers, irrespective of whether or not over crowding can be said to take place.

2.2.5 Mandatory Investment

The sale of government bonds could be supported by the introduction of mandatory investment and/or prudential regulations which could be imposed on banks and other financial institutions. However, this would not necessarily result in a broadening of the "True" market for government bonds. If funds are raised at below market interest rates, there could result considerable distortions in the bond market as a whole. Interest rates for "non_eligible" bonds would tend to be higher than they would be in the absence of such regulations, partly because institutional investors who would be subject to compulsory investment at below market rates, would attempt to obtain correspondingly higher returns on their "Free" assets, partly because borrowers other than government would tend to bid up interest rates in the "Free" markets for funds. Such effects would be essentially similar to those arising out of using special tax features.

2.3.1 Effective Management of Selling Operations

Different selling techniques may have to be employed for selling government bonds with different characteristics. The following techniques, singly, or a combination thereof would be appropriate in a given situation.

Selling Government Securities on a fixed yield basis during a relatively short subscription period;

Selling government securities by an auction technique.

Selling government securities on a "Tap" i.e. on a continuous basis.

2.3.2 Selling Techniques

The main features of the three broad categories of selling techniques may be described as follows :

i) New issues may be sold on a fixed yield basis during a relatively short subscription period . The issue conditions are negotiated with an issuing consortium which generates the placing of the issue (firm underwriting) and the issue amount is announced. Alternatively, the issue conditions may be fixed by the authorities after consultations with banks and security dealers who are acting as sales agents. There is no firm under_writing and the issue amount may or may not be announced.

ii) New issues may be sold by using an auction technique. New isssue yields are determined on the basis of competitive bids from the participants in the auction who indicate the amounts they wish to acquire and the price they are prepared to

pay at a given coupon rate of interest, or the yield they are prepared to accept, if no coupon rate is fixed. The government may either determine the amount they want to raise and accept passively the isssue yield associated with the amount, or the government may decide the issue yield and accept passively the amount of the bids which are associated with that issue yield. The auction may be one of the following types :

(i) Uniform Price (Yield) Auction or Dutch Auction and

(ii) Conventional Auction

In the uniform price auction all successful bidders pay the same price i.e. uniform price which is the lowest price at which bids are accepted with a view to reaching the intended issue amount. The successful bidders pay the price which is associated with the highest yield at which bids are accepted.

In the conventional auction system, the bidders pay the price at which they have bid. In the case of Uniform Price Auction, non_competitive bidders pay the uniform price as other bidders and in the conventional type the non_competitive bidders pay the weighted average price of all accepted competitive bids.

(iii) In tap sales, the issues are sold on a continuous basis with or without specifying a relatively short initial subscription period i.e. the issue is on "tap". The issue conditions during the period in which the issue is available on tap are fixed by the government but they may be changed more or less flexibly in the light of changing market conditions.

2.3.3 Selling During Short Subscription Period

In selling new issues on a fixed yield basis where the subscription is kept open for a relatively short period, it is necessary to groom the market so that there is no under or over subscription. Both situations have long_term ill effect on market sentiment.

2.3.4 Auction Technique

The auction technique of selling leaves the determination of the issue yield to the market, provided the issue amount is fixed. This method of selling is useful for minimising borrowing costs in the sense of obtaining in a given market situation the lowest possible issue yield. In addition ,government could benefit from any interest rate decline which might occur in the period between the opening and closure of an issue. This will no doubt depend upon a number of circumstances. For an auction technique to work well, a number of conditions will have to be met. The participants in the auction should be able to form an adequate view of the market situation. Bidders should largely operate on a competitive basis. As far as the broad market impact is concerned, the auction technique is not much

different from the method of selling on a fixed yield basis during a short subscription period.

2.3.5 Selling on Tap Basis

The tap sale method provides considerable scope for the government to respond flexibly - though to different degrees in different institutional contexts to the problems with which government may be faced if it wants to sell sizeable amounts of securities under conditions of uncertainty and volatile interest rates. Though securities are offered on a more or less continuous basis, it is possible to pursue quantitative borrowing objectives for periods of several weeks or so and to attempt to realise such objectives by adjusting the offering yields to reflect changing market conditions.

Tap sales may be made directly in the secondary market or on an over the counter basis through a net_work of sales agents. When it takes place in the form of sales in the secondary market, it is more flexible both with regard to the timing of the selling process and the scope for adjusting issue yields to reflect changing market conditions. Tap sales of securities with different maturities could be offered in support of the authorities "Interest Rate Policy ". Debt manager could try to influence the yield curve if it were desirable. The existence of a broad secondary market is essential for effecting large tap sales.

2.4.1 Efficient Secondary Markets for Government Securities

Efficient and broad secondary markets for government securities are important for a number of reasons. Firstly, their existance facilities an effective selling of new government issues. Since the government in fixing yields of new issues usually takes interest rates prevailing in the secondary market as a reference, it is important for the success of the new issues that secondary market conditions reflect as correctly as possible, the true capital demand and supply situation in the corresponding segment of the market. Secondly, efficient secondary markets are important for ensuring in the long_run successful marketing and a wide distribution of government securities, because it is through the existence of such markets that government securities can be endowed with adequate liquidity features which investors may require. Thirdly, well_functioning and active secondary markets for government securities would facilitate the achievement of some other objectives of debt management policy, such as avoiding erratic movements in bond prices, stabilizing the market during the subscription period for new issues, and smoothing the impact of large scale redemption payments.

2.4.2 Existence of secondary markets would provide increased scope for open market operations. Flexible interventions for influencing the interest rate structure or an undesirable inter-

est rate aspect of open market operations designed to influence the supply of central bank money could be minimised or avoided altogether.

2.4.3 Secondary markets for government securities are generally considered as efficient and functioning well if such securities can be bought and sold at any time in sufficient quantities at market prices which are determined by market forces under conditions of free competition and which, moreover, can easily be known by all market participants. Under conditions of stable interest rate expectations, a relatively low degree of price sensitivity in relation to the volume of transaction could be considered as an additional criterion of efficiency in this context.

2.4.4 A major condition for the development of efficient secondary markets for government securities is a sufficient volume of outstanding government debt. In additioin, there should be a wide distribution of such debt. The larger the number of holders of government securities and the larger the amounts held, the greater the chances that at any time there will be buyers and sellers who operate in the secondary market. This, in turn, could contribute to reducing the price sensitivity of the market in relation to the turnover because the chance that market participants have different views about future bond price developments is greater.

2.4.5 A second major condition for an efficient functioning of secondary markets for government securities is the existence of private financial intermediaries who are prepared to quote to investors firm "bid" and "offer" prices for government securities and who are prepared to deal in agreed amounts at these prices. The intermediaries should also be prepared, and be able, to trade government securities in both rising and falling markets. Under conditions of a wide distribution of government debt instruments and sufficient interest on the part of investors to buy and sell such securities in the secondary market, it could be expected that there exist private financial institutions which find it attractive and profitable to provide a secondary market facility as described, notably if they are active as distributors of new government issues.

2.4.6 The authorities could encourage the development of private institutions which offer such secondary market facilities for government securities by providing an appropriate legal and regulatory framework within which such institutionss can operate and maintain an adequate capital base. Two institutional and organisational aspects seem to be of particular importance in this context : the type of institutions which provide or which are allowed to provide secondary market facilities, and the trading mechanism which is used for determining secondary market prices and yields. As far as institutions are concerned, an important question is whether they set their "ask" and "bid" prices in such a way that the accumulation of sizeable invento-

ries in government securities is avoided or whether, in unsettled markets, they are able and willing to assume relatively large positions. It is conceivable that in the former case price fluctuations in the secondary market are greater than in the case in which the intermediaries could act as buffers for absorbing important demand/supply imbalances. If private institutions are generally not prepared to provide the counterpart in the market in the event of heavy selling on the part of ultimate investors, there would be a need for an official institution to intervene, with a view to maintaining orderly market conditions. This task could be taken up by the central bank, but stabilizing interventions of this nature could conflict with the monetary policy objectives.

2.4.7 As far as the organisation of the trading mechanism is concerned, two broad types could usefully be distinguished. Government securities could be traded in an "over_the counter" market in which dealers communicate with each other over the telephone or telex and are prepared to quote quasi continuously "ask" and "bid" prices during normal office hours. The other type is the concentration of all trading operations on a stock exchange where the price of a particular loan is quoted only once,or several times, during a stock exchange session.

2.4.8 Various combinations of the essential features of the two systems seem possible. The "over the counter" market may offer more scope for flexible reactions of professional dealers and investors to changing market conditions, but the market process is less transparent to non-professional investors, including small savers.

On a stock exchange, it may be possible to achieve a greater concentration of demand and supply for a particular security in a particular moment; the prices thus determined may be applied to buying and selling operations of the banks' and securities' dealers clients. Such an arrangement may be desirable from a confidence and saver protection point of view.

2.5.1 Minimising Borrowing Costs

The objective of minimising borrowing costs has essentially three aspects. One is the objective of obtaining best possible issue terms in a given market situation. The second is the objective of minimising interest cost in absolute terms. This is considered as a medium to long-term objective of minimising borrowing costs. This aspect has been the subject matter of public debate as interest payments have been accounting for a rapidly increasing share in the total budget expenditure in many a country in recent years as a result of rapid growth in public debt and generally at rising interest rates. The third is the objective of minimisation of commission and fees to be paid for distribution of government debt.

If the second of the three objectives is to be achieved in the longer run, it would seem necessary to have a number of different maturities which could be flexibly used over the interest rate cycle. When interest rates are at their cyclical peak, government would have to concentrate on borrowing on short_term basis even if the short_term rates were higher than long_term rates. Conversely, when interest rates are at or near their cyclical low, government has to concentrate its efforts on the long_end of the market with a view to benefiting over the long_run from low interest rates, even if under short_term considerations it would be cheaper to borrow in the market for short_term funds.

The problem, however, is the forecasting of interest rate movements and of corresponding changes in the yield curve, i.e. in the relationship between short,medium and long_term interest rates. With increased volatility in inflation rates and interest rates, notably if synchronisation of movements in these rates and cyclical swings in production and income is lacking, it will become rather difficult to assess future interest rate developments and adjust borrowing policies accordingly, with a view to minimising interest rate costs over the long run. In addition, borrowing requirements may be of such a size that the question of availability of funds becomes more urgent than narrow calculation of relative borrowing costs. The scope for pursuing a policy of cost minimisation could also be reduced by an urgent need to extend the average maturity of the public debt or by pursuing the objective of selling large amounts of longer term government paper to the non_bank sector with a view to containing monetary expansion.

2.5.2 Government could consider achieving the objective of minimising interest costs on public debt by making extensive use of "Priveleged circuits", either in the form of mandatory investment regulations or in the form of tax priveleges on income from, or even on amounts invested in, government paper. Tax priveleges would reduce tax revenue. Mandatory investment regulations which produce below market interest rates would adversely affect tax revenue, hence interest income will be lower than otherwise. The reduction in tax revenue on the above grounds will not necessarily be offset by higher tax revenue generated at a higher rates on non_governmental debt contracted at a higher rate. These considerations may not weigh with the government who may still proceed with the use of "previleged circuits" and tax priveleges because of consideration such as the broadening of government securities market and promoting private household saving.

2.5.3 Achieving A Balanced Maturity Structure

The objective of achieving a balanced maturity structure is important if the amount of outstanding debt is substantial. The maturity distribution of the outstanding debt over time not only annually, but also throughout each year determines the size and the timing of those future debt issues, which serve

the purpose of renewal of the maturing debt.

The longer the average life of the total debt and the more balanced the amounts of maturing debt, the smaller the refunding needs in a given fiscal year, or in a given month within each fiscal year.

2.5.4 Achieving a balanced maturity structure essentially means avoiding a heavy bunching of maturing debt and of corresponding redemption payments in particular single years or on particular dates during a given fiscal year. A relatively balanced maturity profile over time and a relatively long average life of the total debt is desirable from the point of view of medium_term planning of fiscal and debt management policies. If the average life of the debt is very short and if, accordingly, the amount of short_term debt which needs renewal is very large, the government and the monetary authorities will need to have regard to maintaining conditions which will facilitate rolling over the stock of debt or funding it on a longer_term basis.

2.5.5 As far as the distribution of maturity dates within a given fiscal year is concerned, government will have an interest in setting maturity dates in such a way that thev fall into a period of the year when the cash position of government is seasonally strong. However, after a period of rapid increase in total debt such seasonal patterns may tend to be reduced as a result of debt operations and interest payments.

2.5.6 The use of a few instruments with standard maturities which would have to be issued at fairly regular intervals could greatly facilitate the building up of a balanced maturity structure. However, any systematic attempt to construct a regular maturity profile of public debt is likely to conflict with other important objectives of debt management. In a situation in which the borrowing needs for both new financing and refunding purposes are substantial, government may take decisions on the maturities of new issues essentially in the light of investor preferences in order to ensure the success of the borrowing programme. In such circumstances, the maturities chosen may not necessarily correspond to the objective of achieving balanced maturity structure.

2.5.7 When governments are expected to support the monetary authorities' interest rate policy, notably as regards the relationship between short_medium, and long_term interest rates, it would be necessary to set the maturities of new loans in the light of that objective. But this could conflict with the objective of achieving a satisfactory maturity structure. In phases of high interest rates, government may be reluctant to issue long_term instrument in large volumes, but in order to avoid large volumes of short term debts, it may be desirable to issue some medium and some long_term loans. In phases of relatively low long_term interest rates, special efforts should be made to lengthen the average maturity of the debt by concentrating the efforts on borrowings at the long end of the market. This would

be in harmony with the objective of minimising borrowing costs over the long run. But there could be a conflict with the objective of supporting interest rate policy if government aimed at bringing long_term interest rates down.

2.6 Coordination with Conjunctural Economic Policy

The role which debt management policy could play in coordination with general conjunctural policy, notably monetary policy is discussed below :

The public debt policy will have to be in accordance with the general objectives of economic policy and should not be such as to impede the achievement of intermediate objectives which may have been set in the monetary and financial field. Within this framework, debt management would be primarily directed to the financing of the budget deficit and management of the government's debt.

Public debt policy may be expected to contribute actively to the achievement of objectives which may have been formulated as regards the level and the structure of interest rates and/or liquidity in the economy, or in any particular sector of the economy.

Debt management may be operated as an integral part of over_all economic policy, which uses in the financial field what might be termed an overall credit_budget approach.

Debt management may be operated as an integrel part of monetary policy which is essentially monetary aggregate oriented.

The technical aspects of debt management which may be involved can be discussed under two headings : interest rate effects of debt operations and liquidity effects of debt operations.

2.7.1 Interest Rate Effects of Debt Operations

The debt operations will have to be conducted in such a way that undesirable effects on interest rates are avoided or that it contributes to the achievement of particular objectives as regards interest rates. There are three issues relating to interest rate effects of debt operations :

i) To influence the overall level of interest rates.

ii) To influence the level of long_term interest rates alone, and

iii) To influence the shape of the yield curve, i.e.

the relationship between the short,medium and long_term rates.

If the objective is to influence the level of interest rates irrespective of the shape of the yield curve, the debt management office should have at its disposal an adequate range of domestic financing and debt management facilities. If the objective is to avoid undesirable increases or to support a desirable decline in long_term interest rates, it is necessary to concentrate borrowing efforts on the short_end of the market while reducing issues of long_term instruments. If the objective is to influence the shape of the yield curve, it would require a certain degree of segmentation of the markets for government securities. The debt management office may choose flexibily between short,medium and long_term instruments and avoid the various market segments as may be appropriate.

In order to exert an influence on interest rates, the existence of an adequate range of government debt instruments and financing facilities and flexibility in their use are necessary.

2.7.2 Liquidity Efects of Debt Operations

The debt manager is expected to conduct his debt operations within a given over_all financing task in such a way that specific liquidity effects are achieved or that undesirable liquidity effects are avoided. From a technical view point it may be useful to distinguish between the following cases :

i) The government may, under special economic circumstances, be requested to contribute to a restrictive monetary policy by conducting large scale liquidity sterilisation operations.

ii) If it were an objective of monetary policy to control monetary expansiion, the debt management office may be requested to contribute to the achievement of this objective by selling debt to the non-bank sector on a more regular basis.

iii) If it were an objective to influence the growth of the central bank money stock, the debt management office may be requested to contribute to such a policy through appropriate debt operations ;

iv) If it were an objective of monetary policy to influence the liquidity structure of the banks' assets, the debt office may be requested to contribute to such a policy by issuing appropriate debt instruments.

2.7.3 If the monetary authorities' objective were to mop up excess liquidity in the economy on a larger scale without any particular specification whether bank or non_bank liquidity should be reduced, the debt management office could be requested to issue substantial amounts of longer_term bonds, the proceeds

of which would be blocked on central bank account or would be used for redeeming government debt held by the central bank. An essential condition for conducting such operations would be that the government is authorised, under budgetary or constitutional legislation, to issue debt for other than budget financing or debt renewal purposes at least temporarily.

2.8.1 Market Based Regime of Public Debt Management

The issue of new loans in a "market_based" regime is managed by series. By series, the government offers the securities to the public in discreet time periods, according to a debt management programme which is formulated by the finance department of the government. The instrument characteristic of each new series such as the size of issue, the issue date, maturity date and rate of interest are the policy parameters by which the debt management objectives are implemented through the debt management programme.

In a "market based" regime the issuance of new loans will be supply determined as in figure 1 (attached)

2.8.2 Interest Rate

In the "market_based" regime, interest rates are accorded an important role : (1) in the absorption of the new issues and (2) in the provision of secondary liquidity to absorb the primary issue. The interest rates have to be flexible so that sufficient investor demand is assured. This is depicted in figure 1 attached, where given the fixed supply 'Q' and demand D1, the price i.e. the return, is P1.

Secondary liquidity is possible in a flexible interest rate regime. Shifts in investor demand result in either a rise or fall in the interest rate, as may be seen from fig. 2 (attached).

Demand shrinks _ represented by the shift in the demand curve from D1 to D2 _ security prices fall (securities become cheaper) and the rate of return rises (returns are more attractive to investors). The end investors are again willing to hold the fixed stock of DEBT,Q : though at a lower price and at a higher interest rate.

2.8.3 Liquidity

In the market based regime, the interface between the government (issuer) and the investor is indirect. The primary dealer group acts as an intermediary between the issuer and the investor for the new (primary) issues and as an intermediary between investors for providing liquidity . The provision of liquidity is the responsibility of the primary dealers who stand ready to buy and sell the debt instruments to and from investors

FIXED SUPPLY

Fig. 1

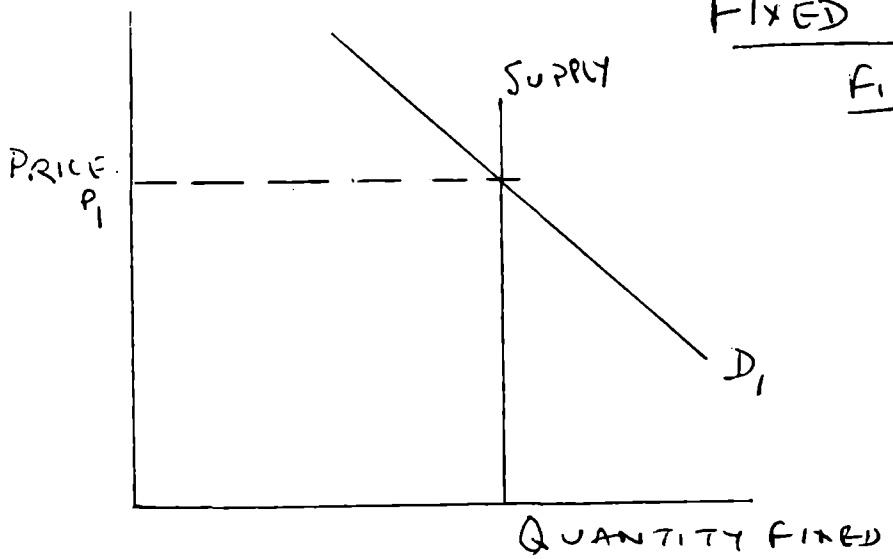
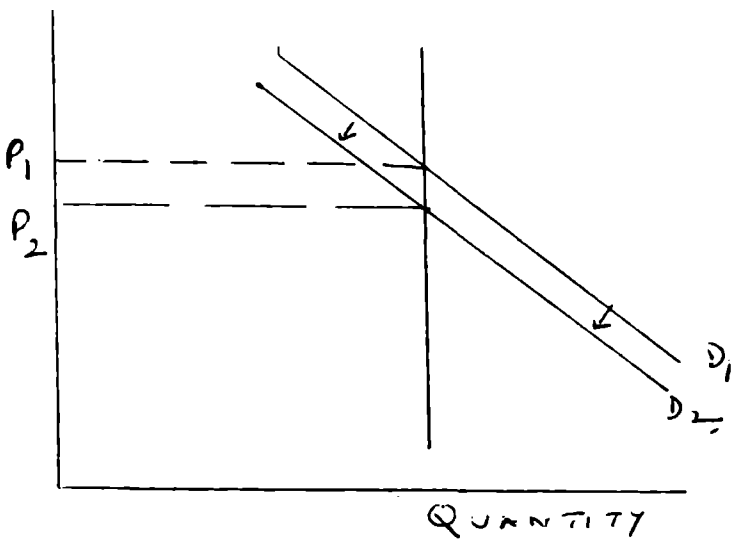


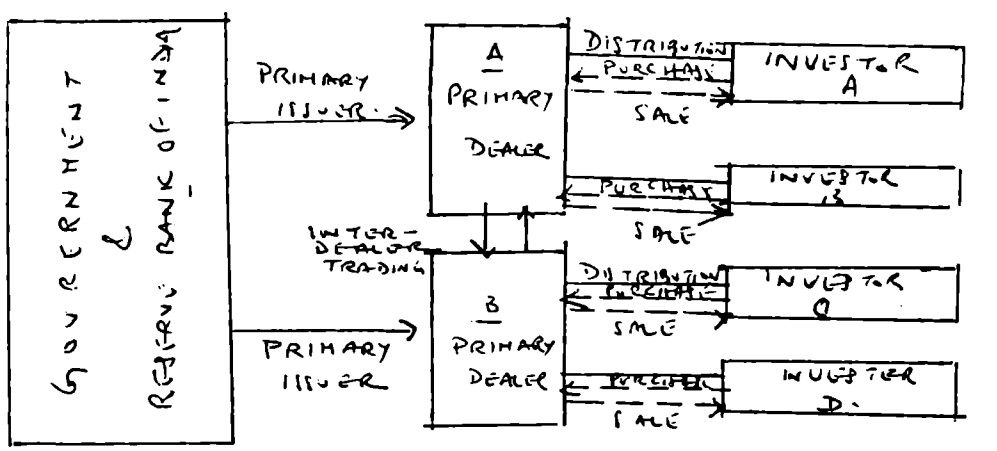
Fig. 2.



$P_1 > P_2$

Return 1 % < Return 2 %

Fig 3



INDIRECT INTERFACE IN THE MARKET

in the secondary market. Thus, in the market based regime, debt instruments have fixed terms to maturity.

The indirect interface is depicted in figure 3 (attached)

2.8.4 Advantages

The market_based regime has many advantages.

(a) New issues control : The new issues of debt will be supply determined and hence government will have full control over issues. The government can furmulate a debt management programme whereby the budget financing requirement is met in a systematic fashion. Debt management becomes pro_active rather than reactive.

(b) Improve cash management control : With fixed terms to maturity, redemptions will be fixed. This would greatly improve the ability of the government to manage its cash balances.

(c) Control of the term to maturity : With debt instruments of fixed term to maturity, government can achieve a target term to maturity of debt outstanding.

(d) Flexible interest rate structure : Fexible interest rates play a key role in regulating supply and demand conditions and thereby ensuring that debt finance is raised at the lowest possible interest cost to the government _ a principal objective of debt management.

2.9.1 Considerations for Issuing Marketable Debt Instruments With Different Characteristics

Marketable government debt instruments -medium-dated or long-dated that may be issued may have the following characteristics :

i) Special features applying to interest rates.

ii) Maturity features

iii) Redemption techniques

iv) Special taxation features

v) Prudential and/or investment regulation features

vi) Secondary market and other liquidity

features.

2.9.2 Special Features Applying To Interest Rates

Stepped Rate Bonds :

With different coupon rates of interest for different sub-periods of the whole life of the issue. The interest rate applied during the first sub-period i.e. from the issue date to the early redemption date is usually lower than the one applied during the second-period. The early redemption date and the coupon rates applicable for the two sub-periods are fixed at the time of issue.

The holders may be given the option during a specified period to exchange the bond for bonds maturing at a later date. The coupon rate on the second bond may be higher or equal to the rate on the first bond.

A convertible bond with option to convert on a definite date in the future, on pre-arranged terms into an existing bond (already issued) has characteristics similar to "Stepped Rate Bond".

2.9.3 Variable Rate Bonds

"Variable Rate Bond" are issued in two forms : in the first case, the coupon rate on, say, a ten-year bond is, after five years, adjusted to the level of yields on comparable new issues, if such yields were, during this period, to change upward or downward by more than one full percentage point. In the second case, the interest rate is tied to the central bank discount rate (2-1/2 above discount rate).

Each issue of a variable rate bond may have a minimum nominal rate of interest. For example : (i) interest was calculated as the weighted average of the issue yields of all treasury bills auctioned during the three months preceding the month before the period when the coupon began to mature. (ii) interest was calculated on the basis of the issue yield on six-months treasury bills plus a spread depending on the maturity of the bond.

2.9.4 Index-linked Bonds

The coupon rate of interest is set at a rather low rate. The capital value is linked to the retail price index with a time lag. The coupon rate of interest applies to the up-valued capital.

2.9.5 Low-Coupon And Zero -Coupon Bonds

Low coupon bonds : The coupon rates of interest are generally set substantially below the current bond yield level, and the issue prices are set at a considerable discount from par.

Zero-coupon bonds : i.e. bonds without a coupon rate of interest are issued on a discount basis. A standard maturity of say, 5 years is applied. Low coupon rate feature is attractive to higher income brackets because of favourable tax treatment of capital gain element of the bond yield. A "zero coupon" feature is convenient because there is no need to plan any reinvestment of periodical interest receipts.

2.9.6 Lottery Bonds

Lottery bonds with medium-to long-term maturities are issued with one or two drawings in each year. The prizes upto certain specified amounts are tax free. The total cost on prizes are fixed in advance. These are issued as bearer bonds.

2.9.7 Maturity Features

The standard maturities of short-term,medium-term and long-term i.e. 1-5, 6-10 and 11-15 years are generally followed. However, there is an effort to flexibly adopt to prevailing market conditions or according to the preferences of those investor groups whose resources the government would wish to tap.e.g. familiarising the small saver with investing in marketable debt; promoting private household saving in longer-term forms. There may be other consideration such as the achievement of a particular maturity structure of outstanding debt. Both the above considerations are applied in structuring the maturities of new issues.

Maturity options to investors : Such options may take the form of allowing the bond holder to request early redemption on one or several dates before maturity, or of allowing the bond holder to extend the maturity of his holding through an automatic switching, at final maturity, into a new bond which matures several years later.

Maturity options for issuer : The government while issuing new loans may use clauses which would entitle the government to call for early redemption before final maturity, or for an extension of the maturity at a lower coupon rate.

2.9.8 Redemption Techniques

Redemption is made at final maturity at, or above, par value. Redemption payment may be made by regular or irregular, annual payment with or without grace period. The general preferance is to pay lump-sum at maturity. However, redemption is also effected through small repurchases in the secondary market at

market price. The prices should not exceed the par value of the security.

2.9.9 Exchange Features

Maturing government issues may be allowed to be used as payment for subscription to a new issue which is launched on, or near, the maturity date. This is also known as conversion issue. The maturing issue may also be vested with a rights value.

2.9.10 Special Taxation Features

The interest income on bonds may be tax exempt for private individuals for tax purposes. Holdings of such bonds may also be exempt from wealth tax. Amounts invested in government bonds may be allowed as deductions from income for purpose of personal income-tax.

2.9.11 Prudential and\or Mandatory Investment Regulation Features

Prudential regulation laying down ratios for investment in government securities is primarily aimed at safeguarding the functioning of banks and other depository institutions. Mandatory investment regulation prescribing minimum holdings of government paper may also have some prudential aspects, but the primary purpose is to ensure easy access by the government to financial resources, possibly at below market rates. Such regulations are not intended to broaden the markets for government securities.

2.9.12 Secondary Market and Other Liquidity Features

Banks can use government paper as collateral for borrowing from the central bank. The actual use is, however, controlled according to monetary policy considerations. Banks are also allowed to sell government securities to the central bank in the six-months period preceding final maturity. Non-bank investors can use government paper as collateral for borrowing from commercial banks.

An extract giving in brief the details of different types of securities issued in the U.K. gilt edged market is attached.

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THE U.K. GILT-EDGED MARKET

Methods of Funding

New gilt-edged stock is usually offered for sale to the public by means of a prospectus and application form supplied by the Bank of England, and reproduced in major national newspapers. Details of new issues, including price, are normally announced at the official close of Stock Exchange business, by the Government Broker, often on a Friday. Methods of issue however, have changed somewhat over the last four years. Previously, a new stock was offered for sale at a fixed price, in fully paid form. This method is vulnerable to significant movements in market prices in the period between announcement of the issue terms and closing date for applications, normally three or four working days. The price of new stocks is normally pitched in line with comparable stocks, but with the increasingly volatile nature of the market in recent years, this price could appear out of line by the time lists closed. In particular, several cases of heavy over-subscription used to occur. This embarrassing tendency was exacerbated by the advent of partly-paid stocks, introduced to even out the flow of Government funding for purposes of monetary control. Because of their gearing potential partly-paid stocks have sometimes encouraged large applications by both domestic and increasingly-sophisticated overseas investors, often on a short-term basis. Foreign interest in the gilt-edged market increased in the latter part of the 1970s as the attraction of a more favourable sterling exchange rate outlook was added to that of relatively high UK interest rates. The *tender* method of offering new gilt issues was introduced to counter complaints about the Bank of England selling stock too cheaply.

Prospective buyers tender at a price at which they hope to be allocated stock, subject to a minimum tender price specified in the prospectus. When all the applications have been received the stock is allotted. If the issue has been over-subscribed preference is given to the highest tenders, which, if above the minimum accepted price, are allotted in full, then the next highest tender and so on until a price is reached where only a partial allotment can be made to fully subscribe the issue. This lowest price at which partial allotment is made is then paid by all allottees no matter how high their tender price, the only difference being that those who were willing to pay a higher price receive allotments in full, but those tendering at the allotment price are usually scaled down. If the issue is under-subscribed then all applicants receive all the stock for which they applied at the minimum tender price. It is probably true to say that the speculative element in subscription for new issues has been reduced by the tender method.

A further example of the Authorities' willingness to adapt issue methods to changing market conditions and to their own needs is when on occasions stock is not offered directly to the public, but is sold by the Government Broker directly to the market. This action is sometimes taken because the Authorities need to sell stock urgently in order to reduce money supply

growth or for any other market reason. In addition the Authorities, from time to time, issue small new tranches of existing stocks when a larger conventional tap issue is deemed inappropriate. This method has been increasingly widely employed over recent years.

Tap Stocks

For accounting purposes any residual part of a new Government stock issue not subscribed for by the public on the day of issue is taken up internally be Government Departments. This portion of the issue is then available for subsequent sale to the market-makers, normally at successively higher levels than the issue price, at the demand of investors. As a matter of practice market-makers will wait for sufficient potential demand for the new stock to develop before approaching the Government Broker for stock. Supplies of this security are then said to be on tap, and hence new Government loans are known as tap stocks, until their availability from the Authorities dries up.

In cases where interest rates have moved materially higher than the level prevailing when a tap stock was issued, the Government Broker can reduce his tap price by several points in order to enable resumption of funding at the lower market levels.

Index-linked stocks have often been issued by tender but without their being a specified minimum tender price in the prospectus. In practice the Authorities do indeed have in mind a level below which they will not accept bids and in cases of undersubscription above this level, all successful bids are allotted at this lower level.

It is no secret that the Bank of England always keeps an open mind as regards the methods of funding and indeed the Authorities have announced that they will be experimenting with a tender system of issuing stock, similar to that adopted by the US Treasury market.

Non-Standard Issues

During recent years, the large funding requirements have prompted the Authorities to increase the variety of debt instruments in an attempt to improve their control over monetary aggregates. In the personal sector, innovations have included index-linked national savings certificates and index-linked "Save As You Earn Schemes", with upper limits on maximum saved. Both forms of saving are indexed to the Retail Price Index.

In the gilt-edged market, the innovations have been no less imaginative, offering greater flexibility of coupon or maturity and the opportunity of acquiring gilt-edged stocks with both coupon and capital index-linked to consumer prices. A description of each type of these issues is given below.

Variable Rate Stocks

Variable rate stocks (or Floating Rate Notes) are bonds where the interest payments are variable and are linked to a particular index or money-market interest rate. By linking coupon payments to the latter, these bonds can be attractive to investors when money market interest rates are high and expected to stay high (or even expected to rise). These forms of investment may give the authorities the opportunity to fund when it would not be easy to sell conventional fixed interest bonds. The last variable coupon gilt was redeemed in 1983 and recently it has not been considered necessary to fund using this type of instrument.

Low Coupon Gilts

The Authorities quite regularly issue fixed interest gilts with very low annual coupons (2½% or 3%). These bonds, like all other gilts are free of capital gains tax and, because they are priced at a substantial discount to par, are very attractive to high rate income-tax payers. These gilts help the authorities fund to a sector which may not otherwise buy gilts.

At the time of writing the authorities have not yet issued zero-coupon gilts although certain financial companies have looked to generate such bonds by "stripping" existing gilt issues. However, in order to discourage this process, current Inland Revenue legislation has set the tax treatment on zero-coupon bonds which have been so formed at a disadvantage against similar bonds which have been issued under normal commercial grounds.

Convertible Stocks

At times of difficult funding conditions the authorities have found it convenient to issue stock carrying an option to convert into one or more specific stocks with different maturity dates. The terms of conversion are set out at issue and to date have been on deteriorating terms on successive conversion dates.

Index-Linked Stocks

An increasing proportion of the capitalisation of the gilt market is in the form of index-linked bonds. The first of these bonds was announced on 10 March 1981 by the Chancellor of the Exchequer in his budget speech. Initially the bonds were only available to authorised UK pension funds. However, the following year this limitation was lifted to allow the stocks to be bought by any investor (domestic or overseas).

These gilts link the redemption payment and each coupon payment with increases in the government's published Retail Price Index since the stock's base date. The base date is usually taken as being eight months prior to the issue of the stock. The indexation of each payment is that increase of the RPI from the base date to a time eight months prior to that payment. This lag in the indexation period allows for the next coupon payment to be known when the stock has gone "ex" the previous dividend.

Formula for the Real Yield on Treasury Index-linked Stocks

Because of the lag in the indexation period it is impossible to generate a formula for the real yield of index linked gilts which is totally independent of future inflation.

A common method for calculating the real yield is as follows. By assuming a rate for future inflation, the nominal amounts of future coupons and the final capital repayment may be found. The nominal yield is then calculated as for a conventional gilt. This nominal yield is converted to a real yield by factoring out the assumed inflation rate.

CHAPTER 3

A REVIEW OF LITERATURE ON DEBT (INTERNAL), DEFICITS,MONEY,OUTPUT AND PRICES

This chapter covers a review of four important papers published on the subject in the RBI Occasional Papers and in the Economic and Political Weekly. The papers highlight the consequences of monetisation of large public deficits on money supply, output and prices and the strain it would cause on debt management. This chapter also serves as a background for the more detailed discussion on"Coordination of Monetory Policy, Fiscal Policy and Debt Management Policy - Some reflections on Indian Experience" in the next chapter.

3.1 This review covers four papers on the above mentioned linkages. Each paper will be reviewed in terms of its objectives,framework and results obtained. The common points of the papers will be stated.

3.2 Paper I :

The Burden of Domestic Public Debt in India
RBI Occasional Papers, June 1987 Seshan A.

This article raised the question of an internal debt trap for the first time. Rising domestic public debt led to this concern whereby borrowings have to be resorted to by the Central government more and more just to keep up with the servicing of debt. Given the limited capacity of the market to respond to the government's borrowings the amount borrowed might not be sufficient to meet the debt service burden (amortisation and interest payments).

The paper sought to establish a ~~date~~ deadline by which India could enter the debt trap. Before stating the results a few points needs to be clarified.

(i) It is not the absolute amount of debt which is important. Rather, one must look at the DEBT/GDP ratio, because this ratio tells us, how much of our current income may be needed to pay off our debts. A higher growth of GDP will lighten our debt burden.

(ii) A large absolute debt acts like a drag on the economy because resources which could be invested are expended in servicing debt.

(iii) A rising debt means larger interest payment, especially if interest rates are also revised. This can lead to more borrowing to pay interest.

(iv) The scope of borrowing is largely influenced by the following factors :

(a) Directon of such funds into development or non _development activities and the question of asset creation.

(b) Time lags before output increase.

(c) Captive nature of government securities in India (approximately 99 per cent) which renders large_scale mobilisation of household savings unrealistic.

(d) R.B.I. as buyer of government securities ultimately.

On analysing the trends in interest payments and net market borrowings the author concludes that by 1992_1993 annual interest payment on market borrowings would exceed annual net market borrowing.

3.3 At this point it would be useful to go into the macro_economic issues; specially the factors which are influencing the internal debt. This is based on the remaining three papers surveyed.

Paper 2 Money,output and prices - A Macro Econometric Model, EPW 1990

Rangarajan
&
Arif R.R.

Paper 3 Fiscal Monetary Dynamic Nexus in India: An Econometric Model, EPW 1990

Jadhav
&
Balwant Singh

Both these papers trace the linkages between deficits, money supply, output and inflation via theoretical modelling and empirical testing. Traditionally macro economics has witnessed a heated debate over the efficacy of monetary policy in inducing output. If one looks e.g.at the simple classical identity :

$MV = PY$ where M = stock of money

V = income velocity assumed

constant

P = general price level (index)

Y = Real output.

then a rise in M can change price or output or both. Problem is that a priori one cannot say which will change due to a change in M, because we can only observe change in PY which is equal to nominal income or GDP. What is simply illustrative from the above example is that if output is constrained for some reason, then rising money supply can only push up the price level.

The stock of money is brought in endogenously and changes in it are via changes in reserve money which changes because of government deficits and its accommodation by borrowings from the Reserve Bank of India.

Given the money supply and the output, the P level is determined which in turn affects the future deficit and so on.

Rangarajan & Arif modelling which is based along these lines comes out with the following conclusion. The government's autonomous increase in real capital expenditure, if unaccompanied by adequate resource mobilisation, will increase the fiscal deficit. In turn this raises the recourse of the government to Reserve Bank credit which by expansion in reserve money increases the money supply (where MS = f (Reserve Money). However, at the same time monetary expansion (via government spending) also induces growth in output, implying higher government revenues. But dynamic policy simultations reveal that such sustained increase in Ms has immediate impact on the price level whereas output reacts with a considerable lag. Under such circumstances, an inflationary spiral is created.

Jadhav/Singh's paper picks up this situation. They try to see whether the size of government's fiscal deficit is inflation induced and how the inflation - deficit linkage tends to be self_ perpetuating. Their model runs as follows :

> "An initial deficit raises Ms which given the output determines P level and hence nominal income = PxQ. A higher P level (from the previous level) affects government expenditure and receipts differently. On the revenue side it has a differential impact on tax and non-tax revenues; on the expenditure side, it warrants larger expenditure to maintain its level in real terms
>
> (excluding interest payments on debt). The result based on empirical testing shows that the effect of inflation is stronger on expenditure than on receipts and because expenditure adjusts faster than the revenue the budget deficit tends to widen further, a self-perpetuating process"

3.4 Paper 4

"Dynamics of interaction between government deficit and Domestic Debt in India, RBI Occasional Papers September 1989. Rangarajan C., Basu A. and Jadhav N.

This paper links the financing of deficit to the growing internal debt. The paper begins by highlighting the concept of government deficit. It brings out the shortcomings of the concept used traditionally by the government and introduces a wider concept of fiscal deficit. The idea is to capture adequately the government's borrowing requirement finance the deficit whether from the public and financial institutions or the Reserve Bank of India.

Thus Gross Fiscal Deficit (GFD)

(Revenue expenditure) (Revenue)
(+) (receipts)
(Capital expenditure) - (+)
(+) (grants)
(Net domestic lending)

GFD represents the overall borrowing requirements of the government and captures the entire shortfall in government's fiscal operations.

The second aspect is the measurement of government debt which comprises :

(i) "Internal debt" consisting of current market loans, treasury bills, special securities issued to Reserve Bank etc.

(ii) "Other liabilities" which consists of small savings provident fund etc. These are also classified as debt as they involve servicing through interest payments and redemption.

Using a dynamic inter_linked model between government deficits and different modes of financing, the tested framework was

(i) If financed by borrowing i.e. "debt financing" the question addressed was, what would be the future time profile of DEBT/GDP if the deficit is assumed to evolve passively, ceteris paribus.

(ii) Alternatively, if deficit financing or "monetary financing scenario" is resorted to what would be the projected impact on inflation; if again the deficit is allowed to evolve passively, while

keeping the domestic debt financing and foreign financing at their original ratios to GDP.

Under the former scenario, the overall Debt to GDP ratio was projected to increase very rapidly from 44.6 percent in 1987_88 to beyond 100 percent in 1995_96 and as much as 150 percent by the year 1999_2000. This rise would also imply correspondingly higher net interest burden and further squeeze on budgetary capital outlay.

Under the latter, higher inflation would occur in turn fuelling larger deficits, further recourse to Reserve Bank and renewed inflationary pressures.

Either way the situation would be intractable and the reason for this would be primarily the passively evolving government deficit.

3.5 Some interesting data on :

(1) Total internal liabilities of the Government of India and of which the size of the market loans (Table 3.1)

and

(2) Interest payments on internal liabilities and of which interest payment on market loans (Table 3.2) are appended.

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Table 3.1

Internal Liabilities ofThe Government of India

(Rs. in crores)

End March	Total Internal liabilities	of which market loans
1981	48,451	15,625
1982	55,858	18,523
1983	71,189	22,304
1984	80,142	26,342
1985	96,804	30,360
1986	1,19,331	35,240
1987	1,46,248	40,759
1988	1,72,338	46,622
1989	2,04,025	55,114
1990	2,39,850	62,519
1991	2,79,528(RE)	70,520
1992	3,20,079(BE)	78,029

Source : Expenditure budget Vol.II Government of India
Finance Accounts
Government of India.

Table 3.2

Total Interest Payments on Internal Liabilities

and on Market Loans

		Interrest Payment on Internal Liabilities	of which on Market loans
1980-81		2,373	808
1981-82		2,937	1,016
1982-83		3,633	1,194
1983-84		4,440	1,568
1984-85		5,514	1,991
1985-86		6,974	2,464
1986-87		8,480	3,098
1987-88		10,275	3,680
1988-89		13,036	4,505
1989-90		16,225	5,162
1990-91	(RE)	20,041	6,300
1991-92	(BE)	24,770	7,345

Source : Finance Accounts, Government of India,
Receipts Budget Government of
of India Exp.Budget.Vol.II
1991-92(P.66)

CHAPTER 4

COORDINATION OF MONETARY POLICY, FISCAL POLICY AND DEBT MANAGEMENT POLICY- SOME REFLECTIONS ON INDIAN EXPERIENCE

(It is appropriate and practical to link and coordinate debt management policy with monetary policy and fiscal policy Such links should be established by guidelines.

The public debt policy will have to be be in accordance with the general objectives of economic policy and should not be such as to impede the achievement of intermediate objectives which may have been set in the monetary and financial field.

Public debt policy may be expected to contribute actively to the achievement of objectives which may have been formulated as regards the level and structure of interest rates and/or liquidity in the economy, or in any particular sector of the economy.

Debt management may be operated as an integral part of over-all economic policy, which uses in the financial field what might be termed an overall credit budget approach. Debt management may be operated as an integral part of monetary policy which is essentially monetary aggregate oriented.

It could be considered appropriate to separate responsibilities in different areas of economic policy so that debt management could remain as neutral as possible as regards its effects on different economic situations.)

4.1 Monetary Policy and Fiscal Policy are closely interlinked. Internal Debt Management Policy is closely integrated with Monetary Policy as well as Fiscal Policy.

4.2.1 Monetary Policy Measures

Monetary Policy measures in India during the last four decades have generally been by way of response to fiscal policy. This is noticeable since the early seventies as a sizeable in-

crease in Reserve Bank credit to government became a normal feature. The impact of the resultant growth in reserve money and money supply had to be suitably neutralised by the monetary authority, keeping in view the development in the real sector such as droughts and sharp changes in the RBI holding of net foreign exchange assets. Firstly, while trying to moderate the secondary impact of primary money creation arising from large credit to government, the Reserve Bank had to ensure that the genuine credit needs of the productive sectors were met. This was a difficult balancing act and given the compulsions, the Reserve Bank was not always successful in keeping prices down. The instruments used for the purpose of monetary regulation, particularly in the last two decades have been the cash reserve ratio, the statutory liquidity ratio and variations in the food refinance limit, in view of their strong and more predictable impact.

4.2.2 Secondly, while monetary policy has been primarily acting through the availability of credit, the cost of credit has also been adjusted upwards, sometime very sharply, to meet effectively the inflationary situations. The government bond rate has been raised from 7.50 percent in 1980 to 11.5 percent in 1985; and the deposit rates have also been raised with a view to offer a positive real rate of return.

4.2.3 Thirdly, the areas of operation of monetary policy did not remain confined to those related to regulation of money supply and keeping prices in check. A more direct involvement of the monetary authority in the allocation of credit to the non-government sector became an important element of national economic policy, especially after the nationalisation of major banks in July 1969. It called for an assessment of the limits of expansion of bank credit to the commercial sector and entailed implementation of guidelines relating to specific shares of different identified sectors in total credit expansion.

4.2.4 For regulating money supply, the monetary authority must have a reasonable degree of control over the creation of reserve money. Obviously, there are exogenous factors such as movements in the foreign exchange assets which affect the level of reserve money. The degree of independence in regulating reserve money depends upon institutional arrangements governing the functioning of the monetary authority in India. There is no statutory limits on the extent of borrowing from the Reserve Bank which the Central Government may resort to.

4.3.1 Co-ordination between Fiscal And Monetary Policies

Fiscal Policy is laid down by government. The issues that arise in the co-ordination of fiscal and monetary policies in India can be understood by a brief review of the borrowing programme of the Government. There has been a significant rise in government borrowing since 1971. The volume of treasury bill outstanding rose from Rs.2500 crore in March 1971 to Rs. 25,100

crores in March 1986. Other marketable debt of the central government rose from Rs. 4400 crores in March 1971 to Rs. 37104 crores in March 1986. Marketable debt of state government rose from Rs. 1200 crores in 1971 to Rs. 6000 crores in 1986. Net Reserve Bank credit to government also rose significantly from Rs.3,800 crores in 1971 to Rs.38,900 in 1986. In March 1991 it had risen further to Rs.88,848 crores.

Out of the increase in treasury bill and other market debt outstanding of the order of Rs.61,000 crores, in 1986 the absorption by the Reserve Bank accounted for about 58 percent.

4.3.2 The developments mentioned above highlight two important features of the government borrowing programme. Firstly, the scale of borrowing was maintained at relatively high levels and the budgetary deficits represented by the increase in the volume of treasury bills outstanding have increased sharply. Government finances have come under increasing pressure in recent years. Surpluses on revenue account have given way to deficits. The situation is met increasingly by resort to borrowing in order to maintain expenditures on the scale postulated in the plans and budgets.

Secondly, from the mid-seventies borrowing, particularly short-term borrowing through treasury bills, was at lower than market interest rates. The discount rate on 91-day treasury bills which had risen to 4.6 percent per annum in mid 1974 was pegged at that level (and even today remains at that level).

4.3.3 Banks and the natinonalised life insurance and general insurance enterprises are required to invest a prescribed portion of the funds mobilised by them in government securities.

Even the captive market for government securities represented by the fast growing commercial banks could not absorb fully the government securities which were floated. As earnings from holding these securities are not attractive and as banks have other alternative avenues for utilising their funds more profitably, they hold government securities only to the extent they are required to hold under the statutory obligations. The Reserve Bank which manages the public debt becomes the residual subscriber to government securities.

4.3.4 As government incurred deficits every year, the question of retirement of adhocs did not arise . While there are consultations between the Government and the Reserve Bank of India on deciding the market borrowing programme each year, the compulsion to borrow on an increasing scale on the part of the government has come from growing expenditures.

4.3.5 The Reserve Bank had to address itself to the difficult task of neutralising to the extent possible the expansionary impact of deficits after taking into account the short-term

movements in its holdings of net foreign exchange assets. The increasing liquidity of the banking sector resulting from rising levels of reserve money had to be continually mopped up. The instrument of open market operations was not available for this task, given the interest rate policy in force. The task of absorbing the excess liquidity in the system had to be undertaken mainly by increasing the cash reserve ratio.

4.3.6 The issues that arise from the government borrowing programme of the type described above highlight not only the close link between fiscal policy and monetary policy but also the need for close coordination between the two. The essence of coordination between fiscal policy and monetary policy lies in reaching agreement on the extent of expansion in Reserve Bank credit to government from year to year.In doing so, the role of the government as the dominant investor in the economy and hence as the single largest borrower needs to be recognised, as also the need to support the non-government sector with necessary credit in order to enable it to make the expected contribution to the achievement of the Plan targets. At the same time, it is necessary to contain the increase in reserve money to a level that is consistent with an increase in money supply, justified by the expected increase in real output,and the acceptable order of increase in price.

4.3.7 High Liquidity Period

A conspicuous aspect of the macro-economic scene has been the rapid and persistent increase in liquidity. Despite several measures taken to contain monetary expansion, growth in liquidity has been far in excess of what is considered as desirable. During the Seventh Five Year Plan Period (1985-86 to 1989-90), broad money (M3) expanded by 88.4 percent or at an annual compound rate of 17.7 percent. Narrow money (M1) expanded by 78 percent or at an annual compound rate of 15.5 percent. Among the components, the increase in currency with the public has been equally sizeable at 78 percent in these five years. These increases in the monetary aggregates have to be compared with an annual compound growth rate of 5.5 percent over the same period.

4.3.8 The high levels of liquidity are primarily explained by the creation of sizeable reserve money, i.e., created money. Reserve money during the five year period 1985-96 to 1989-90 rose by 92 percent or at an annual compound rate of 18.4 percent. The reserve money creation and the growth of overall liquidity are in turn largely attributable to the budgetary deficits, almost the whole of which are monetised. During 1985-86-to 1989-90, netbank credit to government more than doubled from Rs.48,950 crores at the end of March 1985 to Rs.1,16,511 crores. At the end of March 1990 net RBI credit to government rose from Rs.29,774 crores to Rs.73,049 crores. In percentage terms, net bank credit to government grew at an annual compound rate of 18.9 percent and net RBI credit to government at the rate of 19.7 percent per annum. It is essentially as a result of monetisation of the

fiscal deficits that the growth of reserve money and the over-all liquidity have been very high, despite a substantial sterlisation of bank's funds through increases in the cash reserve ratio at 15 percent of the net DTL.

4.3.9 The growing size of the budgetary deficits has no doubt to be viewed against the nature of resource mobilisation and disposition of expenditures for social and economic development. Non-developmental expenditure has absorbed a steadily increasing proportion of the total expenditure since the beginning of the 1980, whether for the centre alone or for the Centre and States combined. The sharp increase in non-Plan expenditure has outpaced the growth in revenues. The revenue deficit has been growing and the widening gap has necessitated progressively larger borrowings, including recourse to RBI credit, to meet revenue expenditures which yield no return.

4.3.10 An analysis of non-plan expenditure, however shows that a major portion of the rise has taken place under three components, namely,interest payments, defence and subsidies. Besides, though till a few years ago the liabilities of the centre were broadly matched by assets, many of the assets such as roads, bridges, schools, and hospitals do not yield any financial return. This not only makes debt servicing difficult but also requires still larger borrowings.

It is sometimes suggested that the coupon rates of government bonds are on the high side. In fact, market loans are cheaper than resources borrowed by government under various schemes such as small savings, special deposits and public sector bonds which yield high effective interest rates on account of fiscal privileges.

4.4.1 Inflation - Its Impact

The automatic monetisation of the central government budget deficits has deleterious inflationary impact. As the instrumentality of cash reserve ratio gets progressively weakened on account of the need to pay interest on the increasing amounts of impounded bank money and as the instrumentality of open market operations cannot be effectively deployed if large budget deficits continue to recur, the situation is fraught with serious risk of still higher rates of inflation.

4.4.2 The paper on "Dynamics of Interaction between government deficit and domestic debt in India" (Rangarajan, Basu and Jadhav) has analysed the impact of inflation if the government deficit is allowed to evolve passively and is financed by resorting to additional borrowing from the central bank while holding the domestic debt financing and foreign financing at their base year ratios to GDP. Empirical results indicate that this would lead to a vicious circle of larger deficits,higher monetary financing, and more inflation leading again to larger deficit and so on. The study has demonstrated that the inflation rate as

measured by the GDP deflator, which was under 7 percent in the base year (1987-88) could, by this factor alone, rise to an unacceptably high level of about 20 percent within a five year period, i.e. by 1994. If the real GDP growth turns out to be less than 5 percent per annum, the inflation rate may easily flare up beyond 20 percent per annum within a short span of time.

4.5. Impact of debt

The monetary impact of debt depends on the composition of the public's holding and not on the composition of what the government initially issues. Further, it is determined by the effect of debt on aggregate demand. The fiscal effect depends on the rate at which debt is changing rather than the absolute size of debt itself. The total debt is the net result of past deficits and surpluses of the government and the course of total debt depends on budgetary policies that determine the balance of receipts and expenditures. The size of the debt is determined by fiscal policy and the composition of the debt is determined by debt management policy.

4.6.1 Structure of Domestic Debt In Developing Countries

The structure of interest rates and the reserve ratios which the central bank prescribes has an impact on the structure of the domestic public debt. The typical endeavour of monetary and debt management policies in developing countries is to minimise the interest cost of internal debt without impairing monetary stability. The demand for funds grows when countries generally move from a position of fiscal neutrality and a low level of developmental expenditure to an active role for the government in the development process. This ends up in widening the gap between revenues and expenditures, thereby making borrowing unavoidable.

4.6.2 The authorities invariably try to finance developmental expenditure at low rates of interest and as a benchmark the government's dated securities rate is kept well below the market rate on loans of comparable maturity. The rationale for such a policy is that long gestation projects require low interest rates and that the sovereign borrower should be able to raise funds at rates of interest below market rate. As the process gathers momentum the market borrowing of the government increases and the monetised deficit widens, thereby fuelling inflation, and larger and larger borrowings are undertaken through captive investors at lower and lower real rates of interest.

4.6.3 With the borrowing requirement exceeding the available resources for investment in government securities, there is increased monetisation of the fiscal deficit. By raising the liquidity ratio, the authorities hope to raise captive investment. Since such investments are at low rates of interest, profitability of the captive institutions is eroded. To shore up

the profitability of these institutions the interest rates on government securities are raised.

4.6.4 As the growth of preempted resources lags far behind the government's demand for borrowed funds, the government perforce resorts to borrowing outside the captive market. While such borrowing can be undertaken only at very high costs, which is not sustainable as the return on government securities is markedly lower than the cost of borrowing, there is a futile attempt to keep down the nominal rates of interest on such borrowings by offering very high fiscal privilege. Such borrowings can rise to unacceptable levels. The very high levels of monetised deficit leads to a high growth in primary liquidity with consequential acceleration in inflation. To contain inflation cash reserve ratios are raised. With successive increases the primary reserve ratio gets blunted and thereby the process of monetary expansion goes unabated with adverse inflationary implications.

4.7 Indian Experience

The monetised deficit in the country increased from as low as 0.6 percent of GDP (at market prices) in 1970-71 to as much as 3.1 percent in 1989-90 and the gross fiscal deficit rose from 3.5 percent to 8.6 percent of GDP (at market prices) during the same period.

In an endeavour to avoid the deleterious effect of the rising deficits, reserve requirements on the banking system were increased. At the start of the 1970's the statutory cash reserve ratio was 3% and the statutory liquidity ratio was 25% . The cash reserve ratio was doubled to 6% by 1977-78 and the liquidity ratio to 33%. In the 1980s the cash reserve ratio was successively raised to the statutory ceiling of 15 percent while the statutory liquidity ratio was raised to 38.5 percent (40 percent being the statutory ceiling).

4.8.1 The market borrowing programme is the medium through which the internal debt management policy is to be implemented. Once the extent of support by the Reserve Bank to its borrowing programme is determined, the government will have to review the size of the borrowing programme in the context of the yields which it is prepared to offer on its securities. The fiscal authority will have to consider the question of limits to its borrowing programme, placed by wider economic considerations. The government's ability to service debt has to be carefully assessed both in the short run and in the long run.

As government's need for borrowing rose year after year it resorted to borrowing by other means. As the interest rates on the securities were low, the authorities raised the coupon rates from 6.5 percent in 1977-78 to 7 percent in 1979-90 and thereafter these rates were raised rapidly from 1984-85, to 11.50 precent on securities with the maximum maturity. It is since

maintained at that level.

4.8.2 The maximum maturity of about 20 years in the early 60s was increased to 30 years by 1969-70 and kept at that maturity till 1986-87, when it was reduced to 20 years. As a result of reduction in maturity period of the longest-dated security, the effective increase in coupon rates in recent years has been much larger than that indicated by the maximum coupon rates.

4.8.3 The data on rates of interest on bank deposits and loans and the coupon rates on government dated securities reveals some interesting trends.

Table 4.1

Select Interest Rates in India

Period	Maximum Rates of Banks				Maximum Coupon Rates on Dated Securities		Treasury Bill	
	Deposits		Lending					
	Nominal	Real	Nominal	Real	Nominal	Real	Nominal	Real
1979-80	10.0	0.41	18.0	8.41	7.0	- 2.59	4.6	- 4.99
1989-90	10.0@	2.35	16.0	8.35	11.5	3.85	4.6	- 3.05

Source : Paper on "Domestic Debt Management Policy and Monetary Control" by S.S.Tarapore

Note : Nominal rates have been converted into real rates by using a five year weighted average inflation rate with a distributed lag.

* Since October 1988, lending rate ceilings have been abolished for certain categories and this rate is the minimum rate for categories of lending which are not subject to a ceiling.

@ Since raised to 11.0 per cent from October 1990.

4.8.4 The coupon rates on government securities were raised to fairly high levels in real terms but this was insufficient to meet the requirement of government. In their endeavour to raise additional resources outside the captive borrowing programme, the government offered various schemes at moderately nominal rates of interest but with phenominal tax concessions. Resultantly, the effective rates of interest were as high as 25-30 percent for

certain income brackets.

As a result, other liabilities of the government rose sharply and the share of market borrowing diminished in importance. In 1981 the conventional or open deficit was 59 percent above the market borrowing and 'other liabilities' were 121 percent higher than the market borrowing. Debt management policy was over shadowed by increased resort to non-marketable sources for funds.

The increased borrowing for debt servicing would create the vicious circle of progressively higher interest burden and still higher borrowings.

4.9.1 Objective of Debt Management Policy

The automatic monetisation of fiscal deficits by the Reserve Bank of India should be phased out so that within a few years government would place its entire borrowing requirement on the market at appropriate interest rates. For short term mismatches between receipts and payments, the central government could take recourse to ways and means advance from the Reserve Bank within a mutually agreed limit, The placement of the entire government debt on the market will undoubtedly raise its interest costs. However, the remedy lies in reducing the overall level of borrowing rather than persisting with the present practice. Successful adjustment along side other governmental measures should in due course reduce monetary growth and inflation to more reasonable levels and hopefully bring down interest rates, thus providing relief to the budget. The Reserve Bank would be able to adjust through open market operations the level of reserve money and the over all liquidity taking into account the real factors in the economy.

The extent of monetisation should not be determined outside the framework of monetary policy. In fact, debt management policy should accept monetary policy as given and the skill of debt management policy should be to minimise the cost of borrowing under a given monetary policy, which would independently determine the extent of monetisation.

4.9.2 It is important to ensure that debt management policy is oriented towards financing government's requirements from the open market, thereby enabling the central bank to use open market operations for regulating monetary growth.

A prerequisite for developing an active government securities market is a move towards market clearing interest rates on government securities. Market related rates on government securities would provide a strong benchmark for other interest rates in the system and thereby ensure that money is priced correctly in the entire economy.

4.9.3 The skill of debt management policy is to insulate internal debt from the short term effects of monetary policy. An active debt management policy will have to give attention to the optimal average duration of debt. If the debt is high and the maturity is kept short, debt renewals would put pressure on debt management policy and unless interest rates are raised continuously, it would become difficult to ensure that the loan floatations are subscribed to fully. In the context of a high public debt, lengthening the average maturity period of the debt gives greater freedom of action to monetary and debt management policy. If the size of maturity of the debt is increasing, under a system of market related interest rates on government papers, the market may demand and get a higher premium on the lengthening of the maturity of the debt. It is, therefore, a basic principle of debt management policy to avoid a static maturity and interest rate policy. Periodic variation in the maturities—lengthening and shortening, and in the rates — raising and lowering them, is integral to an active policy. While undertaking such changes, the responsibilities of internal debt management policy and monetary policy need to be clearly delineated and at the same time the coordination between the two policies needs to be appropriately strengthened.

4.9.4 The maturity periods of the securities and the interest rates offered on the loans should be such as to cater to the investor demand. Different segments of investors will have different type of interests and needs. For example : provident funds may be interested in an assurance of inflation cover rather than a high premium for lengthened maturity. Commercial banks may be interested in short-dated securities rather than long-dated securities with higher coupon rates as they always care more for the liquidity of their assets. The mix of maturity and rates which will keep the cost to the exchequer low but at the same time satisfy all segments of investors is no doubt a difficult task. But success lies in achieving the difficult or the impossible.

The important aspect of an active debt management policy is the development of the secondary market. The pricing of the new issues should reflect the conditions in the secondary market.

4.9.5 The basic ingredients of a debt management policy would be that apart from endeavouring to raise resources for the government, it would be used as an effective instrument of monetary control. The policy can operate only in an environment of fiscal discipline. An active debt management policy is not a substitute for fiscal adjustment though it can smoothen the path of such adjustment.

The activation of debt management policy would not imply the scrapping of the present instruments but a strengthening of the armoury of instruments. The control over reserve money which is the key to control money supply can be more effictive if variation in liquidity ratios combined with flexible

interest rates on public debt are utilised. A given roll back of reserve money can be achieved by a combination of reserve ratios and interest rate changes rather than exclusively by reserve ratios. In other words, a small change in CRR combined with an increase in interest rates on public debt would be able to achieve a roll back in reserve money which a larger increase in SLR would bring about.

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CHAPTER 5

STRUCTURE OF INTEREST RATES AND INTEREST RATE POLICY

5.1 Introduction

Interest is a return to capital as a factor of production. Savings results from abstaining from present consumption. It is the basis for investment and capital formation. Capital formation and capital accumulation are dependent upon the level and rate of savings and investment in the economy. Investment is the functtion of interest rate and the quantum and directional flow of investment determines income. Thus, interest is not a simple monetary phenomenon; it is the product of interaction of the financial system with the real system.

5.2 Savings and investments in the economy which are influenced by the interest rates are the real economic variables. The incomes and expenditures of the various sectors of the economy result in excess savings or excess investment in each of the sectors. The sectors having excess savings provide them to those with excess investment. It is these savings and investment activities of the real sector which are influenced and facilitated by the flow of funds from the financial system. In the financial system, the lending and borrowing activities of banks and non-bank financial institutions promote the quantum of savings and influence the direction of flow of savings and investments in the real system.

5.3 The classical view of interest rate is that demand for and supply of loanable funds will determine the interest rate. Under Keynesian theory interest rate is determined by the relative supply of and demand for liquidity in the economy ,which is a function of the financial system. The motives for the demand for liquidity are the well-known transactions, precautionary and speculative motives. When Keynes considered interest rate as a monetary phenomenon he took money as an asset with an opportunity cost, namely, the return on short -term bonds.

The Neo Classical School of Economists considered the nominal interest rates as dependent on the expectations of the public and the rate of inflation in the economy. According to Irving Fisher, interest rate is also a function of inflation as the nominal rate is affected by the expected rate of inflation.

5.4.1 Term Structure of Interest Rate

There are three widely held theories of term structure of interest rates. The expectations theory holds that the course of the short-term rates is the key. For any holding period, returns must be equalised between investing in an appropriately

dated maturity and continuously reinvesting in a short-dated instrument. This requires current long-term rates to equal the average of current and expected short-term rates. However, this analysis takes no account of risk. The liquidity premium hypothesis supplements the role of expectations in determining the term-structure of rates by incorporating the assumption that an aversion to capital risk by lenders will result in a preference for short-terms over long-terms unless there is some compensation, namely, a liquidity premium.

5.4.2 While the expectations approach emphasizes returns maximisation, the segmented market theory assumes that investors seek to minimise risk over their holding period. According to this theory, the way to achieve this is to match maturities with holding periods, i.e. match the duration of assets with that of liabilities. This would point, for example, to insurance companies concentrating on the long-end of the market and banks restricting their holdings to short-dated maturities. Clearly, the notion that securities of different maturities are completely unsubtitutable is unrealistic but special demand/supply situations can develop causing humps and depressions in the normally smooth shape of the yield curve.

5.5.1 Maturity Pattern

The maturity pattern of debt is an important factor for interest rate determination. It is particularly relevent in gilt edged market, small savings schemes and deposit and lending rates of banks. The longer the maturity, the larger is the risk and hence the risk premium. The prime criterion to be looked into is the extent of liquidity premium that public is prepared to pay on money vis-a-vis near money assets. The public is concerned with the real rate of return as the nominal interest paid can be eroded by inflation. The flow of savings and the availability of funds would depend on positive real rates in the first place. Money has no return and to hold on to money has an opportunity cost as the alternatives to money have returns. These are in the form of IOUS. These financial assets have a structure of interest rates which should be rationally based on the degree of risk of ownership, uncertainty of return, period to maturity , and a host of other factors.

5.5.2 The return on ownership capital should be higher than on loan capital, as the risk of the former is greater than the latter. Difference in maturity periods would influence the extent of risk taken during the period when the lender is out of funds for varying periods of time. Ordinarily, the longer the period, the higher is the interest rate. The degree of default risks or uncertainty would also determine the interest rates. Such risks are nil or negligible in the case of government bonds while they are higher in the case of private debt or private ownership securities or company deposits. The rate is higher on those with higher risks. The tax terms on the financial instru

ments or incentives or disincentives such as taxes on interest income or tax concessions would also influence the demand for different types of financial assets. The markertability of the financial instruments, i.e. facilities for discbunting, rediscounting or ready saleability is another factor in determining the interest rate on the instruments

5.5.3 Yield

The normal pattern of yields is that the short term rates are lower than long-term rates and under normal expectations the yields on ownership capital (risk-taking ventures) would be higher than on loan capital. The interest rates on government bonds which bear no risk would be lower than those on private securities of similar maturity. (It is also possible that the interest rates on some securities subject to special incentives or tax concessions may be lower than on comparable instruments). Financial instruments which have a good marketability may have lower rates than those which are not so marketable.

5.6.1 Interest Rate Policy In India

The entire structure of interest rates in India is administratively determined. Only the interest rates in the unorganised markets are determined by the demand and supply factors and the creditworthiness of the borrowers. The existing structure of lending,deposit and other yields provide for a large number of interest rates. The process of interest rate fixation is based on a certain philosophy. Borrowers belonging to the weaker sections should get credit at low or concessive rates. Concessional interest would also apply for select economic activities, depending upon the location of the activitiy and the size of the loan.

The deposit rates are however not so variegated. There are higher rates on deposits placed by non-resident Indians.

Both deposit rates and lendings rates are reviewed from time to time, when the monetary and credit policy is reviewed and changes are introduced. The deposit rates of commercial banks have been stepped up noticeably, over the years as can be seen from Table 5.1

Similarly, the ceilings on interest rates on debentures were raised from 8 per cent in 1970-71 to 10.5 percent in 1974-75, 13.5 percent in 1980-81 and 15 percent in 1986-87. The interest rate on company deposits were also raised from around 9-12 percent in 1975-76 to around 12-15 percent in 1986-87.

Table 5.1
Interest Rates on Deposit Rates of Banks

(per cent per annum)

	1970 1971	1974 1975	1980 1981	1986 1987	1990 1991
(a) 1 year	6.0	8.0	8.0	8.0	9.00
(b) Over one year and upto 2 years	6.5	8.0	8.0	8.5	10.00
(c) Over 2 years and upto 3 years	6.5	9.0	8.0	9.0	11.00
(d) Over 3 years and upto 5 years	7.25	10.0	9.0	10.0	) 13.00
(d) Above 5 years	7.25	10.0	10.0	11.0	)

5.6.2 The structure of interest rates in India is highly complex. There are too many interest rates,particularly on the lending side. There are interest rates for working capital purposes and separate rates for medium and long term capital. Though the interest rate structure is complex, it is not distorted. The term structure is however inverted with short-term rates being higher than long-term rates

5.6.3 During the last 25 years interest rates have been periodically altered in response to changing economic conditions. All these rate changes, however, have not significantly altered the relative differentials among different rates applicable to major categories of borrowers in relation to the maturities. Similarly, even in regard to the returns on savings the relativities have not materially changed.

5.6.4 CROSSING OF RATES

On the lending side,short term and long-term rates cross at a number of points. Most of the short-term rates have been kept deliberately higher than long-term rates. Under normal conditions, long-term rates should be higher than short-term

rates for the reason that lenders providing long-term funds would like to be compensated for loss of liquidity and freedom to re-arrange their portfolio more profitably at a later date and the riskiness of investment but the aim of keeping the long-term rate lower has been to encourage investment in fixed assets.

Uniform interest rates are applicable to borrowers irrespective of their credit worthiness.Term lenders had no freedom to charge differential rates depending on the relative riskiness of different projects being financed by them.

5.6.5 Lending rates of banks and development finance institutions are lower for agriciulture, SSIs, and small road transport operators although credit risks are quite high in these categories of loans. There is cross-subsidization of administrative costs. Large borrowers have to pay higher interest rates to cover the cost of subsidizing small value loans.

In order to attract the household sectors' resources, several financial instruments with attractive fiscal incentives have been introduced. The fiscal incentives have however complicated the interest rate structure by increasing several fold the number of effective yield rates on different types of savings depending on the tax rate applicable to their marginal income brackets. Government have permitted certain public sector undertakings to float 9 percent bonds which are exempt from income-tax without limit. The returns from such bonds become highly attractive when an investor has taken advantage of the tax benefits available under all the other schemes.

5.7.1 Recommendations Of The Sukhamoy Chakravarti Committee Report

The Committee to review the monetary system in India was concerned about the complexity of the administered interest rate regime as it was not conducive for augmenting the pool of financial savings of the community. The Committee, however, was not in favour of a total decontrol of the interest rate structure. The Committee argued that considering the present stage of development of the Indian money market and capital market, deter mination of interest rates cannot be left entirely to market forces. It was in favour of continuation of the administered interest rate regime which would be responsive to changes in inflation/inflationary expectations. The Committee relied on two important indicators, with reference to which short-term and long-term interest rates are to be determined. These are expected short-term inflation rate(ESTIR)and expected long-term inflation rate(ELTIR)

5.7.2 The Committee recommended the making of treasury bill(TBS) as an active monetary instrument and the ideal short-

term paper in the money market. The discount rate should be raised to a level which is marginally positive in real terms. The nominal interest rate on TBS is to be kept equal to the ESTIR plus a marginal positive real return.

5.7.3 As regards government securities, their yields should be in conformity with the expectations of the capital market in regard to ELTIR. A real yield of 1 percent to 3 percent, depending on the maturity period of the government securities was considered to be satisfactory. It was argued that government securities with maturities in excess of 15 years would not be suitable "in a growing economy like India " as it would be difficult for the capital market to envision the likely trend in the price level and the state of the economy. For government securities of 15 years' maturity, the committee recommended a yield of 3 percent in real terms i.e. over and above ELTIR . There will have to be revisions in the yield rates of securities of state governments, and government guaranted issues of public sector undertakings.

5.7.4 As regards bank deposits, the Committee was in favour of the Reserve Bank of India fixing only two interest rates for maturities of one year and five years. Banks would have the freedom to fix their own interest rates for deposits of different maturities. The Committee recommended that the interest rate on deposits for 5 years or more should fetch a minimum rate of return of 2 percent over ELTIR. No specific recommendation has been made about one year deposits except that this rate should be "marginally positive in real terms" and that "interest rate for 1 year deposits represents a ceiling on interest rate for deposits of shorter maturity".

5.7.5 The Committee recommended that the basic (minimum) lending rate of banks should be 3 percentage points above the maximum rate on bank deposits, or in other words, ELTIR + 5 percent and for other cash credit advances the maximum prevailing lending rate should be charged. For bill finance the rate should be kept at ELTIR + 3 percent. On loan portion the interest rate is expected to vary between ELTIR + 5 percent and the prevailing maximum lending rate which banks are free to determine. The Committee favoured rationalising the number of concessional rates and recommended that there should not be more than two concessional rates, " one being equivalent to the basic (minimum) lending rate and the other somewhat below this rate."

5.7.6 The Era of Liberalisation - Changes In Lending and Deposit Rates

The Reserve Bank was in general agreement with the underlying principles laid down by the Committee. Changes effected by the Bank in recent years may be seen in this context.

Lending Rates : The lending rate structure is determined by taking into consideration all relevant factors including relative priorities accorded to various sectors, growth of the economy and its sub-sectors, the rate of inflation, the pace of monetary expansion, the cost of raising resources and the profitability of banks. The present lending rate structure is characterised by cross subsidisation, generally lower rates charged to the smaller\weaker borrowers offset by relatively higher rates charged to others.

5.7.7 The policy relating to lending rates has been operated in a flexible manner and changes have been introduced as and when required in the light of current and emerging developments in the economy. Taking into account the trend in prices the maximum lending rate of scheduled commercial banks which was 19.5 per cent in 1981 was brought down in stages to 16.5 per cent in April 1987. On the ground that on advances to categories other than those being provided credit at concessional lending rates there should be no interest rate ceiling , effective October 10, 1988, all lending rates which were at that time prescribed at a fixed rate of 16.5 per cent ceased to have a ceiling stipulation and were made subject to a minimum rate of 16.0 per cent. The stipulation related to short-term working capital advances to the large borrowers. Banks were advised to use this discretion judiciously. In the event banks reacted with maturity and worked out objective criteria for determining their lending rates to these borrowers. Borrowers with good tract record, parties with good credit rating and borrowers who observe the Quarterly Information System discipline were provided credit at lower rates than others.

In consonance with the withdrawal of ceiling stipulations on working capital loans, all term loans (i.e. non-concessional term loans) which attracted a fixed interest rate of 15.0 per cent were made subject to a minimum lending rate of 15.0 per cent from October 11, 1989.

Taking forward the modifications in the administered interest rate structure, major rationalisation of the structure was implemented effective September 23, 1990. The lending rate structure was characterised by a multiplicity of rates which concessionality in interest rate related to numerous criteria like size of loans, priority of a sector, location of activity, specific programme, income of borrowers, etc. Administering such a rate structure had become difficult and a rationalisation was overdue. Accordingly, the revised interest rate structure (excluding advances under the Differential Rate of Interest Scheme and export credit) introduced effective September 22, 1990- links concessionality in interest rates to size of loan, thereby taking care of the societal concerns which warrant the continuation of an element of concessionality for small borrowers

and the weaker sections of society. In the revised structure the distinction in interest rates on working capital and term loans have been done away with, except for term loans of over Rs.25,000 to agriculture, small scale industry and transport operators owning upto two vehicles. Lower rates are applicable to these advances and larger borrowers in these three categories are also charged a fixed concessional rate. The lending rate for borrowers of over Rs. 2 lakhs was fixed at 16.0 per cent (minimum) and banks were given the freedom to charge different rates to borrowers subject to the stipulated minimum. All eforts to bring about greater financial discipline, improve productivity and control inventory build-up are being made. As raising of interest rates would have impact on these aspects, the minimum lending rate for credit limits of over Rs. 2 lakhs was raised in two stages as a strictly anti inflationary measure; with effect from April 13, 1991 to 17.0 per cent and with effect from July 1, 1991 18.5 per cent.

5.7.8 Interest Rates on Bank Deposits

The interest rates on deposits are prescribed taking into consideration the need to mobilise additional resources, rates on other instruments of savings, and banks' profitability. The interest rate policy is operated in a flexible manner and changes are introduced as and when warranted by the current and emerging developments in the economy.

Attempt has been made during the last few years to rationalise the maturity pattern as also the rate structure including yields on government securities, particularly with a view to making the rate structure more cohesive and flexible. Major changes in this regard were made effective April 1, 1987 when the maximum rate was reduced by one percentage point to 10 per cent; the maximum rate was made applicable to deposits with a maturity of 2 years and above instead of 5 years and above till then. Simultaneously, the rate on deposits with maturity of one year to less than 2 years was raised by 0.5 points to 9.0 per cent. These changes were effected with a view to reducing the cost of money as also to impart flexibility to the interest rate policy. Simultaneously, interest rates on other savings instruments were also reduced to maintain inter-se attractiveness of various savings instruments. A year later - effective April 4, 1988 - with a view to providing a better rate of return on short term surplus funds, the term deposit rate for 91 days and above but less than 6 months was raised by 1.5 points to 8.0 per cent.

5.7.9 A new category of deposits of three years and above was introduced in October 1990 with a rate of interest of 11.0 per cent per annum raising the maximum rate on term deposits by one percentage point. This measure was intended essentially to offer a better rate to savings in the form of longer term bank deposits and to assist the banks in their deposit mobilisation efforts.

Considering the need for a better alignment between the maximum deposit rate and the yield on alterntive savings instruments and to reflect the inflation rate, scheduled commercial banks' term deposit rate for three years and over was raised by one percentage point effective April 13, 1991, from 11.0 per cent to 12.0 per cent.

In order to ensure that banks finance their lending operations out of their own resources and to enable banks to compete with alternative savings instruments, term deposit rates were raised by one percentage point across-the-board effective July 4, 1991.

5.8.1 Interest Rates on Government Securities

The maximum maturity of government securities has been gradually reduced from over 30 years to 20 years. Furthermore, in line with the formula suggested by the Committee, but at the same time recognising government's concern about the cost of borrowings, the maximum coupon rates on dated government securities were raised over the years from 6.5 per cent in 1977-78 to 11.5 per cent by 1985-86. While the coupon rates have not been raised further, there has been an effective increase in their yield as the maximum maturity of the securities was reduced from 30 years to 20 years in 1986-87.

A major innovation in this respect has been the introduction of a short-term instrument with a flexible rate - i.e. the 182 days treasury bills. The average yield on investments has increased steadily over the years, from near 9.00 per cent in 1986 to over 10.0 per cent in 1991.

5.8.2 Term Structure of Interest Rates in India - Some Observations

The term structure of interest rates in India is not in keeping with the normal expectations as the short and medium-term interest rates are above the long-term rates. Rationalisation of the interest rate structure cannot be brought about in one stroke. There is a well-founded apprehension that a radical attempt at rationalisation will dislocate the money and capital markets in India. A drastic increase in the coupon rate of government bonds would adversely affect the holders of long-dated bonds. A flight from such bonds would reduce the value of existing long-dated bonds to a very low-level. Besides, a drastic revision would change the interest rate structure in such a way that it would significantly increase the cost of capital as well as the discount rate.

A rise in the coupon rate would lead to an increase in the cost of debt servicing of the government. Though government can service the increased interest cost either by increasing the tax rates or by raising a loan from the public, it would chose

the latter course and it would raise the load of public debt on the economy. An increase in the cost of public debt would lead to an increase in the cost of developmental projects and this would act as a dampening factor to the process of development. Taking the various aspects into consideration one would conclude that a major change in the interest rate structure cannot be introduced in one stroke.

It is evident that while there is an urgent need for rationalistion of the interest rate structure in India, it should be done on a gradual basis or in stages. Since banks and financial institutions are holding significant amounts in government securities, any upward revision in interest rates has to be done in small doses; other wise these institutional investors will incur heavy capital loss.

5.8.2 Since government has been raising substantial sums by steadily raising the SLR requirements and at low coupon rates, the banks had to be compensated by permitting them to charge higher rates to the commercial sector. While governments were able to raise their requirements at lower rates, the commercial sector had to pay a higher price for their resources. This phenomenon has been responsible for keeping the short-term rates above the long-term rates. If, however, rationalisation of interest rate structure is introduced gradually, the increase in the return on bonds would enable the banks to accept reduction in their lending rates.

5.8.3. A gradual increase in interest rates on government bonds would enthuse non-bank investors to respond more and more to issues of government bonds. This in turn would reduce the dependence of the government on the banking sector for financing its development expenditure. The SLR which was first introduced to safeguard against any eventual liquidity crisis and which later on became a tool to raise funds for government through borrowings could be reduced in stages. This would leave much larger funds in the hands of banks for loaning as well as investment. There could then be a reduction in the interest rates on loans. This rationalisation would reduce the spread between the yield rates on long-dated government securities and all other short-term rates.

An active debt management policy would warrant an increase in interest rates on dated securities so as to give a real yield of 1 per cent to 3 per cent depending on the maturity period of the government securities. If an increase in interest rates is deemed necessary the phasing of the increase would be relevant to debt management operations. It is necessary to ensure that the interest rates on public debt are broadly in alignment with the overall interest rate structure.

5.8.3 Operational Implications

An active debt management policy can be of assistance in bringing about fiscal restraint, while small changes in interest rates if kept adequately high can bring out more clearly the cost of resources in the economy. This would eventually result in a more prudent use of resources by the government.

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CHAPTER 6

ROLE OF RESERVE BANK IN PUBLIC DEBT POLICY AND MANAGEMENT

6.1.1 As Adviser and Fiscal Agent

The Reserve Bank of India has the responsibility cast on it to advise the central and state governments on the quantum, timing and terms of issue of new loans. While formulating the borrowing programme for the year, the government and the Reserve Bank take into account a number of considerations such as the amount of central and state loans maturing for redemption during the year, the estimate of available resources (based on the estimated growth in deposits with banks, premium incomes of insurance companies and accretions to provident funds) and the absorbtive capacity of the market. The pattern of yields and maturities offered is such as will inter-alia, induce the public to exchange the loans due for redemption into new issues.

6.1.2. The normal practice is to float the loans inviting subscriptions from the public, either in cash or in conversion of a maturing stock. But on occasions such as when the amount of an individual issue is small or conditions in the market are not conducive to the success of the issue, the Reserve Bank initially takes up the entire issue in its portfolio and puts it up for sale at a later date when demand develops.

6.1.3. The timing of the issue of new loans is normally left to the Reserve Bank.The Reserve Bank, while making the judgement, keeps in view factors like the seasonality in the growth of deposits and extension of credit, the timing of food procurement operations, the issues of private securities in the market and the needs of the borrowers for funds, in particular times. An attempt is also made to avoid the bunching of issues.

6.1.4. In regard to the selection of securities to be floated, the Reserve Bank takes into account the maturities in different years although, with the increase in outstanding public debt over the years, the amount of loans falling due for repayment in a particular year has also increased. The preference of the market is another important consideration ; although the market is largely captive, the investors' preference may vary between, long, medium and short-dated securities on grounds of risk of depreciation, higher yields, nature of investible funds, etc. So far as the level of interest rate is concerned, it is determined on considerations of what the borrowers are prepared to pay and what the lenders would like to get under the peculiar conditions of the government securities market.

6.1.5. The Reserve Bank actively operates in the gilt-edged market to ensure the success of the governments' loan operations. It grooms the market by purchasing maturing central government securities to facilitate redemption. The pricing policy is such

as to induce investors to sell nearer maturity and reinvest in new loans. The Reserve Bank endeavours on the one hand to minimise the effects of these operations on the money market and the government securities market, and on the other to obtain the best possible terms for the government concerned. The close involvement in the market by its continuous presence and its willingness to deal in the securities at prices determined by it give the Reserve Bank a good degree of flexibility when it is seeking occasions for implementing a shift in policy on prices.

6.1.6 The market for government securities is narrow, being confined to institutional investors. The Reserve Bank holds securities on its own account for conducting switch operations, and for maintaining them as an asset in the Issue Department and Banking Department; other investors invest in them to comply with the provisions of the statutes governing their operations.

6.2.1 Ownership and maturity pattern

The ownership pattern of gilt-edged securities as at the end of March 1989 was as follows:

(Securities excluding Treasury Bills)

Central Government Securities

Scheduled Commercial Banks	52.2	
R.B.I.	20.1	
L.I.C.	12.5	
P.F.S	0.5	
State Governments	1.3	
Others	0.4	
		87.0

State Government Securities

Scheduled ~~Central~~ Banks	79.1	
L.I.C.	5.2	
P.F.S.	2.3	
Others	0.9	
		87.5

6.2.2 The maturity pattern of outstanding central government debt as at the end of March 1991 was as follows.

Position as on 31.3.1991

Over 10 yrs.	85.7
5-10 yrs.	5.5
under 10 yrs.	8.8
	100.0

6.3.1 New Loan - Issues in tranches

In recent years the size of the market borrowings has been growing and as a result the loans are issued in 4-6 tranches. Each tranche is partly against conversion of maturing loans and partly against cash. Apart from subscriptions which are mostly from captive investors, the Reserve Bank of India also subscribes to almost all fresh issues. In other words, without subscription from the Reserve Bank of India the central loans would not be fully subscribed.

6.3.2 The market borrowing and allocation to the state governments and their quasi-government bodies are decided by the Planning Commission and the Government of India. The state governments have increased their market borrowings in recent years. State governments which have a large borrowing programme are permitted to issue new loans in tranches.

6.3.3. The Reserve Bank of India is regulating the issue of bonds by all- India financial institutions by laying down the size of the bond which they are allowed to issue in the market. The coupon rates in respect of these bonds are fixed by the Reserve Bank of India .

The new loans are raised first by central government, then the state governments and next by government owned corporations. The Reserve Bank has shown flexibility in regard to the timing of issue of bonds by the public bodies whose bonds are guaranteed by the central/state governments according to the needs indicated by the concerned bodies.

6.3.4. There is now a new issue entering the bond market in each month of the year, except April. The issuers are taking adequate steps for the successful issue of their bonds.

6.3.5. While the Reserve Bank of India is required to ensure the success of each issue of central loan and is, therefore, supporting it by purchasing the balance of the issue not subscribed for by the public, there is no such requirement in respect of state loans. The Reserve Bank no doubt monitors the progress in the subscriptions to state loans and helps the state governments. The support is provided to banks which wish to subscribe to the state loans by way of buy back facility against central loans.

The extent of buy back facility provided to banks in recent years is as follows :

Rs. in crores

1987-88	826.73
1988-89	167.11
1989-90	826.47
1990-91	353.92

6.3.6. There is reluctance on the part of the banks and financial institutions to subscribe to the new loans of some state governments. There is also reluctance to invest in government securities in excess of the SLR requirements.

6.4.1 Investor Preference for Long Dated Securities

The Reserve Bank of India announces the total amount of the issue, maturity periods and the relative coupon rates at the time of each issue. The market is left free to decide the amount it would subscribe under different maturities.

6.4.2 The subscribers are mostly captive investors and their subscriptions are limited to complying with the statutory requirements. The market's preference in respect of central government securities has been mostly for long-dated securities. The share of the various maturities in the new issues during 1985-86 to 1990-91 was as follows:

	Upto 5 yrs.	Upto 7 yrs.	Upto 10 yrs.	Upto 15 yrs.	Upto 18 yrs.	Upto 20 yrs.	
1986-87	1.3%	3.1%	1.2%	3.4%	-	91%	100.0
1987-88	-	-	2%	47.2%	-	50.8%	100.0
1988-89	0.4%	0.2%	0.5%	1.0%	-	97.9%	100.0
1989-90	-	-	1%	0.4%	-	98.6%	100.0
1990-91	2.0%	-	0.1%	21.4%	-	93.5%	97.0

The investors look at the issue yield and since long dated securities give the highest yield they opt for the purchase of these securities. As income is the main criterion the implications of subscription to long dated loans such as the future loss on account of depreciation in the price of securities and the loss of opportunities for shuffling the portfolio to improve yield are not taken into account.

6.4.2 Cost of borrowings

Since over 90% of the subscriptions have been for long dated securities with the highest coupon rate, the weighted average cost of borrowing has been on the high side. It has been much above 11% in recent years and has thus imposed a heavy burden of debt servicing on the exchequer.

6.4.3. Even though the market preference is predominantly for long-dated securities, it is necessary to arrange the issue of various maturities, and accordingly differentials in the coupon rates for the different maturities will have to be maintained. Even within the framework of the administered interest rate structure scope exists for issuing securities with different characteristics e.g. securities with variable rates and with shorter maturities. The rate that would be applicable in a given year could be determined before the commencement of the ensuing fiscal year so that the cost of debt servicing could be worked out for budgetary purposes. For instance, the variable rate for a five year bond could be, 0.25%-o.75% above the average of the 182 days treasury bill cut-off price in the auctions held during the preceding six months.

When we move to a free market economy, the coupon rates would have to be determined on a different set of considerations. The formula suggested by the Sukhamoy Chakravarti Committee for pricing short, medium and long-dated securities at rates ranging from 1% to 3% above ELTIR could be considered in the said context. Apart from standard coupon bond issues, non standard issues such as variable rate stocks, low coupon bonds, zero coupon bonds, lottery bonds, convertible stocks,index-linked bonds could also be considered, so that different market segments' need would be met.

6.5.1 Open Market Operations

Open market operations are one of the major instruments of general credit control which can be effectively used in well-developed financial systems. Open market operations may be employed for achieving a host of objectives, the more important of them being to control the reserve base of banks, to minimise fluctuations in money supply, as an adjunct to the Bank Rate to make it function more effectively, to maintain stability in the average prices of government securities and as a tool of debt management.

6.5.2 Open market operations can be carried out by purchases and sales by the central bank of a variety of assets such a government securities, commercial bills of exchange, foreign exchange, gold and even company shares. As an instrument of credit control, the central bank can on its own initiative alter, through open market operations, the liquidity position of banks by dealing dirctly in the market instead of using the influence
indirectly by varying the cost and availability of credit.

The efficiency of open market operations depends on the type and amount of assets the central bank can hold in its portfolio and on the size and depth of the gilt-edged market.

6.5.3 Open market operations in India have in the main two inter-related uses:as an instrument of monetary policy and as a tool of public debt management. They have been employed by the Reserve Bank more to assist the government in its borrowing operations and to maintain orderly conditions in the gilt-edged market by influencing the prices and yields of securities, than for influencing the cost and availability of credit through changes in the cash reserves of banks. The other objective of open market operations in India has been the maintenance of a minimum level of activity in the market to ensure the liquidity of securities and to keep the market supplied with securities maturing year after year.

6.5.4 The Reserve Bank can engage itself in the purchase and sale of securities of the central government of any maturity and for any amount. The gilt-edged market is narrow. A sizeable proportion of the public debt is held by a few large institutions. The volume of transactions in the securities market for the purpose of varying their portfolios has been limited. Because of the limitation placed by the administered interest rate structure, there has been no open market operations in the true sense of the term.

7.6.1 Switch Operations

The Reserve Bank generally conducts open market opra-tions by a method which is generally known as "Switch Operations". The Reserve Bank offers switching facilities to banks and other institutional investors. The switching facility is by way of purchase of one loan against the sale of another, in order to enable banks and institutions which hold low-yielding securities to improve the yield on their investments in government securities. If sales or purchases under switch transactions are put through at the proper time, it would help the investors in maximising returns by way of capital gains, voucher benefit and increase in yield. It has fixed switch quotas to banks etc. The object behind fixing quota is to prevent excessive unloading of low-yielding securities by any particular bank on the Reserve Bank. The switching facility which was first introduced in 1973 has been revised from time to time.

7.6.2 Direct/Indirect Quotas

The Reserve Bank had earlier offered both direct and indirect switch quotas. Under the direct quota system dealings were directly between the banks/institutions and the Reserve

Bank. The indirct quota was to be utilised through the agency of a broker . The rationale behind granting the facility for indirct dealings was based on the need for banks to sell securities when they were in need for cash for easing their liquidity position. Since the Reserve Bank did not purchase securities against cash payment, the seller bank had to necessarily find another bank which was in need of purchasing the same security or any other security for an equivalent face value from the Reserve Bank. While the Reserve Bank will purchase the securities from seller bank and sell the securities which the buyer bank wants, there will be no cash transactions at the level of the Reserve Bank. The purchase price is paid by the buyer bank to the seller bank directly.

The indirect switch quota facility was expected to encourage inter-bank dealings in Government of India securities.

7.6.3 The direct and indirect switch quotas for banks for the year 1987-88 was fixed at 1% and 0.75% respectively of the total outstanding deposits of the banks as on January 31, 1987. Switch quotas for LIC, GIC and its subsidiaries were fixed in the range of 4.28% and 5% of their holdings. For the year 1988-89, the direct quota was revised upward to 1.25% and the indirect quota was revised downward to 0.5% of the total outstanding deposits of the banks as on 31.1.1987. The dirct and indirect quotas were fixed at 1.50% and 0.25% respectively of the outstanding deposits as on 31.1.1987 for the year 1989-90. The quotas for LIC, GIC etc. was retained at the same absolute level as in the previous years.

6.6.4 The indirect or triangular switches were not subject to any quota intially but with effect from September 1980, a separate quota at twice the amount of the normal switch quota was fixed. As the indirect quota was misused by some of the participants, it was phased out over a period of years. With effect from April 1990, the same has been altogether dispensed with, while the dirct quota allocated to banks has been proprotionately increased.

For the year 1990-91 only dirct quota was allowed and it was fixed at 1.75% of the deposit liabilities as on January 31, 1987. Neither the cut-off period (31.1.1987) nor the proportion (1.75 per cent) was changed during the period 1987-88 to 1990-91.

6.6.5 For the year 1991-92, however, the Reserve Bank while keeping the quota at 1.75 per cent of the net demand and time liabilities shifted the base to the average outstanding fortnightly deposits for 1988-89; resultantly the switch quota for 1991-92 is nearly 22 per cent higher than the quota fixed for the previous year i.e. 1990-91.

6.6.6 Purchase And Sales And Switches

The purchases and sales of securities by the Reserve Bank of India has been steadily rising over the years. Except for two years, there is a net sale in all years, from 1983-84 to 1989-90. The year-wise purchases and sales and the net figures for the above period are given below:

TABLE 6.1

Open Market Operations in Government of India Securities including switch transactions

Rs.in crores

	Purchase	Sales	Net	
31-03-1984	3026.07	3717.91	-	691.84
31-03-1985	4444.65	4419.26	+	25.39
31-03-1986	5345.75	7276.74	-	1930.99
31-03-1987	6221.83	9927.87	-	3706.04
31-03-1988	9990.82	10833.36	-	842.54
31-03-1989	12373.10	12236.59	+	136.51
31-03-1990	14287.06	15631.16	-	1344.10

6.6.7 The banks have switched substantial volumes of low-yielding securities over the years as well be seen from the data given below:

TABLE 6.2

Statement showing switch quota sanctioned/ availed of by commercial banks/insurance companies

Rs.in crores

Year	Quota Sanctioned	Availed
1983-84	575.00	218.69
1984-85	688.00	309.17
1985-86	728.09	199.18
1986-87	2239.25	1162.41
1987-88	2239.25	1521.73
1988-89	2239.25	2021.31 *
1989-90	2238.02	1714.54
1990-91 *	2238.02	1994.89

• This is inclusive of special switch quota of Rs.769 crores granted to five commercial banks in March 1990.

6.6.8 Switch Deals - Investor Perspective

In a switch deal, selection of securities for both sale and purchase needs a careful examination from the depreciation angle. Sale of short-dated low-yielding securities is often tempting, but one can save further depreciation on some other long-dated low-yielding securities by selling them in preference to short-dated ones. Short-dated low-yielding securities will not generally depreciate further. In fact, they will appreciate as they approach maturity date, while long-dated securities may depreciate further . In selecting securities for purchase securities prone to depreciation should be avoided.

There is another way to arrest depreciation and facilitate the switch at an early stage.Low-yielding securities held at par carrying substantial depreciation pose difficulty in switching. If we elect to add equal face value of such security at current market price provided the current yield is in line with the average yield on the portfolio, such addition will bring the average book value mid-way between the market price and the earlier cost price. Fresh investment generally finds its way in the highest yielding security and obviously mangements are reluctant to accept such proposals. However, so long as average yield is maintained and if there is no decrease in current income, such proposals can be considered on grounds of future profitability.

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CHAPTER 7

FEATURES OF THE GOVERNMENT SECURITIES MARKET

The features of the Government Securities Market in India may be discussed under four heads : (i) Structure (ii) Nature and volume of activity and (iii) Trading and other practices.(iv) Supervision and regulation.

7.1.1 Structure :

The primary market in gilt-edged securities consists of (a) the issuers of these securities, that is, the central government, the state governments and the all-India institutions whose interest and repayment of principal are guaranteed by the central government, and the state level institutions whose interest and repayment of principal are guaranted by respective state governments, on the one hand, and (b) the buyers of these securities, viz. banks, insurance companies, employees provident fund, and the Reserve Bank of India on the other.

The buyers are basically 'captive' in this market as they are required under the respective statues by law to invest in these securities. Reserve Bank of India buys government securities only for its open market operations. While government sells securities with different maturities, the most widely sought for security is the 20 year 11.5 percent, Government of India loan. Therefore, the portfolios of most banks show strong bias in favour of long-dated securities.

Both the issuers as well as the buyers can be classified into two types that is (i) efficient and sound, and (ii) inefficient and unsound. Some of the issuers (particularly state level institutions) fail to meet their obligations as to interest payment and principal repayment on due dates owing to laxity as well as poor financial position. Similarly, some of the buyers are not able to deal in these securities because they are not able to value these securities in their books at most appropriate prices.

The narrowness and captive nature of the market have led to a weak secondary market. The legal obligation to invest in these securities has kept many of these investors in the past oblivious of the possibilities of higher income from their portfolios. Thus, there are only a limited number of active dealers in the market. The market has also not grown because of the lack of expertise in trading, especially among the smaller dealers.

There are no market makers. The Reserve Bank of India, deals in securities but it is not a competitor in the market.

7.1.2 Business Volume :

There is a total absence of flow of data relating to the nature and volume of activity in the secondary market. Reserve Bank of India no doubt publishes data in respect of its purchases and sales every year. There is no agency which provides complete information periodically.

The major chunk of business is in 11.5 percent central government securities and issues of some All-India Financial Institutions and a few State Governments. The transactions in low-yielding securities is mostly on account of switch deals. Sale of low-yielding securities in the market would result in capital loss, which banks with low profitability are unable to take upon themselves. The volume of switch deals in these circumstances is less than the switch quota allotted for each year.

7.1.3 Trading and Accounting Practices

Several trading and accounting practices which exist at present are inefficient and non-competitive.

i) Pricing :

Three different types of prices are prevalent in the market :

(a) Reserve Bank of India prices for deals with the Reserve Bank of India which are not cash prices.

(b) Artifical or loaded prices fixed by brokers to manufacture deals in depreciated securities.

(c) Competitive prices determined by demand and supply forces.

ii) Shut Period

The prevalence of voucher trading renders it neces sary for the Reserve Bank of India to suspend trading in a particular scrip during the week preceding the interest due date . To some extent it restricts trading in specific securities.

iii) Bank Receipts :

Non-issue of scrips by issuers within the prescribed time limit has given rise to the issue of Bank Receipts. But it seems to have led to unfair prac tices as well as undue risks. The IBA has now advised the banks to use SGL facilities gener rally and use "Bank Receipts" only in exceptional

case.

iv) Transfer Delays

Transfer procedures,except in SGL accounts, are dilatory, cumbersome, and expensive.

v) Quotations :

As deals are not generally reported to stock ex changes, quotations are either not available or out-of date. Valuation of portfolios at market prices cannot thus be carried out.

vi) Accounting Practices

The above factors as also the weak financial posi sition of banks have given rise to divergent ac counting practices, many of which are outside gener- ally accepted accounting principles and therefore unacceptable. This has affected the quality of profits and the balance sheets of banks.

7.1.4 Supervision and Regulation

The stock exchanges are supposed to supervise member brokers' activities and to ensure that all transactions put through by them are recorded. There is no effective or worth- while supervision by stock exchanges. The RBI is the regulatory authority for banks and is responsible for prudential supervision over their working. Despite this, many divergent and not neces- sarily healthy practices are being followed by banks.

Banks deal through approved brokers. But the disci- line by which brokers are governed is not clear. Indian Banks' Association has powers to lay down code of conduct etc. for particular classes of activities of banks but it seems there is one for the investment function of banks.

7.2.1 Banks as Large Investors

Banks hold securities both for dealing and for long- term investment. Their respective characteristics are as follows :

i) Dealing

Transactions are made regularly with a view to take advantage of short-term changes in market prices and yields.

ii) Investment

These are held for longer-term, often to maturity with a view to earn interest or dividend yield and potentially for longer-term capital apprecia tion.

7.2.2 Depreciation in Investments

One aspect of managing investments is managing depreciation, so as to contribute to overall improvement in the profits of the bank, both current and future. Banks, under certain circumstances, are permitted to make no provision for depreciation. They take shelter under the "accounting guidelines" for not providing for depreciation.

7.2.3 Depreciation may be avoided by keeping all securities in the shortest possible tenure instrument. But it would involve sacrifice of return. The portfolio should be a diversified one. It will not otherwise be possible to trade and change the average maturity of the portfolio with a view to reducing/increasing the risk in accordance with the outlook on interest rates in the market.

7.2.4 Some banks maintain that it is not necessary to provide for or to write off depreciation on the ground that at maturity there will be no loss of principal. They regard investments as capital assets to be held till maturity since these securities will be redeemed at par. Any depreciation in their value in the interim period is notional and there is no need to provide for it. There are other banks which hold the view that investments are trading assets and therefore they should be valued at market value or cost price, whichever is lower. This practice has enabled these banks to make switches to higher yielding securities, thus earning profits.

Banks are not able to make use of switches provided by Reserve Bank of India to improve yields, because such transactions would result in booking losses and current profits would be insufficient to absorb such losses. Since banks do not carry out switches future investment incomes tend to be lower.

7.2.5 The objections for showing investments at cost in the balance sheet are :

i) The balance sheet would overstate the value of the investments because the market value of the portfolio would be very much lower than the cost in view of the gradual increase in market yields.

ii) Depreciation being an admissible item for reducing the taxable income, it is prudent to charge losses to the Profit and Loss Account.

7.2.6 Creation of depreciation reserve and booking capital loss are the true practicable ways of handling fall in prices but declining profitability does not offer much scope for the same. Of the two, creation of reserve for depreciation is more costly because the provision is to be made from profits after tax. It is therefore a prudent policy to book losses. If management decides to make a provision for depreciatiion of, say, Rs. 50 lacs, then it is necessary to set aside further Rs. 50 lacs for payment of tax. Instead of paying tax on reserve it is preferable to use it for writing off the losses. Thus, Rs. 1 crore can be utilised for writing off losses in selling low-yielding securities and buying higher yielding securities. Instead of paying tax on reserve it can be utilised for the betterment of the portfolio.

7.2.7 If the investments are to be valued at market rates, it is necessary to have a source from which market prices could be had on a regular basis. As there is no active market for many securities, valuation of investments at market prices is not feasible. But certain bank have built a model for forcasting the prices of securities under different scenarios . The computerised model helps in projecting the intrinsic value of the security at any future date. This no doubt is different from the market price of a security.

Modern mathematical techniques could be made use of for minimising the depreciation that will be suffered by the portfolio due to changes in the market yields. Sensitivity of securities and portfolios to price changes can be measured by the concept of duration and banks can go in for a trade-off between yield and duration so that the effect of depreciation is minimised.

7.3.1 Secondary Market For Government Securities

Secondary markets by tradition have become synoymous with providing liquidity to the instruments issued in the primary market. By providing opportunities for sale\purchase of government securities, the secondary markets act as necessary corollories to the primary markets. The need to develop sound and active secondary markets arises primarily on account of the following factors :

i) To provide liquidity in times of cash needs to the investors.

ii) To make ownership broad-based by providing opprortunities to those investors who could not buy the instrument in the primary market for want of resources at the time of issue or for any other reason.

iii) To provide on an ongoing basis opportunities for various classes of investors to shuffle their portfolio, either for :

a) Improving the yield on the same

b) Shedding off low yielding securities.

c) Shuffling the portfolio by selling one and buying another instrument.

The secondary markets also play an important role in shaping the future of the primary market instruments as policy makers get periodical feed-back as to what maturities and terms of issue would be acceptable to investors over a period of time. It is the health and vitality of the secondary market which gives boost to future issues in the primary market.

7.3.2 Banks and financial institutions hold bulk of the government securities. Life Insurance Corporation of India and the General Insurance Companies prefer to deal in long-dated securities to improve the yield on their portfolio. They look for opportunities to shed low-yielding securities while preferring long-dated securities. Equally so is the case with some nationalised banks. While the above class of investors prefer long-dated securities to improve their average yield, there are other class of investors like a few private sector banks and foreign banks who build up their portfolios in short-dated securities despite low yield as part of their risk planning approach. In addition, there are the dealers who regularly trade in these securities only with a view to increase their turn-over (sale and purchase) and thus maximise their margin in the process.

7.3.3 As far as government securities are concerned, one can say that the secondary market for these instruments begin with Reserve Bank of India itself. The RBI Act allows it to invest both in central and state government securities and the securities of the local authorities as may be specified by the Central Government on the recommendation of the Central Board. Hence, there is no restriction on the type of securities which the Reserve Bank can purchase, sell or discount.However, as a matter of policy, Reserve Bank of India is dealing only in central government securities because (i) it is administratively more manageable and (ii) more importantly because, by dealing in central government securities, the yields of other securities are also regulated. The Reserve Bank of India , invests in central government securities on its own account, and the securities so purchased are sold in the market as and when conditions warrant.

7.3.4 The Reserve Bank of India is helping banks and financial institutions to improve the yield on their investments by

allowing switches from low yielding securities to high-yielding securities. It is attempting to maintain orderly conditions in the market and in particular is keeping a certain relationship between loans of different maturities, the longer maturity loans carrying higher yield than the shorter ones.

7.3.5 While a secondary market in central government securities does exist to some extent, it is not so in the case of state government securities and guaranteed bonds.

While one stage of development of the market can be said to have taken place, this by itself is not adequate for fulfilling the needs of investors for the following reasons:

a) Reserve Bank of India deals only in central government securities and not in state government securities or guaranteed bonds. Hence the opportunities for the development of the market are limited.

b) By fixing quota to various institutions RBI restricts free play of market forces i.e. the market is not allowed to develop through the natural process of demand and supply.

c) RBI's price machanism does not allow market senti ments to reflect in the prices of securities traded by it.

d) The market is not broad based in view of the limited opportunities available. Many investors shy away from the market.

e) In the case of some of the guaranteed bonds, no secondary market exists as these not favoured by investors in view of default in timely payment of interest and redemption proceeds. Trading in some guaranteed bond is avoided as the bond issuing authorities do not transfer the ownership with the result the buyer is unable to get either interest or the repayment in time.

f) In the absence of proper market quotations for various securities, banks have been compelled to value their portfolio as at the year end, partly on actual market value basis and partly on purchase cost basis. This necessarily distorts portfolios over a period of time and, therefore, the banks are unable to carry out trading in such securities for fear of losing heavily on current valuation.

7.4.1 Removal of Irritants and Impediments

There are a few irritants and impediments to the healthy growth of a secondary market in government securities. These are as follows :

a) Although banks trade in government securities among themselves and as such trading is growing in volume, the display of prices is only informal leading to potential distortions of the prices at which trading takes place. Reserve Bank of India's prices are not cash prices and, therefore, they are of little help. Stock exchange prices are at best out dated and do not give right directions most of the time. This state of affairs needs improvement.

b) Volatality in interest rates affects security pricing, and this could seriously jeopardise secondary market turn-overs. So also volata lity in interest rates in money market, which unnerves the holders of government securities because of the increase in funding cost.

c) Transfer procedures are cumbersome (other than SGL Accounts with the Reserve Bank of India) and time consuming as the issuers are slow in registering ownership of the bonds. Registered ownership is important because tax concessions that may be available are specific to the registered owner as opposed to the beneficial owner. Proof of registered ownership is required to claim tax benefits.

Because of the time consuming transfer procedures, activity in the secondary market gets restricted. Banks have innovated an instrument called "Bank Receipt" which serves the purpose of confirmation of sale of a security and an assurance about delilvery (at a future date) of the same against value received. But because of the inability of some banks to deliver the securities, the holders of "Bank Receipt" had on occasions to hold it for indefinite periods. There is also the risk of issuing such receipts even when no delivery is intended to take place.

(Banks have now been advised to resort to the use of SGL facility with the Reserve Bank in respect of Central and State Government Securities and

restrict its (RBI) uses to cases where no SGL Account facility is available e.g. electricity board bonds etc.)

d) The practice of scripless accounting need to be introduced speedily. The issuers of guaranteed bonds must be obliged to do so in the interest of healthy development of the securities market.

e) Tax deduction at source is a major impediment, especially when the banks tax obligations are lower than the tax deduction at source and have to wait for idenfinite periods for refund of excess payments. Tax deduction at source, especially where there is a payment of advance tax would dry up resources and affect the profitability of banks.

f) The market makers being limited in number there is no real depth and spread to the market prices. The market, therefore, needs to be strengthened with more players. There is a need for a system of authorised dealers in government securities who may include select banks, investment and security houses and security brokers of long standing. When the Reserve Bank carries out open-market operations on a full-fledged scale, it should be carried out through the authorised dealers.

g) "Over-the counter"(OTC) markets should be encouraged. Broker dealers will be able to deal directly with one another and with customers. This process will allow investors to select from among competing market makers.

h) The ownership pattern of government securities should be broad-based by encouraging individuals to own government securities in convenient denominations. Suitable maturity pattern and pricing to suit individuals could be adopted to encourage wide-spread ownership. The banks could hold the securities in a separate scripless account and arrange for transfer of beneficial ownership from time to time.

i) "Uniform Accounting Standards" for stock holding, price valuation, etc. should be adopted to enable uniform approach to various problems being faced by the market in putting through the transactions.

j) Specialisation in the areas of pricing, valuation methods, accounting, trading practices and fore-

casting techniques, etc. should be encouraged. Trading practices could be strengthened and made more qualitative by introducing yardsticks like risk-return analysis, maturity matching, yield to maturity concept, interest rates forecasting both short-term and long-term, inter-market arbitrage operations, inflation accounting, etc.

k) Trading should be encouraged in the nearer maturity government securities in order to provide both liquidity and an opportunity to shuffle the portfo-io. This would go a long way in integrating the short-term money markets and long-term debt markets.

7.4.2 Government of India and Reserve Bank of India have to play lead roles in bringing about legislative and procedural changes as may be necessary. The establishment of a financially strong market-maker will also assist in the process of devel opment of the government securities market.

CHAPTER - 8

COMPUTATION OF YIELD ON GOVERNMENT SECURITIES AND REVIEW OF RBI PRICING OF CENTRAL GOVERNMENT SECURITIES

Computation of Yield : Concepts

There are various concepts of yield and the method of calculating each of them is different from the other. These concepts are nominal yield, current yield and yield to maturity.

8.1.1 Nominal Yield :

Nominal yield is the annual interest rate payable as specified in the fixed interest bearing security. Thus, on the face value the nominal yield is expressed, irrespective of the price of the bond, whether it is quoted at par, at a premium or at a discount.

8.1.2 Current Yield :

Current yield is worked out on the basis of the return on investment by relating the stated interest rate to the actual amount needed to purchase that security. It is expressed as follows:

$$\frac{\text{Coupon Rate} \times 100}{\text{Current Price}}$$

The yield is thus related to the price of the bond.

8.1.3 Yield to Maturity :

Yield to maturity is an average rate of return involving collective consideration of a security's interest rate, current market price and number of years remaining to maturity. Hence, yield to maturity consists of two different types of payment, viz. interest from the coupon and capital/gain loss from the difference between the purchase price and the repayment price at maturity. The mathematical formula used in the calculation is as follows :

$$\text{Price} = \frac{I}{(1+Y)1} + \frac{1}{(1+Y)2} + \frac{1}{(1+Y)3} + \frac{1+\text{PAR VALUE}}{(1+Y)\ N}$$

Where Price = The market price of the bond

Par value = The face amount

I = Annual Interest Payment

N = Number of years to maturity

Y = Yield

The more common method of deriving the yield to maturity is by reference to a standard bond table. The secondary market performance of the bond is usually expressed in terms of yield to maturity because this measure combines the two forms of returns.

8.2.1 Holding Period Yield :

Investors who are reluctant to hold the securities till maturity prefer to hold a bond for a given period of time. The time period is chosen in such a way that it guarantees a maximum return during this period. Further, the holding period of a security may also depend on the pay-back period. The pay-back period refers to the time span in which the cost of the securities is covered by the return as well as the value of the security in terms of the current market price. At this point the security becomes critical in the sense that the owner can dispose of the security without incurring any loss. The decision to be made by the investor at this point of time is whether to hold the security till maturity, or to sell the security and invest the proceeds in a new security. For example, if an investor buys a 10 per cent 15 year bond at Rs.95, then the redemption yield would work out to 10.59 per cent. This would give a pay back period of 9.44 yrs. Thus, the 10th year becomes the critical period when the investor must decide whether to hold the bond till maturity or to sell this bond and invest the proceeds in a bond with higher yield.

8.2.2 The pay-back period can enable an investor to ascertain his holding period. However, during the holding period the yield rate may fluctuate and deviate from the yield to maturity. This fluctuation in the holding period may be due to purchasing power risk and interest rate risk. The purchasing power risk arises due to inflationary tendencies. In order to allow for a higher rate of inflation, the yield rate has to be higher.Interest rate risk arises due to changes in prices of bonds, caused by changes in general in the rates of interest. In other words, as interest rates change, there is change in bond prices. It is for this reason that investors would like to calculate the holding period yield and depend on it rather than on the yield to maturity.

8.2.3 The formula for holding period yield is as follows:

$$HPY = \frac{(P1 - P0) + 1}{P0}$$

Where, HPY = Holding period yield

I = Interest Payment

P0 = Price at the beginning of the holding period

P1 = Price at the end of the holding period

8.3. Yield Pattern

An investor in government securities is not guided only by the current and redemption yields as they prevail in the market. He would take into consideration the possibilities of changes in the yield pattern over time. The changes in the yield pattern are brought about by (i) changes in the level of yields (ii) changes in yield spreads and (iii) changes in yield curve.

(i) Changes in the level of yields

Yield level keep changing over time. The underlying causes of different yield curves lie in the varying future expectations. The shape of the yield curve will depend on the expectations of future short-term interest rates. If the expected future short-term rates are higher than the current short-term rates then the yield curve will be rising upwards with a positive slope. If on the other hand, the expected future short-term interest rate is below the current short-term interest rate, then the yield curve will slope downwards. If there is no change expected between the expected future short-term rate and the current rate, the yield curve will be horizontal.

Difference in yield arises due to risk aversion. The tendency for risk aversion leads investors to prefer short-term securities to long-term securities. The long-term bonds will have to yield more than the short-term bonds so as to attract investors. Risk aversion can also lead to a preference for short-term bonds over long-term bonds. The long-term securities have the risk of principal uncertainty while the short-term bonds have income uncertainty. Hence premiums are needed to induce shifts from short-term to long-term bonds. If the interest rates are higher than what the normal interest rate is, then the expectations would be that the interest rates will fall to its normal level. This expected fall in interest rate, would entail a rise in price and the yield curve will be downward sloping. When the rates

are lower than the `Normal Rate', one would anticipate a future rise in the interest rates to its normal level. This would lead to expectations of a fall in bond prices, and hence a rise in yield andso the yield curve will be upward sloping.

Interest rates contain a premium for inflation expectations. When borrowers and lenders expect a rising rate of inflation, lenders demand higher interest rates to compensate for the expected loss of purchasing power of their investment, and borrowers are willing to compensate for the expected loss of purchasing power of their investment. Borrowers are willing to pay higher rates as they expect to be able to pay their debts with cheaper money.

(ii)Changes in Yield spreads :

The relationship between yield and other characteristics of government bonds such as quality, interest, tax status etc. are of great importance to investors and are referred to as yield spreads. For example, one expects yield of lower-rated government bonds to be higher than the yield of high rated government bonds. The lower rated ones give rise to a risk premium in yield. The riskier the bond, the higher will its yield tends to be.

Yield spreads do not depend only on investors' preferences, borrowers activities are also important. Tax difference, if any, between bonds is also relevant for an analysis of yield spreads.

(iii) Changes in yield curves :

Investors can derive practical use from yield curve analysis in several ways. First, although yield curves are not highly reliable and accurate indicators of future interest rate levels, they do give all indications as to how a large number of other market participants think the interest rates will move in the future. These investors' expectations may or may not be realised. Nevertheless, construction and observation of an yield curve disciplines the investor to ask himself what will happen to interest rates and when, relative to his own investment time horizon. Second, the investor can utilise the present position and shape of the yield curve as well as its expected future shape and position to help in selecting the maturity periods of his investments. After a certain period of time, the investor can construct new yield curves and adopt his investment strategy accordingly.

A yield curve traces on a graph the yield to maturity of a group of Government securities as compared with the time remaining in each security's life.

Fig.1 shows a negatively sloped or descending yield curve. In this, the yield on short-term maturities are above the yields on long-term securities. (Fig.1 attached) Generally, negatively sloped yield curves occur during during periods of high interest rates, when the investors expect short-term interest rates to fall in the future relative to long-term yield rate. Because of this, investors would be willing to accept lower yield long-term securities, as they believe that continuously rolling over short-term securities would eventually produce a lower return after short-term yields have fallen than long-term securities with yields that are expected to drop less compared to those on short maturity securities.

Fig.2 shows a positively sloped yield curve or ascending yield curve. (Fig.2 attached) A positively sloped yield curve or ascending yield curve occurs when the yields on short-term securities are lower than yield levels on long-term maturities. The expectation of investors in such a case is that interest rates will rise in the future, which will enable the investor to reinvest at the higher rates of interest, in future, and thus they purchase short-term securities. This in turn increases the prices of short-term securities (i.e. decreases their yields) relative to long-term issues. In such a case, in order for long term securities to attract investors, they have to sell at lower prices (higher yields) relative to short-term issues.

Figure 3 shows a humped yield curve. (Fig.3 attached) This appears during periods of stringent monetary conditions.

Figure 4 shows a flat or horizontal yield curve which occurs when investors expect that interest rates in the future will approximately be the same as currently prevailing yield levels, or when the curve is shifting from a positively sloping configuration to a negatively sloping one or vice-versa. (Fig.4 attached)

8.4.1 R.B.I.Pricing of Securities

The Reserve Bank has been buying and selling central government securities. Prior to 1978 it maintained a list of securities which it would purchase and a list of securities which it would sell. The lists were drawn up with reference to its stock position and the date of maturity of the loans. Currently, it is maintaining only one list and all securities included in the list are purchased and sold except that loans maturing during the year are only purchased. Securities the stocks in respect of which are less than Rs.30 crores are not included in the price list. In order to groom the market for the new issues, it was the practice to remove from the sale list loans maturing three years before and three years after the maturity of the new

Fig. 1

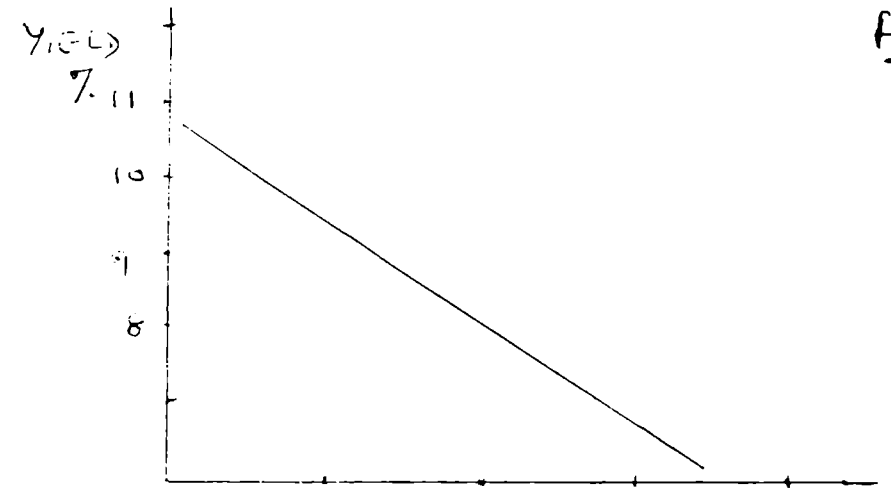


Fig. 2.

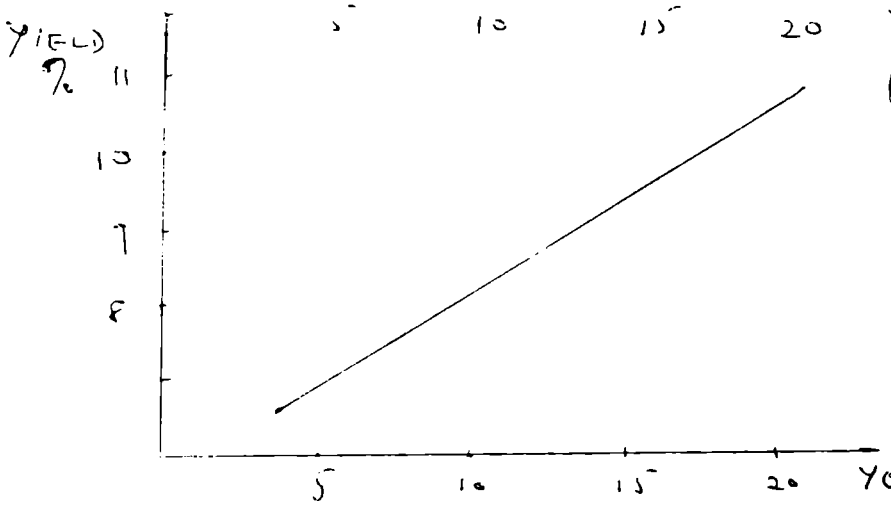
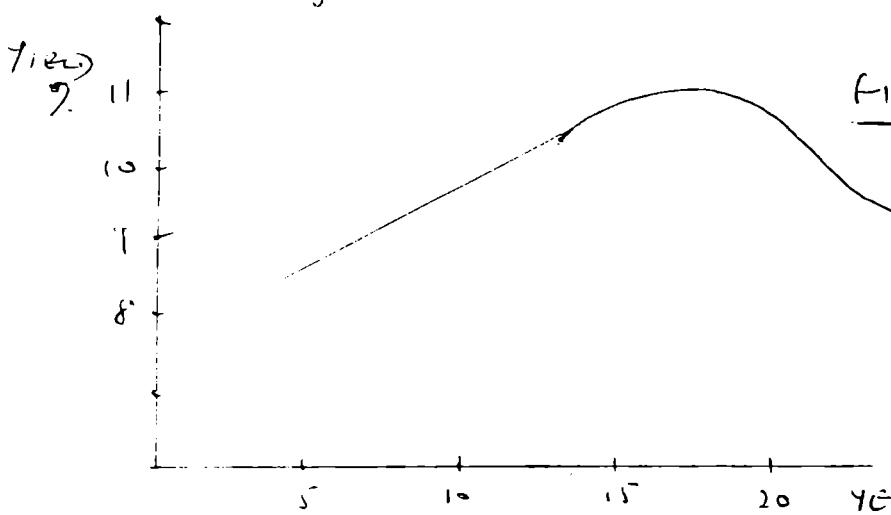


Fig. 3.



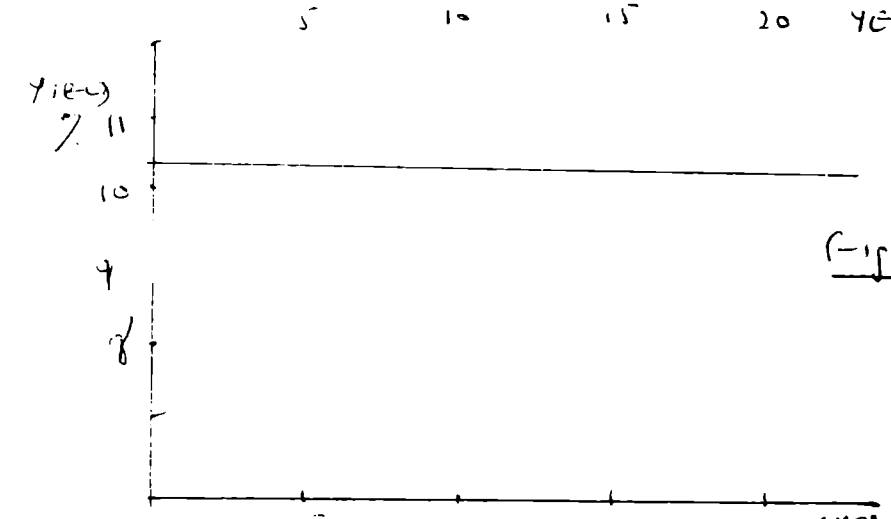


Fig 4.

loan e.g. all maturities between 1993-1996 and 1996-1999 were not included in the sale list. It is now applicable only in respect of loans maturing beyond 20 years i.e. loans maturing after 2011 will be removed from the list.

8.4 The prices of central government securities are revised at periodical intervals on the basis of a pre-determined yield pattern. The yield pattern is revised annually. The yield pattern in vogue is as follows :

TABLE 8.1

Yield Structure of Central Government Securities

Year	Yield 1989-90	Yield 1990-91	Yield 1991-92
0	8.40%	8.90%	9.40%
6 months	9.00%	9.50%	10.00%
1 year	9.60%	10.10%	10.10%
2 years	9.70%	10.20%	10.20%
3 years	9.80%	10.30%	10.30%
4 years	9.90%	10.40%	10.40%
5 years	10.00%	10.50%	10.50%
6 years	10.10%	10.55%	10.55%
7 years	10.20%	10.60%	10.60%
8 years	10.30%	10.65%	10.65%
9 years	10.40%	10.70%	10.70%
10 years	10.50%	10.75%	10.75%
11 years	10.60%	10.85%	10.85%
12 years	10.70%	10.95%	10.95%
13 years	10.80%	11.05%	11.05%
14 years	10.90%	11.15%	11.15%
15 years	11.00%	11.25%	11.25%
16 years	11.10%	11.30%	11.30%

17 years	11.20%	11.35%	11.35%
18 years	11.30%	11.40%	11.40%
19 years	11.40%	11.45%	11.45%
20 years	11.50%	11.50%	11.50%

The spread in the yield (1991-92) between a one year maturity and a 20 years maturity is 1.40 per cent. The yield pattern is expected to lead to a more balanced maturity profile of securities in the portfolios of banks, which are presently heavily weighted in favour of the longest-dated securities.

The Reserve Bank is releasing a list of securities with purchase/sale prices. The purchase prices are arrived at by applying a discount factor ranging from 5 paise to 25 paise (shorter the maturity, lower the discount). Earlier, a uniform discount of 25 paise was charged. The revised formula is expected to result in securities of shorter maturities being sold to the Reserve Bank in switch transactions. This would also enable the Reserve Bank to maximise its holdings of securities nearer to the redemption dates.

The prices are generally revised on a fortnightly basis or at the time of announcement of floatation of new loans. When subscriptions to new loans are closed it is the practice to sell the new loans at a price which is slightly higher than the issue price. It is by way of an indication to the market that it may take up more of the new loans at the time of floatation rather than by purchase at a later date.

Though the Reserve Bank is only the fiscal agent of Government, it has also the responsibility to develop the Government securities market. Reserve Bank itself is not a market-maker; it is,therefore, not required to quote buy and sell prices for government securities. The coupon rates and the maturity pattern of loans are determined by government. There is no lee-way for the Reserve Bank to offer an yield which is out of alignment with the structure of interest rates and more particularly the coupon rates on securities. Given the policy objective viz. providing a quota for switching from low yielding to high yielding securities, the current pricing policy of the Reserve Bank cannot be faulted.

8.4.3 Market Pricing

The government securities market, however, suffers from lack of liquidity. Prices quoted in the market depend on the competition for a share of the market. There are no large dealers and there are no market makers. Prices depend

on supply and demand for SLR securities and they are mostly negotiated prices. Hence, sales/purchase prices cannot be said to be market determined. Investors are also not attracted to the securities market because "other yields" are generally higher than those on government securities. Prices fluctuate violently but when the money market interest rates return to normalcy, prices tend to improve. SLR requirements generally tend to rise in the period between two issues, and hence the securities prices tend to rise. Players who have taken large positions of their own in anticipation of demand tend to benefit by the rise in prices. Similarly, when the SLR demand does not rise as expected , they are compelled to reduce their inventories and reduce their cost. The market prices fall. It is desirable to avoid violent fluctuations in prices. The Reserve Bank may make monthly forecasts of deposit growth in the banking system and consider the issue of loans at more frequent intervals than at present so as to augment supplies of securities . This will eliminate speculative build up in government securities market and avoid violent fluctuations in prices.

The market prices of state government securities and guaranteed bonds for which demand is always subdued are always quoted lower than the prices of central securities by 50 paise for state government securities,by 65 paise for central government guaranteed bonds and by 75 paise for state government guaranteed bonds.

8.4.4 Activating the Market :

The government securities market is to be activated. We have recommended elsewhere that different categories of dealers should be introduced and recognised by the Reserve Bank so that an institutional structure is built up. To accelerate the process of development it is recommended that a specialist institution may be set up by the Reserve Bank .This institution could function as the pace setter. This institution may quote bid and offer prices for the whole range of government securities - central and state government securities, and eventually for government guaranteed bonds.

The prices quotations would be market related as the yields would depend on the supply/demand position and the market sentiment. The proposed Securities Trading House may operate under the supervision of the Securities and Exchange Board of India and the Reserve Bank of India.

With establishment of a specialised institution there would be regular market quotations. The primary dealers and the recognised stock brokers should be under an obligation to send their daily quotations and volumes traded to the Stock Exchange authorities and Reserve Bank of India.

8.4.5 Trading in State Government Securities

Reserve Bank of India is not currently buying state government securities either at the time of issue or in switches. Purchase of state government securities at the time of issue would mean financing the state government over and above the ways and means provided by the Reserve Bank. As the state government securities are not held as assets in the issue department, they are also not purchased in switch transactions. The current policy needs review. The state government securities could also be accepted as an item of asset in the Banking Department.

Consequently, state government securities could be purchased under switch quota. This would improve the marketability of the state government securities. The proposed securities trading house should also trade in state government securities. Such a step would help in the long run in improving the marketability and prices of these securities.

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CHAPTER 9

DEVELOPMENT OF PRIMARY AND SECONDARY MARKETS FOR GOVERNMENT SECURITIES IN INDIA

9.1.1 Developed economies have introduced an institutional structure for the government securities market. It consists of the primary dealer group, the limited market dealer (approved brokers') group, the inter-dealer broker network, and the book based clearing and settlement system. (In the United Kingdom, there is also the stock exchange money broker who arranges lending of securities to the primary dealers. A diagram showing the Gilt-edged market structure in the United Kingdom is attached.) We shall discuss each of above fourfold aspects of the institutional structure in detail.

9.1.2 Primary Dealer or Authorised Dealer Group

The role of primary dealers is :

a) To underwrite government securities: Primary dealers will compete among themselves for a share of the underwriting at the competitive auction for new issues of government securities.

b) To distribute government securities to end investors: Primary dealers will have a sales force to actively solicit investor interest in government securities and thereby broaden and deepen the market.

c) To act as market maker: Primary dealers will have a trading unit to provide the essential liquidity to the secondary market in government securities. They have to provide, on demand, a two-way market (bid and offer quotes) under all market conditions

9.1.3 Eligibility

All financial institutions which meet the eligibility requirements can apply to the Reserve bank for primary dealer status. Institutions in the commercial sector willing to work as market makers could also be appointed as primary dealers. The eligibility requirements may be as follows :

a) Adequate capital and financial resources,: A minimum capital requirement can be specified in consultation with the market participants.

b) Supervision by an appropriate authority : It would be the Reserve Bank of India and/or the Securities and Exchange Board of India.

c) Appropriate registration for business activities : The dealers may register themselves with the Reserve Bank of India.

The capital should be large enough to support underwriting activities of the primary dealer and to cover the inventories which may result from his active market making operations.

9.1.4 Qualitative Assessment

The applicant must satisfy a qualitative assessment by the Reserve Bank. This will ensure that primary dealership is granted to serious applicants only. The two tests would be: commitment to develop the market and expertise in market making. Commitment to develop the government securities market will be evident from the set-up of the applicant's securities department including trading and sales staff, administrative support to securities trading and sales; and management system to control liability positions.

Expertise would relate to distribution and market making Distribution involves participation in a meaningful manner in the public issues(auctions) of government securities, and the placement of government securities with end investors. Market making function would involve providing quotations (bid and offer prices) on a full range of government securities to market participants that would lead to the execution of buying and selling transactions in a significant proportion so as to contribute to overall market activity.

9.1.5 Obligations and Privileges

The primary dealer has certain obligations and privilages:

a) Obligations : He has to report to the Reserve Bank on market conditions and activity on both a formal and informal basis. On a informal basis the dealer would have routine dialogue with the Reserve Bank trading personnel. On a formal basis, he would be submitting on a weekly basis trading reports, security position reports, new issue distribution reports, etc.

b) Privileges :

i) The dealer has exclusive access to competitive tenders of new issues.

ii) He can participate in the book based clearing and settlement system.

iii) He can have access to open market operations conducted by the Reserve Bank, and

iv) He has access to the inter-dealer broker system.

9.1.6 Competitive Environment

A competitive environment in which the primary dealers can compete among themselves for market share is desirable. There has to be sufficient freedom of entry and exit to and from the primary dealer group, to maintain competition. To this end, the Reserve Bank has to be willing to entertain new applications to the primary dealer group. It is important that there is a policy under which those who no longer meet the qualitative assessment are first warned and if there is no improvement over a reasonable period of time, their status as statutory dealer is rescinded. Each primary dealer should quote for a minimum number of atleast 6 securities and each security must be traded by atleast two primary dealers.

The size of the group : The primary dealer group should not be large and unwieldy. Most of the scheduled Indian banks, some of the large foreign banks (operating from the four metros), development banks, investment institutions in the public sector and investment companies in the private sector may be considered as eligible for membership.

Exclusion : Banks and institutions which are not given primary dealer status will not have access to the competitive auctions, and hence such bodies would be obliged to meet their investment requirements from the market place.

9.2.1 Limited Market Dealers-
Broker Dealers

Market participants who do not have large capital to become primary dealers and generally prefer to play a smaller role in the government securities market might be considered for the status of limited market dealer. The brokers at the stock exchanges would fit in this category.

9.2.2 Role Of The Limited Market Dealers

The broker dealers would help the investors to access the market. They would contribute to competition within the dealer network. They can contribute to improving secondary market liquidity.

9.2.3 Eligibility

Limited broker dealer group is necessary because the broker dealers would concentrate on "Agency" business, i.e. intermediation in security transactions between investors. Despite restrictions on their activities, they can play an active role in the distribution of securities and in secondary market activities.

A number of brokers would be interested in becoming broker dealers. The Reserve Bank may continue to follow the existing procedure and criteria for recognition of broker dealers in government securities.

The broker dealers should have trading and sales staff, administrative support for securities trading and sales; and management system to control liability positions. The broker dealers should have expertise to perform distribution and market making for government securities. They should be able to place government securities with end investors at the time of issue. They should be able to contribute to the overall market activity by concluding deals.

Obligations and Privileges : Broker dealers have to report to the Reserve Bank on market conditions and activity on both a formal and informal basis. On an informal basis by routine dialogue with Reserve Bank trading officials and on a formal basis by way of submission of weekly trading reports, new issue distribution reports, security position reports etc.

The broker dealers will have access to the inter-dealer broker network and will be allowed to participate in the book-based clearing and settlement system. They will, however, not be permitted to participate in open market operations.

Those broker-dealers who no longer meet the qualitative assessment will be removed from the recognised brokers list by the Reserve Bank. New applicants will be entertained and considered by the Reserve Bank for inclusion in the recognised brokers list.

9.3.1 Inter-dealer Broker

Role of Inter-dealer Broker : The inter-dealer broker group facilitates inter-dealer transaction. The inter-dealer broker acts to centralise market-making.

Primary dealers and broker dealers contribute markets to the inter-dealer broker. Without giving the source of the market the inter-dealer broker communicates the "inside market" within the group of dealers. This he does by telephone or by a screen system. The "Inside Markets" are firm and a dealer is free to hit a bargain (buy or sell_) at the quoted price for the amount stipulated. The transaction is settled between the inter-

dealer-broker and the dealers. Under no circumstances the inter-dealer broker will act as principal.

9.3.2 The Stock Exchanges can create by a separate registration a category of inter-dealer brokers. The inter-dealer broker can compete in the market.

Eligibility criteria would have to be laid down for this category of brokers. The inter-dealer broker would need much less capital than a primary dealer or a broker-dealer, as all trade is "Pass Through" in nature between dealers. The inter-dealer broker enjoys a confidence position. He has to ensure system integrity and avoid conflict of interest. He is not permitted to deal in other securities.

9.3.3 The number of inter-dealers would ordinarily be limited in each market. The inter-dealer broker group may use telephone or hot-line for trading. They may use computerised on-line trading. The screen based dealer system can be owned by the dealer group. The latter would enable each dealer to enter the market by key-board. The "inside markets" are then screen displayed within the dealer group. Trading is effected on these "Firm" markets by key-board input. Trade confirmation can be provided by the system for dealer verification.

9.4.1 Stock Exchange Money Brokers

Stock exchange money brokers provide a service to the authorised dealers by providing finance and by facilitating the borrowing and lending of stock. The ability to borrow stock in order to deliver against sales when the authorised dealer does not own the underlying stock sold is vital to the smooth operation of the market, as the authorised dealers would not wish to hold an inventory of the entire range of government securities. In order to borrow stock (as in U.K.) it would be necessary to be authorised. Such authorisation is limited to authorised dealers.

The role played by the stock exchange money brokers (SEMBS) in the United Kingdom is explained below :

The major obligation of SEMBs is to provide a service to Guilt Edged Market Makers (GEMMs) in gilt-edged stock, similar to the service it renders in domestic equity market to the equity market makers. The SEMBs are subject to supervision of the Bank of England and the Securities and Futures Authority.

The mechanics of gilt-lending through the Central Gilt Office (CGO) Book-entry settlement system are relatively straightforward. The GEMM will apply to the SEMB to borrow whatever securities it needs to cover outstanding sales, either

on a renewable overnight basis, or for a fixed term. The SEMB will then negotiate a price with a lender which has the stock and agree on the type of collateral that the lender requires to secure its overnight exposure. The lender will then release the stock to the SEMB through CGO against an assured payment equal to the value of the security, as collateral, and the SEMB will relase the security to the GEMM on the same day against the receipt of an equivalent assured payment. Later in the day the lender's assured payment will be replaced by equivalent security, normally either gilt collateral delivered through the mecha nism of DBV (Delivery by Value) in the CGO, or physical collateral such as certificates of deposit delivered physically or through the CMO Book Entry- Settlement system for sterling money market instruments.

9.4.2 The SEMB will obtain the equivalent security either from a GEMM, which borrows money from the SEMB on a secured basis, or alternatively if the GEMM leaves money with the SEMB, by placing funds in the discount market a ainst collateral to the lender. On the following day, the DBV will be reversed automatically by the CGO system and, unless the loan is repaid, the lender will again be secured by an assured payment until the end of the day.

The attached diagrams show the flows in the simplest type of loans; the flows can be considerably more complex if the lender takes a mixture of collateral and its stock is lent to several GEMMS).

9.4.3 An institution wishing to make available part or all of its guilts portfolio for lending need only establish a relationship with a SEMB. The SEMB will seek authority from the Bank of England for the lender to be approved by the Bank and the Inland Revenue to lend stock to that SEMB.

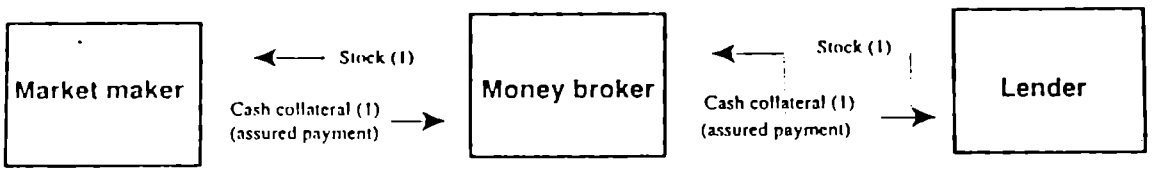
9.5.1 Book-based Clearing and Settlement System

A paper-based securities transaction system is inefficient and costly to administer. Modernisation of processing with document identification technology should substantially improve the efficiency and cost of servicing the investors. The efficiency of the government securities market depends on the clearance and settlement system. A Central Depository System (CDS) is the means through which a speedy clearance and settlement system is operated. In India too, the Stock Holding Corporation of India Ltd. (SCHIL) has set up a CDS for private debt securities The objectives of SCHIL in setting up the CDS are as follows :

a) To build a central electronic depository system for settlement of trades.

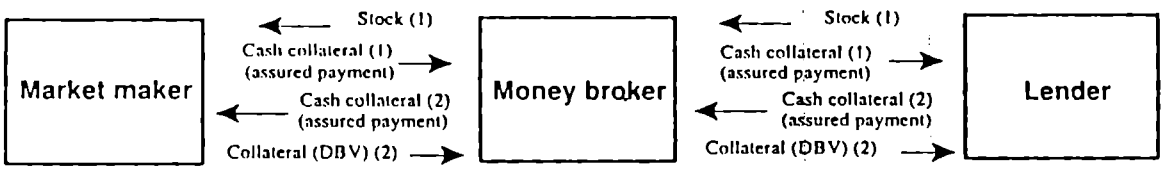
b) To increase the clearing and settlement capacity of the securities market and thereby increase the growth potential and attractiveness of the Indian stock market.

Flows in CGO associated with initial stock loan



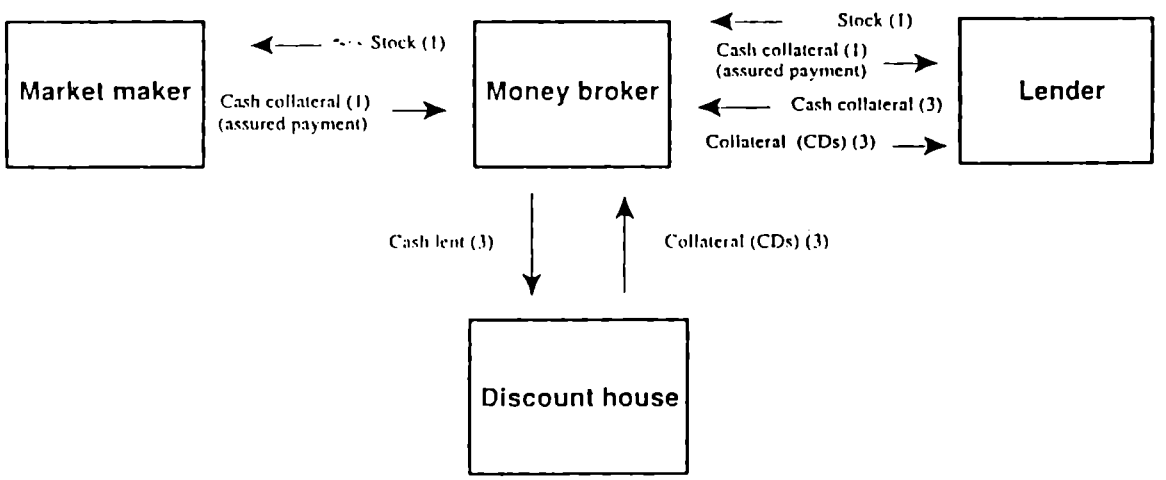
(1) The lender lends stock to the SEMB, who on-lends to the GEMM; both transactions pass through CGO against an assured payment.

Initial stock loan and replacement of collateral by DBV



(2) The GEMM borrows back the cash collateral left with the SEMB during the day against a delivery of DBV collateral; the lender requests DBV collateral from the SEMB to be held overnight.

Initial stock loan and replacement of collateral by CDs



(3) The GEMM does not borrow back the cash collateral and the SEMB places it in the discount market to obtain the CDs which the lender requires as collateral.

c) To reduce the costs and risks of settlement of stocks on the Indian stock market for all market participants.

d) To enhance the liquidity of the Indian market in those stocks where settlement of trade through CDS is mandatory.

e) To facilitate all security related activities in India including custodial services,corporate actions and the pledging of securities lodged with CDS.

f) To comply with the latest internatinonal standards for capital markets settlement and clearing, thereby creating an infra-structure which attracts international capital.

In the initial phase of implementation of CDS,SCHIL has visualised the following :

a) The immobilisation of newly issued securities and "floating" stock currently traded in bearer or registered form, together with any related rights and bonus issues and pledges. This will mean that the scrips will be stored in a central vault under SCHIL control, and will be represented on computer records. Immobilisation therefore eliminates the physical movement of scrip until such time as they are withdrawn from the depository.

b) Book-entry transfer : This means transferring securities by electronics movements across ledgers rather than physically.

c) Distribution of stock corporate actions, such as rights or bonus issues, by means of book-entry transfer for securities held within the CDS.

d) The provision of a record of depositors as required by law.

e) The provision of an environment of management and system controls which is completely confidential.

9.5.2 Book-Entry Methodology

This means an accounting environment or ledger system which facilitates the deposit, transfer and withdrawal of scrip electronically. All scrips deposited in CDS will be recorded in

these accounts. This allows the transfer of scrip between accounts without the need for physical movement of documents of title.

Each participant will have a principal account for handling its own securities.

Banks, Mutual Funds, Investment institutions, and Members of of Stock Exchanges will be eligible to become participants. An investor can operate only through an accredited intermediary who may be banks, mutual funds or brokers. SCHIL will lay down the rules and regulations and the operating procedures for the accredited intermediaries.

The authorised deposit agent will set up clients accounts. These may be opened subject to any rules or requirements of the accredited agency.

9.5.3 Benefits

Advantages for issuers : Many an item of expenditure incurred by issuers in issuing securities and in providing after market transactions will be reduced or eliminated. The procedures and record keeping for new issue distributions and after market trading will be greatly simplified.

Advantages for investors : Book-entry system relieves investors the risk, expense and bother of safekeeping their sec urities which are in scrip form. Investors do not have to worry about missing a redemption notice and suffering a loss when the proceeds of the called security remain uninvested until the missed notice is discovered. Similarly, the investor is no longer exposed to the cost and inconvenience of replacing missing or stolen certificates.

9.5.4 Legislative Changes

The legislative changes proposed by the Stock Holding Corporation for the introduction of book-entry transfers is under the active consideration of the Government of India. The proposed legislation covers all securities as are referred to in section 2 of the Securities Contracts(Regulation) Act. "Securities include :(1) shares, scrips, bonds, stocks, debentures, debenture stock or other marketable securities of a like nature in or of any incorporated company or other body corporate,(ii) government securities and (iii) rights or interests in securities."

The government has directed that the services of SCHIL may be extended to all public sector banks and their subsidiaries including mutual funds.

9.5.5 Automation of Transactions

SCHIL has introduced powerful computer systems at Bombay (HO) and the branches at New Delhi, Calcutta and Madras. It intends to link its branches, institutions and the leading stock exchanges to the corporation's main office and the host computer in Bombay. The post trading system and custody software system will be integrated at the individual offices as well as at its branches. The SCHIL has set up tele-links with some of the client institutions linking them to the depository.

SCHIL has introduced stringent control procedures to ensure quality in service. The systems and procedures are continuously audited by a reputed firm of auditors.

9.5.6 Reserve Bank's Clearing and Settlement System

The Reserve Bank is managing a 'limited' clearing and settlement system. (At present the financial settlement is taking place outside the Reserve Bank environs . Eventually a full fledged clearing and settlement system should emerge under the aegies of the Reserve Bank). Example : The new issue and redemption system, the management of government promissory notes, stock certificates and subsidiary general ledger (SGL)-book entry facility. The SGL facility has been extended to banks, insurance companies, joint stock companies, co-operative bodies, provident funds trusts, stock brokers and other government etc. officials whose holdings in government securities justify the opening of such accounts. SGL account holder is allowed to transfer his balance from one SGL account to another SGL account in the same Public Debt Office or another Public Debt Office.

The Committee on Public Debt (1986) had recommended that if its recommendation on payment of interest without deduction of income tax at source is accepted, the SGL facility should be extended to individual investors through their bankers. The banks may be permitted, to maintain two separate SGL accounts in the books of the PDOs, one in respect of their own investments and the other in respect of the aggregate amount of government securities held by them on behalf of their constituents. The individual security account of the constituents could be maintained by the respective banks.

9.5.7 Logically, the CDS developed by SCHIL, should include government securities. SCHIL should be able to extend custodial facilities to government promissory notes and government stocks within the framework of its existing facilities. While, Reserve Bank will provide SGL or book-entry facility to government bonds, SCHIL could provide CDS facility to institutions which are authorised to issue government guaranteed bonds. It would enlarge the activity of SCHIL. To begin with it can provide CDS facility to NABARD, IFCI and IRBI whose bond issue and servicing are managed

by the Reserve Bank. SCHIL should market its services among the vast body of public sector bodies who issue bonds regularly. A book-entry facility would greatly enhance trading in the securities of these institutions and improve the liquidity of the bonds issued by them.

9.6.1 Managing New Issues

The coupon bond issues would be the main-stay of the government securities market. When the interest rates are totally freed the securities should be sold on an auction basis in the bonds market. Various maturities should be available to meet different investor preferences .

9.6.2 Regular Bond Auctions

Regular bond auctions would serve to :

a) Assure the finest pricing (lowest yield) possible for government bonds;

b) Efficiently allocate the new issue among the dealer group to facilitate a smooth distribution among end investors ;

c) Establish a bond market yield curve from one year to 20 years ;

d) Assure that end investors have an adequate opportunity of investing in new bonds at auction related prices; and

e) Provide a commission to the dealer group to compensate for under-writing risk and develop a broad and deep distribution system.

9.6.3 The auction will be a yield auction to three decimal places rather than a price auction. The auction system will be as follows :

- Regular auction in a cycle of 4-6 weeks
- Competitive and non-competitive tender in the auction.
- Different maturities (3,5,10 and 20 years) will be auctioned.
- Commission payable to the dealer group as a fixed discount on the competitive auction average.

- Price restrictions for new issue distribution period of one week.

9.6.4 Secondary Market

The markets for bonds will be quoted on a price basis. The market spreads between bid and offer prices will generally depend on whether the particular issue is "on the run" or "off the run"; the term of the issue - a longer term may have a wider spread; and on market conditions such as the market tone- negative or positive- and technical factors such as the ability to borrow the bond.

i) On the run markets : These are the most liquid bonds representing the "Topical" issues of the bond market. The government should make every effort to nurture the growth in topical issues. This is accomplished by creating issues in demand by the institutions and building outstandings in upcoming auctions. This is accomplished by the advice of the dealer group.

The dealers canvass their accounts for potential interest and desired structure, and size of new bond issues. By catering to the interest of end investor, the government gains by ultimately lowering its debt service cost, while investor liquidity is enhanced by the growth in secondary market trading as issues are expanded.

ii) Off the run markets : The off the run bonds are those outstanding bond issues which either because of their term to maturity or lack of availability are not traded by accounts and dealers. These bond issues are less liquid with wide spreads than topical issues and their yields are likely to be higher as investor's demand a liquidity premium against comparable topical issues.

iii) When issued market : The when issued bond trading commences with the announcement of the auction size and date of issue. It is traded on an yield basis. Once auctioned and the coupon rate set, the market converts back to a price basis.

iv) The Repos Market : Market making is greatly enhanced by the REPO market. The REPO is the vehicle by which bonds are borrowed and lent. Ex. A dealer is asked to make a market on a bond

issue which the dealer does not currently hold in his inventory. The dealer responds to the

account by selling the bond "Short" (sells the bond which is not owned). The dealer then accesses the bond REPO market by entering into a PRA - (Purchase and Resale Agreement) to borrow the bond. The REPO permits the dealer to make good delivery on the settlement date and prevent a fall. In this manner liquidity in the bond market is greatly enhanced. The lender earns an incremental return- the running yield on the bond plus the lending rate on the REPO transacton. Dealers who take "Long" positions as a result of market making can access the REPOS market - SRA (Sale and Repur chase Agreement)- for obtaining funds.

9.7.1 Monetary Policy And Debt Management Policy

Use of Debt Instruments : The government securities market with its market based interest rate determination is the transmission mechanism for monetary policy which links the policy tool to the policy target. The management of money/cash reserves is the policy tool which is at the disposal of the Reserve Bank. The policy tool is based on the relationship between the supply of and the demand for cash reserve of the scheduled banks. In order to make use of its policy tool, : (a) The Reserve Bank must exert control over the actual supply of cash reserves; (b) The interest rate structure must be free to respond to market forces such that the excess supply/demand for cash reserves can spread to the money market interest rates. Market based interest rates exert an influence on the policy target. For example, a rise in the interest rate will dampen the demand for bank credit, will dampen the demand for money and dampen total aggregate demand(investment and consumer-spending).

The monetary policy instruments with which the Reserve Bank can exercise control on the supply of reserves are :

The Treasury Bill Issues
and
Open Market Operations.

9.7.2 The Treasury Bill Programme

The main policy tool to control the supply of cash reserves is the treasury bill programme. The management of the treasury bill programme for monetary purposes has two main components :

i) To sterilize autonomous reserve base changes
and

ii) To target the reserve base expansion.

In order to control the supply of cash reserves, the Reserve Bank must be able to project and sterilize the impact of the cash reserve base of the transactions which are largely autonomous to the Bank viz. the net change in the Reseve Bank's foreign assets, the net change in Reserve Bank credit to government, and the gross domestic borrowing requirement.

The target for reserve base expansion is dependent on the monetary policy target,current monetary conditions and their transmission effects, and the projected demand for cash reserves.

Treasury bill auction would accomplish the above tasks. A positive (negative) increment to the treasury bill programme will contract (inject) cash reserves via the movement of deposits between the central bank and the banking system.

9.7.3 Open Market Operations

Open market operations are suited to fine tune changes in the reserve base and/or sterilize temporary changes in the reserve base. This instrument can respond more immediately than the treasury bill programme.

Open market operations can be conducted in a number of different ways.

a) Lender of last resort to primary dealers :

In order to nurture the development of the secondary market and encourage the dealer group to play an active role, the Reserve Bank would have to be prepared to extend a lender of last resort facility to primary dealers. This would be done by using an overnight repo in the form of a Purchase and Resale Agreement (PRA). Each dealer will have this facility. It would be varied from time to time, depending on dealer performance and the overall market demand.

The PRA rate could be set each week on the basis of the auction average. A slight premium to the average is desirable to avoid arbitage advantage. This facility should be extended after the REPO market opportunities are exhausted. This facility should encourage dealers to hold inventories which are essential for active trading.

b) System REPOS :

In order to fine tune changes in scheduled bank cash reserves, open market operations in the form of system REPOS could be carried out. The Reserve Bank would estimate the reserve shortfall (long

position) and conduct system PRA's (SRA's) for the size needed. The system REPOS would be from an overnight to a period of one week. The size of the system REPOS to be conducted would be announced to the dealer group and the dealers would respond with bids within a short period of time. The Reserve Bank would then inform each dealer of its winnings and the range of the bids which are accepted. The whole procedure would be completed within half-an-hour.

STOCK EXCHANGES AND OTC MARKET

9.8.1 Government securities may be traded in the stock exchange as well as in the over-the-counter market. In the OTC market in which the dealers would communicate with each other over the telephone or telex. Quotations would be available quasi-continuously during normal office hours. In a stock exchange, a bond may be quoted once or several times during the stock exchange session. It may be useful to use both the systems.

The OTC market may offer more scope for flexible reaction of professional dealers and investors to changing market conditions, but the market process is less transparent to non-professional investors including small savers. On the stock exchange, it may be possible to achieve a greater concentration of demand and supply for a particular security at a particular moment. The prices thus determined may be applied to buying and selling operations of the banks and security dealers clients. Such arrangement may be desirable from a confidence and saver protection point of view.

9.8.2 Authorised dealers (Para 2.4.7) as a class may not be prepared or be able to provide the counterpart in the market in the event of heavy selling by ultimate investors there would be the need for an official institution to intervene, with a view to maintaining orderly market conditions. Though this task could be taken up by the Reserve Bank but stabilising interventions of this nature could conflict with the monetary policy objectives. An institution with a large capital base like the proposed Securities Trading House could provide the stabilizing role with such financial support as may be provided by the Reserve Bank.

9.8.3 The proposed government securities trading house would function as a major market maker, i.e. as a very large authorised dealer . The Discount and Finance House of India Ltd., may arrange for lending of government securities to authorised dealers and thus fill the role of Stock Exchange Money Broker.

The government securities trading house would be subject to regulation by the Securities and Exchange Board of India.

The institutional structure of the government securities market may be developed in phases.

1) The Reserve Bank may in principle accept the need to build an institutional structure for the development of government securities market. It may proceed to lay down the regulations governing the recognition of (i) Primary dealers (ii) Broker dealers (iii) Inter-dealer brokers and (iv) Stock exchange money brokers. Reserve Bank may lay down the capital requirements and the dealing and/administrative expertise required for recognition of each category of operators in the government securities market.

   The Stock Exchange Money Broker need not for the present be an essential part of the institutional market structure. The proposed Government Securities Trading House may arrange the lending of securities in the market. The DFHI. as a major intermediary in the money market may, also arrange for lending in the government securities market. The inter dealer broker , and the broker dealers should be registered members of the Stock Exchange.

2) The Reserve Bank may proceed to set-up a government securities trading house to develop the government securities market, jointly with banks and other financial institutions. The trading house may also deal in government guaranteed bonds.

3) The Reserve Bank may assist government in framing a debt policy, in-cordination with fiscal policy and monetary policy. Policy changes will have to be adumbrated in the context of the structural adjustments being implemented or on the anvil. As far as the financial sector is concerned, deregulation/ liberalisations have been initiated during the past 5 years and this process may be accelerated, culminating in the freeing of the entire structure of interest rates. In that event the coupon rates on bond issues could be market determined on an auction basis.

4) Reserve Bank may introduce an auction system for raising new loans, as and when the structure of interest rates is liberalised. Before the auction system is introduced, it would be desirable to establish a full fledged institutional structure as suggested in (2) above.

5) The book entry form of maintaining investment in government securities may be extended to entities

   listed in the Report on Public Debt (1986), and all large-holders of securities may be advised to avail themselves of the book-entry facility. The

Reserve Bank may pursue with the government the amendment of the Public Debt Act, 1944 so that book-entry system for individual investors could be maintained by commercial banks.

6) The procedure of deduction of income-tax at source may have also to be removed so that trading in government securities can be activated. The Reserve Bank may pursue this matter with government at the highest level.

7) The Reserve Bank may consider providing finance to the primary dealers against the holdings of their securities on a repos basis. It may also provide on request funds or securities to the primary dealers for a period of 7 days at an interest rate equal to the market yield on their securities involved. As lending to Non-Banks is not envisaged under The Reserve Bank of India Act, 1934 the Reserve Bank may initiate early steps for the amendment of the Act so that it may be able to lend money against the holding of government securities.

8) It may suitably expand the dealing wing and setup a surveillance section in the Secretary's Department so that it may activate dealings in the market and supervise the activities of the operators in the new market structure.

9.8.4 Secondary Market Development

The Reserve Bank would have to take up the responsibility of developing the markets. The Reserve Bank's dealing personnel will have to be in informal dialogue with the authorised dealers and get to know about market conditions. The dealer group would also be submitting periodical reports. These formal and informal contacts would guide the Bank in its implementation of policy in regard to open market operations. The "closeness to the market" would help in tailoring the new issue to reflect market conditions and investor preferences.

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CHAPTER 10

GOVERNMENT SECURITIES TRADING HOUSE

10.1.1 Present Position- absence of market makers

In the conditions obtaining today, the development of the government securities market has to be the concern of a specialist body charged with the twin tasks of broadening the range and distribution of government debt securities and developing an efficient secondary market in these securities. There is, as of today, no institution which is exclusively or mainly engaged in the development of a market for government securities. There are a few companies, and financial and investment institutions which do play a role by trading in government securities but they are not trading with a view to providing liquidity in the market for these debt instruments.

10.1.2 Banks and financial institutions invest in government securities because they have to comply with statutory requirements or because they have investible surplus. In other words, no responsibility is cast on any of the above institutions for the development of the government securities market. While the Reserve Bank of India no doubt plays an important role in regard to the framing of policy and management of public debt and is interested in ensuring orderliness in the market, it cannot be expected to undertake the role of a market maker in government securities amidst its several important responsibilities as the central bank of the country.

10.2.1 DFHI as a Market Maker?

The other institution, set up for the development of the money market and which may be asked to undertake the function in view of the expertise and experience gained by it in the money market area is the Discount and Finance House of India Ltd. (DFHI). DFHI has been set-up primarily with the objective of developing the short-term money market in India. Since it has been set-up as an institution for developing the money market and since it plays an important role in the money market, one could consider entrusting to that institution the development of the market for government securities. Assuming for the sake of argument that the present constitutional documents of the DFHI do not authorise it to undertake functions relating to the development of government securities market but taking it as the best suited for the purpose in view of its role in the short-term money market, its constitutional documents can be amended suitably so that it can undertake the role of market maker for government securities.

10.2.1 We are examining below the various objects in DFHI's memorandum of association to ascertain whether its existing objects adequately authorise it to undertake the new role.

1. To carry on the business of discounting, rediscounting, buying, selling, under writing or acquiring, holding, disposing of and otherwise dealing in all marketable securities and negotiable instruments and in particular treasury bills, trade bills, bills of exchange, promissory notes, commercial bills, commercial paper and all other securities of every description.

2. To carry on the business of acting as agents, dealers and discount house in the short term money market instruments and securities of every description.

3. To carry on the business of undertaking and executing buy-back arrangements in trade bills, treasury bills, bills and securities of local authorities, public sector institutions, governments, governmental and semi-governmental agencies, commercial and non-commercial houses and business organisations.

4. To carry on business as lenders, borrowers, brokers and broking houses or, otherwise in any other ~~other~~ short term instrument in the money market.

5. To carry on the business of issuer and reissuer of stocks, shares, commercial bills commercial paper, treasury bills and any other securities including promissory notes and bonds with or without the guarantee of this Company or of any government or governmental or semi-governmental agency or any other person.

From the main objects in the memorandum of association, it could be seen that the primary object of DFHI is not related to the development of market for government securities. The main objects in the memorandum, if read as a whole, would lead us to conclulde that the DFHI is primarily authorised to deal in the short-term money market and short term money market instruments.

10.2.3 Feasibility of Re-structuring DFHI

If the role of development of the market in government securities is to be undertaken by the DFHI, it would be desirable, to amend its memorandum of association. The amendment of the memorandum of association would take considerable time as it will have to follow the detailed procedure for amendment set out in the Companies Act, 1956. It is estimated that it will take

approximately a period of 6 months for the DFHI to complete the entire procedural requirements before it can commence the new business of dealing in government securities.

10.2.4 The next question is whether it would be feasible for the DFHI, financially and administratively, to undertake the business of dealing in government securities with the object of developing the primary and secondary markets for government securities and government guaranteed bonds. The three essential requirements would be finance, skill and expertise in securities' trading, and no conflict of interest in developing the money market and the securities market by the same institution. The financial requirements for the development of government securities market would be in the range of Rs.500 crores, as an amount of that order would be required to provide liquidity in the market. (The capital base may have to enhanced to Rs. 1000 crores with the increase in the size of its operations in the future). As of today, the DFHI has a paid-up capital of Rs. 150 crores and the same is invested in providing liquidity to the various money market instruments. If DFHI were to play a key role in the development of the government securities market, it will have to raise a further amount of atleast Rs. 500 crores.

10.2.5 There are three principal ways in which the DFHI can raise the finance. The first alternative is to raise its capital and call for susbscriptions. The second alternative is to raise loans and advances from the banking system. The third alternative is to raise finance by issuing non-convertible debentures. As the initial capital requirement is very large, the DFHI may not be able to raise the capital required in one instalment. As its existing shareholders are expecting a higher dividend payout in the future, DFHI itself may face the problem of servicing its existing capital (which is proposed to be raised to Rs. 200 crores). There will be considerable uncertainty if it is called upon to service its future capital of the order of Rs.700 crores. The second source of finance is to raise it from the banking system which can be quite expensive. It may result in a reduction in the profit of the DFHI generated from its existing activities.

10.2.6 The third source of financing may not be easily accessed because in view of the government policy of allowing free market forces to operate in the market for debentures, there will be competition for funds in the capital market. If the DFHI decides to issue NCD's for financing its additional debentures, it will have to issue debenture's carrying interest at 18% or 19% per annum. This source is thus undoubtedly expensive and impractical. DFHI is yet an infant organisation. Though it has started generating some profits for its share holders, it may not be advisable to use up its existing liquidity for absorbing the cost of development of the market for government securities.

10.2.7 The next reason for DFHI not being in a position to undertake the new role of developing government securities market

is that with the implementation of the liberalisation programme initiated by the government a number of private organisations may enter the money market and capital market. Private sector would obviously make agressive approach for raising finance in the capital market. As against this, in the absence of a financially strong institution capable of tapping resources in the capital market for the government securities. the market for government securities cannot be developed, to its full potentiality .

10.2.8 Apart from the financial unviability of DFHI undertaking the role of market maker in government securities, from an administrative angle also the DFHI may not be able to provide the expertise required for the development of the government securities market. The DFHI's staffing is minimal and is barely sufficient for carrying out its present level of activities. If the same were to be expanded which is as it should be it would naturally be in need of additional staff. Hence, it has no surplus allocable staff. Moreover, investment dealing has entirely different connotation from money market dealing. It would need a band of staff specially trained in securities trading. It will have to be backed by a sound economic intelligence and research department. The dealing and settlement procedures for these activities are widely different. In the money market, all deals are settled on the same day basis. In the securities market, the deals may be for cash and same day settlement, or for settlement 1 or 2 days after the date of transaction. In the securities market, there are market quotes for delivery at future dates. Financial management would tend to be complex and would call for special and close attention to detail. It would demand the full time attention of a senior executive for the development of the business and to play the role of a market maker.

10.2.9 There will be competing demand for allocation of funds for providing liquidity to money market instruments in the money market and to government securities and government guaranteed bonds in the securities market. This may cause a conflict of interest and it would be difficult to reconcile the demands and arrive at appropriate solutions on a day to day basis.

10.2.10 It would be thus observed that the activity cannot be successfully carried out as a departmental activity of DFHI. There is also no special merit in establishing a subsidiary of DFHI for the development of the government securities market. DFHI is a subsidiary of the Reserve Bank. As far as the Reserve Bank of India is concerned the subsidiary of its subsidiary is also a subsidiary. Since a large amount of capital is required to be raised, it would be easier for the Reserve Bank to raise it, if the company is set-up as a subsidiary of the Reserve Bank of India rather than as a subsidiary of DFHI. A financially strong organisation which is a direct subsidiary of the Reserve Bank would be able to build necessary capacity and capability to shoulder the responsibility of developing the government securities market. Such an institution would not only be able to play

an active role in the development of a secondary market but also help the Reserve Bank in the wide distribution of government securities.

10.2.11 The development of the government securities market would involve not only developing the market for central government securities but also for state government securities and all guaranteed bonds.

10.3.1 Proposed Government Securities Trading House

If it is decided that a new institution should be set-up for the development of government securities market, the next question for consideration would be as to how the finance for the new organisation is to be raised. Finance can be raised by issuing capital to the Reserve Bank of India, banks - scheduled commercial banks, foreign banks, scheduled state co-operative banks, scheduled urban co-operative banks and state land develop-ment banks, and All-India Financial Institutions. Since the capital requirements are large and since the new institution may not be able to service a large capital commensurate with the general expectation of a high rate of return on capital, large subscriptions may not be made by the institutions; hence a substantial part of the finance will have to be provided by the Reserve Bank of India. Though the institution may not be a wholly owned subsidiary of the Reserve Bank, it would be in the fitness of things that the Reserve Bank plays a key role in the establishment of the new institution, and contributes to its capital substantially. The working capital funds can be raised from the banking sector and the market. It may be supplemented by funds that be provided by the Reserve Bank of India for repos operations and for market stabilisation operations.

10.3.2 The Reserve Bank may initially take up 74% of the share capital in the new company and may progressively transfer under a phased programame its shareholding in excess of 51% to the other shareholders. This arrangement would ease the initial problem of raising a large capital of Rs.500 crores.

10.3.3 The next question would be whether the new institution should be established as a statutory corporation under a special enactment of the Parliament or as a limited liability company. The alternative of setting up the institution as a statutory corporation has the advantage of undertaking the new role without being hindered by regulatory provisions affecting a limited liability company. It would also provide for effective control in the hands of sponsoring institutions and government.

It is, however, doubtful whether as a statutory corporation, the new institution would be able to operate effectively in a free market environment i.e. operating solely on demand and supply considerations in the market. As a statutory institution, it may not have flexibility of operation, as compared to a limit-

ed liability company. Since the main object is trading in government securities it may be more appropriate to set up the institution as a limited liability company than as a corporation.

10.3.4 If the institution were to be set up as a statutory corporation, the establilshment of the institution will have to wait till legislation is made by the Parliament. As compared to this, the alternative of setting up the institution as a company can be accomplished within a period of, say, three to four months. It can immediately, thereafter, commence business.

10.3.5 As no statutory control on the operations of the institution is intended, there is also no compulsion to set it up as a statutory corporation. The institution can be set up as a company under the Companies Act, 1956. The Reserve Bank of India can exercise necessary control over the management of the company by keeping with itself the right to appoint the Chief Executive and prescribing control returns etc. as one of the conditions of recognition as authorised dealer or under the refinance facility that may be extended to the institution.

10.3.6 After it is decided to set up the institution as a limited liability company, the decision will have to be taken as to the amount of capital to be raised, from whom it is to be raised, the share of the sponsoring organisation, and the power and authority to be given to the Reserve Bank of India, if it is decided that the Reserve Bank of India would act as the promoter and major shareholder.

10.3.7 The further course of action would be to place the proposal for consideration by the various institutions. The next step would be to select the name of the institution and then submit the application to the Registrar of companies for availability of name. It takes above 3-4 weeks to get the clearance from the Registrar of Companies. In the mean time, the memorandum and articles of association can be drafted. The memorandum and articles of association of the DFHI which was prepared after detailed examination could be considered as the basis for framing the memorandum and articles of association of the institution. The major change will be only in the main objects appearing in the memorandum so as to reflect the main objects of the new institution viz. development of the market for government securities.

10.3.8 As the company would be required to issue a large capital initially, it would require the approval of the Controller of Capital Issues. There is expertise within the Reserve Bank to arrange for the incorporation of the company and ensure compliance with the formalities connected with the setting up and commencement of business within a period of 3-4 months from the date a decision is taken to set up the Government Securities Trading House..

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Appraisal of Debt Management Objectives

1. In the context of the process of deregulation and rationalisation of the administered interest rates which has been initiated in the past five years, and the momentum it is likely to gain under the structural adjustment and financial reforms programmes that would be launched by the Government and the Reserve Bank, government debt management objectives would call for a fresh appraisal. (Paras 2.2.1 - 2.6)

2. The Reserve Bank may assist government in framing a debt policy in co-ordination with fiscal policy and monetary policy. Policy changes will have to be adumberated in the context of the structural adjustments being implemented or on the anvil. As far as the financial sector is concerned, deregulation\liberalisations have been initiated during the past 5 years and this process may accelerated, culminating in the freeing of the entire structure of interest rates. In that event the coupon rates on bond issues could be market determined on an auction basis.(Para 9.8.3)

3. There is need and scope for broadening the market, to diversify the instruments and to sell them to different categories of investors. (Paras 2.9.2 - 2.9.7)

Monetary Policy,Fiscal Policy and Debt Management Policy

4. Monetary policy and fiscal policy are closely interlinked. Internal debt management policy is closely integrated with monetary policy as well as fiscal policy. Such links should be established by guidelines (Para 4.1). The essence of coordination between fiscal policy and monetary policy lies in reaching agreement on the extent of expansion of Reserve Bank credit to government from year to year. (Para 4.3.6)

5. Public debt policy will have to be in accordance with the general objectives of economic policy and should not be such as to impede the achievement of intermediate objectives which may have been set up in the monetary and fiscal field. It could be considered appropriate to separate responsibilities in different areas of economic policy, so that debt management could rèmain as neutral as possible as regards its effects on different conjunctural situations.(Page 38)

6. The automatic monetisation of fiscal deficits by the Reserve Bank should be phased out so that within a few years government would place its entire borrowing on the market at appropriate interest rates. The debt management policy should be oriented towards financing the government requirements from the open market thereby enabling the central bank to use open market operations for regulating monetary growth.(Para 4.9.1 and 4.9.2)

7. As a pre requisite for developing an active government securities market, it is necessary to move towards market clearing interest rates on government securities. The market clearing interest rate could be varied by the Reserve Bank, through open market operations,to influence all other rates in the system which are no longer administered. (Para 4.9.2)

Term Structure of Interest Rates.

8. The term structure of interest rates in India is not in keeping with the normal expectations as the short and the medium-term interest rates are above the long-term rates. Rationalisation of interest rates structure cannot be brought about in one stroke. It should be done on a gradual basis or in stages. (Para 5.8.2)

9. A gradual increase in interest rates on government bonds would enthuse non-bank investors to respond more and more to issues of government bonds. This in turn would reduce the dependence of the government on the banking sector for financing its expenditure. This would leave much larger funds in the hands of banks for loaning as well as investment. There could then be a reduction in the interest rates on loans. This rationalisation would reduce the spread between the yield rates on long-dated government securities and all other short-term rates. (Para 5.8.3)

10. If an increase in interest rates is deemed necessary, the phasing of the increase would be relevant to debt management operations. It is necessary to ensure that the interest rates on public debt are broadly in alignment with the over-all interest rate structure. (Para 5.8.3)

Changes in Securities Structure

11. Since over 90% of the subscriptions have been for long-dated securities with the highest coupon rate, the weighted average cost of borrowing has been much above 11% in recent years and this has imposed a heavy burden on debt servicing on the exchequer. (Para 6.4.2)

12. Eventhough the market preference is predominantly for long-dated securities, it is necessary to arrange the issue of

various maturities, and accordingly, differentials in the coupon rates for the different maturities will have to be maintained. Even within the framework of the administered interest rate structure scope exists for issuing securities with different characteristics. For example, securities bearing variable rates and with shorter maturities could be considered for issue. (Para 6.4.3)

13. When we move to a free market economy, the coupon rates would have to be determined on a different set of considerations. The formula suggested by the Sukhamoy Chakravarti Committee for pricing short,medium and long-dated securities at rates ranging from 1% to 3% above ELTIR could be considered in the said con text. (Para 6.4.3)

14. Apart from the standard coupon bond issues, non-standard issues such as variable rate stocks, low coupon bonds, zero coupon bonds, lottery bonds, convertible stocks,index-linked bonds could be considered so that different market segments' need would be met. (Para 6.4.3)

Features of Government Securities Market

15. Banks are not able to make use of the switch quota provided by the Reserve Bank of India fully to improve yields because such transactions would result in booking losses and current profits would be insufficient to absorb such losses. As such their future investment incomes tend to be lower.(Para 7.2.4)

16. Creation of depreciation reserve and booking capital loss are the two practicable ways of handling the situation of fall in prices but declining profitability does not offer much scope for the same. Of the two, creation of depreciation reserve is more costly because the provision is to be made from profits after tax. It would therefore be prudent policy to book losses. (Para 7.2.6)

17. There are several issues concerning the development of the securities market which should be resolved e.g. (i) there is no trading in state government securities and in the guaranteed bonds of the public sector bodies (ii) in the case of some guaranteed bonds no secondary market exists because of default in the timely payment of interest and redemption proceeds. (Para 7.3.5).

18. There are a few irritants and impediments to the healthy growth of secondary market in government securities e.g. (i) non-availability of regular market quotations; (ii) transfer procedures in respect of guaranteed bonds. As these are cumbersome and time consuming, they restrict trading. The practice of scripless trading or book-entry procedure should be introduced;

and (iii) tax deduction at source restricts the development of the market.(Para 7.4.1)

19. Government of India and Reserve Bank of India would have to play lead roles in bringing about legislative and procedural changes as are necessary in this behalf. (Paras 7.4.2)

20. The central loans are raised in 5-6 tranches. The banks which have to maintain SLR generally acquire the securities only to the extent necessary at the time of issue. As the demand for SLR securities rise month after month, there are fluctuations in the prices of securities. It is desirable to avoid violent fluctuations in prices. The Reserve Bank may make monthly forecasts of deposit growth in the banking system and consider the issue of loans at more frequent intervals than at present so as to augment the supply of securities. (Para 8.4.3)

21. The Reserve Bank of India is not currently buying state government securities. These securities could be held as assets in the banking department and hence could be purchased under the switch quota. Such a step would help in the long-run in improving the marketability and prices of these securities. (Para 8.4.5)

Development of Securities Market

22. The Reserve Bank may in principle accept the need to build an institutional structure for the development of the government securities market. It may lay down the regulations governing the recognition of (i) primary dealers, (ii) broker dealers (iii) inter-dealer brokers and (iv) stock exchange money brokers. It may lay down the capital requirement and the dealing and administrative expertise required for recognition of each category of operators in the government securities market. The institutional structure may be developed in phases.(Para 9.8.3)

23. The stock exchange money brokers need not for the present be an essential part of the institutional market structure. The proposed securities trading house and the DFHI, as a major intermediary in the money market may also arrange for lending government securities in the market.(Para 9.8.3)

24. The inter-dealer broker and the broker dealers should be registered members of the stock exchange.

25. As primary dealers as a class may not be prepared or be able to provide the counterpart in the market in the event of heavy selling by ultimate investors there would be the need for an official institution to intervene, with a view to maintaining orderly market conditions. Though this task could be taken up by the Reserve Bank the stabilising interventions of this nature

could conflict with the monetary policy objectives. An institution with a large capital base like the proposed government securities trading house could play the stabilizing role with such financial support as may be provided by the Reserve Bank. (Para 9.8.2)

26. The primary dealer group should not be large and unwieldy Most of the scheduled Indian banks, scheduled cooperative banks state cooperative banks, scheduled urban cooperative banks, state land development banks, large foreign banks, development banks investment institutions in the public sector and investment companies in the private sector may be considered as eligible for membership. (Para 9.1.6)

27. Banks and institutions which are not given primary dealer status will not have access to the competitive auctions, and hence such bodies would be obliged to meet their investment requirements from the market place. (Para 9.1.6)

28. The Reserve Bank may proceed to set up a government securities trading house to develop the government securities market, jointly with banks and financial institutions (Paras 9.8.3). The securities trading house would function as a major market maker. The securities trading house would be subject to regulation by the securities and exchange board of India. (Para 9.8.3)

29. The Reserve Bank is managing a limited clearing and settlement system. At present the financial settlement is taking place outside the Reserve Bank environs. Eventually, a full-fledged clearing and settlement system should emerge under the aegis of the Reserve Bank. (Para 9.5.6)

30. Central depository system (CDS) developed by Stockholding Corporation of India Ltd (SCHIL) should include government securities. SCHIL should be able to extend custodial facilities to government promissory notes and government stocks within the framework of its existing facilities. While Reserve Bank would provide SGL or book-entry facility to government bonds, SCHIL could provide CDS facility to institutions which issue government guaranteed bonds. To begin with SCHIL can provide CDS facility to NABARD, IFCI and IRBI whose bond issue and servicing are managed by the Reserve Bank. (Paras 9.5.7)

31. SCHIL should market its services among the vast body of public sector undertaking who issue bonds regularly. Book-entry facility would greatly enhance trading in the securities of these institutions and improve the liquidity of the bonds issued by them. (Para 9.5.7).

32. Government securities may be traded in the stock exchange as well as in the over-the-counter market. In the OTC market

quotations would be available quasi-continuously during normal office hours. In the stock exchange, a bond may be quoted once or several times during the stock exchange session. It may be useful to use both the systems. (Para 9.8.1)

33. Reserve Bank may introduce an auction system for raising new loans, as and when the structure of interest rates is liberalised. (Para 9.8.3)

34. The Reserve Bank may pursue with the Government the amendment of the Public Debt Act, 1944 so that book-entry system for individual investors could be maintained by commercial banks.(Para 9.8.3)

35. The procedure of deduction of income-tax at source may have also to be removed so that trading in government securities can be activated. The Reserve Bank may pursue this matter with Government at the highest level. (Para 9.8.3)

36. The Reserve Bank may consider providing finance to the primary dealers against the holding of their securities on a repos basis. It may also provide on request funds or securities to the primary dealers for a period of 7 days at an interest rate equal to the market yield on the securities involved. (Para 9.8.3)

37. As lending to non-banks is not envisaged under the Reserve Bank of India Act, 1934 the Reserve Bank may initiate early steps for the amendment of the Act so that it may be able to lend money against the holding of government securities. (Para 9.8.3)

38. The Reserve Bank may suitably expand the dealing wing and set up a surveillance section in the Secretary's Department so that it can activate dealings in the market and supervise the activities of the operators in the new market structure. (Para 9.8.3)

39. The Reserve Bank's dealing personnel will have to be in informal dialogue with the authorised dealers and get to know about market conditions. The dealer group would also be submitting periodical reports. These formal and informal contacts would guide the Bank in the implementation of the policy in regard to open market operations. The "closeness to the market" would help in tailoring the new issues to reflect market conditions and investor preferences. (Para 9.8.4)

40. The development of the government securities market has to be the concern of a specialist body charged with the twin tasks of broadening the range and distribution of government securities and developing an efficient secondary market in these securities. (Para 10.1.1)

41. The proposed Government Securities Trading House may have an initial capital of Rs. 500 crores. The Reserve Bank may initially take up 74% of the share capital in the new company and may progressively transfer under a phased programme its shareholding in excess of 51% to the other share holders. (Para 10.3.2)

42. The working capital requirements of the proposed Securities Trading House may be raised from the banking sector and the market. It may be supplemented by funds that may be provided by the Reserve Bank of India for repos operations and for market stabilisation operations. (Para 10.3.1)

43. The proposed Government Securities Trading House may be set-up as a limited liability company under the Companies Act, 1956. (Para 10.3.5)

44. In order to nurture the development of the secondary market and encourage the dealer group to plaly an active role, the Reserve Bank may extend a lender of the last resort facility to each primary dealer. This would done by using an overnight repo in the form of a purchase and resale agreement. The quantum would be varied from time to time depending on dealer performance and the over-all market demand. (Para 9.7.3)

45. The securities trading house could function as the pace setter. This institution may quote bid and offer prices for the whole range of government securities central and state government securities and eventually for government guaranteed bonds. The price quotations would be market related as the yields would depend upon supply\demand position and market sentiment. (Para 8.4.4)

46. The primary dealers and the recognised stock brokers should be under an obligation to send their daily quotations and volumes traded to the stock exchange authorities and the Reserve Bank of India. (Para 8.4.4)