DEVELOPING BOND MARKETS TO DIVERSIFY LONG-TERM DEVELOPMENT FINANCE: COUNTRY STUDY OF INDIA

*Usha Thorat**

The pattern of economic development adopted by India was essentially based on centralized planning with a predominant role given to the public sector. Public sector banks and financial institutions, which accounted for nearly 75 to 80 per cent of financial intermediation, contributed to the development process in the public sector by way of captive investments in government securities and lending to public sector entities. Rates of interest on government debt were administered and the rate of interest on central bank financing was hugely concessional. Exposure to external capital flows was limited. In such a milieu, there was hardly any development of the debt market. To move away from administered interest rates and reducing the reliance of government on high statutory pre-emption and its monetization of the budget deficit were the focus of reforms in the early 1990s. Against this background in section I, the current status of the debt market is described in section II. Section III contains an assessment of the various issues regarding development of debt markets in India while section IV concludes by analysing what more needs to be done.

Until the late 1980s, the pattern of economic development adopted by India was essentially based on centralized planning with a predominant role given to the public sector. The public sector banks and financial institutions that accounted for nearly 75 to 80 per cent of financial intermediation contributed to the development process in the public sector by way of captive investments in government securities and lending to the public sector entities. Large statutory preemptions and borrowing from the central bank provided the government the ability to meet its borrowing requirements to finance large fiscal deficits. Rates of interest on government debt were administered and the rate of interest on central bank financing was hugely concessional. Monetary policy had to be compensatory in nature and in the main,

* Ms. Usha Thorat, Chief General Manager-in-Charge, Internal Debt Management Cell, Reserve Bank of India, Mumbai, India.

required successive and large increases in cash reserve and statutory liquidity requirements. Savings, mobilized through post offices, termed as small savings with predetermined interest rates and tax incentives were another major source of funds for the government. Rates of interest were administered on almost all financial products. Exposure to external capital flows was limited. In such a milieu, there was hardly any development of the debt market.

Before the debt markets could develop, it was necessary to move away from administered interest rates and the reliance by the government on high statutory preemption and monetization of the deficit. These two major areas were the focus of reforms in the early 1990s. There was steady reduction in the statutory liquidity ratio (SLR) from 38.5 per cent in 1991 to 25 per cent in 1998 and the cash reserve ratio (CRR) from a high of 16.5 per cent in March 1992 to 5.5 per cent at present. Automatic monetization of the government's deficit at 4.6 per cent was eliminated through an agreement in 1994 and the market borrowings of the central government was undertaken through a system of auctions at market related rates. Interest rates were deregulated. Capital flows, especially equity flows, – both direct and portfolio – were encouraged; the exchange rate regime became market-driven, with capital controls retained on external debt and resident outflows. In the real sector the reforms involved removal/ lowering of trade and tariff barriers, dismantling industrial licensing and administered prices and opening up the economy to international competition and foreign investment. Liberalization of the capital account was calibrated with continuing restrictions on external debt and resident outflows.

Against that background this paper is organized as follows: in section I, the current status of the debt market is described; section II contains an assessment of various issues regarding development of debt markets in India while section III concludes by analysing what additional measures and actions are needed.

I. CURRENT STATE OF DEBT MARKETS IN INDIA

Government securities market

The Indian debt market is dominated (80 per cent) by government securities both in terms of outstanding stock as well as turnover. The outstanding marketable debt of the Government (central and state) is around \$ 131 billion (32 per cent of GDP). The maturity period of instruments goes up to 25 years, with an average maturity of 7.5 years. The major investors in government securities are banks, insurance companies, mutual funds and provident/pension funds. Government securities are almost entirely held in dematerialized form.

Table 1 shows the annual market borrowing programme of the central and provincial governments. The Reserve Bank of India, the central bank of the country, besides being the monetary authority is also the fiscal agent and debt manager to the central and state governments. Until 1993-1994,[1] the central government was, by and large, financing its deficits through a process of larger and larger pre-emption from the banking system and other captive borrowers, besides taking recourse to central bank finance through automatic monetization. The voluntary agreement between the Government of India and the Reserve Bank of India to phase out automatic monetization was a path-breaking move in the reform process.[2] The Government of India's willingness to borrow from the markets at market rates along with the decision to introduce an auction system for the sale of government loans[3] paved the way for developing a sovereign benchmark yield curve and thus helped price discovery in the government and non-government debt market.

Table 1. Net market borrowing requirements of the central and provincial governments
(percentage of GDP)

Year	*Central government*	*State governments*
1980-81	1.80	0.14
1990-91	1.32	0.45
1993-94	3.32	0.42
1994-95	1.99	0.51
1995-96	2.50	0.55
1996-97	2.12	0.53
1997-98	2.91	0.52
1998-99	3.89	0.66
1999-00	4.09	0.69
2000-01	3.73	0.65

As debt manager to the government, the development of a deep and liquid market for government securities is of critical importance to the Reserve Bank in facilitating price discovery and reducing the cost of government debt. Such markets also enable the effective transmission mechanism of monetary policy, facilitate the

1 Financial year – April-March.

2 System of automatic monetization ended on 31 March 1997.

3 Auction system for dated Government of India securities was introduced in June 1992.

introduction and pricing of hedging products and serve as benchmarks for other debt instruments. Hence, as the monetary authority, the Reserve Bank has a stake in the development of debt markets. Liquid markets imply a more transparent and correct valuation of financial assets, facilitate better risk management and are therefore extremely useful for the Reserve Bank as a regulator of the financial system. As the system integrates with the global markets it is necessary to ensure low-cost financial intermediation in domestic markets or else the intermediation will move offshore. This further reinforces the argument for the development of domestic debt markets.

The Reserve Bank has accordingly been consciously focusing on the development of the government securities markets, right from the early 1990s, through carefully and cautiously sequenced measures within a clear-cut agenda for primary and secondary market design, development of institutions, enlargement of participants and products, sound trading and settlement practices, dissemination of market information, prudential guidelines on valuation, accounting and disclosure.

One important aspect in this regard was the introduction of primary dealers in the government securities market in 1997. Primary dealers are a class of non-banking financial institutions, with a threshold limit of net worth and proven track record in the government securities market, inducted into the market with a two-pronged objective of developing underwriting abilities for the primary issuance of government securities and to develop the secondary market for government securities by acting as market makers. Accordingly, primary dealers are required to bid at auctions of Treasury Bills in such a way that the total bids submitted by them collectively cover the notified amount (i.e., the amount on sale). In case of dated securities they have to give annual bidding commitments to the Reserve Bank at the beginning of every fiscal year. Stipulation of the success ratio at the auctions (40 per cent in the case of Treasury Bills as well as dated government securities) ensures that the bidding is serious, with an intention to absorb securities at the auctions (a success ratio of 40 per cent means that of the total bids submitted by a primary dealer at all the auctions, 40 per cent of the bid amount should be successful in the auction). In addition, primary dealers are allowed to underwrite the whole auction amount and the underwriting fee is decided through a multiple price auction (primary dealers have no such obligations in the case of provincial government loans). Against these obligations, primary dealers have been given certain facilities by the Reserve Bank viz., funds and securities account facility at the Reserve Bank, a standing facility of liquidity support at the bank rate, participation in overnight markets and participation in the Liquidity Adjustment Facility (LAF).[4]

[4] LAF was introduced in June 2000, through which the Reserve Bank operates in the market using repos and reverse repos, every day except Saturdays, to adjust liquidity conditions in the system.

After the introduction of primary dealers[5] the volumes in the secondary markets have grown manifold. Simultaneously, standardized norms for valuation and mark-to-market requirements imposed on the banking system have also boosted trading activity. The turnover in the government securities market is given in table 2. On a typical trading day roughly 1 per cent of the outstanding government stock is traded in the market and the turnover ratio i.e., the ratio of outstanding turnover of government securities to stock of government securities is around 3.

Table 2. Turnover in government securities
(billions of US dollars)

Year	*Outright*	*Repo*	*Total*
1997-98	67	21	88
1998-99	78	33	111
1999-00	190	69	259
2000-01	238	105	343
2001-02 (up to Sep)	251	118	369

(at approximately $1= Rs 48)

The most preferred method of raising resources for the government is through auction. A multiple price auction has been the main system used, although an attempt has been made to move to a uniform price auction method recently. The Reserve Bank's entry as a non-competitive bidder and its absorption of government securities at primary auctions is aimed at containing the aberrations in the market that is still in an evolving stage. Private placement is also resorted to when market conditions are very uncertain, there is volatility in the forex markets and the government's requirements are large in a short period of time. The resulting impact on monetization is managed through subsequent open market operations consistent with the requirements of liquidity in the forex and money markets. Tap issuance with a predetermined coupon or a private placement of securities-cum-tap sale is also undertaken at times.

An issuance calendar is published twice a year for Treasury Bill auctions. Such a calendar is not being released for the issuance of dated securities in view of the uncertainties in Government's cash flows. While an issuance calendar adds to the information content of market participants, in the absence of a trend in government cash flows, the issuance calendar reduces the flexibility of the issuer/debt manager.

5 There are 15 primary dealers.

In the case of state governments, loans are predominantly raised with a pre-announced coupon, with the coupon set at 25 basis points above a central government loan with a similar tenor. The mark-up is to compensate for the poor liquidity the state government paper commands in the secondary market. In recent years states have been given an option to raise between 5 and 35 per cent of their market loans through auctions or a tap issue. As regards product development in the government securities market, while zero coupon bonds, floating rate bonds, stock for which payment is made in instalments and capital indexed bonds have been issued in the past, plain vanilla bond issuances have been largely preferred owing to their size and liquidity and to avoid any ignorance premium associated with new instruments.

Since fragmentation of loans has an impact on the liquidity of the markets because of reduced fungibility, consolidation of loans through re-openings and issuance of benchmark securities have been given preference. The process of passive consolidation has increased liquidity and narrowing of the bid-ask spread, which is now less than 1 basis point for a benchmark 10-year security (the 10-year stock is the most traded benchmark stock). Price-based auctions have facilitated the reopening of existing loans and led to finer pricing with a narrowing of the range of bids. Besides, such re-openings have also helped the price discovery process, acting as a proxy to the when issued market. Active consolidation has not been considered worthwhile in view of administrative, cost and legal considerations. Moreover, the process of passive consolidation has itself helped in more or less containing the number of bonds to a level that was prevailing at the end of 1998/99. The results of the process of passive consolidation may be gauged from the fact that of the 112 outstanding loans,[6] 42 loans (less than 38 per cent) account for 76 per cent of the marketable debt stock and 21 loans (less than 19 per cent of the total loans) account for more than 48 per cent of the total outstanding amount.

In the context of continuing fresh net borrowings by the Government, the need to elongate the maturity profile of government debt has been felt so as to minimize the refinancing risk. Longer-dated bonds are also sought by long-term investors such as insurance companies and pension funds and for pricing of long-term corporate bonds for financing infrastructure. A comparison of the average maturity of government debt in India with some other countries is given in table 3.

The reform of the debt markets, especially the government securities market, was initiated in 1992 as a part of the financial sector reform process. The importance of delivery versus payment, secure settlement systems and transparency in the markets was brought home in 1992 when certain irregularities by market participants in the government securities market facilitated the grant of clean advances to unscrupulous brokers for speculating in the stock markets. During that period there was no

6 As at 23 October 2001.

Table 3. Maturity profile of central government debt
(as at 31 March 2000)

Country/region	*Average remaining years to maturity*
Euro area[a]	6 y
Japan	5 y 2 m
United Kingdom	9 y 11 m
United States	5 y 10 m
India[b]	7 y 6 m

[a] end 1999.
[b] as at 31 March 2001.

transparency of trades in the market. Brokers played a dominant role. The delays involved in settlement and the consequent indiscriminate use of bankers receipts to denote the ownership of securities in the absence of original possession contributed to the so-called "stock market irregularities of 1992". These events made the Reserve Bank focus on the settlement system and a gross trade by trade DVP system was put in place, with mandatory settlement of all deals by banks and financial institutions in the securities and funds accounts with the Reserve Bank.[7] To instill discipline in market participants and prevent short sales, penalties have been prescribed for the misuse/bouncing of the subsidiary general ledger form used for transfer of title in government securities.

Since 1994, the information available with the Reserve Bank on the securities and the prices at which they were traded is made available to the market each day through a press release. In the wholesale debt market segment of the National Stock Exchange, the trades in government securities are reported through electronic medium and disseminated by the wire agencies. The Reserve Bank is currently setting up an electronic negotiated dealing system which will facilitate electronic bidding in the primary auction for government securities as well as in the LAF auction and screen-based trading in the secondary market. The negotiated dealing system should connect seamlessly with the securities settlement system that will ensure electronic transfer of title in the securities and delivery versus payment. The negotiated dealing system will bring in further real-time transparency in the market.

The subsidiary general ledger facility of the Reserve Bank is confined to a limited number of participants like banks, financial institutions, primary dealers and

[7] The Reserve Bank is the registry for government securities and the final settlement takes place by means of a book entry facility called the subsidiary general ledger account. More than 90 per cent of the holdings in government securities are in dematerialized form in the subsidiary general ledger.

mutual funds. To take care of the retail market, a constituent subsidiary general ledger facility has been provided and the Reserve Bank has issued guidelines for maintaining and operating such accounts. The retail market in government securities is also sought to be promoted through 100 per cent gilt mutual funds (mutual fund schemes that invest their entire corpus in government securities) for whom the Reserve Bank provides limited liquidity support. Simultaneously, the Reserve Bank and the Government of India are taking steps to rationalize the administered interest rate and tax incentive structure on small savings products (mobilized mainly through the post offices), thereby indirectly promoting retail interest in tradable government securities. Foreign institutional investors are allowed to acquire government securities in the primary and secondary markets within certain limits.

On the taxation front, the tax deduction at source – akin to withholding tax elsewhere – which was a major irritant in the development of the government securities market for a long time, was done away with in 1997. Presently investors can pay taxes either on an actual (cash) basis or on an accrual basis. In case of deep discount bonds, the taxpayer either pays capital gains or income tax depending upon whether he/she sells in the market before maturity or holds until maturity.

Non-government securities market

Non-government debt accounts for around 15 per cent of the total outstanding debt. This segment mainly includes bonds issued by corporations, public sector undertakings and financial institutions. Around 85 per cent of corporate bond issuance is through private placements that are not regulated. The size of the secondary market for debt is hardly 10 per cent of that of the equity market. Furthermore, the non-government debt market is a non-transparent market compared to the equity market (telephone-based) and is highly fragmented. Though recent years have seen a preference for raising resources in the primary market through debt instruments, the private placement of debt has emerged as the major route for raising resources (see table 4).

The advantages of the private placement route vis-à-vis the public issuance route are that the former is a cost- and time-effective method for resource mobilization (estimates of costs for a public issue are around 3 per cent of the proceeds and take as much as one month). In the private placement market, funds can be raised at minimum cost within a short period of time. Most of the investors in the private placement market are banks, financial institutions and other institutional investors. Besides, the entire issuance structure can be customized to suit the needs of the investors while the issuers are not required to undergo the rigours of detailed compliance as well as disclosure norms, as in the case of public issues. The Reserve Bank's concern, as a supervisor, has been the large number of private placements/unlisted bonds where the disclosure and documentation standards may be less than satisfactory. As the

Table 4. Resources raised in the corporate debt market
(billions of US dollars)

Year	*Public issues*	*Private placements*	*Total (2+3)*	*Share of private placements (percentage)*
1	2	3	4	5
1995/96	0.61	2.09	2.70	77.34
1996/97	1.45	3.83	5.29	72.50
1997/98	0.40	6.45	6.86	94.14
1998/99	1.54	8.07	9.62	83.95
1999/00	0.98	11.40	12.37	92.09
2000/01	0.11	4.66	4.76	97.79

Source: Prime Database.

major investors in such bonds are banks and financial institutions, the Reserve Bank has taken an active interest in bringing about uniform and prudential norms for the classification and valuation of such bonds, better due diligence and disclosure, in addition to requiring the boards of the banks to have a conscious policy of limiting their investments in unrated and unlisted bonds and taking suitable risk containment measures. The thrust of the stance is to bring about better due diligence and transparency in the primary and secondary markets.

State government guarantees on behalf of state-owned and other entities for resource mobilization through bond issuance is becoming common. The availability of sovereign guarantees, especially at the state level, has facilitated the issuance of large amounts of bonds where due diligence may not be sufficiently stringent. While the state governments are being made aware of the impact of such contingent liabilities on their finances, banks and financial institutions that are the main investors in such guaranteed bonds are being advised to take investment decisions on the basis of project viability rather than taking comfort from such government guarantees.

Under the Reserve Bank’s initiative, the associations of market participants are regularly releasing data on prices for different government securities and corporate bonds for valuation purposes, especially for those illiquid bonds that are not frequently traded.

The market for asset securitization has not really taken off although the first deal dates back to the early 1990s. Even reliable data are not available on the magnitude of securitized debt in India. Most deals involve the transfer of beneficial interest in the asset and not the legal title; the deals are mostly direct purchases of receivables by financial institutions and large non-banking finance companies and the secondary market is conspicuous by its absence. The importance of special purpose vehicles has not yet been noticed. While the market is unregulated, there are no standard accounting and valuation norms. The stamp duty, which ranges between 0.5 to 8 per cent of the value of transactions and the registration fee (transfer of property requires compulsory registration under the Indian Registration Act, 1908) are major constraints to the development of securitized debt markets. Some of the states have, however, reduced stamp duty to as low as 0.1 per cent. Other issues involve existing foreclosure laws, the provisions of the Income Tax Act, 1961 (which involves deeming the transfer of income without the transfer of assets as part of the transferor's income) and the Transfer of Property Act (which recognizes the transfer of property which is in existence and not a future receivable).

The advent of the wholesale debt market segment on the National Stock Exchange (NSE) through the trade reporting system improved the informational content on debt market activity. The Securities and Exchanges Board of India (SEBI) move supporting the dematerialized holding and trading of securities, the advent of depositories such as the National Securities Depository Ltd. and Central Securities Depository Ltd., and the government's intention to reduce fiscal deficits, are expected to enhance activity in the non-government bond market in the years to come. The recently established Credit Information Bureau, which has not been activated pending amendments to certain statutes, will collect and disseminate certain credit information on borrowers, as permissible within the existing legal framework.

The amendments (1 March 2000) to the Securities Contracts (Regulation) Act, 1956, have clarified the regulatory jurisdiction in the securities markets. While the Reserve Bank is the regulatory authority for transactions in government securities, money market securities, gold-related securities, derivatives based on these securities and ready forward contracts in all debt securities, SEBI regulates the exchanges, the stock markets, brokers, mutual funds and corporate debt. Some amount of overlap occurs since the regulatory jurisdiction is based on both the activity and the entity that is being regulated. For instance, participants such as mutual funds are active in the government securities markets but are under the regulatory jurisdiction of SEBI, the securities regulator. Stock exchanges trading government securities will need to comply with the regulations of both the Reserve Bank and SEBI. Coordination is achieved between the regulators through the High Level Committee on Capital Markets headed by the Governor of the Reserve Bank with the Chairman of the securities regulator, SEBI, the Chairman of the insurance regulator, Insurance Regulatory and Developmental Authority (IRDA), and the Finance Secretary as members. Regulatory gaps and overlaps are continuously identified and steps taken to bridge the gaps while ensuring coordination where there is overlap.

II. ISSUES REGARDING THE DEVELOPMENT OF DEBT MARKETS IN INDIA

The efficient allocation of resources is a consequence of the level of financial market development, the ability of the market to reflect the relative prices of assets and allocation of resources by the agents based upon a proper risk-return perspective. The role of markets is to generate accurate information about risks and rewards – unless it is possible to price the risk it would be difficult to price the product accurately. The essence of efficient markets is information processing to facilitate efficient asset pricing and resource allocation. But markets can assist only if the assets are not only tradable but also traded. In other words, markets for debt instruments, while providing an opportunity to the less informed investors to participate in long-term projects, should offer sufficient flexibility to exit by providing liquidity as against traditional debt contracts such as loans and advances. These matters are examined in the following paragraphs.

Government securities market

The high cash reserve requirements and the prevalent system of bank lending (which gives the borrower the flexibility to borrow and repay) uncertain and large flows in government accounts makes banks focus on overnight borrowing and lending. Asset liability management by banks is of very recent origin and the re-pricing of assets and liabilities is not yet fully flexible. There are restrictions on active cash management by public sector enterprises and provident/pension funds, and temporary mismatches in the receipts and payments of government continues to be met through a system of ways and means advances rather than treasury bills. All these factors have impeded the development of the money market beyond the overnight segment and are also proving to be constraints in developing an active treasury bill market. This has also had an impact on the short-term benchmark yield curve.

Banks hold about 35 per cent of their liabilities in government securities. While standardized valuation and mark-to-market norms (MTM) enhance transparency in balance sheets, the banks recognize mark-to-market losses, but not the gains. In such a situation 100 per cent MTM has the implication of adding volatility to balance sheets while not bringing out the hidden strength due to the unreleased gains. Banks and financial institutions are now permitted to hold not more than 25 per cent of their investments in the permanent category, thereby cushioning annual balance sheets from large variations due to the change in value of such permanently held investments. Of late, there has been growing concern about asset/liability mismatches and the consequent impact of interest rate risk as most bank liabilities are short-term (up to three years) and the duration of their investment in government securities is increasing because of the elongation of the maturity profile of government debt. The risk of the impact of any sudden and sharp upward move in yields can be quite significant and this is sought to be addressed through building up a sufficient cushion in the form of unrealized gains and/or specific provisions out of earnings to meet any future depreciation requirements.

While floating rate debt is being contemplated to address the interest rate risk issue and capital-indexed bonds are perceived to have a salutary impact on the fiscal situation to synchronize with business cycles, the major issues that need to be addressed in this regard are the availability of a reliable benchmark short-term rate/measure of inflation and the pricing of such debt in the secondary market. Also, from the government's perspective, minimizing refinancing risk implies that not more than a small proportion can be in the form of floating rate instruments. Callable bonds can create uncertainties in the redemption burden. New issuance on a plain vanilla basis or reopening of existing fixed rate loans with longer maturity is therefore usually preferred in view of its simplicity in pricing, secondary market trading and thereby in improved liquidity.

The large fiscal deficits and large borrowing programme of the government have dominated monetary management in India. The Reserve Bank's ability to maintain an appropriate interest rate environment that facilitates growth with price stability, meets large government borrowing requirements and prevents undue volatility in the forex markets, has been facilitated by the flexibility to undertake active debt management combining private placement and open market operations. The monetization of the fiscal deficit has not been eliminated but the extent of monetization is now managed at the discretion of the Reserve Bank, in conjunction with the management of forex flows, so as ensure appropriate liquidity in the system. Moving towards the objective of completely eliminating absorption of primary issuance by the Reserve Bank would require further fiscal consolidation. The passing of the proposed fiscal responsibility bill, the proven use of the LAF in managing short-term liquidity, the enlargement of the repo market through setting up the Clearing Corporation will facilitate elimination of Reserve Bank participation in the primary market and enable separation of debt management from monetary management. The Reserve Bank has already proposed amendments to the Reserve Bank of India Act to take away the mandatory nature of the management of public debt by the Reserve Bank and vesting the discretion with the central government to undertake the management of the public debt either by itself or to assign it to some other independent body.

Ensuring liquidity in the government securities market is of critical importance. The development of the repo market and the introduction of the liquidity adjustment facility and timely open market operations have enabled the Reserve Bank to manage liquidity in a more flexible manner. The liquidity adjustment facility is operated through repos against the collateral of government securities. Treated as a buy-sell transaction, repos enable the purchaser of securities to maintain the statutory liquidity ratio while minimizing the interest rate risk. Standardization of repos documentation and repos accounting are issues that are engaging the active attention of market participants and the Reserve Bank as the regulator of the debt market.

Presently, final settlement of transactions in government securities takes place at the Reserve Bank. Transactions are settled through a delivery versus payment (DvP) mechanism whereby both funds and securities are settled on a gross basis. However, there could be a risk of settlement failure as the system is not supported by arrangements for preventing securities or funds gridlock, except a small facility to meet funds gridlock through standing arrangements with the Reserve Bank. Securities lending and borrowing have not yet been introduced nor is short sale permitted. The advantage of a lower capital charge on account of multilateral netting is not available to market participants. Under the Reserve Bank's initiative a Clearing Corporation has recently been set up to act as the central counterpart and undertake multilateral netting and clearing on the lines of the best international practices, with adequate safeguards for ensuring safe and secure settlement and ensuring proper risk management systems by members and the Corporation itself. The Clearing Corporation of India will also undertake collateral management in repo transactions and enable the repo market to be enlarged through more participants and eligible collateral. Further development of the repo market through standardized repos contracts and tri-party repos will help develop the long-term money market and derivatives.

The primary dealers have a very important role to play in the primary and secondary markets. However their operations, based on overnight funding and a fairly high leverage ratio (six to seven times), make them vulnerable to interest rate risk, especially as most of the new issuance in the market is of longer-term maturity. Assurance of liquidity from the Reserve Bank through standing facilities and timely market intervention at times of complete drying up of liquidity mitigate to a certain extent the risk of the operations of primary dealers. "When issued" market and limited short sales could also facilitate risk management by primary dealers as they would be able to operate with a lower inventory. Short sales are, however, not permitted in the market and issues involved therein need further examination. To address the risk faced by primary dealers, the Reserve Bank has specified a fairly high (15 per cent) capital charge for credit and market risk. While the agenda visualizes eliminating the discretionary liquidity support to the system, concerns regarding the management of the huge market borrowing programme of the government and the vulnerability of market makers may imply a gradual phasing out of such support.

Non-government debt market

Equity capital in Indian markets has always been given favourable tax treatment compared to debt capital. The move from pricing public issues according to the Controller of Capital Issues norms to free market pricing and the booming capital markets has greatly reduced the cost of equity capital. Besides, there is a legal requirement that the issuer of bonds with more than 18 months to maturity needs to create a redemption reserve. This requirement, though welcome in terms of investor protection, significantly adds to the cost of issuance. The growing needs of the infrastructure sector and greater reliance of the PSUs (public section units) on the market for resource mobilization in the future could develop the markets for long-term fixed income securities.

Contract enforcement has always been a concern, with the debenture trustees perceived to be not quite active or effective in protecting investor interests. The legal procedures and archaic laws result in delays in enforcing rights. This has a dampening effect on the debenture markets. The retail investor is more comfortable with fixed deposits, which are a non-marketable debt for the issuer, also offered by non-banking financial companies and corporations. The recently initiated major legal reforms in the financial sector relating to securities laws, frauds in banks, regulatory framework, asset securitization, and payment systems may facilitate the development of debt markets in the years to come.

Following the amendments to the Indian Stamp Act, exempting the issuance and trading of debt instruments in dematerialized form from the incidence of stamp duties was a major step in giving a fillip to debt markets. Asset securitization is another area that has been attracting policy makers' attention for quite some time. Repos in corporate debt and PSU bonds could add to the liquidity of the markets. The repo market could witness a manifold growth once the Clearing Corporation of India becomes operational.

Market making is an important ingredient for debt markets. For government securities, primary dealers act as market makers, continuously supplying the markets with two way quotes. The fragmented nature of corporate bonds, poor fungibility and restrictions on short sales have inhibited market making in corporate bonds. Compared to trading government paper, market making in corporate debt is riskier and requires more capital. While market makers are expected to provide liquidity to markets, they cannot undertake this job in illiquid markets. The amount of capital dedicated to making markets in non-government securities has a relevance to the liquidity in, and the returns available from, trading government paper. Order-driven transparent trading may facilitate greater trading in these markets. The absence of active trading and the lack of transparency feed each other. The Reserve Bank is making some attempt to capture the trades in the secondary market by making it mandatory for banks and financial institutions only to invest in dematerialized bonds and by permitting the depository to release details of trades undertaken.

Long-term investors, such as pension/provident funds and insurance companies, are statutorily required to invest a major portion of their corpus in risk free sovereign obligations. They have limited flexibility in investing in investment grade corporate paper, but this does not help in activating the market for corporate debt, since these investors are buy and hold type passive investors. Besides, provident funds insist on three credit ratings for investment in corporate paper, which is not cost effective for the issuer. The dilemma here is giving more flexibility to the fund managers while at same time ensuring that no undue risk is taken on such funds.

III. WHAT CAN BE DONE TO DEVELOP DEBT MARKETS

It should be stressed that despite the size of the government securities market, historically the investor base has been, and remains, very narrow. Given the dominant nature of the household sector, savings in total financial savings in India and the size of the government securities market indicate that there is an inherent potential for the switching of household sector savings into government securities. While exclusivity is preferred in the primary markets, as evident in promoting the institution of primary dealers in the government securities market, diversity is preferred in terms of final investor profile. Such a broad-based investor profile, with heterogeneous investment horizons, risk appetites and expectations, would add to the depth and stability of the markets. The development of the retail market for government securities assumes importance in this context. Screen-based, order-driven trading on the stock exchanges, with guaranteed settlement, is one way in which the expansion of the retail market could be achieved; the relevant issues are being studied in depth. The disintermediation route preferred by corporations, growing non-performing assets amidst problems of contract enforcement and the lower capital charge have made investment in government securities more attractive to the banking sector, the major captive investor group. At the same time, concerns about asset liability mismatches on account of government preference to issue long-term bonds have been creating a dilemma. Besides, long-term investors, such as insurance companies and pension funds whose investments decisions are based on actuarial computations, prefer long-term investment avenues. STRIPS in government securities market are sought to be introduced and recently the Reserve Bank has put out a paper on STRIPS on its web site to get reaction from a wider cross-section of market participants. STRIPS are expected to address the needs of short-term investors, such as banks, and long-term investors, such as funds and insurance companies, without altering the liability pattern of the government.

Government securities act as the best proxy for risk-free assets and benchmarks for pricing other financial assets in the market. The term structure of interest rates based on yield to maturity cannot perform this function efficiently. The zero coupon curve is the best alternative but in the absence of zero coupon securities across maturities the evolution of such a curve is not possible. STRIPS are also perceived as effectively making available a zero coupon curve in the market.

The fragmentation of loans has a notable impact on the liquidity of the government securities market. On the other hand, concerns about bunching of repayment obligations and refinancing risk puts constraints on the size of individual loans. The consolidation of loans coupled with fungibility of coupon payments in primary issuance programmes for government securities is being contemplated to add liquidity to the government securities market, develop benchmark securities and facilitate the development of STRIPS. It is well recognized that for efficient price discovery, besides an auction system for primary issuance of government securities, the presence of a when issued market would add depth. Under the present framework, short sales are not allowed. The legal, regulatory and policy issues involved are required to be examined before allowing short sales or a when issued market. Associations of market participants are preparing a paper on this subject which will be submitted to the Reserve Bank.

In the absence of robust cash markets, development of a derivatives market is impeded; in turn, non-availability of derivatives makes hedging in the fixed income securities market difficult. Interest rate swaps are permitted but are not yet popular in the longer-term segment. Other hedging instruments such as bond futures and options are being examined for their market, regulatory and policy implications.

Repos act as a bridge between the cash and derivatives market. Moreover, through repos, liquidity risk can be separated from market risk. In India repos are treated as two separate transactions of ready sale and forward purchase. Appropriate documentation for linking the two legs of the repo transaction and proper accounting to reflect the ‘substance’ rather than the form of the repo transaction are being finalized by the association of market participants so as to ensure that the market develops on orderly lines. Similarly, the legal, tax and regulatory issues involved in securities lending and borrowing are being studied before any short sale, albeit on a limited basis, is allowed. This would enable further enlargement of the repo market in terms of participants and products.

In a quote driven market there is no price-time priority whereby market participants can execute their orders at the best prices available at a particular time. Presently the markets for government securities are telephone based. Trades are between known counterparties and such dealer markets are fragmented in terms of trades and orders. These deficiencies are addressed in a screen-based order-driven market where trades are anonymous. Although this system is available in the wholesale debt market segment of the National Stock Exchange (NSE), the order-driven system has not taken off and trades reported on the Exchange are negotiated deals entered into the Exchange for the purpose of recording transactions. So far there are no inter-dealer brokers who act as market makers. With regard to the problems faced earlier in regard to brokers the preferred option for the authorities is to make the screen-based order-driven system successful. A beginning is perhaps possible in the retail segment of the market where small lots are traded.

The administered rate structure on government sponsored small savings schemes with the tax incentives attached impede broadening the base of retail investors and further developing the government securities market. The issues involved in regard to small savings schemes have been studied in depth recently by a high-powered group under the Deputy Governor of the Reserve Bank. Its suggestions, if implemented, will have broad implications for debt markets.

Globally, it is observed that insurance and pension funds constitute a significant portion of holdings and activities in the bond market. The investment pattern of insurance companies and provident/pension funds in India are decided by the government or the regulators. Though the arrival of new insurance and pension funds augurs well for the fixed income securities market, much depends upon the flexibility given in investment decisions and pension reforms. Reforms are also being attempted in the pension schemes so as to move away from pay as you go schemes that do not link the contribution and the benefit towards defined contribution schemes. While giving more flexibility in investment decisions it has to be ensured that the transaction cost is low and no undue risk is being taken by the companies and funds.

The number and variety of issuers and investors in the market should grow owing to increased activity among mutual (income) funds, gradual withdrawal of budgetary support to public-sector undertakings and their increased dependence on the markets, huge requirements of infrastructure and power projects, special purpose vehicles and escrow accounts to add comfort to investors.

Though credit rating in India is a recent phenomenon, credit rating agencies have an important role to play in the debt markets. There are currently four rating agencies. Investors are becoming increasingly conscious of the need to look at ratings and the agencies are also becoming conscious of the need to establish their credibility. There is a view that these agencies need to place more importance on the performance record of trustees in assessing the rating of a particular debt instrument.

Increasingly there is a blurring of the distinction between banks, securities firms and insurance companies. Financial conglomerates undertake all activities through their subsidiaries. There is therefore increasing need for consolidated supervision and coordination among regulators. In this context the question of combining all regulatory functions in one entity is constantly debated and in India too this issue has attracted attention. There is, as yet, no consensus on what would be appropriate for India.

A phenomenon common to most financial markets, especially in emerging markets, is one-way expectations and herd behaviour. For stability the market needs heterogeneous participation with different risk-return profiles. In times of uncertainties herd mentality leads to self-fulfilling expectations and the drying up of liquidity. At other times, such behaviour leads to the rapid overheating of markets, creating bubbles that can burst. Hence the Reserve Bank has found it necessary to undertake open-market operations either to prevent excessive overheating or to provide liquidity during times of uncertainty and self-fulfilling behaviour by most market participants. One of the dimensions of market liquidity, namely, the resilience of the markets to return to normal after temporary disorder or imbalance without any action by the authorities has been tested. At times however, such restoration of normalcy requires action by the Reserve Bank. This was evident during the aftermath of the events on 11 September 2001 in the United States when the prices of government securities fell sharply and liquidity dried up, but moved back to normalcy only after the Reserve Bank had demonstrated its intention to ensure that there was confidence in the markets by buying large amounts of securities through open market operations.

Central banks are becoming increasingly perceived as responsible for maintaining financial stability and the stability and integrity of financial markets have become major concerns of central banks. The debt markets are a major component of the financial markets. Although the capital markets fall under the purview of the securities regulator the linkages between the money, foreign exchange, debt and equity markets require the central bank to remain vigilant and aware of the need to ensure adequate liquidity in all markets.

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