The Indian Bond Market

-- Current Situations and Development --

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Contents

1. INTRODUCTION

1.1. Traditionally, the capital markets in India are more synonymous with the equity markets – both on account of the common investors' preferences and the oft huge capital gains it offered – no matter what the risks involved are. The investor's preference for debt market, on the other hand, has been relatively a recent phenomenon – an outcome of the shift in the economic policy, whereby the market forces have been accorded a greater leeway in influencing the resource allocation.

1.2. In a developing economy such as India, the role of the public sector and its financial requirements need no emphasis. Growing fiscal deficits and the policy stance of "directed investment" through statutory pre emption (the statutory liquidity ratio – SLR - for banks), ensured a captive but passive market for the Government securities. Besides, participation of the Reserve Bank of India (RBI) as an investor in the Government borrowing programme (monetisation of deficits) led to a regime of financial repression. In an eventual administered interest rate regime, the asset liability mismatches pose no threat to the balance sheets of financial institutions. As a result, the banking system, which is the major holder of the Government securities portfolio, remained a dominant passive investor segment and the market remained dormant.

1.3. The *Indian Bond Market* has been traditionally dominated by the *Government securities market*. The reasons for this are (1) the high and persistent government deficit and the need to promote an efficient government securities market to finance this deficit at an optimal cost, (2) a captive market for the government securities in the form of public sector banks which are required to invest in government securities a certain per cent of deposit liabilities as per statutory requirement[1], (3) the predominance of bank lending in corporate financing and (4) regulated interest rate environment that protected the banks' balance sheets on account of their exposure to the government securities.

[1] Statutory liquidity ratio (SLR)

1.4. While these factors ensured the existence of a big Government securities market, the market was passive with the captive investors buying and holding on to the government securities till they mature. The trading activity was conspicuous by its absence.

1.5. The scenario changed with the reforms process initiated in the early nineties. The gradual deregulation of interest rates and the Government's decision to borrow through auction mechanism and at market related rates.

1.6. The move towards a market-based economy has a different dimension for resource allocation; here resources are allocated based on the risk return profiles of alternative investments instead of being guided by direct or indirect intervention of the Government. An efficient resource allocation mechanism in turn critically depends upon enabling environment that facilitates efficient asset price discovery.

1.7. The need for an efficient price discovery mechanism could be viewed from a different perspective. The fact that the monetary as well as government debt management functions are centralized in the RBI, calls for coordination between monetary and debt management policies. While the objective of the debt management policy is to reduce the cost of debt servicing in the long term, the efficacy of the monetary policy depends upon how efficiently the transmission mechanism works, the basis of which is an efficiently determined interest rates structure. On the other hand, since the sovereign paper acts as a benchmark for pricing corporate bonds, unless the prices of the former reflects its intrinsic worth, markets will not be able to price the latter. All these once again hint at the need to have an efficient price discovery mechanism.

Going by this crucial parameter viz., the system's ability to facilitate asset price discovery and thereby an efficient resource allocation, although the transformation of the debt market could be traced back to the reforms initiated in the government securities market in the late eighties and early part of the nineties, the year 1994 could be considered as a watershed for the landmark decision the Government of India has taken to put an end to the monetization of its deficits through issuance to ad hoc treasury bills to the RBI. Through this land mark decision Government chose to borrow from the market at market

related rates – thereby making the beginning of an era which allowed the markets to decide the price of money and thus the development of fixed income securities market.

1.8. Efficient price discovery cannot be contemplated independent of an appropriate market micro structure; it needs presence of liquid markets, whereby the transaction costs are minimized and the bid-ask spreads are narrowed. The development of appropriate market infrastructure also requires a supportive regulatory environment. On the other hand, any attempt at reforms also calls for a logical sequencing of the measures and a planned timeframe so that the markets move ahead with such reforms without any friction. The success story of reforms in the debt market is a testimony to the sequencing structure that the concerned authorities meticulously followed.

1.9. While that is the motivation and reasons behind the nature of the Government securities market as they exist today, the corporate debt market is still in its infancy, both in terms of market micro structure and market outcome. Traditionally, long term funding was provided by the developmental financial institutions, such as the Industrial Development Bank of India (IDBI). Ever since these development financial institutions changed themselves into banks, there has been a vacuum which logically should have facilitated the development of a debt market. However, the growth in internal resources and the equity financing averted this. Whatever resources had to be mobilized through the debt market, corporate preferred the private placement route. The absence of well developed derivatives market also hindered the development of the corporate market since there was no way both the issuers and investors could hedge their risks. Meanwhile banks, whose resource base (liabilities) are short term in nature, cannot undertake long term financing making themselves vulnerable to interest rate risk. On the other hand, the need for long term financing, given the investment needs of the infrastructure sector needs no emphasis.

1.10. The need to replace bank financing by bond financing was highlighted by the East Asian crisis, since the prevalence of bank financing was quoted as one of the reasons for the crisis. Bond financing is considered a relatively more stable source of debt

financing, as bank loans are primarily illiquid, fixed-price assets. In other words, unlike a bond, the price of the loan (the interest rate) does not change with changing interest rates. Thus, whenever there is a sharp movement in interest rates, all the adjustment has to take place by banks adjusting the quantity of lending. This leads to sharp booms and busts in bank flows.

1.11. There is thus a need to take a serious look at the issues that come in the way of developing a deep and vibrant corporate debt markets and the authorities, especially the Securities Exchange Board of India (SEBI) and the Government are trying to address the issues.

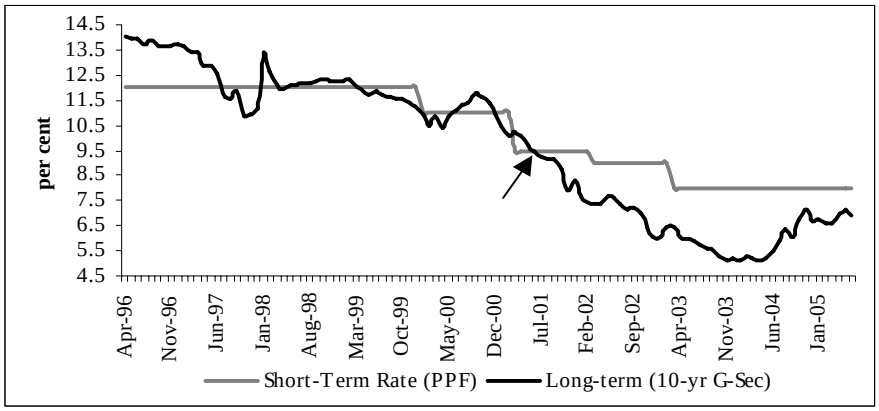
2. DEVELOPMENT OF BOND MARKETS AND THE MARKET MICRO STRUCTURE

2.1. Interest Rate Deregulation

The last fifteen years witnessed a gradual maturing of India's financial markets. Since 1991, key steps were taken to reform the Indian financial markets. With the introduction of auction systems for rising Government debt in the 1990s, along with the decision to put an end to the monetization of Government deficits, started the gradual process of deregulation of interest rates. While the immediate effect of deregulation of interest rates was associated with rising interest rates, deft debt management policy by the RBI and the improvements in the market micro structure saw a gradual decline in the interest rates.

The global developments coupled with a phased reduction in the administered interest rate structure, lower inflation and ample liquidity led to lowering of interest rates in the Indian economy. The gradual opening up of the economy also helped the domestic interest rates to align with the global interest rates.

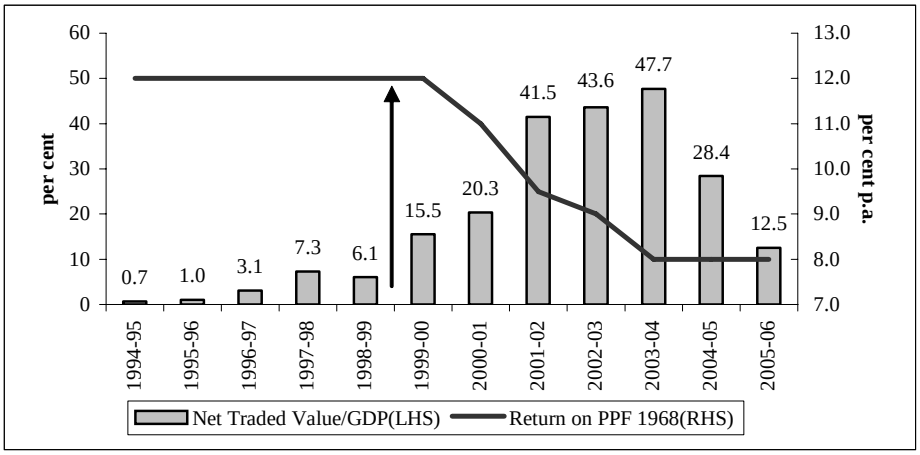
Figure 1: Structure of Interest Rate



Source: Reserve Bank of India (RBI)

With the RBI deregulating interest rates and introducing Primary Dealers (PDs) in Government securities market amidst other market reforms along with rationalization of administered interest rates on Government's own small savings programmes such as post office savings schemes and public provident fund, the ratio of net traded value of bonds to GDP increased from a mere 15.5% to a significant 47.7%. The decline in trading volumes in recent years, however, is an indication of rising risk aversion on account of rising interest rates due to rising demand for bank credit along with credit spreads and tightening liquidity conditions.

Figure 2: De-administration of Interest Rates and Net Traded Value in the Bond Market



Source: RBI

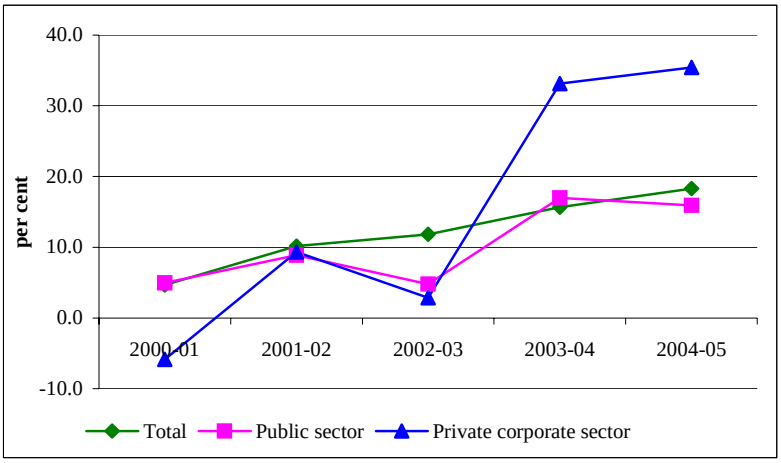
2.2. Increasing internal resources

Another important aspect that needs to be considered while examining the growth of the debt market in India is the growth stimuli provided by the broad sectors in the economy. The ongoing industrial buoyancy in the economy has primarily been led by the manufacturing sector. Total domestic product generated in the industrial sector grew at an average growth of 8.1% during 2002-03 to 2005-06.

The figure 3 suggests that total capital formation has significantly increased during 2003-04 and 2004-05. While the total investment grew at an average of 17% during the

two years mentioned above, private corporate investment registered a robust growth of 34% during the same period. At 16%, public sector investment recorded a moderate decline in 2004-05. With increasing capital formation undertaken by the economy, the requirement of funds has also increased. While this has lead to an increase in resources raised by the debt market, the pattern of investment is not reflected in the pattern of funds raised in the bond market. The corporate sector, which has recorded the highest growth rate in investment, has raised significantly lower amounts in the debt market than the amount of funds raised by the Government.

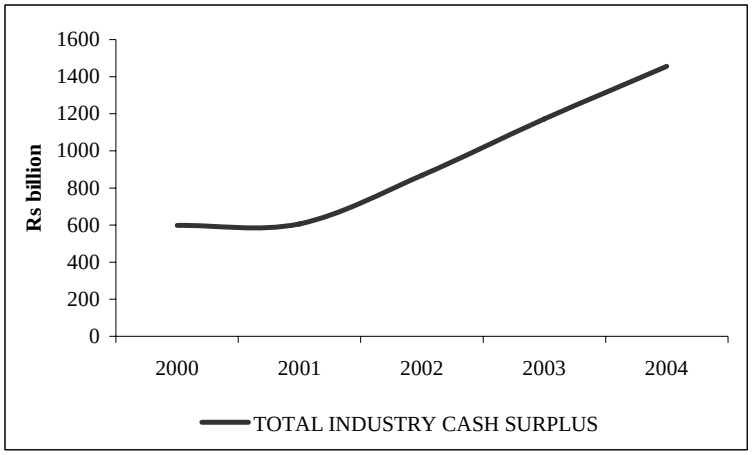
Figure 3: Total Gross Fixed Capital Formation by Sector



Source: Central Statistical Organization, Government of India

One of the reasons for the corporate sector not tapping the debt market has been their rising cash surplus. Total cash surplus with the industry increased from Rs. 597 billion in 2000 to Rs. 1455 billion in 2004, growing at a significant 25% per annum. Thus the presence of huge cash reserves and high level of private placement of debt have together resulted in decline in public issuances of corporate debt.

Figure 4: Total Industry Cash Surplus



Source: Prowess

2.3. Size of the debt market

Worldwide debt markets are three to four times larger than equity markets. However, the debt market in India is very small in comparison to the equity market. This is because the domestic debt market has been deregulated and liberalized only recently and is at a relatively nascent stage of development. The debt market in India is comprised of two main segments, the Government securities market and the corporate securities market. Government securities form the major part of the debt market - accounting for about 90-95% in terms of outstanding issues, market capitalization and trading value. In the last few years there has been significant growth in the Government securities market. The aggregate trading volumes of Government securities in the secondary market have grown significantly from Rs 1,610 billion in 1998-99 to about Rs 21,899 billion in 2004-05.

Table 1: International Comparison - 2004

	Total Outstanding Debt (US$ billion)	% of GDP
US	19186.6	163.5
Euro Area	9570.2	93.3
Japan	8866.7	182.9
Korea	568.4	75.5
Brazil	371.6	56.2

India	239.2	34.8
Malaysia	106.6	90.5
Chile	41.8	41.0

Source: IMF Global Financial Stability Report

In terms of size, the Indian debt market is the third largest in Asia after Japan and Korea. It, however, fairs poorly when compared to other economies like the US and the Euro area (Refer Table 1). At the end of 2004, the total debt outstanding in India stood at US$ 239.2 billion, equivalent to 34.8% of GDP, significantly lower than 183% debt to GDP ratio observed in Japan. Unlike other emerging economies, the Indian debt market is not a very well developed one and plays only a secondary role to the credit and equity markets in terms of mobilising funds.

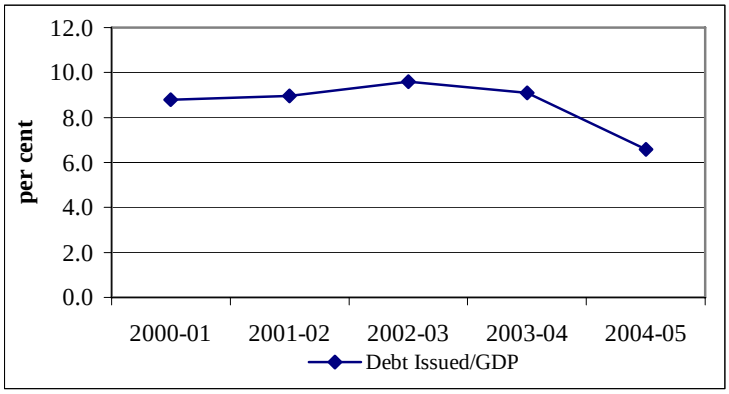
Table 2: Total Debt Issued

	Total Debt Issued (Rs billion)			Growth (%)		
	Total Debt Issued	Corporate	Government	Total Debt Issued	Corporate	Government
1999-00	1727	594	1133	--	--	--
2000-01	1850	565	1284	7.1	-4.9	13.3
2001-02	2040	515	1525	10.3	-8.8	18.8
2002-03	2350	531	1819	15.2	3.1	19.3
2003-04	2509	527	1981	6.8	-0.8	8.9
2004-05	2050	594	1456	-18.3	12.7	-26.5

Source: RBI
Note : includes short term instruments such as CPs and CDs

The Indian debt market also lags behind in terms of the size of the corporate debt market. The share of corporate debt in the total debt issued had in fact declined from 34% in 1999-00 to a low of 21% in 2003-04, before recovering to a more robust 29% in 2004-05.

Figure 5: Debt Issued as % of GDP



Source: National Stock Exchange of India (NSE), RBI

2.4. Regulators

The Securities Contracts Regulation Act (SCRA) defines the regulatory role of various regulators in the securities market. Accordingly, with its powers to regulate the money and Government securities market, the RBI regulates the money market segment of the debt products (CPs, CDs) and the Government securities market. The non Government bond market is regulated by the SEBI. The SEBI also regulates the stock exchanges and hence the regulatory overlap in regulating transactions in Government securities on stock exchanges have to be dealt with by both the regulators (RBI and SEBI) through mutual cooperation. In any case, High Level Co-ordination Committee on Financial and Capital Markets (HLCCFCM), constituted in 1999 with the Governor of the RBI as Chairman, and the Chiefs of the securities market and insurance regulators, and the Secretary of the Finance Ministry as the members, is addressing regulatory gaps and overlaps.

2.5.

2.6. Issuers

2.5.1. Government

The Government of India, along with various State Governments and some statutory bodies（for example, Financial Institution like Industrial Development Bank of India）, account for the largest volume of instruments issued and traded in the Indian debt market. The high fiscal deficit is the reason for the size of this market.

There are concomitant benefits of Government issuing debt and development of markets for Government debt. Presence of an active secondary market helps in the effective functioning of the monetary policy through indirect instruments such as open market operations. Also it has often been observed that the existence of an efficient Government securities market lays the foundation for the development of the corporate debt market. This clearly underlines the importance of the Government securities market and highlights why it is imperative that they are well established and operate efficiently.

Table 3: Outstanding Government Securities vs. Total Debt Outstanding (2004)

	Total Outstanding (US$ billion)	Government Securities (US$ billion)	Share of Government Securities in Total Outstanding Debt (%)
US	19186.6	5526.4	28.8
Japan	8866.7	6836.7	77.1
Korea	568.4	171.6	30.2
Brazil	371.6	295.9	79.6
India	239.2	235.0	98.2
Malaysia	106.6	45.2	42.4
Chile	41.8	20.0	47.8

Source: IMF Global Financial Stability Report

While rising fiscal deficits over the last two decades have resulted in healthy issuance of Government securities in India, what also needs to be considered here is the Central Government's endorsement of the Fiscal Responsibility and Budget Management Act

(FRBM Act), which aims at eliminating revenue deficit and reducing fiscal deficit to 3% of the GDP by 2008-09. If these targets are achieved, the outcome would be a reduction in the size of Government securities market, which may be countered by the expansion of the economy and the commensurate need for resources both by the public and private sectors.

2.5.2. Corporate Sector

Contrary to the global scenario, Indian corporates have shown little interest in raising money from the market through bonds or commercial paper. Their reluctance to do so is predominantly due to their level of comfort with bank financing. Over the years, the bank credit to the corporate sector has expanded exponentially reaching Rs. 532.4 billion in 2004-05. These funds, coupled with an unparalleled increase in external commercial borrowings, have increased the corporate sector's access to funds, thus reducing their dependence on the public issue of debt.

Table 4: Key Sources of Funds to Industry (Rs. billion)

	Amount Issued				% Of Total Flow Of Resources To Industry			
	2001-02	2002-03	2003-04	2004-05	2001-02	2002-03	2003-04	2004-05
Bank Credit to Industry	106.8	313.0	175.0	532.4	63.7	149.6	37.9	45.4
Flow from Non-banks to Corporates (1 to 5)	60.8	-103.8	286.7	639.5	36.3	-49.6	62.1	54.6
1. Capital Issues * (i+ii)	45.3	6.4	24.2	132.6	27.0	3.1	5.2	11.3
i) Non-Government Public Ltd. Companies (a+b)	41.8	6.4	23.2	105.8	25.0	3.1	5.0	9.0
a) Bonds/Debentures	33.0	2.2	0.0	0.0	19.7	1.0	0.0	0.0
b) Shares	8.8	4.2	23.2	105.8	5.3	2.0	5.0	9.0
ii) PSUs and Government Companies	3.5	0.0	1.0	26.8	2.1	0.0	0.2	2.3
2. ADR/GDR Issues +	22.1	34.3	31.0	29.6	13.2	16.4	6.7	2.5
3. External Commercial Borrowings (ECBs) $		-114.2	181.1	388.9		-54.6	39.2	33.2
4. Issue of Commercial Papers (CPs) #	9.3	18.1	23.1	41.1	5.5	8.7	5.0	3.5
5. Financial Assistance extended by Financial Institutions (net)	-19.4	-48.5	27.2	47.3	-11.6	-23.2	5.9	4.0
Total Flow of Resources to Industry	167.6	209.2	461.7	1171.9				

*: Gross issuances excluding issues by banks and financial institutions. Figures are not adjusted for banks' investments in capital issues, which are not expected to be significant.
+: Including Global Depository Receipts (GDRs)/American Depository Receipts (ADRs) and Foreign Currency Convertible Bonds (FCCBs) excluding issuances by banks and Financial Institutions.
$: Including short-term credit and adjusted for redemption of Resurgent India Bonds (RIBs) in October 2003.
#: Excluding issuances by Financial Institutions and banks' investments in Commercial Papers (CPs).
@: Data on retained earnings and depreciation for the year 2004-05 are based on abridged results of 1273 non-financial non-Government companies. Retained earnings for 2004-05 have been taken as 60.4% of net profit, the same ratio as during 2003-04.
Source: RBI

Though the debt issued by the corporates has risen over the years, they are predominantly private placements. The share of public issues has declined from 23% in 1995-96 to 6.9% in 2004-05.

Table 5: Resources Raised by Corporate Sector (Rs. billion)

Year (1)	Equity (Public issues) (2)	Debt (Public issue) (3)	Debt (Private Placements) (4)	Total Debt (3+4) (5)	Total Resources Mobilized (6)=(2+5)
1995-96	88.8	29.4	100.4	129.8	218.6
1996-97	46.7	70.2	183.9	254.1	300.8
1997-98	11.3	19.3	309.8	329.1	340.5
1998-99	5.0	74.1	387.5	461.6	466.6
1999-00	29.8	47.0	550.7	597.7	627.5
2000-01	24.8	41.4	524.6	566.0	590.7
2001-02	10.8	53.4	454.3	507.7	518.5
2002-03	10.4	46.9	484.2	531.2	541.6
2003-04	178.2	43.2	484.3	527.5	705.7
2004-05	214.3	41.0	553.8	594.8	809.1

Source: NSE

Similar to banks, corporates have been raising money from the retail markets by way of term deposits. Presently, the company statute permits corporates to raise deposits equivalent to 50% of its capital and free reserves. Several good credit-rated corporates

have been inclined to raise funds by way of private placements to big lenders/investors, but are averse to tapping the public issue market. Regulatory requirements including quality and the type of disclosures, which are more rigorous in the case of public issues, act as primary deterrents to corporates, though for the sake of investor protection, these regulations are a necessary evil.

In order to promote the issuance of corporate bonds, the Government has stated that privately placed debt can't be distributed to more than 50 investors. A number of corporates are trying to circumvent this by, issuing the debt privately to less than 50 investors in the preliminary stage. Subsequently, these investors sell the debt further to a larger investor base, defeating the purpose of the entire process.

However, lately a number of reforms and significant restructuring has been carried out in the Indian financial and capital market areas, which has made tapping of retail bond market less problematic, particularly from the point of view of servicing a large number of investors.

On the issue of bank financing, the current system works in favor of borrowers, since the burden of cash management is more on the banking system. With prudential norms, rising emphasis on asset liability matching and gradual disappearance of long term financiers in the form of erstwhile developmental financial institutions, the market for long term financing must have to be in the form of bond markets. The development of derivatives market for hedging interest rate risk also will see the emergence of a robust bond market.

2.7. Instruments

Along with the main issuers (namely the Government and the corporates), Public sector units and banks have also been tapping into the debt market to meet their fund requirements. The differences in needs of these players have led to the issuance of different types of instruments with different maturity periods and yield structures.

The ‘money market’ deals with short-term requirement and employment of funds, with the instruments issued having a maturity period of less than a year. The most important feature of the money market is the high liquidity it offers. This coupled with the trait of no tax deduction at source from the interest component (because they are discount instruments and do not pay any interest) makes them a very attractive source of investment. The main traded instruments are Commercial Papers (CPs), Certificates of Deposit (CDs) and Treasury Bills (T-Bills).

The following table lists all the participants and the instruments issued in the Indian debt market.

Table 6: Participants and Products in Debt Market

Issuer	Instrument	Maturity	Major Investors
Central Government	Dated Securities Treasury Bills	1-30 years 91/182/364 days	Banks, Insurance Companies, Provident Funds, Mutual Funds, PDs, Individuals
State Government	Dated Securities	5-10 years	Banks, Insurance Companies, Provident Funds
PSUs (Centre and States)	Bonds	5-10 years	Banks, Insurance Companies, Corporate, Provident Funds, Mutual Funds, Individuals
Corporates	Bonds/Debentures Commercial Paper	1-10 years 15 days to1 year	Banks, Mutual Funds, Corporates, Individuals
Primary Dealers (PDs)	Commercial Paper	15 days to1 year	Banks, Corporate, Financial Institutions, Mutual Funds, Individuals
Banks	Bonds issued for Tier II capital Certificates of Deposit	Minimum 5 years 3 months to 1 year	Banks, Corporates

Source: RBI

Commercial Paper (CP): They are primarily issued by corporate entities. It is compulsory for the issuance of CPs that the company be assigned a rating of at least P1 by a recognized credit rating agency. An important point to be noted is that funds raised through CPs do not represent fresh borrowings but are substitutes to a part of the banking limits available to them.

Certificates of Deposit (CD): While banks are allowed to issue CDs with a maturity period of less than 1 year, financial institutions can issue CDs with a maturity of at least 1 year. The prime reason for an active market in CDs in India is that their issuance does not warrant reserve requirements for bank.

Treasury Bills (T-Bills): T-Bills are issued by the RBI at the behest of the Government of India and thus are actually a class of Government Securities. Presently T-Bills are issued in maturity periods of 91 days, 182 days and 364 days. Potential investors have to put in competitive bids. Non-competitive bids are also allowed in auctions (only from specified entities like State Governments and their undertakings, statutory bodies and individuals) wherein the bidder is allotted T-Bills at the weighted average cut off price.

Long-term debt instruments: These instruments have a maturity period exceeding 1 year. The main instruments are Government of India dated securities (GOISEC), State Government securities (state loans), Public Sector Undertaking bonds (PSU bonds) and corporate bonds/debenture. Majority of these instruments are coupon bearing i.e. interest payments are payable at pre specified dates.

Government of India dated securities (GOISECs): Issued by the RBI on behalf of the Central Government, they form a part of the borrowing program approved by Parliament in the Finance Bill each year (Union Budget). They have a maturity period ranging from 1 year to 30 years. GOISECs are issued through the auction route with the RBI pre specifying an approximate amount of dated securities that it intends to issue through the year. But unlike T-Bills, there is no pre set schedule for the auction dates. The RBI also issues products other than plain vanilla bonds at times, such as floating rate bonds, inflation-linked bonds and zero coupon bonds.

State Government Securities (state loans): Although these are issued by the State Governments, the RBI organizes the process of selling these securities. The entire process,

right from selling to auction allotment is akin to that for GOISECs. They also form a part of the SLR requirements and interest payment and other modalities are analogous to GOISECs. Although there is no Central Government guarantee on these loans, they are believed to be exceedingly secure. One important point is that the coupon rates on state loans are slightly higher than those of GOISECs, probably denoting their sub-sovereign status.

Public Sector Undertaking Bonds (PSU Bonds): These are long-term debt instruments issued generally through private placement. The Ministry of Finance has granted certain PSUs, the right to issue tax-free bonds. This was done to lower the interest cost for those PSUs who could not afford to pay market determined interest rates.

Bonds of Public Financial Institutions (PFIs): Financial Institutions are also allowed to issue bonds, through two ways - through public issues for retail investors and trusts and secondly through private placements to large institutional investors.

Corporate debentures: These are long-term debt instruments issued by private companies and have maturities ranging from 1 to 10 years. Debentures are generally less liquid as compared to PSU bonds.

Table 7 Instrument-wise Securities Traded at the Wholesale Debt Market (WDM) segment of the NSE (Rs. billion)

	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
Government Dated Securities	9.46	11.13	10.82	11.41	11.18	11.07	4.32
T- Bills	1.14	0.45	0.72	0.34	0.39	0.54	0.47
PSU/Institutional Bonds	0.29	0.06	0.12	0.08	0.17	0.24	0.10
Others	0.89	0.36	0.34	0.17	0.26	0.14	0.10

Source: NSE

Note: 2004-05 figures April-August

The table 7 clearly reveals the importance of Government securities in the debt market. They form the major part of trading at the Wholesale Debt Market (WDM) segment of the NSE.

2.8. Trading, clearing and settlement:

2.7.1. Government securities

Government securities can be traded over the counter as well as on the stock exchanges. With the setup of the Negotiated Dealing System (NDS), the role of brokers has diminished in the Government securities market. Market participants can deal through this system directly with each other (negotiated dealing which is similar to telephone market with requirements to deal reporting on the NDS) as also through an anonymous order matching mechanism (these kind of transactions can be done through the NDS-OM module (Negotiated Dealing System – Order Matching)). Settlement is on T+1 basis while the transactions on the stock exchanges are on T+2 rolling settlement basis. While the transactions undertaken on NDS seamlessly flow through to the Clearing Corporation of India Ltd.(CCIL), for clearing and settlement, the transactions on the stock exchanges are cleared through the respective clearing corporations of the exchanges. The RBI is the record keeper for Government securities holdings, hence the ultimate settlement of Government securities are done at the RB I.

The establishment of CCIL greatly improved the settlement mechanism through the process of novation (the CCIL acts as the central counterparty guaranteeing the settlement with the help of a settlement guarantee fund) and multilateral netting.

2.7.2. Corporate bonds

On the other hand, currently the trades in corporate bonds are executed in three different ways:

(i) Directly between participants where a bilateral trade is settled through central bank money using cheques and transfer of securities through depository mode

(ii) Through a broker who brings a buyer and a seller together and helps them to execute a deal. The broker is obliged to report the deals to the stock exchange where he is registered

(iii) Through the equity market segment at the stock exchange where corporate bonds are traded in an anonymous order book system and the settlement happens through the clearing house/corporation with novation.

The first two methods are used frequently by institutions as money and securities are directly exchanged among buyers and sellers. In order to develop this market, it is required to put in place a trading platform that would cater specifically to institutional buyers and sellers since they form a large share of the corporate debt market. Globally, this market has been functioning as an over-the-counter market. The justification for a separate trading platform for the institutional investors has been recently recognized by the SEBI. Stock exchanges have been permitted to set up such a platform where individual trades of the value of Rs. 50 million and more can be executed without disturbing the price discovery process in the other wing of the market.

2.7.3. Clearing & Settlement System

A trade reporting system is only the first step towards the development of the secondary market in corporate bonds. It is essential that the trade reporting system closely ties into the clearing and settlement system so that the accuracy and integrity of trades reported is validated and their settlement thereby ensured. The trades in the secondary market are bilaterally settled amongst the participants. In the interest of overall market risk mitigation, it is essential that the clearing and settlement of trades in this market be handled in line with global best practices in settlement with well-established clearing and settlement procedures through recognized clearing and settlement agencies.

Currently, there is no structured settlement system in the market for corporate bonds. The settlement risk is relatively high in case of direct and brokered deals reported to the stock exchanges. Only a small proportion of trades executed through anonymous trading system of stock exchanges have a well-structured settlement system with proper risk guarantee of settlement

The CCIL could expand its wings to cover settlement of corporate bond. Although the basic principles of guaranteed settlement of Government securities trades and corporate bond trades are same, the risk of corporate bonds is considerably higher on two counts. In the case of Government securities, there is no credit risk while even AAA rated corporate instruments are not entirely free from credit risk. Secondly, there is much higher level of liquidity in Government securities than in the corporate bonds. Hence, market price risk is much higher in the case of corporate bonds. In view of these two distinguishing features of corporate bonds, the clearing corporation will have to charge much higher levels of margins when it plans to offer settlement guarantee.

3. REFORMS IN DEBT MARKET

3.1. Government securities market

3.1.1. Abolition of tax deduction at source

Tax deduction at source (TDS) used to be major impediment to the development of the government securities market. This not only distorted the pricing mechanism, but also rendered trading in Government securities cumbersome. Recognizing this, the RBI convinced the Government to abolish it. The removal of TDS on Government securities was apparently a small but a major reform in removing pricing distortions for Government securities.

3.1.2. Introduction of auctions

The auction system introduced in a minor way in the second half of the eighties, and in a major way in the beginning of the nineties was a significant move to allow the markets to determine the prices for government securities. For such a major policy shift from administered interest rate regime to a market based regime, the choice of auction system needed to be carefully drawn, in order to give a comfort level to the government as a borrower as also to moderate the risks that might be faced by the uninitiated market participants. Accordingly, it was decided to begin with for “the sealed bid auction system with a post bid reserve price” (since the Reserve Bank of India as an agent to government participates in the auctions as a non-competitive bidder). Over a period of time, RBI withdrew from the primary market and with the enactment of Fiscal Responsibility and Budget Management Act, the government debt is being raised at market related rates through auctions.

3.1.3. Ending monetization of deficits

In 1994 and 1997, the Government of India and the RBI signed agreements whereby the regime of RBI financing the Government against the creation of ad-hoc treasury bills by

the latter, was ended. The Government's bold and path-breaking decision to change its policy stance in favor of borrowing at market related rates also strategically required the continuance of the auction method described above. While even today there's an enabling provision in the auction notifications for the RBI's participation as a non-competitive bidder, the RBI's presence in the primary issuance has become few and far between and that too only to moderate those short-term interest rate volatilities which are based not on fundamental factors - and not with a motive of financing the government budgets.

3.1.4. Banks investments in Government securities valuation/accounting norms

Concomitantly, regulatory initiatives in introducing international best practices in valuation/accounting norms for the banks' investment portfolios (comprising mainly government securities) also necessitated the banks to *mark to market* their investment portfolios and forced them to actively trade. This gave an added impetus to the incipient trading activity.

3.1.5. Introduction of Primary Dealers system

Introduction of Primary Dealers (PDs) into the Government securities market brought a sea change in both the primary market (in terms of finer bidding) and secondary market (in terms of added liquidity and enhanced trading activity). In order to reduce Bank's role in the Primary Issuances the PDs were encouraged to underwrite primary issuances through incentives such as underwriting commissions. Further, to partially insulate them from volatility of the overnight interest rates (as they typically run substantially large portfolios compared to their capital base requiring them to leverage heavily) they were provided refinance facilities at favorable terms as against certain obligations on them such as price making[2] to facilitate liquidity in the market and minimum bidding commitments/success ratios to improve the quality of bidding in the primary market.

[2] A price maker is one who quotes – accordingly he keeps his the buying rates low and selling rates high; the resultant bid-ask spread is his profit. On the other side is the price taker who is worse off since he buys high and sells low

Considering the maturity PDs have attained, they are directed to depend on the markets more for their needs and less on the Reserve Bank.

3.1.6. Consolidation of stocks

In the primary market, consolidation of stocks through reopening (reissuance of stocks) served two purposes. While it enhanced the liquidity[3] in those stocks by creating critical volumes, in the absence of a when issued (foot note) market, such reopenings served as a proxy for a when issued market (since there is already a trading activity in those stocks to be reissued and hence a price). Primary issuance strategy was further finetuned towards issuance of benchmark securities to improve liquidity. Alignment of coupon payment dates for the new issuances also has been consciously attempted to promote stripping of government securities (STRIPS), which once materializes, can facilitate the establishment of zero coupon yield curve and also can take care of the segmental needs in terms of asset liability matching.

3.1.7. Zero coupon curve for pricing

To bring further improvements in the pricing mechanism, a need was felt to promote a zero coupon yield curve (ZCYC). As indicated earlier, STRIPS (Separate Trading of Registered Interest and Principal of Securities) can facilitate a ZCYC. In the meanwhile, National Stock Exchange (NSE) was the first to come out with a systematic and robust algorithm for ZCYC and it publishes a daily ZCYC based on the trade data obtained from its WDM segment. This curve is being used for pricing NSE's interest rates futures transactions. FIMMDA/PDAI, publishes a monthly ZCYC for the market participants to value their government securities portfolios. However, the ZCYC based pricing has not been popular with the Indian market participants. The major reasons for that are as follows:

- A substantial premium for closer to par securities implies that there is significant coupon impact which nominal ZCYC algorithms can't recognize

[3] Markets are said to be liquid if transactions can take place rapidly with little impact on prices

- A significant liquidity premier for on the run government securities means that there are parallel curves for liquid/semi liquid/illiquid government securities
- Absence of outstanding sovereign zero coupon bonds and short sales in cash markets imply that participants can't lock in the forward rates implied by the ZCYC rates rendering the creation of ZCYC curve more of a theoretical exercise.

3.1.8. Retail interest in Government securities

The retail interest in Government securities has been lukewarm mainly on account of competing small savings instruments and also due to the difficulties faced by a small investor in accessing/exiting the Government securities market. With the rationalization of interest rates on small savings instruments, some amount of parity could be brought between the returns on Government securities and small savings instruments. Further in developing and under developed economies, individuals show preference for more liquid bank deposits. Amongst the efforts to promote retail interest in government securities and thereby to widen the investor base, promotion of Gilt funds and trading of Government securities on stock exchanges are worth mentioning. However, poor liquidity in the order driven trading systems for government securities in the stock exchanges implies that much needs to be done to get the gilts to the retail investor.

3.1.9. Trading, clearing and settlement

Trading : The Bond markets world over are dominated by the OTC contracting over the telephones, although electronic trading is picking up. India is no different. Trades are predominantly bilateral involving counterparty risk or through dealer markets. Even though the Wholesale Debt Market (WDM) segment has been functioning on the National Stock Exchange for quite sometime, the platform has been used as a reporting mechanism for the negotiated deals rather than for order processing.

Informational efficiency is critical for price discovery process. From this angle, the dealer markets are non-transparent and do not provide pre and post trade transparency. Dealer

markets are popularly known as quote driven. Here the dealers act as price makers, thus providing continuous liquidity. As against this, in an order driven or order matching market (known as "auction-agency markets") trades are processed through a centralized auction and agency process on a price-time priority while ensuring anonymity of counterparties. In dealer markets because the dealers have to give two way quotes, the spreads are wider considering the risk, whereas in order driven markets there are opportunities for price improvements and hence the reduced transaction costs[4]. But in the latter the there is an execution risk as the orders grow in size and the markets are not commensurately deep. On the other hand in quote driven market, there is an embedded insurance for trades, since the dealers make two way quotes in advance.

The Negotiated Dealing System (NDS) developed by the Reserve Bank was aimed at deriving the best of negotiated (NDS) and order matching (NDS-OM) systems. Quotes on NDS can be either indicative or firm. For indicative quotes negotiation takes place through the system (on the screen). Quotes can be public (where the quotes can be viewed by preferred counterparties as well as others – meant for price discovery only) or private (only for preferred counterparties). On the other hand NDS-OM follows the price/time priority and matches the trades. In effect, the NDS has done away with the brokers and brought in more transparency to the Government securities market.

NDS provides a screen based trading replacing the telephonic trades. The data availability helps price discovery and transparency. The identity of the concluding parties to the deal will not be disclosed to the market, thus mimicking an anonymous trading mechanism of an electronic trading platform. Since one of the basic objectives of NDS is dissemination of on-line price information of transactions in Government securities and money market instruments, transactions not concluded over the NDS will have to be necessarily reported through the NDS. NDS also provides an electronic bidding facility for the primary auctions of government securities.

[4] Transaction costs comprise order processing costs (all costs explicitly incurred to conclude a trade) and market impact costs (which occur because the transaction itself may change the market price of the asset)

Thus, the NDS is an extension of the exiting system with such improvements as dissemination of on-line price information and electronic trading (for which the present legal basis is the NDS bye-laws signed by the members of NDS – a firm legal backing will be in place once the new GS Act will be legislated). NDS in essence facilitates "paperless" transactions. NDS has an interface with the CCIL for settlement of transactions undertaken by members in Government securities.

Clearing : While the stock exchanges have their own clearing and settlement arrangements for the corporate/non-government securities, in the case of Government securities, RBI acting as the registrar, has been the final settlement authority. However, the RBI's SGL (Subsidiary General Ledger) account facility has been meant for an exclusive club, participant outside this club, in the Government securities market had a difficulty in transacting government securities. Extension of SGL facility to depositories such as NSDL and CDSL, along with the provision of Constituent SGL facility widened the investor base for Government securities, by allowing more participants.

The establishment of Clearing Corporation of India Ltd., (CCIL), with clearing and settlement of Government securities as one of its major functions, is expected bring about a reduction in both the processing costs and the settlement risk. CCIL derives these benefits for the members through a process of novation whereby, it stands as a central counterparty and guarantees settlement of all trades accepted for settlement and settles transactions through a multilateral netting mechanism. The multilateral netting vis-à-vis a bilateral netting system has other advantages to the counterparties in terms of reduced capital charge against the exposures and the reduced back office processing work.

Settlement : RBI has been a pioneer in the area of dematerialization of Government securities and more than 90 per cent of the holdings in Government securities are in dematerialised form. The DVP system was introduced in 1995 to address the counter party risk and is based on Model 1 of the BIS prescription – i.e., both the funds and securities are cleared on gross basis. The settlement is on T plus 0 as also T plus 1 basis.

On the stock exchanges the compression of the settlement cycle and the introduction of rolling settlement further reduced the unhealthy speculative activity and risk. Government securities are traded in the retail segment of stock exchanges on a T+3 rolling settlement basis while the settlement is up to T+2 for the WDM segment.

3.1.10. Regulatory issues.

The regulatory gaps and overlaps are gradually being sorted out through coordinated efforts from all the regulators. The High Level Committee (HLC) on Capital Markets, with representatives from the Union Finance Ministry, RBI, SEBI and IRDA was formed to delineate the powers, authorities and responsibilities of various regulators. For instance while the RBI is the regulator for the money and Government securities market amongst other things, these products when dealt with in stock exchanges are under the regulatory purview of SEBI and both the regulators have to work in tandem to promote these products.

Self Regulatory Organizations (SROs) are not in existence but the Fixed Income Money Markets and Derivatives Association (FIMMDA) and the Primary Dealers Association of India (PDAI) have taken initiatives to bring standardization to market practices and to educate the investors about the debt markets.

3.2. Corporate debt market

This segment includes Commercial Papers (CP), Certificate of Deposits (CD), corporate debentures and bonds, and the fixed income securities issued by financial institutions and local authorities. The evolution of Government securities market has an important bearing on the development of the corporate debt market, though the latter is not yet developed, for reasons stated above. The Government securities market had the benefit of unrelenting support from the Government and the RBI for obvious reasons. On the other hand, the corporate debt market did not enjoy a similar patronage. Some of the reforms in this area are as follows:

As part of the financial sector reforms, the Government in 1992 abolished the ceiling on interest rates that the erstwhile Controller of Capital Issues used to stipulate for issuance of corporate debentures.

The National Stock Exchange (NSE) started trading in debt instruments through its WDM segment in the year 1994. However, the WDM has been mostly used as a reporting platform for the deals done on the OTC (over the counter) market. The WDM segment of Bombay Stock Exchange (BSE) commenced operations in June, 2001.

The corporate debt markets in India are dominated by the non-transparent private placements. Furthermore, the private placement market is dominated by Financial Institutions, Banks and Public Sector Undertakings. In order to bring transparency to this market, SEBI mandated that the corporate bonds should be traded on the order matching screens of the stock exchanges. Alongside RBI issued instructions to the entities under its regulatory jurisdiction restricting their investment in unlisted corporate bonds.

As is evident, there is a lot more that needs to be done to attract both investors and issuers to the bond market which will be discussed in the later chapters.

4. ISSUES IN DEVELOPING BOND MARKETS

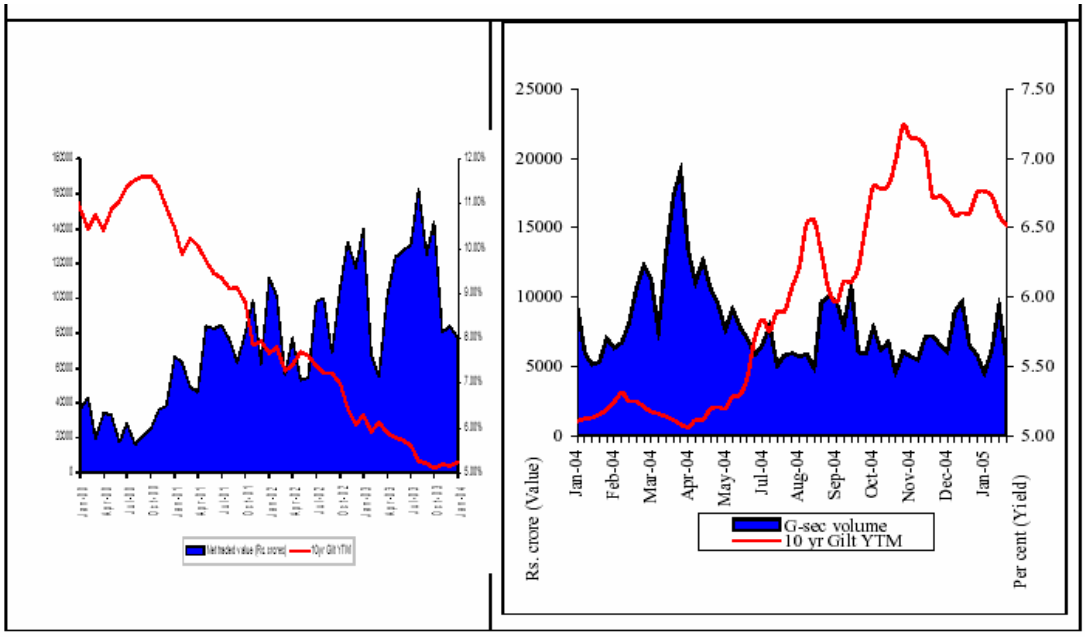
While secondary markets in equity and Government securities are well structured, the secondary market for corporate bonds is very primitive. The liquidity is very low and issues are fragmented.

4.1 Problems with the Indian Government securities market

As mentioned before, growth in the debt market has been biased in favor of growth in the Government securities market. As a result, a fairly widespread, efficient and liquid Government securities market exists in India. However, there are issues that come in the way of improved liquidity in the Government securities market.

Within the Government securities market, integration across tenor is as yet incomplete. Pressures of surplus liquidity, in particular, have often ended up distorting the yield curve. The narrowing of yield spreads in the 2-year to 10-year residual maturity segment (from 183 basis points to 63 basis points) and in the 10-year to 20-year segment (from 95 basis points to 77 basis points) during September 2001 to May 2004made the yield curve in India one of the flattest internationally. During April-May 2004-05, abundant liquidity emanating from strong capital inflows drove the yields on 91-day and 364-day T-Bills below the weekly reverse repo rate of 4.5%. Furthermore, there were instances when the cut-off yield on 364-day T-Bills fell below that of 91-day T-Bills. A distorted yield curve reflects an unequal spread of liquidity in the market in that liquidity continues to be concentrated in some segments. Thus, yields reflect liquidity distortions rather than capturing the risks inherent in longer tenures. But this has turned out be a global phenomenon and nothing peculiar to India – even Alan Greenspan was baffled with this “conundrum”.

Figure 6: Interest Rate Movements and Trading Volumes



Source: "Report of the internal Technical Group on Central Government Securities Market", RBI, 2005

An important issue is that in the absence of instruments to take interest rate views, it is observed that the markets are active and liquid when rates are falling but turn lackluster and illiquid when rates rise. Low volumes render markets shallow and prone to price manipulations. It is necessary to have a developed interest rate derivatives market as also to allow market participants to short securities to take two-way positions, to ensure market liquidity irrespective of the direction of interest rates. Although IRFs and interest rate swaps are popular, the numbers of players in these limited products for interest rate derivatives are limited. Further, market players currently cannot short sell. The recent RBI initiative to allow the market to short sell government securities in a limited way may be a good beginning but might not improve liquidity in the market in a significant way. The number of actively traded securities is very low as compared with the total number of securities outstanding. At the end of February 2005, there were 121 Central Government securities with an outstanding amount of Rs. 8,953 billion. Of these, 44 securities with minimum outstanding issues of Rs. 100 billion or more accounted for 69% of the total outstanding amount. The turnover to total outstanding ratio dipped sharply from about 2% in 2003 to 1.5% in 2004, while it ranged between 3 - 38% for developed

countries. On a daily basis, hardly 10-12 securities are traded, of which the number of actively traded securities would be a mere 4-5 till now. Without active trades in the markets, the yield curve has several kinks, making pricing of securities difficult. This also leads to a situation where securities of similar maturity profiles trade at very different yields, with the liquidity premium sometimes going as high as 50 basis points.

The investor base is thin leading to volatility in the markets and enabling a few active players to effectively determine prices. A major portion of the Government securities are held by banks, resulting in the concentration of risk in the financial system.

Though the primary dealers have been very active in contributing to the primary and secondary market in Government securities, they could not perform one of the most important functions viz., market making in Government securities. Indeed their business models and the permissiveness of the current market regulations for trading activities by them might be unable to absorb the shocks in case they have to perform this function.

The current settlement system for trades in Government securities requires that the settlement is done on T+1 basis. This narrow settlement period while takes care of too much speculative activity certainly impacts the liquidity in the market

Apart from market liquidity issues, the Government securities market does not have any major problems to address. The infrastructure for trading, clearing and settlement are one of the best.

4.2 Problems with the Indian Corporate bond market

4.2.1. Corporates - bank financing versus bond financing

Traditionally the Indian Corporate sector used to source its funds requirements from the financial institutions – from the so-called development financial institutions (DFIs such as Industrial Development Bank of India(IDBI) and ICICI) for their long term requirements and from commercial banks for their short term requirements. Development of capital markets facilitated disintermediation and companies started tapping the bond/debenture markets in the eighties. However, the disappearance of development

financial institutions, which were the main source of long term finance, caused a vacuum but this should have been a great opportunity for developing a bond market but surprisingly this did not happen. Corporates took resort to their growing internal resources, raised resources through low cost equity taking advantage of the equity boom, borrowed abroad taking advantage of low interest rates and wherever needed to approach the long term debt option preferred the private placement route. Further, the bond financing, in the absence of hedging avenues, turned out be more risky and less flexible in comparison to bank financing.

4.2.2. Risk management

The derivatives markets are not well developed do enable both issuers and investors to efficiently transfer the risks arising out of interest rate movements. As has been already mentioned though markets exist for interest rate swaps and interest rate futures, the number of participants are limited and the market is not broad and deep. There are no exchange traded interest rate futures or options. The mark to market regulations deters banks from investing in corporate bonds and prefer traditional lending route to finance corporates. However, once banks have to follow the Basle II norms they will have to periodically revalue their loans extended to corporates and this may rectify to some extent this anomaly.

4.2.3. TDS (Tax Deduction at source)

In the case of corporate bonds TDS is deducted on accrued interest at the end of every fiscal year as per prevalent tax laws and a TDS certificate is issued to the registered owner. While insurance companies and mutual funds are exempt from the provisions of TDS, other market participants are subject to TDS in respect of interest paid on the corporate bonds. Interestingly, TDS was viewed as a major impediment to the development of the Government securities market and was abolished when the RBI pointed out to the Government how TDS was making Government securities trading inefficient and cumbersome. Besides making trading inefficient and cumbersome, the different treatment meted out to insurance companies/mutual funds on the one hand and other market participants on the other also makes it difficult to introduce a uniform computerized trading system.

4.2.4. Stamp Duty

Stamp duty has been a source of revenue for the State governments. The Indian Stamp Act is an enactment of the central government. States have powers to make amendments to the Act. Section 3 of the Stamp Act stipulates that stamp duty has to be paid as per Schedule I to the Act States have by way of amendment have introduced schedule IA to the act indicating stamp duty payable in particular states. Duty is levied on financial instruments both either at the time of issue or on transfer or on both depending upon the nature of the instrument, issuer etc.,. These duties are perceived to be very high and act as a deterrent to the development of the bond markets. For instance the Indian Stamp Act prescribes a 0.375% duty on debentures (ad valorem). Promissory notes attract much lower duty of 0.05%. In the interest of developing the corporate bond market, there is a pressing need for rationalization of the stamp duty structure across the country. Since stamp duty impacts heavily the cost of issue of bond paper, it would be desirable to reduce stamp duty levels and also introduce a suitable provision which stipulates the maximum amount of stamp duty that is payable in respect of any single issue. This will not only bring down the cost of issuance but will also lead to the creation of a single stamp duty rate.

As has been mentioned earlier, the stamp duty is generally levied by each State Government, and they differ across States. Hence there is a need to take the State governments into confidence to rationalize the duty structure. A high level committee set up by Government of India established in 2005 has suggested the following matrix of stamp duty on corporate debt bond.

Table 8: Proposed Stamp Duty Structure

Maturity	Stamp Duty	Maximum Stamp Duty(Cap)
Up to 1 year	@ 0.05% of face value	Rs. 10 lacs
1 to 3 years	@ 0.05% of face value per year	Rs. 15 lacs
3 to 5 years	@ 0.05% of face value per year	Rs. 20 lacs
Above 5 years	@ 0.05% of face value per year	Rs. 25 lacs

Source: “Patil Committee Report”, 2005

Further, the stamp duty applicable for a security differs on the basis of the class of investor. This discourages corporates from issuing bonds to certain class of investors like retail investors (either directly or through mutual funds), and to long-term investors like insurance companies, provident and pension funds. Apart from these inconsistencies, the duty structure is quite steep as compared to some of the developed markets (table 8).

Table 9: Comparison of Stamp Duty Rates across Singapore, Malaysia and India

Nature of Instrument	Singapore	Malaysia	Maharashtra, India	Delhi, India	Gujarat, India
Issue of Promissory Notes	Nil	Nil(Pvt. Debt Securities, ABS, Company Bonds)	0.5% 0.10% in case investor is bank/select institution	0.5% 0.10% in case investor is bank/select institution	0.5% 0.10% in case investor is bank/select institution
Issue of Debentures	Nil	Nil(Pvt. Debt Securities, ABS, Company Bonds)	0.36% (Unsecured Debenture)	0.36% (Unsecured Debenture)	0.36% (Unsecured Debenture)
Creation of Charge					
Non equitable Mortgage	S$4(0.04%) for every S$1000(Max S$500)	RM5 (0.05%) for every RM 1000(Max RM500)	1%(Max Rs.5 lac)	2%(Max Rs.2 lac)	2%(Max Rs.2 lac)
Equitable Mortgage	S$2(0.02%) for every S$1000(Max S$500)	RM5 (0.05%) for every RM 1000(Max RM500)			
Eg: For a Rs. 50cr. Issue	0.0027%	0.0024%	0.10%	0.04%	0.04%
Pawn/Pledge			1%(Max Rs.5 lac)	0.5%(Max 0.50 lac)	0.2%(Max Rs.1 lac)

Source: MAS, Bank Negara Malaysia, Indian Stamp Act and respective state stamp acts

4.2.5. Fragmentation

The size of the debt issues is generally small. There is no cap on the number of issues a company can make. Corporates, especially the medium and small once, would like to raise resources as and when required on cost consideration. In addition they take recourse

to the private placement route, which leads to creation of large number of small issues. Corporates thus tend to go for multiple issues primarily to avoid the hassles involved in going through the pubic issue route as also to limit the issue size to their current requirements. (Under the extant guidelines, if a bond issue is to be sold to 50 or more investors, the issuer has to follow the public issue route which is cumbersome, costly, and time consuming). This results in fragmentation of issues and is not conducive for the development of a liquid bond market. This however, could be corrected through regulatory caveats or by making public issuance structure simpler.

4.2.6. Information

Information is key to price discovery. While at a broader level, the spreads on a corporate bond decided on the basis of its credit rating and the sovereign yield curve, such a system may not be efficient and practical one. For instance, bonds of same rating but issued by different issuers trade at different prices and in the absence of credit migration matrix it would be difficult to assess the probability of default. This requires a centralized information system for historical trade data, which is not available in India. Such information would help both issuers and investors in fair pricing of the papers. Currently, only trades reported to the stock exchange are reported in the press. The deals done outside the stock exchanges and not reported to the stock exchanges do not get disseminated. Information of defaults is not published anywhere. Hence, there is a need to centralize such trading information which is good for the market as well as to the regulators.

Lack of such information also is a hindrance to the development of bond insurance industry.

4.2.7. Market Practices

Uniform market practices are a prerequisite for efficient markets. This is, however, not the case in Indian markets. For instance for a trade on stock exchanges like the WDM segment of NSE, the minimum amount of trade is Rs. 1 million but OTC market transactions, as they are supposed to be, are flexible as for as the trade lot is concerned. Coupon conventions also differ (such as Actual/360, Actual/Actual etc.,) leading to

problems in settlements. Bodies like Fixed Income Money Market Derivatives Association (FIMMDA) has certain standardized practices though it is not yet a Self Regulatory Organization (SRO).As is the case with the Government securities market there is no central counterparty mechanism to guarantee and settle the transactions in the corporate debt instruments. The settlement has to be bilateral and the absence of novation (whereby the central counterparty, say, the clearing corporation, undertakes a guaranteed settlement) poses risk to the trading counterparties. The absence of multilateral netting also reduced the liquidity in the market.

4.2.8. Market makers

The role of market makers is significant in an incipient market but it is easier said than done. Since market makers are supposed to add diversity to the market, they assume a lot of risk in such a market and need to be backed up, both in terms of financial resources and the supply of securities. Currently the Indian markets do not have a class of such market makers in debt markets. To create such a class of market makers, one way is that the investment banks that help corporates to raise money from the market can possibly be roped in to market making in the bonds, which they have helped in issuance.

4.2.9. Narrow Investor base:

(a) In developed markets, provident and pension funds are large investors in corporate bonds. In India, these funds have been traditionally investing in Government securities for safety. The guidelines issued by Government to these funds for making investments are also skewed in favor of Government securities, Government guaranteed investments and PSU Bonds.
(b) Co-operative banks are permitted to invest up to 10% of their deposits in PSU Bonds and only scheduled co-operative banks are allowed to invest in private sector bonds. Allowing all co-operatives banks to invest in high quality corporate bonds would be helpful as co-operative banks have large deposits.
(c) Retail investors' participation in tradable fixed income securities is very negligible. One of the reasons is higher interest rates offered on Government's own small savings scheme, which is being addressed by bring these rates to align with market rates.

However, the minimum trade size, transaction costs and illiquidity of bond markets hamper the involvement of retail investors in this market.
(d) FIIs do not have a large presence in the debt markets. They use the debt markets for parking the funds temporarily and for portfolio management in a limited way. Their main interest is the equity market

4.2.10. Repo in Corporate Bonds:

Repos are currently allowed only in Government securities though there was a move to extend the same to corporate bonds by the RBI. Repos certainly create liquidity to the corporate bond market.

4.2.11. Trading, clearing and settlement mechanism

a)Trade Reporting System:
Currently information on all trades other than those done through or reported to stock exchanges is not disseminated.

b) Trading Platform:
Trades in corporate bonds are executed in three different ways:
(i) Bilateral i.e, trades done by two counterparties directly to be settled through banking channel (for funds) and depositories (for securities)
(ii) Broker facilitated - buyer and a seller are brought together by a broker who helps them execute a deal and finally he is obliged to report the deals to the stock exchange where he is registered
(iii) Through an exchange where corporate bonds are traded in an anonymous order book system and the settlement happens through the clearing house/corporation with novation.

Institutions widely used the first two methods. In order to develop the market, it is required to put in place a trading platform that would cater specifically to institutional buyers and sellers since they form a large share of the corporate debt market. Globally, this market has been functioning as an over-the-counter market. The justification for a

separate trading platform for the institutional investors has been recently recognized by SEBI. Stock exchanges have been permitted to set up such a platform where individual trades of the value of Rs. 50 million and more can be executed without disturbing the price discovery process in the other wing of the market.

c)Clearing & Settlement System:

The trades in the secondary market are settled bilaterally between the participants. In the interest of overall market risk mitigation, it is essential that the clearing and settlement of trades in this market be handled in line with global best practices in settlement with well-established clearing and settlement procedures through recognized clearing and settlement agencies.

Currently there is no structured settlement system in the market for corporate bonds. The settlement risk is relatively high in case of direct deals and deals done through brokers and reported to the stock exchanges. Only a small proportion of trades executed through anonymous trading system of stock exchanges have a well-structured settlement system with proper risk guarantee of settlement. The kind of clearing mechanism that exists for the government securities market (novation and multi lateral netting though the CCIL) do not exist for the corporate debt market. This is all the more required for the corporate bond market since the risk is higher in the case of corporate bonds compared to government securities.

4.2.12. Securitization

The market for securitized products is not yet developed in India. While financial institutions and banks have made considerable inroads into housing and infrastructure financing, they are unable to expand their horizon without taking recourse to specification. However, there were a number of legal, regulatory, psychological and other issues, which needed to be sorted out to facilitate the growth of securitization. The extant law provides for securitization of debt by Asset Reconstruction Companies and National Housing Bank. However, securitized debts are not included under the Securities Contract Regulation Act

(SCRA) and hence cannot be listed on a stock exchange for trading. Secondary market trading is not possible since these instruments are not listed in stock exchanges. Recently, the Government has decided to suitably amend the SCRA to define securitized assets as a security, which can be listed on the stock exchanges and traded as any other marketable instrument.

5. FUTURE OF DEBT MARKETS

5.1 Factors that would contribute to the development of debt markets

Looking ahead, the resources needed for infrastructure development, the requirement of mutual fund industry, new pension system and the developing market for securitized products, rising concerns about the asset liability management on the part of banks/financial institutions along with the development of derivatives market should see the bond markets grow exponentially in the future. Some of the developments in each of these areas are narrated in the following paragraphs.

5.1.1. Infrastructure financing through Debt

The resource requirements for infrastructure development in India are enormous. An estimate indicates that the requirements are to the tune of US$ 150 billion or more during the next five years. Considering the long gestation period involved in infrastructure projects and given their liabilities (mainly deposits) which are short to medium term in nature, banks are constrained to finance this sector since their asset liability side is short term in nature. This certainly requires bond financing.

There exists a strong case for creation of specialized long term Debt Funds to cater to the needs of the infrastructure sector. A regulatory and tax environment that is suitable for attracting investments from Qualified Investment Banks is key for channeling long term capital into infrastructure development. Currently, most banks lack in–house capacity to evaluate project finance risk. As such, they provide debt financing for infrastructure projects largely only to the extent that they are able to participate in loan syndicates led by a handful of specialists.

Facilitating the creation of infrastructure focused Debt Funds and making it easier for banks to participate in such funds would allow much larger volumes of debt financing from the banks to be deployed to infrastructure development while distributing the associated risks more evenly across a greater variety of projects.

5.1.2. Securitization

Another important and a related issue for the infrastructure financing is the need for a market in securitized products. In India, the need for asset securitization is being felt in three major areas - Mortgage Backed Securities (MBS), Infrastructure Sector and other Asset Backed Securities (ABS). However, there were a number of legal, regulatory, psychological and other issues, which needed to be sorted out to facilitate the growth of securitization. The extant law provides for securitization of debt by Asset Reconstruction Companies (ARCs) and National Housing Bank. However, securitized debts are not included under the Securities Contract Regulation Act (SCRA) and hence cannot be listed on the stock exchanges for trading. Secondary market trading is not possible since these instruments are not listed in the stock exchanges. Recently, the Government has decided to suitably amend the SCRA to define securitized assets as a security, which can be listed on the stock exchanges and traded as any other marketable instrument. The current status of market for securitized products is in Annex 1

Box.1 Debt Market Restructuring Initiatives: Union Budget 2006-07

Over the past few years, due attention has been given to the development of the Indian debt market. As a matter of fact, the Union Budget, 2006-07 paid special attention to debt market restructuring. Efforts were taken to increase bond market liquidity and make it more broad-based and competitive. Following are some points of action that were included in the budget:

1. As part of the reforms in the banking sector introduced in 1993-94, capital was infused in the banks by issue of special securities. To date, the Government has injected Rs.168 billion into nationalized banks. Adding the perpetual securities issued earlier, the total net capital support stands at Rs.228 billion. Thanks to the capital support, a sound-banking sector has emerged. As a result, the budget proposed to wind down the special arrangements between the Government and the banks by conversion of non-tradable special securities into tradable, SLR Government of India dated securities. This will facilitate increased access of the banks to additional resources for lending to productive sectors in the light of the increasing credit needs of the economy and will simultaneously add to bond market volumes.

2. The Finance Minister has increased the limit on FII investment in Government securities from US$ 1.75 billion to US$ 2 billion and the limit on FII investment in corporate debt from US$ 0.5 billion to US$ 1.5 billion. This will help enhance the investor base in the debt market.

3. The Finance Minister has also raised the ceiling on aggregate investment by mutual funds in overseas instruments from US$ 1 billion to US$ 2 billion and has removed the requirement of 10% reciprocal share holding[5]. He has further allow a limited number of qualified Indian mutual funds to invest, cumulatively up to US$ 1 billion, in overseas exchange traded funds. This will facilitate the integration of the Indian bond market with the more developed, global markets and will enable investors to hedge their risks through international portfolio diversification.

4. The RBI had introduced the anonymous electronic order matching trading module called NDS-OM on its Negotiated Dealing System. In the first phase, RBI-regulated entities, banks and Primary Dealers were allowed to trade on the system. The system has now been extended to all insurance entities. In view of the encouraging response of market participants and to further deepen the Government securities market, the Ministry of Finance has proposed to extend access to qualified Mutual Funds, Provident Funds and Pension Funds as well.

5. The importance of the corporate bond market has been recognized and the budget felt the need to take steps to create a single, unified exchange-traded market for corporate bonds.

6. Given that the common debt market investor is increasingly being exposed to market based volatilities in return, the Budget has proposed the establishment of an Investor Protection Fund under the aegis of the SEBI. This will boost retail investor confidence and will help diversify the market base.

5.1.3. Pension Funds and new pension rules

Retirement planning in India is still in its infancy and is quite far away from the level of sophistication it has seen in most of the developed countries. The Joint family system that is characteristic of Indian households has been the primary reason behind a laggard

[5] Mutual funds were permitted to invest in overseas companies but only in those companies which were having at least 10% stake in domestic (Indian) companies.

retirement investment structure. However, with the gradual dilution of the joint family system, pension planning has begun to assume greater importance.

The emergence of the Pension fund industry has certain obvious forward linkages with the capital market of any country. Given the nature of returns required from pension fund investments, the debt market assumes an even more important role in assuring fixed returns. In light of this excessive addiction to safety, most pension funds in India invest heavily in Government securities. Further, investment restrictions imposed by statutory bodies（statutory bodies only exacerbate pension fund investment in other sections of the capital market like corporate bonds and equity）.

However, due to growing fiscal concerns, Government is favoring defined contributory schemes. This along with the entry of private pension funds requires other investment avenues to enhance their risk return universe. This is likely to create greater demand for corporate bonds. A detailed analysis of the existing social security scheme and the new pension initiatives are in Annex 2

5.2 What needs to be done?

5.2.1 Investor base needs to be broadened:

Banks' investments in corporate bonds need to be encouraged especially by bringing in changes in the prudential regulatory mechanism which treats loans portfolio on par with investment portfolio. Currently, the investment portfolio (banks' investments in corporate bonds) has to be marked to market where as the same constraint is not there in the case of a loan extended to the same corporate. Implementation of Basel II might remove this anomaly over a period of time.

FII's need to be given higher limits for investments in corporate bonds since this is one major investor class which can bring volumes to the corporate bond markets. Some of the foreign funds do feel that, despite the recent hike in the limit up to which FIIs can invest

in corporate bonds (USD 1.5 billion), this amount is too small for taking any active interest in this market meaningfully.

The investment guidelines for the provident and pension funds need to be rationalized and they should be allowed to invest on the basis of rating rather than in terms of category of issuers. This may encourage these funds to invest in high quality corporate bonds. Such a change will also benefit these funds which can enhance their returns.

To encourage small investors, the bond market structure should emulate the equity market structure in the sense that a retail investor should be able to buy and sell bonds without any restriction on the minimum market lot. Currently an investor can buy even one share in the equity market.

5.2.2. Widening the issuer base.

There is a need to review the current guidelines for issuance, disclosure and listing of corporate bonds and they should be made simpler.

Currently banks are allowed to issue bonds of maturities over 5 years only for financing infrastructure sector. Since banks are one of the leading issuers of bonds, they should be allowed to issue bonds of maturities over 5 years subject to their asset liability matching norms. The development of an interest rate derivatives markets is a major prerequisite to facilitate this.

As has been said earlier, banks are one of the major issuers of bonds to augment their tier II capital and these bonds are in turn subscribed to by other banks (cross holdings). Regulatory caps should be fixed for such cross investments so that other participants are given an opportunity to subscribe to these bonds.

5.2.3. Development of derivatives market

Though the interest rate risk is mainly managed through interest rate swaps and forward rate agreements, the derivatives market for hedging interest rate risk is not fully developed in India. Further there is also a need for a market for short selling and when issued market for better price discovery and hedging. The RBI has already initiated certain steps in this direction but a lot needs to be done in this aspect which only can assure a deep and vibrant debt market. Allowing repos in corporate bonds is also necessary to improve interest in them.

5.2.4. Market making.

Market making should be encouraged for promoting the corporate debt market. This requires incentivising large financial intermediaries like primary dealers to take up this job. One way is to encourage the investment bankers involved in the placement of the bonds.

5.2.5. Addressing price distorting issues:

There is a need to rationalize and reduce the stamp duty. Since stamp duty is a levy by the State Governments, they have to be taken into confidence to to achieve this objective. Stamp duty also needs to be rationalized with regard to securitized debt.

TDS is another issue, which distorts the pricing of bonds. Like in the case of government securities, TDS needs to be abolished in the case of corporate bonds

The shut period (for reckoning the registered owner of the bond for payment of coupons) is very long in the case of corporate bonds and needs to be brought on par with that for the government securities, which is one day.

It is also necessary to standardize the day count conventions. Currently the day count conventions in the market differ depending upon the nature of the instruments and the nature of the transaction.

5.2.6. Listing norms to be eased

For already listed entities, there listing norms should be simpler; they should be allowed an abridged version of disclosure. On the other hand, unlisted companies issuing bonds to institutional investors and QIBs, rating should form the basis for placement. However, companies which are not listed and which are opting for the private placement mode should be subjected to stringent disclosure norms. Privately placed bonds should be mandatorily listed within 7 days from the date of allotment, as is the case with public issues.

The practice of suspension of trading/delisting of securities in case of non compliance with listing norms by an issuer needs to be replaced by heavy penalties on the promoters and directors of the erring company.

Debenture trusties should be made more responsible and accountable. They also should ensure that important information such as rating downgrades should be disseminated to the investors.

5.2.7. Developing a trade reporting system

There is an urgent need to put in place a mechanism that captures all the information relating to trades in corporate bonds, disseminate the same and keeps a data base of trade history. Various regulators should direct the regulated entities to report all the transactions done by them to the trade reporting system.

5.2.8. Trading, clearing and settlement mechanism

For improving the transparency and efficiency to the transactions in corporate bonds, anonymous screen based order matching trading systems should be encouraged. However, the authorities should keep in mind that multiple trading platforms also have the potential to impact the liquidity adversely. Simultaneously, the development of clearing and settlement mechanisms should be commensurate with IOSCO standards. Novation and

multilateral netting should form the backbone for risk mitigation and enhancement of liquidity.

5.2.9. Specialized debt funds for infrastructure financing.

As recommended by the High Level Expert Committee on Corporate Bonds and Securitization (HLECCBS), there is a case for creation of specialized Debt Funds to cater to the needs of the infrastructure sector. Such Debt Funds registered with SEBI should be given the same tax treatment as the one extended to venture capital funds.

5.2.10. Developing a market for debt securitization

Apart from reducing the stamp duty on debt assignments, pass through certificates (PTCs) and security receipts, the government should also endeavor to resolve the uncertainty in taxation issues pertaining to securitized paper.

With a view to remove any ambiguity in this regard, the Central Government should consider notifying PTCs and other securities issued by securitization SPVs / Trust as “securities” under SCRA.

Annex 1

A. SECURITIZATION IN INDIA

Securitization in India began in the early nineties, with CRISIL rating the first securitization program in 1991-92. Initially it started as a device for bilateral acquisitions of portfolios of finance companies. These were forms of quasi-securitizations, with portfolios moving from the balance sheet of one originator to that of another. Originally these transactions included provisions that provided recourse to the originator as well as new loan sales through the direct assignment route, which was structured using the true sale concept. Through most of the 90s, securitization of auto loans was the mainstay of the Indian markets. But since 2000, Residential Mortgage Backed Securities (RMBS) have fuelled the growth of the market.

The need for securitization in India exists in three major areas - Mortgage Backed Securities (MBS), the infrastructure Sector and other Asset Backed Securities (ABS). It has been observed that Financial Institutions/banks have made considerable progress in financing of projects in the housing and infrastructure sector. It is therefore necessary that securitization and other allied modalities get developed so that Financial Institutions/Banks can offload their initial exposure and make room for financing new projects. With the introduction of financial sector reforms in the early nineties, Financial Institutions/banks, particularly the Non-Banking Financial Companies (NBFCs), have entered into the retail business in a big way, generating large volumes of homogeneous classes of assets (such as auto loans, credit cards). This has led to attempts being made by a few players to get into the ABS market as well. However, still a number of legal, regulatory, psychological and other issues need to be sorted out to facilitate the growth of securitization in India.

A.1. Current Scenario in India

Securitization in India adopts a trust structure with the underlying assets being transferred by way of a sale to a trustee. Albeit a trust is not a legal entity, a trustee is entitled to hold property, which is distinct from the property of the trustee or other trust properties held by him. Thus, the trust is termed as a Special Purpose Vehicle (SPV). The SPV issues securities that are either 'Pass Through Securities' or 'Pay Through Securities (PTS)'. In case of Pass Through Securities, the investors holding them acquire beneficial interest in the underlying assets held by the trustee. Whereas, in case of PTS, investors holding them acquire beneficial interest only in the cash flows realised from the underlying assets and that too in order of and to the extent of the obligation contracted with the holders of the respective senior and subordinated branches of PTS. Under either scenario, the legal ownership of the underlying assets continues to vest in the trustee.

Mortgage Backed Securities (MBS)

In 2004-05, the Mortgaged Backed Securities market grew moderately at 13% with the issuance valued at Rs. 33.4 billion. There was also an increase in the 'par' transactions with all 15 transactions being made in 2005 having a 'par' structure. Since the underlying home loans in MBS pool have a floating-rate, the scheduled cash flow on such pools is uncertain and liable to change, depending on actual interest rate. Moreover, options to convert from fixed to floating rate and vice-versa, coupled with negotiated re-pricing of loans, added to the uncertainty of the cash flow in the MBS pool.

With the underlying loans earning floating rates, Pass Through Certificates (PTCs) in MBS issues are also being predominantly priced on a floating rate basis. In 2005, 52% of issuance was based on a floating rate. But given the significant expansion in the housing finance business, there is room for even more significant expansion in the MBS market. However, the long-term tenure of MBS and the lack of liquidity in the secondary market discourage investors from getting actively involved in the market. Also home loans in India get pre-paid or re-priced, thus exposing the structures to significant interest rate risk and leading to higher credit enhancement requirements.

Asset Backed Securities (ABS)

In 2005, the market for Structured Finance (SF) grew by 121% in terms of value and 41% in the number of transactions, while the ABS market doubled from Rs. 80.9 billion in 2004 to Rs. 222.9 billion in 2004. ABS was the largest product class, accounting for 72% of the SF market in 2005. This was three times higher than the volume of Rs. 81 billion in 2003. The growth in ABS issuance was the result of the following factors:

- Continued increase in disbursements by key retail asset financers,
- Investors familiarity with the underlying asset class,
- Relatively shorter tenure of issuances,
- Stability in the performance of a growing number of past pools.

Table A1: Trend in Structured Finance Volumes (Rs. billion)

Type	2001-02	2002-03	2003-04	2004-05
ABS	12.9	36.4	80.9	222.9
MBS	0.8	14.8	29.6	33.4
CDO/LSO	19.1	24.3	28.3	25.8
PGS	4	1.9	0	16
Others	0	0.4	0.5	10
Total	36.8	77.7	139.2	308.2

(CDO; Corporate Debt Obligations, LSO; Loan Sell off, PGS;Partial Guarantee Structure)

Another important aspect of recent ABS issuance is the increasing preference of floating rate yields. In 2005, 13% of the PTCs issued had a floating rate yield while the corresponding figure for 2004 was only 6%. Repackaged securities was also introduced, where in the cash flow on certain existing PTCs issued under an ABS transaction are acquired by a SPV and fresh PTCs are issued against the same.

Given that the Asset Backed Securities are still new for the investors in India market, their preference is for AAA/AA rated instruments as there is no market for the subordinated paper or ‘Junk Bond’.

In 2005, Rs. 2.8 billion worth of Corporate Debt Obligations (CDO) and Rs. 23 billion worth of individual corporate loans were securitised. The impeding factor in CDO growth is that, investment decisions in the CDO pool are influenced by base rating of the underlying corporate exposures.

A.2. Issues facing Indian securitized market

A.2.1. Regulatory issues

Stamp Duty: One of the biggest hurdles facing the development of the securitization market is the stamp duty structure. Stamp duty is payable on any instrument which seeks to transfer rights or receivables, whether by way of assignment or novation or by any other mode. Therefore, the process of transfer of the receivables from the originator to the SPV involves an outlay on account of stamp duty, which can make securitization commercially unviable in several states. If the securitized instrument is issued as evidencing indebtedness, it would be in the form of a debenture or bond subject to stamp duty. On the other hand, if the instrument is structured as a Pass Through Certificate (PTC) that merely evidences title to the receivables, then such an instrument would not attract stamp duty, as it isn't an instrument provided for specifically in the charging provisions.

Among the regulatory costs, the stamp duty on transfers of the securitized instrument is again a major hurdle. Some states do not distinguish between conveyances of real estate and that of receivables, and levy the same rate of stamp duty on the two. Stamp duty being a concurrent subject, specifically calls for a consensual legal position between the Centre and the States.

A.2.2. Foreclosure Laws:

Lack of effective foreclosure laws also prohibits the growth of securitization in India. The existing foreclosure laws are not lender friendly and increase the risks of MBS by making it difficult to transfer property in cases of default.

A.2.3. Taxation related issues

Tax treatment of MBS SPV Trusts and NPL Trusts is unclear. Currently, the investors (PTC and SR holders) pay tax on the income distributed by the SPV Trusts and on that basis the trustees make income pay outs to the PTC holders without any payment or withholding of tax. The view is based on legal opinions regarding assessment of investors instead of trustee in their representative capacity.

It needs to be emphasized that the Income Tax Law has always envisaged taxation of an unincorporated SPV such as a Trust at only one level, either at the Trust SPV level, or the Investor/Beneficiary Level to avoid double taxation. Hence, any explicit tax pass thro regime if provided in the Income Tax Act does not represent conferment of any real tax concession or tax sacrifice, but merely represents a position that the Investors in the trust would be liable to tax instead of the Trust being held liable to tax on the income earned.

Amendments need to be made to provide an explicit tax pass thro treatment to securitization SPVs and NPA Securitization SPVs on par with the tax pass thro treatment applied under the tax law to Venture Capital Funds registered with SEBI.

To make it certain that investors as holders of Mutual Fund (MF) schemes are liable to pay tax on the income from MF and ensure that there is no tax dispute about the MBS SPV Trust or NPA Securitization Trust being treated as an AOP(Association of Persons), SEBI should consider the possibility of modifying the Mutual Fund Regulations to permit wholesale investors (investors who invests not less than Rs. 5 million in scheme) to invest and hold units of a closed-ended passively managed mutual fund scheme. The sole objective of this scheme is to invest its funds into PTCs and SRs of the designated MBS SPV Trust and NPA Securitization Trust.

Recognizing the wholesale investor and Qualified Institutional Buyers (QIB) in securitization Trusts, there should be no withholding of tax requirements on interest paid

by the borrowers (whose credit exposures are securitized) to the securitization Trust. Similarly, there should be no requirement of withholding tax on distributions made by the securitization Trust to its PTC and/or SR holders. However, the securitization Trust may be required to file an annual return with the Income-tax Department, Ministry of Finance, in which all relevant particulars of the income distributions and identity of the PTC and SR holders may be included. This will safeguard against any possibility of revenue leakage.

A.2.4. Legal Issues

Listing of PTCs on stock exchange: Currently, the SCRA definition of 'securities' does not specifically cover PTCs. While there is indeed a legal view that the current definition of securities in the SCRA includes any instrument derived from, or any interest in securities, the nature of the instrument and the background of the issuer of the instrument, not being homogenous in respect of the rights and obligations attached, across instruments issued by various SPVs, has resulted in a degree of discomfort among exchanges listing these instruments. To remove any ambiguity in this regard, the Central Government should consider notifying PTCs and other securities issued by securitization SPV Trust as 'securities' under the SCRA.

Some issues under the SARFAESI Act: The ambiguity about whether or not Asset Reconstruction Companies (ARCs) and Securitization Companies (SCs) registered with the RBI can establish multiple SPV Trusts, has been resolved by a specific provision in the form of sec.7 (2A) of the SARFAESI Act. In view of this, it is now possible to unambiguously adopt the trust SPV structure even under the SARFAESI Act for MBS, ABS or NPL securitization.

The current definition of 'Security Receipt (SR)' envisages SR to be the evidence of acquisition by its holder of an undivided right, title or interest in the financial asset involved in securitization. This definition is appropriate and sufficient for securitization structures where securities issued are all characterized as 'Pass Through Securities'.

However, where the SPV Trust intends issuing Pay Through Securities with different classes or branches having senior or subordinated rights to the cash flow from realization of financial assets, the current definition of a SR may prove legally inadequate. There is need for an amendment that enables the SR to also be an evidence of the right of its holder to the cash flows from realization of the financial asset involved in securitization.

The construct of the SARFAESI Act is such that it enables SRs to be issued to and held by Qualified Institutional Buyers (QIBs), but does not include NBFCs or other corporate bodies, unless they are notified either by the Central Government as financial institution.

In order to deepen the market for SRs, there is a need to broad base the investor base that qualifies to invest in SRs. With a view to deepen the investor base of QIBs which can invest in SRs, it is suggested that NBFCs and non-NBFCs with owned net funds in excess of Rs.500 million be permitted to invest in SRs as QIBs. Similarly, private equity funds registered with SEBI as venture capital funds may also be permitted to invest in SRs within the limits that are applied for investment by venture capital funds in corporate debt instruments.

A.3. Recent Developments

In the 2005-06 budget, the Finance Minister made certain proposals to strengthen the capital market. The following are a list of the measures proposed in the budget to bolster the corporate bond market:

- Amending the definition of 'securities' under the Securities Contracts Regulation Act, 1956 so as to provide a legal framework for trading of securitized debt including mortgage backed debt
- Appointing High Level Expert Committee on Corporate Bonds and Securitization to look into the legal, regulatory, tax and market design issues in the development of the corporate bond market.

These measures are expected to open up new opportunities for international investors to take part in the growing Indian economic boom. The amendments will allow securitized debt to be traded on the stock exchanges, which will widen and deepen liquidity in the debt markets leading to efficient pricing of risks. Securitization, by diversifying away borrower default risk, should attract new market participants including foreign institutional investors. This will enable easier access to long-term debt for infrastructure projects.

In February 2006, the RBI has released its final guidelines governing the securitization of performing assets in India in response to a High-Level Committee report. These final guidelines will have a definite impact on several issues and should enable the development of a vibrant and robust securitization market.

Some of the positive aspects of the recent notification are as following:

- A clear definition of what constitutes first and second loss credit enhancements.

The guidelines clearly define first and second loss credit enhancements. First loss represents the credit enhancement required to raise the rating of the instrument to an investment grade rating. Second 1oss represents the incremental credit enhancement to achieve the final rating of the instrument. This definition is a crucial step in the right direction, as it would enable the market to operate on a commonly shared understanding on an issue that has been the subject of much speculation and debate. Besides, it enables harmonization of credit enhancement across transactions, and facilitates comparison and analysis, which are a pre-requisite for potential second loss services provision by third parties.

- Confirmation that exposures to securitization transaction will be classified as exposures to the underlying assets.

Investments in securitization transactions have been classified to represent exposure to the assets owned by the trust. This is a crucial notification, as several investors in the past insisted on classifying SPV Trusts as conventional corporate credit exposures, being uncomfortable with the ambiguity on this issue. This clarification puts the subject to rest. It is also expected that investors will be able to use securitization as an effective means of obtaining exposure to directed lending in priority sectors, such as Small Road Transport Operators (SRTOs), agricultural lending and small home loans.

- Encouragement of active third party involvement in transactions.

This is the most positive aspect of the guidelines as it represents a paradigm shift with respect to securitization transactions. The guidelines actively encourage the participation of third parties, which is expected to increase transparency and create a vibrant market for independent service providers. It will facilitate a preferential capital treatment in comparison to the originators, if they choose to provide second loss credit enhancement. They will need to provide capital at a risk weight of 100% vis-à-vis a complete write-off of capital if the originator provides second loss enhancement. At least 25% of the liquidity enhancement provided in the transaction will need to come from an independent third party other than the originator.

This recommendation symbolizes a clear shift in the regulator's approach to the product and it reflects the need to build a healthy third party participation in the market. Several market participants have shown great deal of interest in providing these services. Insurance companies, both private and public, have also expressed interest in providing credit insurance solutions, which will tremendously increase the depth and vibrancy of the market.

The guidelines are also expected to increase transparency on disclosures of securitization exposures by originators.

However some provisions of these guidelines are expected to have an adverse impact on market growth in the short term. Originators will face challenges on account of:

- Continued ambiguity on the applicability of the guidelines for past transactions and for direct assignment of loan receivables.

The mode of implementation of the guidelines whether retrospective or prospective, has not been specified yet. The guidelines indicate that implementation for past transactions would be under taken on a case-by-case basis. But given the significant impact that this decision could have on the financial and capital position of banks and financial institutions, a clear directive on the issue would be appropriate.

- Prohibition of upfront profit recognition in securitization despite a complete sale of assets to the SPV.

The guidelines prohibit profit recognition on securitization transactions at the time of sale. Profits need to be amortized over the tenor of the transaction. This is a departure both from the draft guidelines issued by the RBI in April 2005 and from past lCAI (Institute of Chartered Accountants of India). Assuming that the transaction has passed the required tests of true sale and represents a fixed limited downside risk for the seller, the denial of profits could be considered onerous. Besides it would create a deferred tax asset as the sale and profit will be recognized for income tax computation. This move is expected to impact market attractiveness for the product, as profit recognition has been one of the motivations for several originators.

A.4. Conclusion

The RBI guidelines thus provide a robust regulatory and institutional framework for the orderly development of the securitization market in the long term. At the same time the guidelines have eliminated some incentives for securitization. This will lead to temporary reduction in issuance volume. However, in the medium and long term, the securitization market is expected to witness reasonable growth.

The stringent norms presently proposed on capital allocation for credit enhancements will drive originators towards mezzanine strips. Consequently, a new class of investors in these products, who are comfortable with sub-AAA exposures, is expected to emerge. Thus large banks and financial institutions are expected to enter the market actively as investors. The proposed guide lines on Basel II implementation for banks, providing significant capital relief for investments in bonds with high credit ratings, is also expected to enhance the demand for AAA/AA paper which can be efficiently structured into securitization transactions. With the proposed recognition of PTCs as securities under the SCRA, and the subsequent listing of PTCs, interest from both domestic as well as foreign investors will witness a rise.

Annex 2

B. RETIREMENT SCHEMES AND PENSION FUNDS IN INDIA

B.1. Why are Pension funds important to the bond market?

International experience shows that pension funds have indeed provided the much-needed boost to the development of corporate debt markets both in terms of demand for corporate bonds as also liquidity apart from improving the market microstructure. Pension funds have also been major stimulators of financial innovation as they have directly or indirectly supported product innovation by supporting the development of asset backed securities, structured finance, derivative products and so on.

Pension fund presence in the bond market is likely to increase the availability of long term funds in the market, which in turn will improve the asset liability mismatch that often arises in projects with long gestation periods. As a matter of fact, globally the pension industry has been a key component of the financial infrastructure of an economy. It is one of the few sources of long term funds, which have null, or least risk associated with maturity of assets and liabilities. Thus, its viability and strengths have far-reaching consequences for not only the money and capital markets but also for each and every facet of the economy. Funds raised from pension fund placements can specifically help infrastructure financing.

The ever-increasing longevity makes any retirement provision based on inter-generational income transfers faces difficult to sustain. Defined benefit schemes are giving way to defined contributory schemes. While India makes up about 16.3 per cent of the world population, its elderly population is only about 12.5 per cent of the world's elderly population. India's population is currently relatively young but this will change as health and other social initiatives lead to continuous improvement in birth and death rates. There are currently 70 million people over the age of 60 in India and fewer than 10 per cent of them have their pension; the others have to work or rely on transfers, mainly from their children. Hence the potential or the development of pension fund industry and its benevolent effects on the debt market are immense.

B.2. Retirement Planning and Pension Funds in India:

Existing pension schemes in India are limited in their coverage and are poor in their design. First, there is a pension scheme for civil servants and employees of autonomous bodies such as universities, which is fully funded by the Government. Second, there is the Employee's Provident Fund Organization （EPFO）, which is mandatory for the organized sector and which offers a provident fund[6] and a pension scheme.[7] A small scheme is also run by the EPFO for workers in the unorganized sector. Finally, about 50 insurance companies and mutual funds offer over 700 financial products to all citizens though only 1% of the population buys such products.

B.3. Recent Government Initiatives and Pension Fund Reform

Two parallel sets of initiatives have been taken during the last 4-5 years. The first initiative was for the organized sector and the second initiative was for the unorganized sector. OASIS (Old Age Social and Income Security) project was commissioned by the Ministry of Social Justice and Empowerment, which submitted its report in January 2000. OASIS report recommended a scheme based on Individual Retirement Accounts (IRAs) to be opened anywhere in India. Banks, Post Offices etc., were identified to serve as "Points of Presence" (POPs) where the accounts could be opened or contributions deposited. Their electronic interconnectivity would ensure "portability" as the worker moves from one place/employment to another. There would be a depository for centralized record keeping, fund managers to manage the funds and annuity providers to provide the benefit after the age of 60.

The OASIS report brought forth important reforms in the field of pension fund investments and paved the way for later initiatives like the announcement of the New Pension System in the Budget of 2003-04, which got introduced on 1 January 2004.

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[6] Under a provident fund, the full amount of the benefit available at retirement may be taken as a lump sum cash payment, irrespective of whether the benefit is calculated on a *defined benefit* or a *defined contribution* basis.

[7] Under a pension fund at least two-thirds of the final benefit must be paid as a pension for the rest of the pensioner's life. A maximum of one-third of the final benefit may be taken as cash.

B.4. The New Pension System

The New Pension System (NPS) is a pension system that is intended to initially cater to newly recruited Central Government employees (except the armed forces) and to workers in the unorganized sector. Even within unorganized sector, the NPS will cater to only workers who are taxpayers and can be motivated to join the scheme through tax incentives. As with Government employees, they can ask for investment protection guarantees on investments under various pension schemes offered by Pension Funds. However, this guarantee would be implemented using private financial markets. Persons being covered by schemes offered by the EPFO and other provisions administered under any statutes would not be covered under this NPS scheme. Thus, no existing arrangement of pension provision applicable to already existing persons are proposed to be changed, only new/additional persons are going to avail the benefit of the NPS.

Although the NPS has started with covering Central Government employees who joined service after 1 January 2004, State Governments are likely to join this NPS scheme going forward. In due course, private sector employees too may join the NPS scheme.

The uniqueness of the NPS is two-fold:

(i) It creates a system where both the Government employees as well as workers in the unorganized sector are covered by one scheme and supervised by one regulator and

(ii) The choice about fund managers or about different schemes of a fund manager can be exercised independent of the fund manager through the mechanism of the Central Record-keeping Agency (CRA).

B.5. Investment guidelines according to the New Pension System:

(i) Non-Government provident funds are allowed to invest 5% of assets in blue-chip shares and 10% in corporate debt and equity-oriented mutual funds

(ii) Relaxation of norms for superannuation and gratuity funds to invest in the Gilt fund. Provident funds can have a maximum exposure of 5% in gilt funds at any point in time.

(iii) Provident Funds can invest in bonds of financial institutions and companies having investment grade[8] from at least 2 credit rating agencies.

(iv) There would be multiple pension fund managers licensed by Pension Fund Regulatory and Development Authority (PFRDA) and the choice would be with the individual employees to decide which fund manager they would like to go with.

(v) Under the NPS, it is proposed that there would be four broad categories of pension scheme (scheme A, B, C and D). While in scheme A, investments will be made in Government securities only, scheme D would have relatively higher weighing for equity while retaining the dominance of fixed income instruments. Schemes B & C will provide a balanced investment option with equity and fixed income instruments.

(vi) On the issue of guarantees on principals and/or returns, market based guarantees are proposed under the NPS scheme. This means that the subscriber has to bear the cost of the guarantee. However, the scheme with 100% Government Securities would be totally risk free in terms of capital protection and assured returns if the securities are held to maturity.

B.6. Why is pension Fund investment in corporate bonds so low?

The above discussion illustrates that the bulk of pension fund investment in capital markets is dominated by bonds. Further, within bonds, Government securities form the major proportion of bond investments. Pension funds hesitate to invest in corporate bonds for fear of exposing their portfolio to unnecessary risk. However, they fail to maximize returns in the process of giving primacy to risk mitigation. Financial repression during the period of administered interest rates caused returns on Government bonds to be significantly lower than the returns on safe investments in informal markets. Although, deregulation has improved the situation, returns on Government bonds are still significantly lower than returns on other assets with close to or zero default risk.

[8] Investment grade consist bonds with a rating of BBB and above

Provident funds and pension funds are required to invest in accordance with prescribed guidelines that are orientated towards safety of the funds. As a result, the preference has been for Government securities and PSU Bonds. A very small proportion (10% of accruals to the fund in a year) is available on a voluntary basis for investment in private sector bonds. Of the total corpus of statutory provident funds (including the Employees Provident Fund) amounting to Rs.1,750 billion as on 31 March 2004, only Rs. 490 billion[9] was invested in corporate bonds (mostly those issued by public sector entities). It is because of the current pension fund norms that returns on pension funds are so low. Perhaps it is time now that prudential norms governing pension funds should change. Consequently, the return-risk maximization paradigm should also be given due consideration as compared to only risk minimization.

Thus, the dominance of Government bonds in the pension fund portfolio leads to thinking whether one should be looking at a quantitative increase in bond exposure or one should be looking at a qualitative increase by way of increasing pension fund holdings of bonds with higher return-risk ratios like corporate bonds. Corporate bonds may be preferred over equity investments because investors may neither be willing to accept the low returns which gilt-edged bonds provide, nor accept the high risk that comes along with equity investment. The aim therefore is to attain the most optimum debt-equity mix and within debt exposure the most optimum balance between safety and return.

Following are the some of the countermeasures suggested for optimizing returns from Pension funds and expanding their presence in the corporate debt market:

1. Pension funds, by their very purpose of establishment, are risk averse and this moves them away from corporate bonds. However, in reality many of the AAA/AA+ corporate bonds have close to 0 default rates and offer a substantially higher spread over gilts (see table B1, B2 and B3; Figure B4)thereby increasing the return profile of the portfolio without adding to its risk structure

[9] Source: EPFO Balance Sheet and IDBI Capital Markets Ltd.

Table B1: Default Statistics of Corporate bonds

CRISIL Average Cumulative Default Rates in %(2000-2004)				
RATING	**SAMPLE SIZE**	**1-year**	**2-year**	**3-year**
AAA	262	0.00	0.00	0.00
AA	456	0.00	0.30	0.76
A	279	0.72	1.80	3.50
BBB	108	4.63	8.37	12.19
Investment Grade(AAA-BBB)	1105	0.63	1.28	2.07
Speculative Grade(BBB and below)	173	12.71	29.08	31.70

Source: CRISIL Default Study, 2004-05

Note: Default rate of a rating category measures the likelihood of a rating in that category to default during a given time horizon. It is measured by the proportion of total defaults to total outstanding ratings in a particular time horizon.

Table B2: Stability of Ratings

CRISIL One-year Average Stability Rates in %(1992-2004)	
AAA	96.64
AA	89.26
A	82.40
BBB	73.27
Overall	83.64

Source: CRISIL Default Study, 2004-05

Note: Stability rate can be looked upon as the likelihood of no transition. For instance, during the period 1992-2004, 96.64% of the AAA rated corporate bonds continued to remain the AAA category. Only 3.36% of the bonds were downgraded.

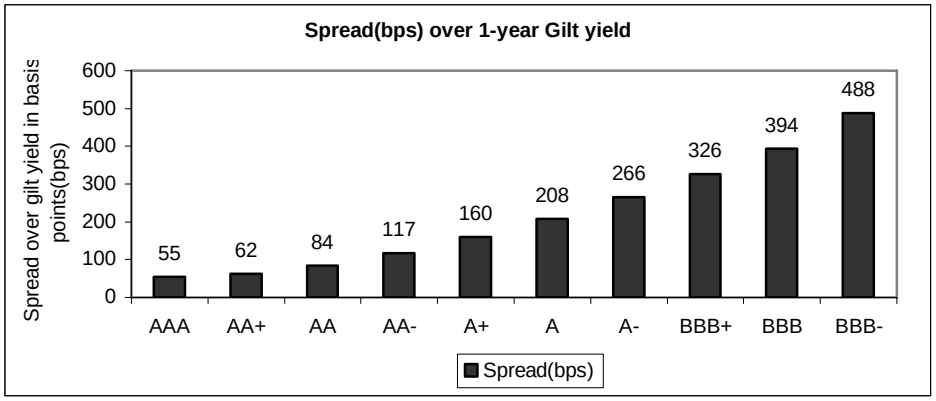
Table B3: Measuring Return-risk ratio of Corporate Bonds

RATING	SPREAD OVER 1- YEAR GILT YIELD(bps.)	DEFAULT RATE(%)
AAA	57	0
AA	76	0
A	178	0.72
BBB	337	4.63

Source: CRISIL Default Study, 2004-05

The above analysis reveals that many AAA/AA bonds have returns significantly higher than gilt-edged securities. For instance in Table B3, we see that the return on a 1-year AAA corporate bond is at least 57 basis points higher than the return on a gilt-edged security of a similar tenor and the default on both the types of bonds is zero. Thus, a rational study should be undertaken to determine the correct return risk measure from corporate bonds and Government Securities. Fund managers and investors alike should be made aware of this return risk measure and the advantages of investing in corporate bonds should be highlighted.

Figure B4: Pattern of Spreads over 1-year Government securities, 2005-06



Source: FIMMDA（Fixed Income Money Market and Derivatives Association of India

An Indian insurance/pension fund company is constrained by the fact that the market for fixed income securities is very illiquid such that only government securities and AAA/AA+ rated corporate bonds have liquid markets. Further, absence of a market for liquid Mortgage Backed Securities denies these companies the opportunity to enhance the yield on their investment without significantly adding to portfolio risk. If pension fund industry is liberalized and is engaged in active portfolio management, the liquidity of the bond market will increase significantly. This will enable pension fund companies to invest in bonds of lower rating and thereby add to the average yield of their investment without adding significantly to their portfolio risk.

2. Private sector participation in pension funds should be encouraged as state monopolies have generally been found to be laggard in terms of innovation or in terms of offering a wider range of products to the individuals they cover. Greater innovation in financial instruments adds to the diversity and efficiency of a capital market.

3. Also the restrictions on investments undertaken by pension funds require a fresh look. For instance, Provident Funds need to park at least 25% of their funds in central Government securities and another 15% in either State Government securities or debt

mutual funds approved by the SEBI. The discretionary component of portfolio allocation is very small. This should be increased so that investment in other instruments of investments that offer higher returns can be increased.

4. A fully functioning Pension Fund Regulatory and Development Authority (PFRDA) would go a long way in instilling confidence in investors. Although PFRDA was set up in December 2004 as regulator for Pension Funds, it is still in a transition phase and has not been able to make much headway.

B.7. Conclusion:

It is evident from this study that pension fund investment in India is heavily biased in favor of Government securities. While investment restrictions imposed by the Government may be partially responsible for this investment pattern, strict prudential norms dominated by the concern for safety over return may have only exacerbated the situation. However, with the implementation of the New Pension System, while the pension fund exposure to corporate bonds has been rising, the private participation in pension scheme offers has also increased. Improvements in the corporate bond market have also facilitated this process.

With the choice of pension fund investment structure shifting in the hands of individual, pension fund investment in India is poised to move in to a new trajectory that is consistent with the risk bearing abilities of individual constituents. This may lead to greater demand for good quality corporate bonds. However, the path to this optimum is likely to take a few more years in view of slow progress on policy reformulation and pension reforms.

Annex 3

C. IMPORTANT DEBT MARKET DEVELOPMENTS

1992: The auction system for facilitating price discovery mechanism was introduced. This was a departure from the earlier fixed price issuances.

1993: To manage short-term liquidity and prove a benchmark security, 91-day T-Bills were launched. The new instruments helped the Government meet its short-term requirements and any unforeseen fund requirements that may arise.

1994:

1. First phase of the process to end automatic monetisation of Government deficits started.
2. New instruments like the Zero Coupon Bonds (ZCBs) were issued.

1995:

1. To improve the institutional infrastructure, Primary Dealers (PDs) system was set up and also improvements in the Trading and settlement systems were expected through the introduction of Delivery-Versus-Payment (DVP) system.
2. Floating Rate Bonds (FRBs) were issued to bring about variety in the instruments traded.

1997:

1. Technical Advisory Committee was set up, to advise to improve the efficiency and depth of the market.
2. The RBI and the Government allowed FIIs to invest in Government securities to ensure flow of funds into the economy.
3. Abolition of automatic monetization through ad-hoc T-Bills and its replacement by Ways and Means Advances (WMA) facility, with limits, to meet temporary cash flow mismatches for the Central Government (Culmination of the process started in 1994). This was considered to be a good move in the context of improving the price discovery mechanism and also to bring discipline to Government borrowing programme, since henceforth Government had to pay market interest rates.
4. Capital Indexed Bonds were introduced.

1999: Over the counter (OTC) interest rate derivatives like Interest Rate Futures (IRFs) and Forward Rate Agreements (FRAs) were introduced to help markets hedge their interest rate risks.

2000: To manage the short-term liquidity, Liquidity Adjustment Facility (LAF) was commenced. As per this arrangement, The RBI modulates the domestic liquidity through daily repos and reverse repos.

2002: Negotiated Dealing System (NDS), the screen based dealing system for Government securities along with the establishment of Clearing Corporation of India Ltd. (CCIL), was started whereby the transparency in Government securities market has been improved. The CCIL was expected to bring about greater efficiency in the clearing process through multilateral netting and novation (central counterparty to deals) while the NDS was expected to improve transparency and also allow as a next step order matching trades for Government securities. The entire system is a straight through process with deals flowing seamlessly through CCIL's clearing mechanism to final settlement in the RBI's records.

2003:

1. Trading of Government securities was introduced on the stock exchanges to promote an active retail market.
2. Non-banks were permitted to participate in the Repo market to bring more funds into the market and thus widen the size and participation of the market.
3. Exchange traded Interest Rate Futures (IRFs) were introduced. to increase the breadth of the market and provide the investor significant opportunities to limit the risk of investment in the debt market

2004:

1. Reserve Bank of India issued final guidelines for securitization of performing assets
2. Prudential guidelines on investment in non-Government securities were issued to Primary Dealers

2005: Reserve Bank of India has announced the launch of the electronic order matching trading module for Government securities on its Negotiated Dealing System (RBI-NDS-GILTS-Order Matching Segment, NDS-OM in short).

2006: Reserve Bank of India allowed intra day short selling in Government Bonds.