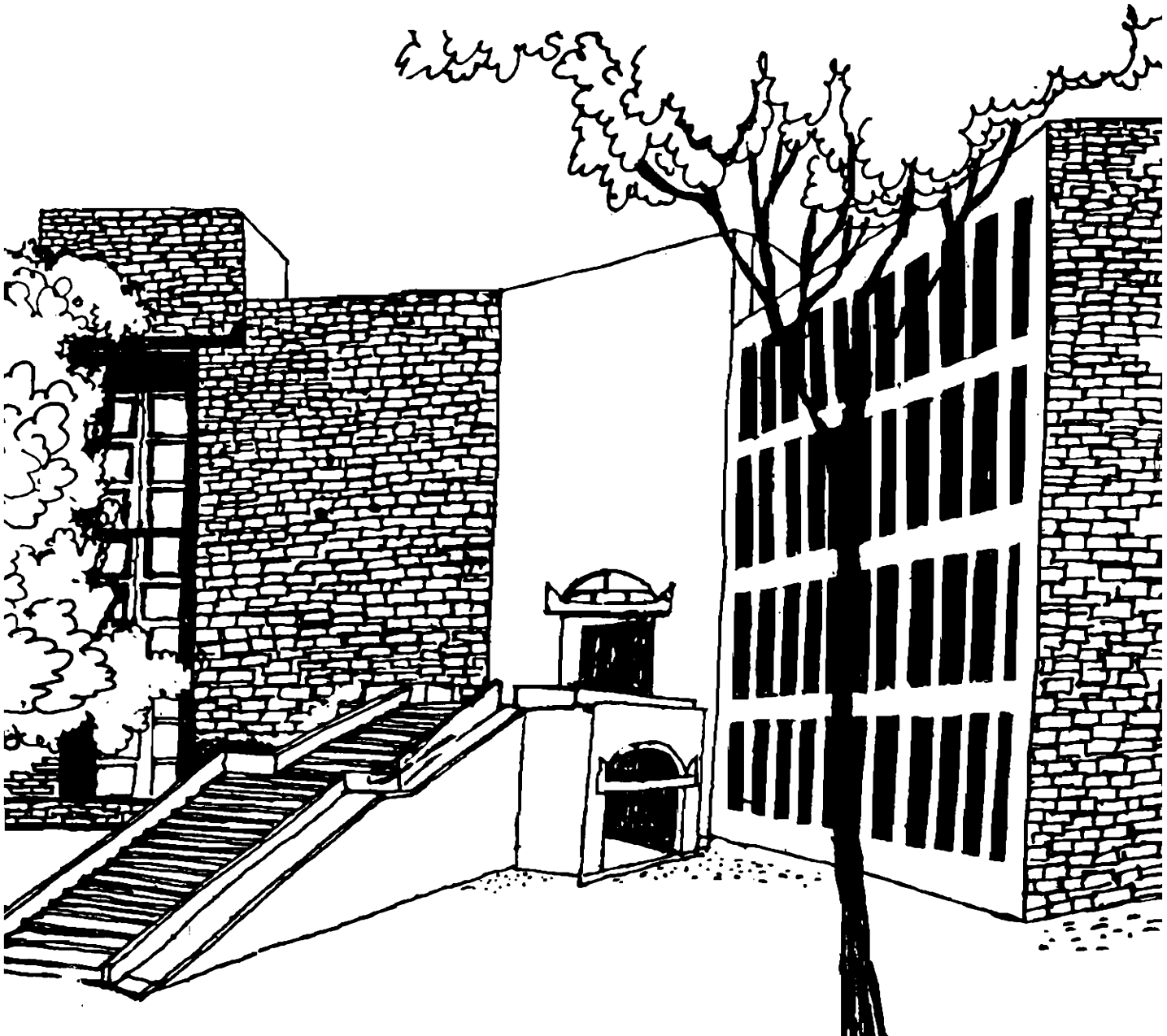




Working Paper



**ANALYSIS OF THE INDIAN SECURITIES INDUSTRY:
MARKET FOR DEBT**

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Analysis of the Indian Securities Industry: Market for Debt

Introduction

A major indicator of the level of development of an economy is the sophistication of its capital market. A well functioning capital market which has breadth to accommodate wide variety of investor preferences and depth to absorb large volumes of transaction would ensure that capital is allocated efficiently in the economy. Though the first stock exchange in India was established more than one hundred years ago, the capital market in India continues to be narrow, segmented and subject to stifling regulations. While the equity market has shown some encouraging growth in the last decade, fuelled by dilution of foreign ownership in the multi-national corporations operating in India in the late seventies, the market for long term debt has shown only a sluggish growth. .

The situation prevailing in the Indian capital market is sharply different from that prevailing in the other capital markets in the world. The bond markets in most countries tend to be larger than or at least comparable to equity markets in terms of size and activity. One of the main reasons for the phenomenal growth in bond markets is the increasing globalization of investor portfolios. Since governments are less wary of allowing foreign investment in bonds as compared to equity of domestic companies, there has been an increasing supply of bonds for international investors. In fact, one of the largest securities markets in the world is a bond market, the Eurobond market, which has an average monthly turnover of between \$300-500 billion. India can hardly choose to ignore this trend.

Since 1991, India has embarked on a large scale economic liberalisation and structural adjustment programme which includes modernisation and internationalisation of the financial sector. The government is making concerted efforts to attract foreign direct and portfolio investments. In such a scenario, it is imperative that India offers a complete and efficient capital market to attract foreign investment. With this objective in view, in this

paper, we have critically examined the market for long-term debt in India. After a retrospective, we have recommended measures to develop an active long-term debt market in India.

Savings of Household Sector

The flow of savings of the household sector to financial assets would be a good starting point to develop an understanding about the context in which we would discuss market for long-term debt. While the proportion of savings in any financial asset does vary from year to year, the overall pattern of investment has been fairly stable in the last several years. A representative pattern of proportions invested in various financial assets is presented in Table 1.

Table 1: Pattern of Investment in Financial Assets¹

Financial asset	Percentage
Currency	11.12%
Bank deposits	36.90%
Non-banking deposits	2.17%
Life insurance funds	9.26%
Provident and pension funds	17.54%
Claims on government	13.27%
Shares and debentures	4.35%
Units of Unit Trust of India	5.17%
Trade debt	0.23%
	100.00%

Of the above assets, only units, shares and debentures are securitized in standard convenient denominations and therefore have a secondary market. Thus only about 9 to 10% of the savings flows directly into financial assets that have a proper pricing mechanism.

Banks and Financial Institutions

A large part of the savings of the household sector flows into banks, financial institutions, life insurance and provident fund. The typical pattern of deployment of funds by these institutions is presented in Table 2.

Table 2: Financial Flows: Instrument-Wise²

Item	Banks	Other Financial Institutions
Currency and Deposits	-0.01%	30.63%
Investments:		
Central and State Government Securities	45.36%	7.33%
Other Government Securities	2.24%	1.89%
Corporate Securities	0.84%	11.34%
Bank Securities	0.00%	1.55%
Other Financial Institution Securities	3.68%	0.00%
Others	-0.67%	1.79%
Loans and Advances	49.21%	38.46%
Others	-0.65%	7.02%
	100.00%	100.00%

From the above it is clear that banks invested about 50% and other financial institutions about 55% of their funds in assets which are securitized and have a market. Thus, overall, about one half of the savings flow into securitized assets. We shall next examine the features of the markets in which these securitized assets are created and traded.

Debt-Securities Market

The market capitalization of the equity of companies listed in the stock markets, at the current BSE Sensitive Index (SENSEX) level of 2200, is estimated at Rs. 200,000 crore.^{3,4} The corporate debt market, in terms of face value, as at end of March 1992, was only about Rs. 30,000 crore. The outstanding market borrowings of the central and state governments was about Rs. 100,000 crore. The securitized debt market, in terms of face value, as at end of March 1992, was therefore about Rs. 130,000 crore:

	Rs. crore
Corporate bonds:	
private sector companies ⁵ :	10,000
public sector companies ⁶ :	20,000
	<hr/>
<i>Subtotal</i>	30,000
 Government securities ⁷ :	 100,000
	<hr/>
<i>Total:</i>	130,000

It would appear that the debt market is not much smaller than the equity market. However, the debt market is segmented, with each of the above three categories of securities attracting interest from a restricted set of investors. While private corporate bonds are mostly taken up by investment institutions such as the UTI and the individual investor, government securities are forced on the banks to fulfil their SLR/CRR obligations. The recent events in the debt market would be instructive for subsequent policy making for improving its functioning.

The market for PSU bonds and government securities became very active in the year 1991-92, in the wake of liberalisation of the economy. The cash rich PSUs were pumping the funds borrowed abroad into the banking sector under the Portfolio Management Scheme (PMS). This money was being invested in PSU bonds and government securities. These transactions were being done on a "ready forward" basis through use of Bank Receipts (BRs). It appeared for a while that perhaps at last, the debt market was indeed picking up in India. The market however collapsed like the proverbial house of cards, after the discovery of the scam in April 1992. The subsequent investigations revealed that behind the facade of doing transactions in bonds and government securities, the funds were in fact being diverted to the booming share market. It also appears that a significant part of increased transactions in government securities was based on speculation (and perhaps inside information) about the timing and the quantum of change in the coupon rate of new issue of government securities.

The scam dealt a big blow to the capital market, particularly to the bond market. The free pricing of new issues, which is being allowed since May 1992, and the high interest rates that prevailed during the second half of 1992, added to the woes of the primary market for bonds as increasingly larger number of companies started opting for financing their investments through equity rather than bonds. They are now in far worse a shape than they were before the scam.

We begin this study with a detailed analysis of each category of debt separately.

Private Corporate Debt Market

Composition, Size and Growth of the Corporate Debt Market

Most of the borrowing requirements of the private corporate sector in India have been traditionally met by intermediaries like commercial banks and financial institutions, which are predominantly owned or controlled by the government. The principal sources of debt finance to the corporate sector are as follows.

* *Long and medium term debt:*

Term Loans from Financial and Investment Institutions

Term Loans from Commercial Banks

Debentures and Bonds

Deposits from public

* *Short term debt:*

Working capital financing from banks

Short term deposits from Institutions

Inter-corporate deposits and loans

Deposits from public

Commercial Paper (CP)

Of the various sources listed above, the only debt instruments that are securitized are debentures/bonds and commercial paper and the latter itself was introduced in India only recently. The direct investment by public is only through the public deposit and debenture/bond routes, while other sources are essentially institutional in nature.

Borrowings through the issue of transferable debt securities like bonds and debentures were negligible until the eighties but in recent times issuance of debentures by the corporate sector has increased sharply reversing this pattern. Total debentures outstanding rose from Rs. 550 crore in March 1982 to Rs. 7500 crore in March 1991⁸. (As stated earlier, this figure is estimated to be about Rs. 10,000 crore in March 1992). The above trend is confirmed by the detailed data on the IDBI sample of 401 companies. Table 3 gives a break-up of corporate borrowings in terms of various sources for this sample over a 10 year period ending March 1991. As can be seen, debentures constituted 6.7% of total borrowings at the end of 1981-82, while by the end of 1990-91, the share of debentures had increased to 28.2%. Some of the factors which have led to this growth are:

- * Corporate managements reassessed the desirability of institutional term loans following the "unfriendly" role played by the financial institutions in the case of DCM Ltd. and Escorts Ltd. during Swaraj Paul's hostile take-over bids.
- * The government insisted that MRTP and other established and financially sound companies should take recourse to capital markets to finance their expansion or diversification programmes.
- * Despite the interest rate cap fixed by the government continuing at artificially lower levels (at 14% -15% p.a), institutional investors with their strong bargaining power managed to extract front-end discounts from issuing companies leading to much higher yields to maturity of 18% - 20%. Even in the case of PCDs and NCDs with warrants attached, the non-convertible portions known as *Khokhas* are being purchased from the individual investors by banks and institutions at a discount (to the face value) that would give them yields upwards of 20%.

This trend masks several important problems in the debenture market - the preponderance of equity linked instruments over pure debt securities, the dominance of investment institutions and the absence of a well developed secondary market - as discussed later.

Table 3: Borrowings by IDBI Sample of 401 Companies^o

	(Rs. in crore)									
	1982	1983	1984	1985	As at 1986	March 31 1987	1988	1989	1990	1991
LONG TERM (LT)										
Deb.	292	433	657	1179	1781	2416	3163	3689	5634	6335
Fin. Inst.	1354	1591	1791	2051	2373	2629	3271	3713	4468	5771
Banks	346	401	424	650	706	762	899	1096	1092	1245
LT Deposits	388	671	766	944	1048	1206	1474	1532	1704	1652
Others	347	434	601	913	840	786	869	1373	1027	1089
Total LT	2726	3530	4239	5737	6748	7799	9677	11403	13925	16092
SHORT TERM (ST)										
Banks	1266	1404	1449	1839	2360	2804	2895	3673	4599	5469
ST Deposits	215	76	47	83	220	82	68	108	93	119
Unse. loans	154	222	288	311	354	413	429	527	574	811
Total (ST)	1635	1702	1784	2233	2934	3298	3392	4307	5266	6400
TOTAL BORROWINGS	4361	5232	6024	7970	9682	11097	13069	15710	19191	22492
Debentures as % of:										
LT borrowing	10.7%	12.3%	15.5%	20.5%	26.4%	31.0%	32.7%	32.4%	40.5%	39.4%
Tot borrowing	6.7%	8.3%	10.9%	14.8%	18.4%	21.8%	24.2%	23.5%	29.4%	28.2%
FI, Bank LT borrowings as % of:										
LT borrowing	62.4%	56.4%	52.3%	47.1%	45.6%	43.5%	43.1%	42.2%	39.9%	43.6%
Tot borrowing	39.0%	38.1%	36.8%	33.9%	31.8%	30.6%	31.9%	30.6%	29.0%	31.2%

The principal debt instruments used by the private corporate sector are non-convertible debentures (NCDs) and convertible debentures (CDs). The latter can be further classified into fully convertible debentures (FCDs) and partly convertible debentures (PCDs). A brief description of these instruments is as follows:

NCDs: NCDs are secured on the assets of the issuing company. Till recently the coupon rates were subject to a ceiling (Table 4) specified by the Controller of Capital Issues (CCI) and the redemption periods of the NCDs were between 7 to 10 years from issue dates. All the issuing companies, irrespective of their financial profile, were issuing their NCDs at the ceiling rates. After the abolition of the office of the CCI, practically all restrictions on the terms at which NCDs can be issued have been removed. In the brief period since

then, the market has witnessed a wide range of coupon rates, reflecting the quality of earnings potential of the issuers.

CDs: While FCDs are fully convertible into equity shares in stages, PCDs are only partly convertible and non-convertible part assumes the character of NCDs. Like the NCDs, the coupon rate on CDs also had a ceiling (Table 4) specified by the CCI. In general, the terms of conversion of either a part or the entire paid-up amount into shares was kept in abeyance at the time of issue and decided only at the time of conversion by the CCI. The uncertainty about the conversion terms made it practically impossible to price the CDs rationally. This kink in the regulation does not exist any more since under the new guidelines, the terms have to be announced at the time of issue itself.

Table 4: Ceiling Rates on NCDs and CDs¹⁰
(in % per annum)

Year	Debentures (NCDs)	Convertible Debentures (CDs)
70-71	8	-
75-76	10.5	-
80-81	13.5	-
85-86	15	13.5 - 15
86-87	15	13.5 - 15
87-88	14	12.5 - 14
88-89	14	12.5 - 14
89-90	14	12.5 - 14
90-91	14	12.5 - 14

It is evident that the interest rate differential between NCDs and CDs is only marginal, given the significant potential for gains at the time of conversion of CDs. The coupon rates on the NCDs are comparable to the interest rates on company deposits (Table 5). While NCDs have the advantage of being secured, company deposits have lower maturity and are, perhaps, more liquid as the companies often permit premature encashment. It is perhaps for these reasons of better liquidity and comparable returns that company deposits emerged as a more attractive investment opportunity for individual investors than NCDs.

Table 5: Ceiling on Private Company Deposit Rates¹¹
(% per annum)

Year	Maturity			
	1 year	2 years	3 years	5 years
80-81	9 - 13.5	10 - 14.5	13 - 15.5	15 - 16
85-86	10 - 15	12 - 15	13 - 15	-
88-89	10 - 14	12 - 14	13.5 - 14	-
89-90	10.5 - 14	12 - 14	13.5 - 14	-
90-91	10.5 - 14	12 - 14	13.5 - 14	-

A summary of the capital issues by public limited companies in the private sector through prospectus and rights for a 10 year period is presented in Table 6. It is clear from the Table that pure NCDs account for only a small part of the funds raised by the private corporate sector. A large part of the debt has been raised through issue of CDs, which are basically pure debt instruments, sweetened by returns earned through conversion of a part of the debt into equity at lower than market prices.

Table 6: Capital Issues by Non-government Public Limited Companies¹²
(Rs. in crore)

Year	Equity	Pref.	CDs	NCDs	Total Deb	Grand Total	NCDs as % of Total Deb	% of Total Issues
1982/83	259	2	295	149	444	705	33.6%	21.1%
1983/84	382	2	360	94	454	837	20.7%	11.2%
1984/85	363	0	173	520	693	1056	75.0%	49.2%
1985/86	744	2	85	758	843	1589	89.9%	47.7%
1986/87	1008	1	1068	488	1556	2564	31.4%	19.0%
1987/88	1103	7	529	139	667	1777	20.8%	7.8%
1988/89	1032	3	1748	389	2137	3172	18.2%	12.3%
1989/90	1219	8	4762	484	5246	6473	9.2%	7.5%
1990/91	1286	13	2355	576	2931	4230	19.7%	13.6%
1991/92	1730	2	3489	531	4020	5751	13.2%	9.2%
1992/93 (Upto Sep)	3513	0	2724	1556	4280	7793	36.4%	20.0%

Note: Debentures exclude privately placed debentures.

Primary Market for Corporate Debentures

The relatively low share of debt securities in the funds raised from the market by companies is in sharp contrast to the trend in the developed countries. The main reasons as to why the market for corporate debt securities did not develop are as follows:

- * Till recently, the long term debt requirements of industry were met by the government owned/sponsored specialised development banking institutions like the IDBI, ICICI and IFCI and state level agencies and investment institutions like the LIC, GIC and the UTI on very favourable terms. The loans from these institutions were available at low interest rates with long repayment periods of 5 to 7 years after initial moratorium of 2 to 3 years. In addition, concessional terms were provided for various categories of investments such as backward area projects and export oriented projects.
- * Commercial banks were also supplementing the institutional term financing in a limited way, at interest rates which were lower than their rates for short-term (working capital) lending.
- * Issuing debentures, not only involved issue costs that could exceed 5 to 6% of the issue amount but also servicing and administrative costs relating to registration and transfer, payment of interest, etc.
- * The tight government regulations which required CCI approval for issues of even moderate size meant that there was no scope for designing innovative instruments that were unfamiliar to the bureaucrats manning the CCI's office. Therefore, while the markets in the developed countries witnessed introduction of a plethora of innovative debt instruments in the eighties, structured to meet the specific needs of varied investor profile, hardly any innovations were introduced in the Indian market.

Thus there was no incentive for issuing companies to issue debentures when the same funding requirements could be more efficiently met through institutional loans. In addition, the demand for corporate debt securities was affected by the following:

- * While interest income on bank deposits, public sector bonds, dividend income on shares and UTI units - all qualify for tax exemption up to certain limits under Section 80 L of the Income Tax Act, debenture interest is fully taxable. In addition, there are a large number of tax savings instruments such as NSC, PF and PPF where the annual investment receives generous up front tax benefits along with tax-free interest earnings. Even investments in new equity issues received limited tax breaks with potential for tax exempt dividends and effective lower tax rates on capital gains. Thus on (after tax) return-risk criteria, debentures with interest rate restrictions were no match for other investment avenues. The redemption period of 7-10 years too was dauntingly long given the ever present threat of inflation rising to and remaining at double digit figures, which would lead to negative real returns. There was therefore little incentive for the household sector to invest in corporate debentures.
- * Absence of a credit rating mechanism until recently and inverted interest structure and interest rate ceiling ensured that potential investors had no opportunities for risk return trade-offs along a rational yield curve based on reliable information. This discouraged individual investors from investing in these securities.
- * The institutional investors such as provident funds and trusts were kept out by government restricting their investments only to government securities and government administered deposits. Consequently, the institutional investor base became confined to UTI, LIC and GIC, which any way participated in the consortium financing anchored by the development banking institutions.
- * With the government crowding out the fixed income securities market through mandated investments by banks (CRR and SLR investments) and the life and general insurance companies, the investment in fixed income corporate securities

necessarily received only limited institutional interest. The government's permission to the public sector units (PSUs) to issue bonds in mid eighties, added to the woes of corporate debentures. The issue of tax-free PSU bonds became a major investment attraction for high-tax bracket foreign banks, companies and in a limited way, high net-worth individuals.

Secondary Market for Debentures

Given the reasons for a poorly developed primary market for corporate debt security, it is hardly surprising that there is practically no secondary market for these securities. The reasons for a dormant secondary market are as follows:

- * As the primary market itself is quite small, adequate stock of securities does not exist for a secondary market to evolve and develop. As a result of this a vicious circle has developed: absence of liquidity affects the primary market and that limits the stock of outstanding securities, which hinders development of a secondary market.
- * Individual investors have, for reasons detailed earlier, kept out of the corporate debt market. This is in sharp contrast to the share market where individual investors are active operators.
- * The narrow base with only a limited number of institutions (such as the UTI, LIC and GIC) holding corporate debt securities implies that sufficiently large number of traders are not present for evolution of an active market. As provident funds and trusts are not allowed to invest in corporate securities, these traditionally major players in developed countries, are absent.
- * For a variety of reasons, most of the institutions hold the debt securities to their maturities and do not actively shuffle their portfolio. Aggressive trading of the kind witnessed in other markets like the UTI units and the tax-free PSU bonds is not seen.

- * Absence of market makers has also impeded the development of the secondary market.
- * Absence of information disseminating mechanism such as credit rating until recently, was also a constraint against trading in the secondary market.
- * The corporate debentures issued in India are the type that require registration with the issuing companies. The transfer and registration procedures are cumbersome and involve registration charges, thereby dissuading a would be investor.

For these reasons the trading of debentures in the secondary markets has been extremely narrow and thin despite their being listed in several stock exchanges.

Recent Institutional Developments

The securities industry witnessed the emergence of a host of new institutions, instruments and regulatory reforms in the recent past both in the larger context of the structural reforms implemented from June 1991 and in some cases even prior to this period. While the critical financial sector reforms in the light of the Narasimham Committee (1991)¹³ recommendations are yet to be carried out, the developments that have already taken place have major implications for the corporate debt securities markets. These are listed below.

Deregulation of interest rates

In a significant move the government has partially deregulated interest rates in the country; as a result the interest on corporate debentures can be fixed by the company managements based on the market's risk-return expectations. As a prelude to eventually allowing free play of market forces, the government has also been progressively increasing the coupon rate on its own borrowings. These measures have to some extent corrected the distortions in the economy wide yield curves. Thus the long term corporate bond yields are currently above the short term bank rates and unlike in the past companies are free to

fix coupons to meet the market's yield requirements. This should in due course improve new issues.

Abolition of the office of CCI

With the abolition of the office of the CCI in 1992, it is relatively easier for companies to make new issues. The resulting freedom in issue pricing has sharply increased the primary market volumes during 1992-93 for all types of securities. This trend is likely to continue.

Establishment of credit rating agencies

Two credit rating agencies are operational currently: CRISIL (Credit Rating and Information Services India Limited), ICRA (Information and Credit Rating Agency). As of March 1993, the older of these rating agencies, CRISIL, had rated 306 debenture issues amounting to Rs 18555 crore of various issuers out of which the ratings of 220 issues amounting to Rs. 11848 crore have been used by the issuers. Credit rating has removed a major lacuna in the availability of information in the market. This coupled with interest deregulation permits the yields in corporate bonds to be linked to the underlying risk represented by the ratings.

Emergence of the mutual funds industry

The institutional investor base that was largely confined to the UTI, LIC and the GIC (and its subsidiaries) until the late eighties has been widened with the emergence of a number of mutual funds sponsored by various nationalised banks. These funds, especially the income funds, have emerged as active investors in corporate bonds.

SEBI has also granted about 10 approvals for establishing mutual funds in the private sector. When the private sector mutual funds take off in a big way, the corporate debt markets could become more active.

Establishment of the Over the Counter Exchange of India (OTCEI)

The OTCEI promoted by the investment institutions such as the UTI and LIC has become operational in 1992. Though started mainly for trading in shares of small sized companies, from June 1993, OTCEI has also started trading in corporate debentures. OTCEI is operating with the concept of market makers with two way quotes. As of now (July 1993) trading in both the shares and the debentures listed is thin.

Establishment of The Stock Holding Corporation of India Ltd (SHCIL)

The SHCIL, promoted by the IDBI, IFCI, ICICI, UTI, LIC and others, became operational in 1988. It is to perform the depository and custodial services in respect of the investments of its promoter institutions (to begin with) such as share transfer and registration through book entries, safe custody of securities, collection of dividend and interest etc. Its experience should go a long way in simplifying the transfer procedures.

Entry of Foreign Investment Institutions (FIIs)

Following a series of policy initiatives involving taxation, exchange control and other areas, nearly 50 FIIs have been granted permission to undertake portfolio investments in Indian company equities. Some of them have also started operations in a limited way. Though currently FII investments are permitted only in equities, there is a case to allow them to invest in debentures also.

The Proposed National Stock Exchange of India (NSE)

The NSE, being promoted by the IDBI and other institutions, is expected to play an active role in developing an active market for debt securities. This is likely to be operational by early 1994 with screen based trading and paperless settlement system.

Reforms Needed

The important changes discussed above have set the stage for the development of an active market for debt instruments. In this context, the following policy initiatives are called for:

- * Provident Funds should be allowed to invest a portion, say, upto 20% of their investible funds in high grade corporate securities. Until recently, they were allowed to invest only in government securities and special deposits; this has now been relaxed to allow investment upto 15% in the bonds of the financial institutions. Similarly charitable trusts should also be allowed to invest a portion of their funds in investment grade corporate bonds.
- * Financing facilities should be allowed against the security of the bonds, both for traders and individual investors. This will provide liquidity in the short run and enable the emergence of market makers in the longer run.
- * Foreign Institutional Investors (FIIs) should be allowed to invest in corporate bonds with appropriate limits.
- * Since individual investors are active investors in company deposits that are not transferable securities, it would be desirable to wean them away from deposits into debentures. To facilitate this, the following incentives may be granted:
 - * Harmonizing the tax treatment accorded under Section 80L of the Income Tax Act to bank deposits and debenture interest.
 - * Abolition/reduction of transfer fees.
 - * Provision of a safety net (until secondary market develops actively) to provide instant liquidity like company deposits.

PSU Bonds Market

The government allowed the Public Sector Undertakings (PSUs) to raise money directly from the capital markets through issue of bonds from 1985-86 onwards. As of June 1992, the outstanding amount of bonds was about Rs. 20,500 crore. These bonds have been issued by 19 PSUs and about 55% of these are tax-free bonds, a majority of which carry a coupon rate of 9% (a few carry a rate of 10%). The taxable bonds carry coupon rate of 13% or 14%, though a few do carry coupon rate of 17% or 18%. The bonds in general have a 7 year maturity. Since these bonds are not guaranteed by the government, they do not qualify for SLR investment.

The coupon rates on these bonds over the last several years are presented in Table 7. Since the coupon rates on the taxable bonds were not competitive from the investors' perspective, no attempt was made to sell these bonds to the public at large. Instead, they were sold to bulk buyers, such as banks, mutual funds, corporations and other cash rich PSUs. The effective yields on the bonds were adjusted upward, either through giving a discount or allowing the investors to retain the funds for a period as a deposit or investment under the Portfolio Management Scheme (PMS). Initially these bonds could be transferred through endorsement and delivery, though registration with the company became necessary subsequently, because of the different bases for tax deduction at source.

Table 7: Ceiling on Coupon Rate on PSU Bonds¹⁴
(% per annum)

Year	Taxable Bonds	Tax-free Bonds
85-86	14	-
88-89	13	9
89-90	13	9
90-91	13	9

Table 8: Ceiling on PSU Company Deposit Rates¹⁵
(% per annum)

Year	1 year	Maturity 2 years	3 years
80-81	11	12	13.5
85-86	11.5 - 12	12 - 13	13.5 - 14.5
88-89	10.5 - 12	11.5 - 13	13 - 14
89-90	10.5 - 12	11.5 - 13	13 - 14
90-91	10.5 - 12	11.5 - 13	13 - 14

Most of these bonds are not listed in the stock exchange. They do not have a true market and there is no market maker for these bonds. The bonds are quite illiquid, since the PSUs do not offer any buy back facility to investors. In most cases trading is difficult because a single certificate may be issued for a very large number of bonds, making it difficult to sell a part of the holding. All these factors have affected the market for PSU bonds, and most of the bonds are held by institutions who are able to derive higher than stated returns through non-transparent methods mentioned earlier. From Table 8 it is further evident that investors can derive the same returns from PSU deposits, but with lower maturity periods.

Reforms Needed

It is clear that in the emerging economic scenario, the PSUs would have to increasingly raise resources directly from the market than depend on budgetary support from the government. It would therefore be necessary for them to make their bonds attractive to a wider set of investors. The following measures are required to develop the market for PSU bonds:

- * The terms of PSU bonds should be market based, in line with the terms of private corporate bonds. This is necessary to ensure that individual investors also become interested in these bonds. Since all restrictions on terms that can be offered have been removed for private corporate bonds, the restriction on terms of PSU bonds should be removed.

- * These bonds should be compulsorily rated before they are issued in the primary market, and adequate disclosure should be made in the prospectus.
- * The bonds should be listed in regular stock exchanges, the NSE or the OTCEI so that it becomes easy for individual investors to transact in these bonds.
- * The bond certificates should be in standard trading unit so that all transactions can take place in multiples of the trading unit. The trading unit should be of a convenient size so that even individual investors can invest in these bonds.
- * The PSUs should have some buy back arrangement for the bonds to improve their liquidity. They could also set aside some part of the funds raised to support market makers in these bonds.
- * Since the existing stock of these bonds is fairly large, the above measures should be made applicable retrospectively, with all associated costs being borne by the PSUs that have issued these bonds.
- * As recommended by Nadkarni Committee all bulk investors become members of a Centralised Agency which will operate an electronic book-entry and clearance system and would also act as a Depository (as a National Clearing and Depository System or NCDS) and their transactions in PSU bonds be cleared and settled through the NCDS within the Stock Holding Corporation of India Limited (SHCIL) as is already being envisaged.

Government Securities¹⁶

Just like an individual or a corporation, the government too often needs to borrow to finance its operations. The securities issued or guaranteed by either the central government or the state governments to create this public debt are known as government securities. Since government guarantees repayment, the risk of default for these securities

is quite low. Therefore, these are also known as gilt-edged securities. The risk being low, these securities usually have low coupon rates and yields.

The saga of public debt began when the Government of India took over the operations of the East India Company way back in 1834. Since the liabilities of the company were assumed by the government, the debt of the company became public debt. The modern era of public debt however began with the establishment of the Reserve Bank of India (RBI) on April 1, 1935. The Public Debt Act 1944, specifies that RBI is responsible for administration of public debt of both the Central and the State Governments. Within the RBI, the management of public debt is done by the Public Debt Offices (PDOs) located in about a dozen cities in India. Each office operates independently and is responsible for managing all transactions that take place in government securities within its jurisdiction.

Types of Government Securities

There are three different types of instruments used for borrowing by the government.

- * The first kind of instrument is a similar to a corporate security, where the certificate carries the names of the holders which are also registered with the Public Debt Office. These securities can be transferred from the seller to the buyer by sending the certificate to the PDO along with a transfer deed executed in favour of the buyer. The interest on these is paid by the PDO to the holders registered with it on specified date of payment.

- * The second kind of instrument is a promissory note issued to the original holder which contains a promise by the President of India or the Governor of a State to pay according to a specified schedule printed on the note. The note can be transferred to the buyer through endorsement by the seller in the cages printed on the back of the note. The interest and other payments requires that the note be presented to the Government Treasury or to other designated authorised agency by the current holder of the note.

- * The third kind of instrument is a bearer security, where the payment is made to whoever holds the security on the scheduled day of payment.

The PDO also acts as the custodian of the government securities held by the banks and other institutions. These holdings are not evidenced by physical securities but by book entries in the Subsidiary General Ledger (SGL) maintained in the PDO. Transfers are then carried out by using an SGL transfer form which instructs the PDO to transfer the securities from the account of one bank to another. Thus a form of scripless trading exists in the inter-bank market. The securities scam highlighted several deficiencies in the functioning of this system and these are being corrected.

Size, Growth and Ownership of the Public Debt

Over the years, because of consistent deficit financing, there has been an explosive growth in borrowing by the government. As on March 31, 1991, the Central and State Government securities outstanding stood at Rs. 85815 crore (Table 9).

Table 9: Central and State Government Loans¹⁷
(in Rs. crore)

End of March	GOI Loan	State Govt Loan	Total Amount
1971	4385	1233	5618
1976	7104	2107	9211
1981	15665	5143	20808
1986	35303	6151	41454
1987	40053	7296	47349
1988	47830	8793	56623
1989	55102	10717	65819
1990	62520	12920	75440
1991	70377	15438	85815

The maturity pattern of securities (Table 10) indicates that the proportion of long dated securities (maturing after more than 10 years) has steadily increased over the years.

Table 10: Maturity Pattern of GOI Rupee Loans¹⁸

(in %)

End of March	Over 10 yrs.	Between 5-10 yrs.	Under 5 yrs.	Total Amount
1971	43.00	14.50	36.60	4385
1976	57.50	22.60	16.30	7104
1981	70.00	16.50	11.90	15665
1986	73.60	15.50	10.20	35303
1987	77.10	12.00	10.90	40053
1988	80.40	9.80	9.80	47830
1989	81.80	9.00	9.20	55102
1990	83.00	6.00	11.00	62520
1991	85.80	5.60	8.60	70377

Since the government needs to raise resources at low rates for developmental work, commercial banks, insurance companies and provident funds are statutorily required to keep a specified part of their total investment in certain specified assets which include government securities. Though the stated objective is to ensure that these agencies and funds have a certain minimum percentage of their investment in low risk liquid assets, the covert objective is to finance the burgeoning needs of the government to support its programmes. This is clearly seen in the evolution of the Statutory Liquidity Ratio (SLR) for banks. The original stipulation in the Banking Regulation Act was that the banks must hold 20% of their demand and time liabilities (DTL) in liquid assets (cash and balances with RBI) and approved (government) securities. Subsequently, in 1962, cash and RBI balances were removed from this ratio and the requirement of a minimum Cash Reserve Ratio (CRR) became an additional burden over and above the SLR. Simultaneously, the SLR was raised to 25%. Throughout the 70s, the SLR continued to go up reaching a level of 35% in 1981. In early 1992, the SLR stood at 38.5% and the CRR at 15% implying a total preemption of 53.5% of the DTL of the banks. Since then, the government has announced its intention to reduce the SLR to 25% and the CRR to below 10% over a period of 3-4 years and has cut the incremental SLR to 30%. Even after the phased reduction is complete, the combined SLR and CRR requirement would be about 35% compared to 20% before 1962.

The ownership pattern of Government securities over the years is presented in Table 11.

Table 11: Ownership Pattern of Central and State Govt. Securities¹⁹

(in %)

Owner	Central Govt. securities			State Govt. Securities		
	1988	1989	1990	1988	1989	1990
State Govt.	0.60	0.50	0.40	-	-	-
RBI	18.50	20.10	22.60	-	-	-
Comm. Banks	50.50	52.20	53.40	79.50	79.10	79.50
LIC	12.20	12.50	12.90	4.10	5.20	6.00
Empl. PF	1.70	1.30	1.10	2.50	2.30	2.70
CoalMinesPF	0.50	0.40	0.40	1.10	0.90	1.00

As mentioned earlier, the RBI exclusively manages the government securities market. The amount of resources needed by the government determines the supply of government securities. Taking this requirement and the investible resources of the major subscribers to government securities, the RBI can and does alter the proportion of investment that these subscribers must statutorily invest in government securities, to ensure requisite demand. The terms of issue are decided by the RBI in consultation with the government, keeping in view the yield structure prevailing in the market. Thus the RBI has monopoly control on the primary market for government securities and the buyers of these securities have no option but to invest a specified part of their funds in these securities.

Secondary Market in Government Securities

The secondary market in government securities till recently was dominated by the RBI and few large Indian commercial banks. The RBI intervenes in the secondary market through open market operations and switch deals, to ensure that the trading banks are able to earn a decent return on their holdings. It plays the role of a market maker in government securities by giving two way quotes for all the securities. The market underwent a sea change in the year preceding the discovery of securities scam. Some of the foreign banks started trading

aggressively in the market based on forecast of changes in the terms of offers of new issues of government securities. The volume of transactions rose to record levels in the year 1991-92, fuelled by speculations on coupon rate changes. The clamp down on the "ready forward" transactions has ensured that they revert back to the earlier days when the yield structure prevailing in the market would be almost entirely influenced by RBI's market operations.

Coupon Rates and Yield

The nominal interest (coupon) rate on government securities has more than doubled in the last 20 years. From a rate of 5.75% in the early 70's it has reached 13.5% today. Through the 70's, the coupon rate inched upward typically by 0.25% at a time. Sharp changes in the coupon rate took place in the 80's particularly in the first half. These changes in the highest coupon rate are summarized in Table 12.

**Table 12: Coupon Rate Changes in the 80's
(Government of India Securities)²⁰**

Year of Issue	Coupon Rate	Maturity Date	Years
1980-81	7.50	2010	30
1981-82	8.00	2011	30
1982-83	9.00	2013	30
1983-84	10.00	2014	30
1984-85	10.50	2014	30
1985-86	11.50	2015	30

Throughout the second latter of eighties, the maximum coupon rate remained fixed at 11.5%, but this rate became applicable to 20 year maturities also in 86-87. After a gap of five years, the coupon rates rose sharply again in the 90s. In 1991-92, the coupon rate on government securities was raised to 12.5%, in 1992-93 to 13% and in 1993-94 to 13.5% (the last hike being in respect of state government securities).

The yields on government securities observed over the last two decades are presented in Table 13. The yield curves have tended to be mildly upward sloping, indicating that investors require compensation for the risk of longer maturity periods. However, of late, the yield rates

have shown large fluctuations and the curve itself has become flatter with little premium being available for longer maturity securities. One reason for this could be that increasingly the market may be believing the government propaganda that India has entered an era of low, single digit inflation.

Table 13: The Yield Rates on GOI Securities²¹

Year	1-5 years	Maturity 5-15 yrs	> 15 years
70-71	3.85 - 4.28	4.32 - 4.84	4.77 - 5.53
75-76	5.20 - 6.04	5.47 - 6.02	6.08 - 6.48
80-81	4.74 - 6.01	5.80 - 6.75	6.44 - 7.49
85-86	5.42 - 9.84	6.49 - 9.50	8.38 -11.50
88-89	7.03 -23.88	6.76 -13.77	9.36 -11.73
89-90	7.56 -18.36	7.69 -15.06	10.05 -11.80
90-91	7.04 -21.70	9.44 -12.70	10.86 -12.00

Reforms Needed

The preceding discussion clearly brings out that the government securities market is of the RBI, by the RBI and for the government. The major players in the market are banks and institutions who are forced to be in the market through regulations on the composition of their investment portfolios. The structural adjustment programme India is going through requires that the government must reduce budgetary deficit. This would imply that the government borrowing would have to reduce. In addition, the programme requires the government to deregulate the financial markets. In light of this, the reforms needed in the government securities market are as follows:

- * The coupon rates on government securities should become market based, so that they become attractive to individual investors and mutual funds.

- * While large institutional investors may continue to maintain SGL accounts with the PDO, to cater to the smaller investors, the securities must be securitized in convenient, standard denominations.
- * The government should allow brokers to participate in the government securities market as market makers.

Housing Finance and Securitization

The housing stock in India is valued at about Rs. 300,000 crore²² and is one of the largest components of the country's capital stock. Though real estate is an excellent collateral for debt, the mortgage finance market in India is very poorly developed for a variety of reasons. First of all, the formal sector (banks, insurance companies, housing finance institutions and other financial institutions) have concentrated on lending for new housing construction. But even in financing new housing, the role of the formal sector is very small. A study group of the planning commission found that only 16% of the financing need was met by the formal sector and the remaining 84% came from the households themselves or their employers²³.

Some of the institutions that are active in housing finance are the National Housing Bank (NHB), the Housing Development Finance Corporation (HDFC) and the Life Insurance Corporation (LIC). NHB acts as a refinancing institution and till the end of November 1992, the cumulative refinance extended by it amounted to about Rs. 1,370 crore²⁴. The Life Insurance Corporation's cumulative lending to the housing sector upto 31-3-1992 amounted to Rs. 5,550 crore of which individual mortgage loans amounted to Rs. 1,390 crore²⁵. Cumulative loan approvals and disbursements by HDFC amounted to Rs. 3,615 crore and Rs. 2,875 crore respectively.

The National Housing Policy has recognized the need to integrate housing finance into the rest of the capital markets. This requires several major changes in the way that housing finance is organized currently²⁶:

- * Subsidized interest rates on housing finance would have to be gradually eliminated.

- * Housing finance institutions should have access to funds on a competitive basis with other financial institutions.
- * A secondary mortgage market must be created to attract funds from a wide range of investors.

The key step in the creation of a secondary mortgage market is the securitization of mortgage debt. Since mortgages are very safe and secure assets, they are the ideal candidate for securitization. The advantages of securitization of mortgages are:

- * By tapping a wider investor base, it will reduce the funds constraint in housing finance.
- * By making mortgages more easily tradeable, it will improve the tradability of encumbered real estate. Thus the real estate market will be better integrated with the rest of the financial system.
- * It will enable, the vast banking network to provide housing finance without committing its own resources on a large scale. This will complement the intended objective of NHB to refinance housing loans.
- * It will provide investors with a new fixed income security as a channel for investment.

There is a great deal of international experience available on how mortgage backed securities can be successfully created and traded. The major problems in doing that in India are of a legal nature dealing with land ceiling laws, stamp duties and foreclosures. There is a general agreement that changes need to be made in this area, but progress on the actual legislation has been rather slow. Meanwhile, it may be possible to circumvent some of the legal constraints by resorting to the existing laws on trusts and cooperatives.

Initiatives Needed

In the US securitization of mortgages has taken several forms of which the most important are Pass-through Certificates, Mortgage Backed Bonds and Collateralized Mortgage Obligations. We think that in the Indian context, mortgage backed bonds and collateralized mortgage backed obligations are more sophisticated instruments which can evolve later in response to investor needs. Mortgage securitization in India should begin with pass-throughs. Mortgage pass-throughs are created by an "originator" who has to perform the following important functions:

- * The originator pools together several housing mortgages of similar maturity and issues pass-through certificates which represent an undivided interest in this pool.
- * The mortgages which are being pooled would have arisen from housing loans given by the banks, housing finance institutions or other lenders. The originator would buy these loans from the lenders who would continue to service the loans; they would collect the instalments from the house-owners and pass them on to the originator for a fee.
- * The originator performs credit enhancement by guaranteeing the timely repayment of interest and principal. The originator would charge a fee for this. A separate agency (for example, an insurance company) could perform this credit enhancement.
- * The originator would pass on the interest and principal repayment to the investors who have bought the pass-through certificates.

In our view, the National Housing Bank (through a separate subsidiary if necessary) will be the best agency to take up the function of the originator of pass-through certificates. Since the mandate of the NHB is to refinance housing loans, securitization can be regarded as an obvious extension of this role. The NHB also has adequate capital resources to perform the functions of an originator. If necessary, the credit enhancement provided by the NHB could be backed by a government guarantee in the initial stages²⁷.

Securitization of other debt

It is our view that securitization should be first attempted in the field of housing finance as this is the area in which the need is greatest, the volume is large and the chances of success are also high. In later phases, securitization can however be extended to several other forms of debt:

- * Non-residential mortgages can also be securitized on the same lines as residential mortgages except that each piece of commercial property is unique and the benefits of pooling which are available in housing loans are not available to the same extent in the case of commercial buildings.**
- * Term loans of the development financial institutions can be securitized very easily by converting them into debentures. The advantage is that the DFIs would generate resources at a time when their traditional sources of funds are drying up. The prerequisite for this is the creating of an active market for these debentures, and the DFIs may themselves have to become market makers. The second problem is that the term loans have convertibility options; either the interest rate has to be renegotiated to eliminate the conversion clause, or a mechanism has to be found to pass this option on to the debenture holders after securitization loans.**
- * Car loans and other consumer loans can be securitized easily as there is a historical default rate available to price the securities. The problem is that the volume is not high enough today. In the coming years, these loans are likely to become much larger as banks move more aggressively into these profitable lines of business, and there may be a securitization possibility 3-5 years in the future.**

Innovative Debt Securities

Recent Innovations

Indian debt market has remained static for quite long and innovations in the market are just about beginning to appear. Most of these innovations have been in the primary market rather than in the secondary.

New Plain Debt Instruments

Certificates of Deposit, Deep Discount Bonds or DDBs (or Zero coupon Bonds or ZCBs) and Special Premium Notes or SPNs (linking debts with warrants) have been some of the nascent entrants to the Indian debt market. In yet another recent debt instrument, the entire interest was paid up front! Unfortunately, the secondary market for even these instruments continues to be restricted for various reasons. Certificates of Deposit at Rs 25 lakh a deposit are primarily restricted to the corporate or institutional investor. The DDBs and SPNs continue to be dogged with the uncertainty of the tax treatment of the accrued interest. We recommend that unambiguous position on the tax treatment on all new instruments be brought about speedily, so that the market is able to price these instruments appropriately in the secondary market.

Hybrid Debt Instruments

A hybrid typically incorporates the characteristics of two different securities in a single security. A convertible debenture (CD) has been a well known hybrid in India over the years.

Some of the innovative hybrids have come in the form of "ZCBs", where the "ZCBs" at maturity were redeemed not in cash at a prespecified terminal value but in the form of shares, whose value is variable. Other innovations have been in the form of converting the interest rather than the principal of a debenture into equity. Yet other debentures have had warrants

attached as sweeteners. In fact there is no dearth of possibilities even with the warrants, which can range from simple equity warrants to bullion or index linked warrants.

Most of the observed innovations have helped in promoting the debt instruments in the primary market, though the secondary market has remained more or less lacklustre. One reason for this may be that the tax implications of such instruments (including ordinary ZCBs and DDBs) have continued to remain ambiguous. As a result, the pricing of such instruments in the market has suffered, resulting in the relative sluggishness of such instruments in the secondary market.

Asset Backed Instruments

Asset based securities are essentially securitized debt. In the short term money market, such instruments have been in existence for long in the form of bill discounting. The typically Indian variation of bill discounting in the form of *Hundis*, for example, have been around for centuries. Newer forms such as factoring have also begun to appear. However, securitization of long term debt is a vast undeveloped market which is beginning to attract attention, especially in relation to housing finance. Securitization of housing mortgages have been recommended elsewhere in the report.

Proposals for New Instruments

We recommend that there be virtually no bar on financial innovations in the securities market in general and the debt market in particular. Further, we recommend active encouragement of certain specific forms of new instruments in the categories briefly enumerated below. While the private sector should be the best vehicle to assume initiative with respect to these instruments, it is important that correct signals are provided by the government in ensuring that unnecessary delays and dithering do not kill such initiatives in the foetal stage. It may be equally desirable if the government itself takes the necessary initiatives in issuing these newer forms of debt instruments in its effort of mobilizing public debt.

Floating Interest Rate Bonds

With the interest rate being allowed to be market determined, we recommend that bonds with floating interest rates be introduced at the earliest. Such a bond, both in the corporate sector and the Government, will enable the investors to benefit from the interest rate hikes and protect the issuers in case of decrease in interest rates.

Interest Rate Swaps

Once floating interest rate bonds are in place aside the fixed interest rate bonds, we recommend that interest rate swaps are also introduced simultaneously, to bring about an active secondary market for both through enabling the exploitation of the spread across the two securities. Such an instrument will be indispensable to the large mutual funds, pension funds, gratuity funds and other investors for the management of their interest rate risk.

Allowing such swaps would aid the primary market in debt by allowing the corporate sector to structure their debt in accordance with their preferences of interest payments and enable the corporate sector as well as the investors to manage their sensitivity to interest rate changes better. Since the mechanism involves only interest rate adjustments, it would aid bringing about an active secondary market in debt.

Dual Currency Bonds

Dual currency bonds are essentially debt offered in one currency while the interest payments and redemption are determined in another. With the freeing up of the Indian Rupee and globalization of funds mobilization afoot, we recommend introduction of dual currency bonds in three or four limited hard currencies. Such an instrument will help bring about the much needed integration between the Indian forex market and its capital market.

Of course, such an instrument will imply indirect allowance of free convertibility of Rupee on capital account as well. In fact, the bonds could be used precisely for that purpose as a precursor to the eventual full convertibility, on revenue as well as capital account. In the

meanwhile, to avoid anxieties concerning the outflow of interest in hard currency, a beginning could be made with dual currency DDBs.

Indexed Bonds

An indexed bond is essentially meant to be a hedge against a certain bench mark; the bench mark being the inflation index, a certain currency index, stock market index, the bullion index or even the commodity indices. We recommend the introduction of such bonds on the ground that such an instrument will help integrate the capital market with the rest of the economy more effectively.

Bull/Bear Bonds

There is strong opposition to the creation of stock index futures in India at this stage, in the light of the worldwide experience with such futures. The bull and bear market is a very useful instrument in the absence of stock index futures. The redemption of a Bull/Bear bond is linked to the stock market index; typically, the bond is issued in two tranches - the bull tranche's redemption value rises as the index rises above a prespecified level and the bear tranche's redemption rises as the index falls below a possibly different prespecified level. Such a bond is likely to be a reasonable surrogate to an index futures, without their inherent speculative features.

Derivative Instruments

We recommend a limited introduction of options and futures on debt instruments with a view to aiding the activity in the secondary market. This recommendation has also been dealt with elsewhere in the report.

Comprehensive Recommendations

Integration between the Regulated Market and the Free Market

The yield curve in the Indian debt market (see Fig. 1) consists of two disjoint curves - an upward sloping yield curve for the regulated market (bank deposits and government securities) and a flat curve at a much higher level for the free market (*high-grade* corporate debentures and intercorporate deposits). Integration between these two markets is necessary for the healthy development of the debt market. A small part of the difference between the two yield curves can be attributed to risk as corporate debt (even of AAA companies) is subject to a higher degree of default risk than bank deposits and government securities. However, adjusting for risk would still leave a large disparity between the two yield curves. At present, there are three major reasons for this disparity:

1. There appears to be a divergence of views regarding inflationary expectations. The rates in the regulated market are reasonable given the current inflationary levels of 6-7%, but the rates in the free market are more appropriate on the basis of historical inflationary expectations of 12% or more. At bottom, this divergence of expectations can be traced to political uncertainty about whether the current fiscal adjustment programme will continue in future.
2. Quantitative restrictions of various kinds on corporate borrowings from the banking system lead to a situation where highly creditworthy companies are often unable to obtain bank finance to the extent that they would like. They are then forced to borrow in the free market at higher rates of interest.
3. Certain tax incentives are available to investors in the regulated market which are not available in the free market.

Fig 1: Indian Debt Market
Schematic Yield Curve(s)

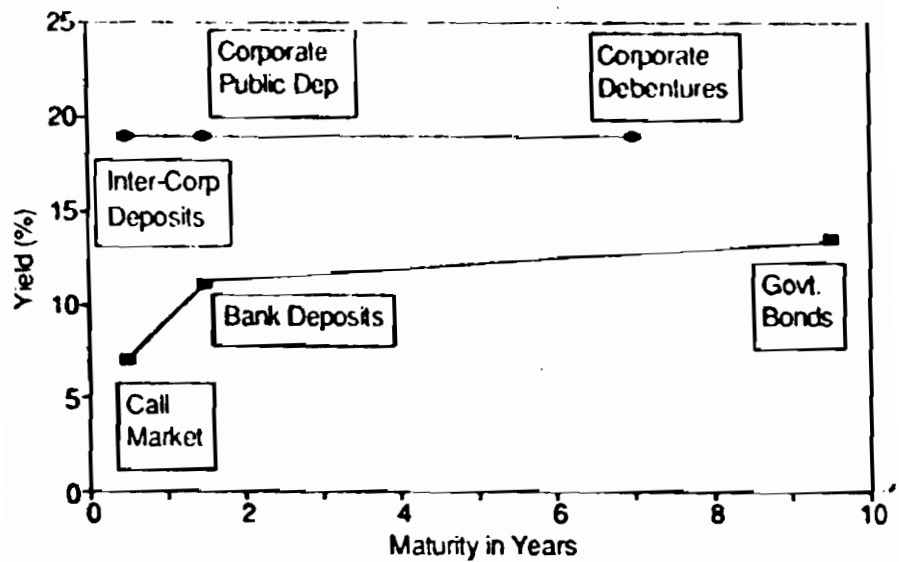
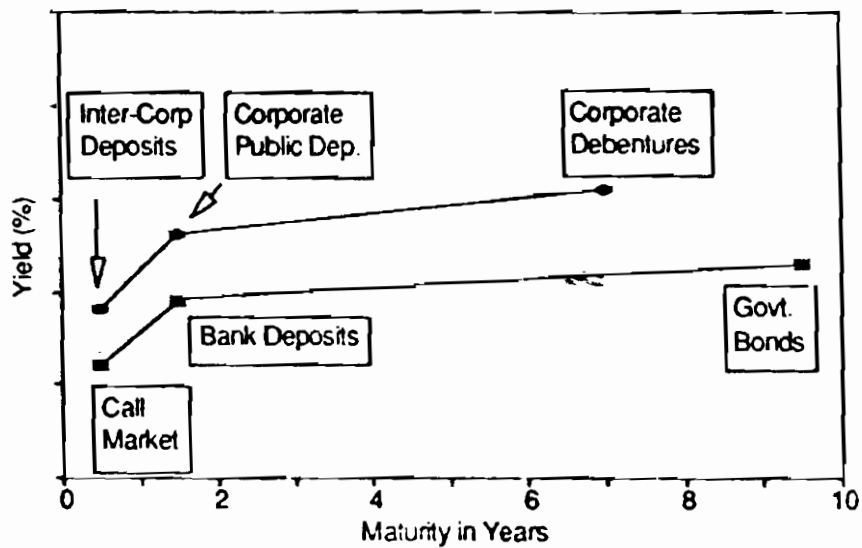


Fig 2: Indian Debt Market
Schematic Projection of Yield Curve(s)



However, the integration of the two markets is easier today than it has been in the last several years. If the government sticks to its fiscal adjustment policy and holds inflation down to current levels, it would not be necessary to raise interest rates any further in the regulated market; it may even be possible to bring them down. In other words, there would be no further strains on the public finances or on the banking system in terms of a higher interest cost. For the first time in several years, it is possible to visualize an integration of the two markets not by raising rates in the regulated market but by bringing down the interest rates in the free market. Given the reasons for the divergence between the markets stated above, it follows that the process of integration involves the following major steps:

- * Breaking the vicious cycle of high inflationary expectations by continuing the programme of fiscal adjustment that is now in progress.
- * Reform of the commercial banking system whereby quantitative controls on bank credit are abolished fairly rapidly. Corporate business is one of the principal foundations of a sound and profitable banking system, but Indian banking policy has tended to drive the corporate sector away from the banking system. This policy should be reversed and top notch companies should be given freer access to bank funds.

This reform involves several closely inter-twined measures:

- * the government debt market becomes more broad based and reaches corporate and individual investors directly,
- * the government does not therefore need to pre-empt funds from the banking system on such a large scale and accordingly, the statutory liquidity ratio is brought down,
- * quantitative credit controls are abolished and the enhanced lendable resources of the banks become available to the corporate sector.

- * Phasing out of discriminatory tax incentives as discussed in a later section.

Once this process of integration of the regulated and free markets is complete, we visualize an yield curve similar to Fig. 2.

Market-Makers: Financing and Hedging Options

Market makers need finance and hedging facilities. In developed markets, market makers have large capital resources of their own and are also able to borrow on the security of their inventory of securities in the repurchase (repo) market. In India, market makers have been severely undercapitalized; even the Discount and Finance House of India which is owned by the Reserve Bank of India has too little capital to play an effective role in the huge government securities market.

As far as the repo market is concerned, traders in government securities did in the past resort to the ready-forward market which is similar to a repo market, but in the aftermath of the securities scam this market has almost disappeared. The repo transaction is one in which the dealer sells securities to a lender and agrees to repurchase them at the end of a specified period (the duration of the loan) at a specified price (which equals the selling price plus the interest for the duration of the loan). Though formally a sale and repurchase transaction, the repo is for all practical purposes a short term secured loan to the dealer and is regarded as a safe form of lending. In well developed debt markets, therefore, the market makers are able to borrow on repo basis at low rates of interest. In India, during the securities scam, a total breakdown of control systems led to the repo transaction becoming unsecured and the funds being diverted to stock market speculators. Unfortunately, in the aftermath of the scam, the repo market itself has been discredited and it will take some time for its credibility to be reestablished. Changes are also required in government (Reserve Bank) regulations which restrict access to the repos market and also restrict the repo to a narrow range of instruments. In our view, repos must be permitted in all debt securities - government, public sector and corporate. Access to the repo market must also be widened to include any player who satisfies basic capital adequacy requirements.

Market makers also need hedging opportunities to ensure that prices do not move against them while they are holding a position. For example, in the US market, a dealer who takes a position in say Medium Term Notes (MTNs) would often take an offsetting position in the interest rate futures or swaps market to hedge the interest rate risk on his position. Similar facilities do not exist in India in the absence of any forward, futures and options markets. Creation of these markets is an important recommendation by itself and is discussed separately.

Interest Rate Derivatives

In an era of administered interest rates, most market participants tended to ignore the risk of interest rate fluctuations. As interest rates in different segments of the financial system are being freed, interest rate risk is rapidly becoming a very major factor in the debt market. Mechanisms for hedging this risk need to be created quite quickly.

We recommend the immediate creation of a futures market in government securities. To begin with, we need a T-Bill future and a government bond future. The bond future can be initially in a benchmark security say the 11.5% 2010. Over a period of time, the delivery options in the bond future can be made more sophisticated to allow delivery of other bonds of similar maturity on the lines of the US T-Bond futures market.

The creation of floating rate instruments (recommended elsewhere in this report) would eventually lead to the development of a large interest rate swap market. This market may initially be an inter-bank market and the government need play only a facilitating role.

Tax Reforms

A number of tax shelter instruments exist in the Indian debt market.

Provident Funds

Employees can invest in their provident fund accounts over and above the mandatory contribution which they have to make. They can also invest in the Public Provident Fund (PPF) scheme of the central government which is open to all individuals. Provident funds provide a tax free return of 12% to salaried and self employed individuals in addition to a one time tax break subject to certain limits and conditions. This can translate into a pretax riskfree return of about 27% at the 45% tax bracket. Despite the advantage of low liquidity, the provident fund is an instrument which dominates other savings avenues as far as the middle class households are concerned.

Tax free bonds

Tax free bonds issued by Public Sector Undertakings (PSUs) have been discussed elsewhere in this report. They typically provide a 9% tax free return which is very attractive in pre tax terms to foreign banks and other companies whose marginal tax rate is very high.

Tax Concession on Interest and Dividends (Section 80L)

Another tax concession which is of great importance to the debt market is the tax exemption on interest and dividend income from certain sources upto a limit of Rs. 10,000 per annum. This exemption is available on interest on bank deposits but not on corporate deposits and debentures. It is also available on income from mutual funds with the result that it is more attractive for individuals to invest in a mutual fund which invests heavily in corporate debentures than to invest directly in these debentures.

Need for Rationalization of Tax Incentives

Tax shelter instruments have several undesirable effects on the debt market. They distort the true cost of funds to the borrower; a PSU which has been allowed to issue tax free bonds gets funds at 9% which is far below the normal market rate. These instruments also tend to

segment the market into different clienteles as the pretax return is a function of the marginal tax rate. Both of these factors impede the integration of the debt market.

The government is committed to rationalizing and reducing tax concessions and the Raja Chellaiah Committee has made detailed recommendations in this regard. We would recommend speedy phasing out of tax concessions relating to investments thereby helping integrate markets for different debt securities.

New Instruments

New debt instruments have been discussed in detail earlier in this report, and the principal categories of instruments that we have identified for introduction in the near future are:

- * Floating rate instruments
- * Indexed bonds
- * Securitized debt primarily in housing finance
- * Bull and bear bonds
- * Dual currency bonds

While in most cases, the innovation would come from issuers of securities, the government and financial intermediaries would have an important role in certain instruments. Worldwide, the initiative for floating rate instruments has come from the lenders—mainly the banks. In India also, we think that the banks would have to take the lead in introducing floating rate lending. Some banks have already started lending on call-plus basis on a limited scale.

Bond Market Services

The financial services industry needs to upgrade the services relating to the debt market. Credit rating is already available but more competition is desirable in this field especially from the private sector. We also recommend multiple ratings of the same instruments, unsolicited ratings, more active monitoring of existing ratings and greater transparency and objectivity in the rating process.

Information dissemination needs to be improved significantly. For example, there is virtually no organized information available on historical default rates in any segment of the debt market. It is also desirable to develop a comprehensive bond index which apart from being an important analytical tool for management of bond portfolios, would also enable the creation of a bond index future in due course.

Computerized custodial and clearing services are beginning to take shape in the capital market. In many ways, it may be easier to develop these services first in the debt market. The proposal of the National Stock Exchange (NSE) to focus on the debt market in the initial stage is therefore in the right direction.

Other Recommendations

Our recommendations pertaining to different segments of the debt market are summarized below:

Corporate Debt Market

- * Provident Funds and charitable trusts should be allowed to invest a portion, say, upto 20% of their investible funds in high grade corporate securities.
- * Financing facilities should be allowed against the security of the bonds, both for traders and individual investors.
- * Foreign Institutional Investors (FIIs) should be allowed to invest in corporate bonds with appropriate limits.
- * Individual investors should be encouraged through appropriate incentives to shift from company deposits to debentures.

PSU Bonds

- * The terms of PSU bonds should be market based, in line with the terms of private corporate bonds.
- * These bonds should be compulsorily rated before they are issued in the primary market, and adequate disclosure should be made in the prospectus.
- * The bonds should be listed in regular stock exchanges, the NSE or the OTCEI so that it becomes easy for individual investors to transact in these bonds.
- * The bond certificates should be in standard trading unit so that all transactions can take place in multiples of the trading unit.
- * The PSUs should have some buy back arrangement for the bonds to improve their liquidity.
- * Since the existing stock of these bonds is fairly large, the above measures should be made applicable retrospectively, with all associated costs being borne by the PSUs that have issued these bonds.
- * An Electronic Clearing Settlement and Depository system (ECSD) must be set up as recommended by Nadkarni Committee.

Government Securities

- * The coupon rates on government securities should become market based, so that they become attractive to individual investors and mutual funds.
- * While large institutional investors may continue to maintain SGL accounts with the PDO, to cater to the smaller investors, the securities must be securitized in convenient, standard denominations.

- * The government should allow brokers to participate in the government securities market as market makers.

Housing Finance and Securitization

- * Securitization should be first attempted in the field of housing finance.
- * Mortgage securitization in India should begin with pass-through certificates.
- * The National Housing Bank (through a separate subsidiary if necessary) should take up the function of the originator of pass-through certificates. If necessary, the credit enhancement provided by the NHB could be backed by a government guarantee in the initial stages.
- * In later phases, securitization can however be extended to several other forms of debt: non-residential mortgages, term loans of the development financial institutions, car loans and other consumer loans.

Notes

1. The pattern presented is the one observed for the year 1990-91, as reported in *Report on Currency and Finance 1990-91* published by the Reserve Bank of India.
2. The pattern presented in Table 2 was observed for the year 1989-90, as reported in *The Report on Currency and Finance*, published by the Reserve Bank of India.
3. 100 crores = 1 billion.
4. *Capital Market*, June 6, 1993.
5. Based on the figures in the *Report on Currency and Finance 1990-91*, and several 1992-93 issues of the *Reserve Bank of India Bulletin*, both being published by the Reserve Bank of India.
6. Based on the report of the Nadkarni Committee appointed by the Reserve Bank of India in 1992, to examine the functioning of the ready forward market.
7. Based on RBI, *Report on Currency and Finance* for the figure as at March 31, 1991 and *Economic Survey 1992-93* for the fresh issues in 1991-92.
8. RBI *Report on Currency and Finance*, various issues.
9. Source: *Financial Performance of IDBI Assisted Companies in the Private Corporate Sector*, various years, published by IDBI, Bombay.
10. Source: RBI, *Report on Currency and Finance*, 1990-91.
11. Source: RBI, *Report on Currency and Finance*, 1990-91.
12. Sources: i) *Report on Currency and Finance*, various years; ii) *Reserve Bank of India Bulletins* - October 1992 and January 1993; iii) L.M. Bhole: *Financial Institutions and Markets, Structure, Growth and Innovation*, 1992, New Delhi, Tata McGraw-Hill Publishing Company Ltd.
13. Narasimham Committee Report on the Financial System (1991), New Delhi, Standard Book Company
14. Source: RBI, *Report on Currency and Finance*, 1990-91.
15. Source: RBI, *Report on Currency and Finance*, 1990-91.
16. See *Structure and Management of the Guilt-edged Securities Market in India*, 1983, New Delhi, Circon Bureau.
17. Source: RBI, *Report on Currency and Finance*, 1990-91.
18. Source: RBI, *Report on Currency and Finance*, 1990-91.

19. Source: RBI, *Report on Currency and Finance*, 1990-91.
20. RBI *Report on Currency and Finance*, various issues.
21. Source: RBI, *Report on Currency and Finance*, 1990-91.
22. According to the *National Account Statistics*, 1992, the capital stock in dwellings and related activities in 1989-90 is Rs. 94,112 crores at 1980-81 prices (statement 20 item 8.2) and the price index for construction in 1989-90 (base 1980-81) is 298.6 (statement 3, item 4.1). This implies that the capital stock was about Rs. 300,000 at 1989-90 prices.
23. *Eighth Five Year Plan, 1992-97*, Government of India, Planning Commission, New Delhi, 1992, para 14.2.6.
24. *Economic Survey*, 1992-93, para 9.48.
25. *Life Insurance Corporation*, annual report, 31-3-92, p 15.
26. *Eighth Five Year Plan, 1992-97*, Government of India, Planning Commission, New Delhi, 1992, para 14.4.7.
27. We believe that this may not be really necessary as most investors would be confident that the government would not allow a subsidiary of the Reserve Bank of India to default. The only concern that may be present is regarding the huge contingent liability that may arise out of NHB's settlement with the State Bank of India in respect of transactions in government securities during the securities scam.

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