Development of Securities Market – The Indian Experience

Narendra Jadhav*

ABSTRACT

Well-developed securities markets are the backbone of any financial system. Apart from providing the medium for channelizing funds for investment purposes, they aid in pricing of assets and serve as a barometer of the financial health of the economy. The Indian securities markets have witnessed far-reaching reforms in the post-liberalization era in terms of market design, technological developments, settlement practices and introduction of new instruments. The markets have achieved tremendous stability and as a result, have attracted huge investments by foreign investors. There still is tremendous scope for improvement in both the equity market and the government securities market. However, it is the corporate debt market, which needs to be given particular emphasis given its importance for providing long-term finance for development.

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Section I. Introduction

A satisfactory pace of economic growth in any economy is contingent upon availability of adequate capital. A well-developed securities market, while acting as provider of funding for economic activity at macro level, plays the specific roles in an economy, *viz*., diffusing stress on the banking sector by diversifying credit risk across the economy; supplying funds for long-term investment needs of the corporate sector; providing market-based sources of funds for meeting government's financing requirements; providing products with flexibility to meet the specific needs of investors and borrowers; and allocating capital more efficiently.

The main impulse for developing securities markets, including both equity and debt segments, depends on country-specific histories and more specifically, in the context of the financial system, it relates to creating more complete financial markets, avoiding banks from taking on excessive credit, risk diversification in the financial system, financing government deficit, conducting monetary policy, sterilising capital inflows and providing a range of long-term assets. Prior to the early 1990s, most of the financial markets in India faced controls of pricing, entry barriers, transaction restrictions, high transaction costs and low liquidity. A series of reforms were undertaken since the early 1990s so as to develop the various segments of financial markets by phasing out administered pricing system, removing barrier restrictions, introducing new instruments, establishing institutional framework, upgrading technological infrastructure and evolving efficient, safer and more transparent market practices.

Against this backdrop, this paper essentially brings to the fore the evolutionary process that has occurred in the securities markets in India along

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with an assessment of the impact of reform. Following this introduction, section II and III set out the developments in corporate equity and debt markets, respectively. Section IV discusses the developments in the Government securities market. The paper concludes with a broad assessment of the developments in the securities markets and outlines the way forward for bringing the Indian securities market on par with international counterparts.

Section II. Corporate Securities – Equity Segment

Capital markets have historically played an important role in channelising long-term resources for commerce and industry in many countries like the USA and UK, while in some other countries, including Japan and Germany, corporate investments are largely financed through intermediary-based sources. The Indian capital markets are one of the oldest in Asia. Traditionally, however, the Indian financial system since independence has been financial intermediary-based as against capital market-based. Given the developmental needs of the country at that stage and inability of the markets to generate and allocate funds effectively for long-term developmental projects, the bank-based financial system suited the country's needs best.

During the 1990s, however, the growing needs of the economy on one hand, and forces of liberalization, on the other, changed the face of the Indian financial system drastically and the capital markets assumed a prominent place in the resource allocation process of the economy. In the recent period, the Indian financial system seems to be gradually maturing to a stage where both the intermediary-based as well as market-based systems co-exist, thus drawing benefits of both the systems.

The policy environment governing the capital markets evolved rapidly in the 1990s to pave the way for a vibrant, liquid and transparent markets. The major reforms in the Indian capital market since the 1990s are presented below:

§ In 1992, the Capital Issues (Control) Act (1947) was phased out enabling corporates to raise capital from markets without any permission from regulators subject to sufficient disclosures in the offer documents. Book-building mechanism for pricing of new capital issues was introduced in 1995, whereby the offer price of an initial public offering (IPO) is based on the demand for the issue. The book building mechanism has proved to be both cost and time effective in the Indian context.

- § Buyback of shares help in improving liquidity in shares of companies and help corporates in enhancing investors' wealth. SEBI issued the SEBI (Buyback of Securities) Regulations in 1998, through which a company is permitted to buyback its shares from existing shareholders.

- § The market microstructure for the Indian capital markets has evolved to become 'free' and 'fair' during the 1990s. While the stringent disclosure norms have helped in improving the information flow to small investors, the stricter corporate governance practices prescribed for the listed companies have helped in curbing the insider trading and price rigging practices.

- § With a view to contain excess volatility in the markets, circuit breakers have been introduced on the stock exchanges. With effect from June 2, 2001, index-based market-wide circuit breakers applicable on BSE Sensex and S&P CNX Nifty are operational on 10 per cent, 15 per cent and 20 per cent on either side movement of any of the indices.

- § Management of various risks like counter-party risks and credit risks are important in promoting the safety and efficiency of the capital market. To provide necessary funds and ensure timely completion of settlement in cases of failure of member brokers to fulfil their settlement obligations, major stock exchanges have set up Settlement Guarantee Funds (SGF). These funds are like self-insurance schemes with the members contributing to the fund. The SGFs have played a key role in ensuring timely settlement especially during occasions of market turbulence. Furthermore, the clearing houses set up by each of the stock exchanges have substantially reduced the counter-party risk involved in the settlement system. Various risk management mechanisms like, the capital adequacy requirements, trading and exposure limits, daily margins comprising of mark-to-market margins and VaR-based margins are now in place.

- § Technology has played an important role in changing the market practices in India. The Indian stock markets have moved away from open outcry system to on-line screen based electronic trading system, in line with the best international practices. The electronic system has improved efficiency in price discovery mechanism, lowered transaction costs, promoted transparency in transactions and helped in better integration across stock exchanges throughout the country.

- § Until recently majority of scrips on Indian securities markets were traded in physical form. Trading in physical form of securities lowers the speed of transactions, thus affecting the liquidity of the markets adversely, increasing the trading costs and also accentuating the problems relating to bad

deliveries, theft and forgery. The compulsory dematerialisation has resulted in an overwhelming majority of securities being traded in electronic form.

- Technology has also enabled faster movements of funds across the country. The electronic fund transfer (EFT) facility combined with dematerialisation of shares created conducive environment to reduce the settlement cycles on stock markets. Shorter settlement cycles reduce both the risk involved in transactions and speculative activity, and infuse more liquidity in the markets. The Indian stock markets, which followed the Monday to Friday settlement cycle, gradually switched to the rolling settlement cycle for all the scrips. The rolling settlement cycle was reduced to T+3 effective April 2002 and further to T+2 effective April 2003 in line with the best international practices. Apart from trading, the technological developments have also made their mark in clearing and settlement process paving the way for efficient and sophisticated systems.

- The Indian capital markets in the 1990s have deepened and widened with a larger investor base and emergence of a wide range of innovative/hybrid instruments. On the investor base side, the foreign institutional investors (FIIs), which were allowed to invest in Indian equities since 1992, have now emerged as the biggest institutional investors on Indian capital markets. The mutual funds, especially the private sector mutual funds have also emerged as active institutional investors.

- On the instrument side, derivative instruments like index futures, stock futures, index options, and stock options have become important instruments of price discovery, portfolio diversification and risk hedging. Various risk containment measures including margins, positions and exposure limits are put in place to ensure smooth functioning of the derivatives market.

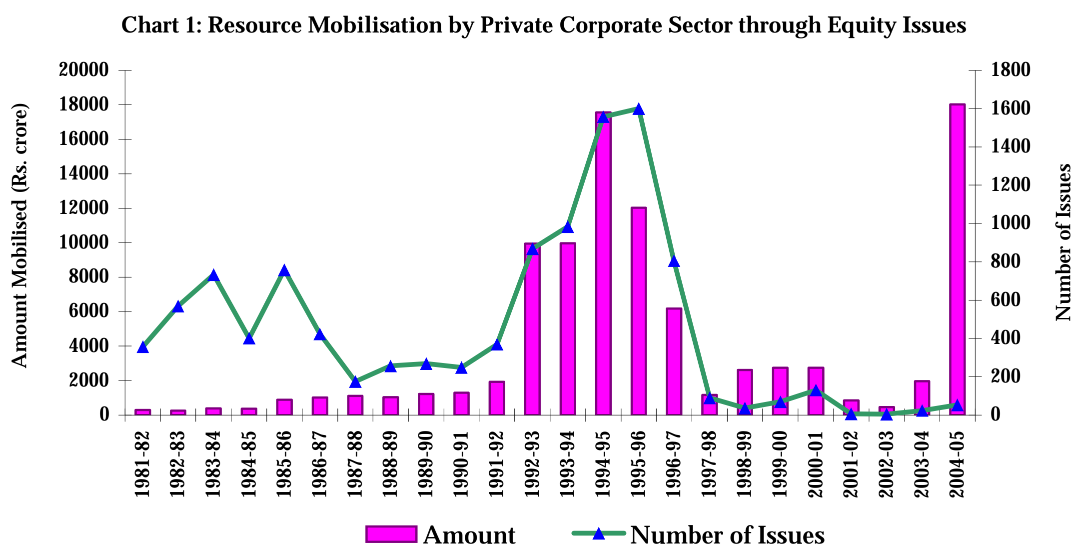
- The Indian companies can now raise funds freely from the international capital markets through the use of various instruments like American Depository Receipts (ADR)/Global Depository Receipts (GDR), Foreign Currency Convertible Bonds (FCCB) and External Commercial Borrowings (ECBs). The ADRs/GDRs have a two-way fungibility implying that investors (foreign institutional or domestic) in any company that has issued ADRs/GDRs can freely convert the ADRs/GDRs into underlying domestic shares and vice-versa. This move is expected to improve liquidity in the markets and eliminate arbitrage between domestic and international markets.

The Indian equity market has developed tremendously since the 1990s. The market has grown exponentially in terms of resource mobilization, number of listed stocks, market capitalization, trading volumes, and investors' base.

Along with this growth, the profiles of the investors, issuers and intermediaries have changed significantly. The market has witnessed a fundamental institutional change resulting in drastic reduction in transaction costs and significant improvement in efficiency, transparency and safety. In the 1990s, reform measures initiated by the SEBI such as, market determined allocation of resources, rolling settlement, sophisticated risk management and derivatives trading have greatly improved the framework and efficiency of trading and settlement. Almost all equity settlements take place at two depositories. As a result, the Indian capital market has become qualitatively comparable to many developed markets.

As a result of the reforms undertaken in the liberalization period, the capital market in India has deepened. The prevalent conditions in the primary and secondary markets seem to have affected corporates' decision to finance project cost either through the equity markets or through loans. A major amount of funds to finance the project costs have traditionally been raised through loans from financial intermediaries. The industrial liberalization, however, led to an increasing number of companies tapping the primary capital market to mobilize resources in the early 1990s. In the second half of the 1990's, following the deceleration in industrial sector and subdued conditions in the stock market, the corporates again shifted to the loans route and the amount raised through new capital issues declined. In the more recent period, there has been a revival of the primary market due to a recovery in the stock markets as well as improvement in investment climate and macroeconomic outlook (Chart 1).

Chart 1: Resource Mobilisation by Private Corporate Sector through Equity Issues



There has been a change in the pattern of financing of the Indian corporate sector. The share of capital market related instruments in the total funds, which picked up in the first half of 1990s, declined in the current decade so far. The trend might change with an upturn in the capital market. The share of financial intermediaries in total funds also declined. There been a greater reliance on internal sources. During the 1980s and 1990s, internal sources of funds as a percentage of total sources ranged around 30-40 per cent, while during recent years it has increased to more than 50 per cent and even came close to 70 per cent in 2002-03. Correspondingly, there has been a reduction in the reliance on external financing. As a result of corporates' reliance on internal generation of funds, there has been a noticeable decline in the debt-equity ratio (Table 1).

Table 1: Pattern of Sources of Funds for Indian Coporates

Item	1985-86 to 1989-90	1990-91 to 1994-95	1995-96 to 1999-2000	2000-01 to 2003-04
1. Internal Sources	31.9	29.9	37.1	61.4
2. External Sources	68.1	70.1	62.9	38.6
Of which:				
a) Equity capital	7.2	18.8	13.0	9.7
b) Borrowings	37.9	32.7	35.9	10.4
Of which:				
(i) Debentures	11.0	7.1	5.6	-1.2
(ii) From Banks	13.6	8.2	12.3	19.0
(iii) From FIs	8.7	10.3	9.0	-1.4
c) Trade dues & other current liabilities	22.8	18.4	13.7	17.7
Total	100.0	100.0	100.0	100.0
Memoranda:				
(i) Share of Capital Market Related Instruments (Debentures and Equity Capital)	18.2	26.0	18.6	8.4
(ii) Share of Financial Intermediaries (Borrowings from Banks and FIs)	22.2	18.3	21.3	17.5
(iii) Debt-Equity Ratio	88.4	85.5	65.2	62.8

Note: Data pertain to non-government non-financial public limited companies.
Source: Articles on "Finances of Public Limited Companies", RBI Bulletin (various issues).

A notable feature of the 1990s has been the substantial growth of the private placement market. The private placement market emerged as the preferred source of financing for corporates including public sector enterprises, state level undertakings and development financial institutions (DFIs). The resources raised through the private placement market, which stood at Rs. 13,361

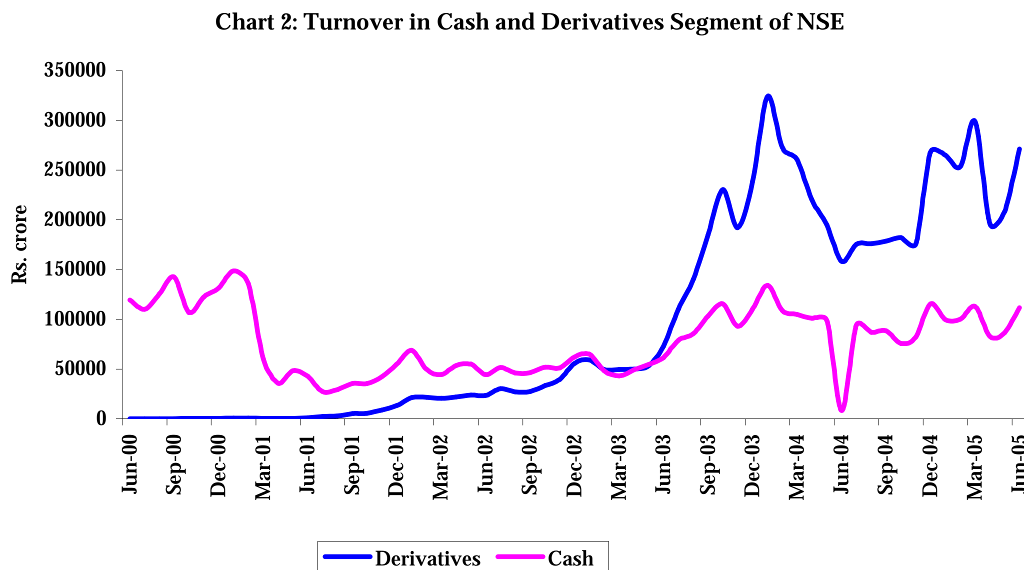
crore in 1995-96 increased to Rs. 85,102 crore in 2004-05. Currently, the size of the private placement market is estimated to be four times of the public issues market.

The Euro issues market became operational and developed in the 1990s. The amount raised through the Euro issues route was as high as Rs.7,898 crore in 1993-94 but declined afterwards to reach Rs.3,353 crore in 2004-05. Even though the amounts raised by new Euro issues show a declining trend, the scrips listed on international markets are being actively traded.

The stock markets witnessed a long and sustained rally starting from May 2003, which continued throughout 2004 and 2005 notwithstanding intermittent bouts of disturbance. Notably, unlike the past, this rally has been broad-based, encompassing almost all the sectors. The BSE Sensex closed at the historical high of 8500.26 on September 20, 2005 mainly on the back of strong buying support from domestic and foreign institutional investors, strong industrial growth, and satisfactory progress of monsoon.

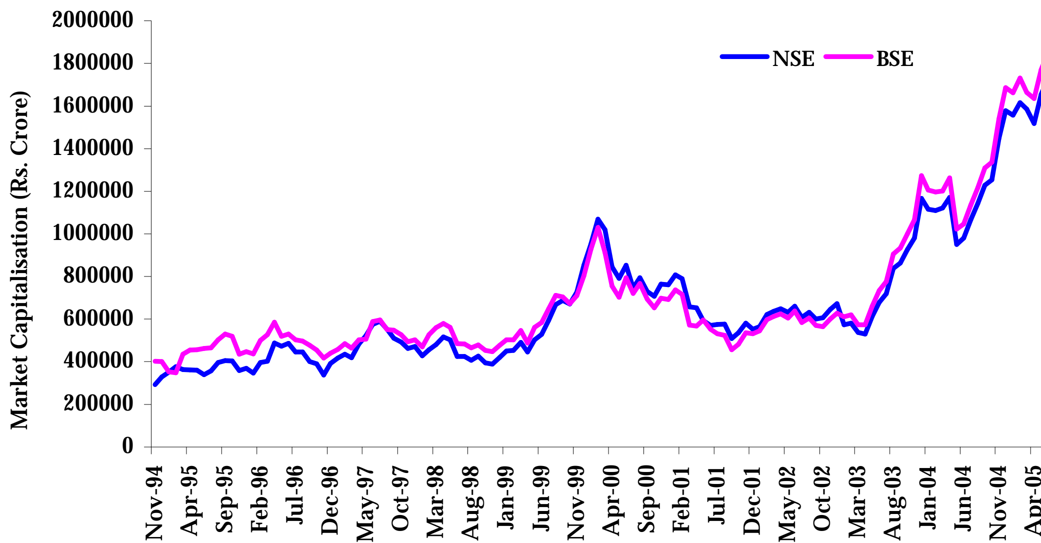
The tturnover, which is an indicator of market liquidity, has shown a sustained increase, both on the BSE and NSE, in the stock market rally. Substantial liquidity has also shifted to the derivatives market, which commenced trading in June 2000. The turnover in derivative market remains much higher than the cash markets (Chart 2).

Chart 2: Turnover in Cash and Derivatives Segment of NSE



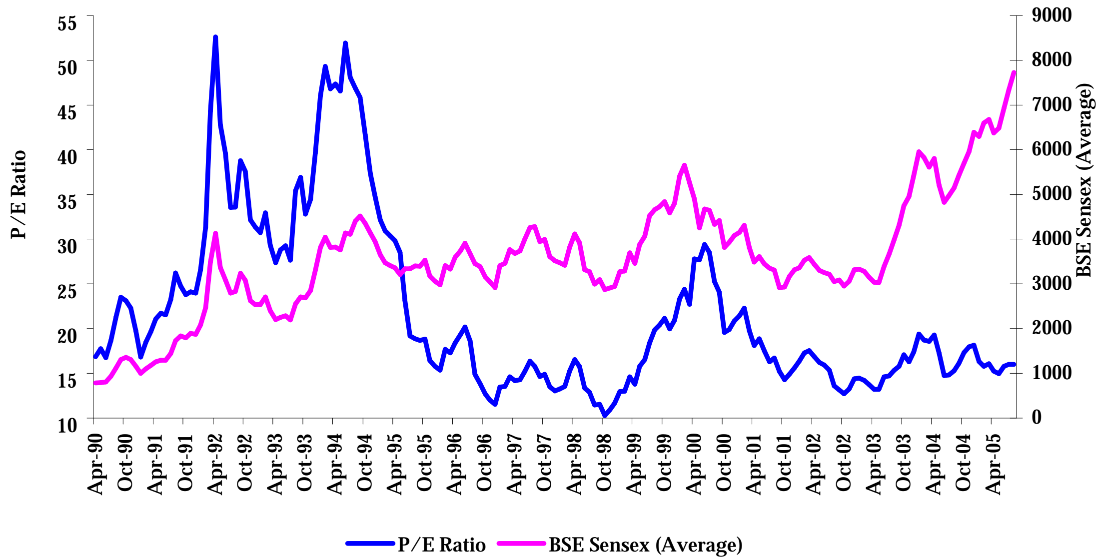
The market capitalisation, which is a barometer of the size of the stock market and market value of investors' wealth, has similarly shown a steady increase. The market capitalisation at BSE and NSE as at end-March 2005 at Rs.16,98,428 crore and Rs.15,85,585 crore, respectively, touched all-time high levels mainly because of surge in stock prices and listing of new securities (Chart 3). The market capitalization of BSE as per cent of GDP, which roughly accounts for 95 per cent of all-India market capitalization, increased from 16.2 per cent in 1990-91 to 54.7 per cent in 2004-05.

Chart 3: Trends in Market Capitalisation



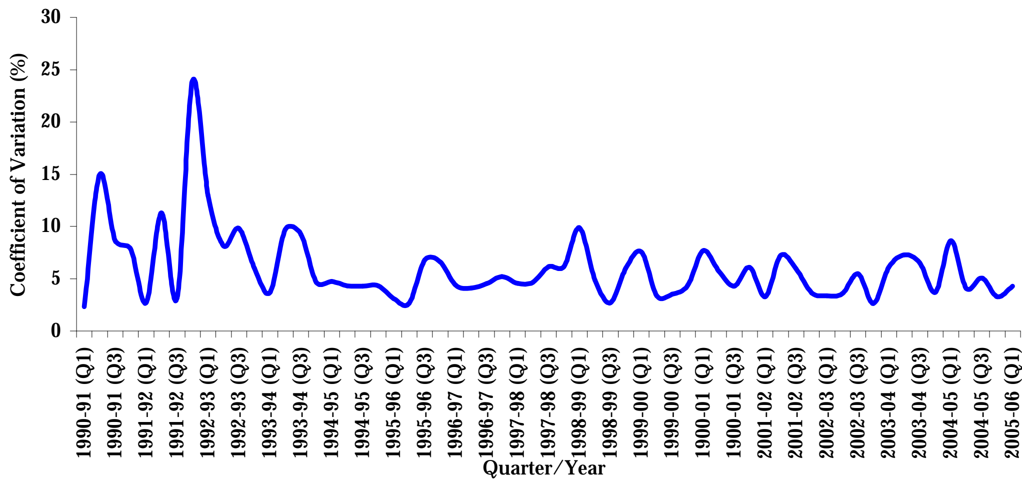
The price/earning (P/E) ratio, which reflects the valuations of scrips ***vis-à-vis*** their earnings, was much higher in the 1992-1994 period as compared with the present ratio (Chart 4). Despite unprecedented price levels, the price-earning ratio for Indian equities has remained attractive due to strong growth in corporate earnings. As high P/E ratio indicates overvalued scrips as compared with corporate earnings, the present low P/E ratio points towards the potential of the Indian stock markets notwithstanding the present high prices.

Chart 4: Price Earning Ratio of BSE Sensex Scrips and Average BSE Sensex



The Indian stock markets have become more stable due to the strengthening of the market design and risk containment measures. This is reflected in a sharp decline in the volatility in stock prices, measured by the coefficient of variation for BSE Sensex (Chart 5).

Chart 5: Quarterly Coefficient of Variation of BSE Sensex



The liberalization and consequent reform measures have drawn the attention of foreign investors leading to a rise in portfolio investment in the Indian capital market. The FIIs have emerged as the largest institutional investors in the Indian equity market in the 1990s. Apart from providing

institutional character to the capital markets, the FIIs inject global liquidity in the markets and reduce the cost of capital. From the perspective of the FIIs, investments in various countries provide an excellent measure of portfolio diversification and hedging as also taking advantage of arbitrage opportunities. Over the recent years, India has emerged as a major recipient of portfolio investment among the emerging market economies. Apart from such large inflows, reflecting the confidence of cross-border investors on the prospects of Indian securities market, except for one year, India received positive portfolio inflows in each year. The stability of portfolio flows towards India is in contrast with large volatility of portfolio flows in most emerging market economies. The FII investment in equities in 2004-05 was Rs.44,123 crore, which was one of the highest investments in equities in a single year by FIIs.

Section III. Corporate Securities – Debt Segment

From the perspective of developing countries, a liquid corporate bond market can play a critical role in supporting economic development. It supplements the banking system to meet the requirements of corporate sector for long-term capital investment and asset creation. It provides a stable source of finance when the equity market is volatile. Further, with the decline in the role of development financial institutions (DFIs), there is an increasing realization of the need for a well-developed corporate debt market as an alternative source of finance.

A number of policy initiatives were taken during the 1990s to activate the corporate debt market in India. The interest rate ceiling on corporate debentures was abolished in 1991 paving the way for market-based pricing of corporate debt issues. In order to improve the quality of debt issues, rating was made mandatory for all publicly issued debt instruments, irrespective of their maturity. The role of trustees in case of bond and debenture issues was strengthened over the years. All privately placed debt issues are required to be listed on the stock exchanges and follow the disclosure requirements. However, despite the policy initiatives, the corporate debt still constitutes a small segment of the debt market in India. While the primary market for debt securities is dominated by the private placement market, the secondary market for corporate debt is characterized by poor liquidity, although this has improved in recent years.

The developed financial markets are characterized by the existence of a

sound financial and legal infrastructure that is necessary for the development of corporate bond market, supported by a well-functioning regulatory system. The USA is, by far, the most suitable example where the corporate bond market is deep, efficient and liquid. The bond markets in UK and Euro areas are also reasonably developed. The markets for debt securities in Western European countries and Japan are much smaller than that of the U.S., not only in absolute terms but also as a percentage of GDP. Unlike in the developed financial systems, the corporate bond market has a very short history of development in the emerging market economies. A comparative position of the corporate debt market in developing countries and United States is presented in Table 1.

Table 2: Comparative Position of the Indian Corporate Debt Market (2002)

(US$ billion)

		India	Malaysia	Hong Kong	Singapore	USA	Korea	China
1.	GDP	510	95	164	91	10,445	462	1,238
2.	Government Bonds	143	47	11	31	6,685	225	201
3.	Corporate Bonds	19	36	34	27	9,588	156	212
4.	Bank Loans to Corporates	156	135	678	210	6,976	609	2,073
5.	Equity	170	123	463	102	11,010	216	463
6.	% of Corporate Bonds to GDP	4	38	21	30	92	34	17
7.	% of Corporate Bonds to Total Bonds	12	43	76	47	59	41	51
8.	% of Corporate Bonds to Bank Loans	12	27	5	13	137	26	10
9.	% of Corporate Bonds to Equity	11	29	7	26	87	72	46

Source: BIS, Deutsche Bank, World Bank, World Federation of Stock Markets.

Historically, India had a bank-dominated financial system, which was supplemented by the development financial institutions (DFIs) to provide long-term project finance. However, the financial system has undergone a marked change during recent years. With the conversion of DFIs into banks, a gap has been created for long-term finance. Commercial banks, given the short-term nature of their liabilities, may not be able to fill the gap in long-term finance. In view of this, India's corporate sector requires long-term finance to supplement their resources. In this context, development of the corporate bond market would play a strategic role in the near future.

The corporate debt market in India has been in existence since

independence. Public limited companies have been raising capital by issuing debt securities. From 1985-86, state owned public sector undertakings (PSUs) began issuing bonds. However, in the absence of a well-functioning secondary market, such debt instruments remained illiquid. In recent years, due to falling interest rates and adequate availability of funds, corporate debt issuance has shown a noticeable rise, especially through private placements (Table 3).

Table 3: Resource Mobilization by the Corporate Sector

(Amount in Rs. crore)

Year	Public Equity Issue	Debt Issues			Total Resource Mobilization (2+5)	Share of Private Placements in Debt Issues (4/5*100)	Share of Debt in Total Resource Mobilization (5/6*100)
		Public Issues	Private Placements	Total (3+4)			
1	2	3	4	5	6	7	8
1995-96	14493	5970	13361	19331	33824	69.12	57.15
1996-97	7928	7483	15066	22549	30478	66.81	73.99
1997-98	1701	2957	30099	33056	34756	91.05	95.11
1998-99	2622	6743	49679	56422	59044	88.05	95.56
1999-00	3230	4475	61259	65734	68964	93.19	95.32
2000-01	3111	3251	67836	71087	74198	95.43	95.81
2001-02	1025	6087	64876	70963	71988	91.42	98.58
2002-03	1233	3634	66948	70582	71815	94.85	98.28
2003-04	3427	4424	63901	68325	71752	93.53	95.22
2004-05	18024	3868	85102	88970	106994	95.65	83.15

Corporates continue to prefer the private placement route for debt issues than floating public issues. The resource mobilization through private placement picked up from Rs.13,361 crore in 1995-96 to Rs.85,102 crore in 2004-05. The dominance of private placement has been attributed to several factors, *viz.*, ease of issuance, cost efficiency, primarily institutional demand, *etc.* About 90 per cent of the corporate debt outstanding has been privately placed. In the private placement market, 57 per cent of the issuances are by financial institutions and banks, both in the public and private sector. Public sector companies account for 58 per cent of privately placed issues. About 26 per cent represents issues by public sector undertakings and central/state government guaranteed bonds.

The secondary market activity in the debt-segment, in general, remains subdued both at BSE and the Wholesale Debt Market Segment (WDM) of the NSE, partly due to lack of sufficient number of securities and partly due to lack of interest by retail investors. In order to improve the secondary market activity in this segment, the Union Budget for 1999-2000 abolished stamp duty on

transfer of dematerialized debt instruments. This enabled a pick up in the turnover in corporate debt at NSE from Rs.5,816 crore in 2002-03 to Rs.17,521 crore in 2004-05. The share of turnover in corporate debt securities in total turnover at WDM segment of NSE, however, remains small at around 2 per cent.

India is fairly well placed as far as pre-requisites for the development of the corporate bond market are concerned. There is a developed government securities market that provides a reasonably dependable yield curve. The major stock exchanges have trading platforms for the transactions in debt securities. Infrastructure for clearing and settlement also exists. The Clearing Corporation of India Limited (CCIL) has been successfully settling trades in government securities, foreign exchange and money market instruments. The existing depository system has been working well. The settlement system has improved significantly during the recent years. The settlement in government securities has moved over to delivery ***versus*** payment (DVP III)[1] since March 29, 2004. The Real Time Gross Settlement (RTGS) has become operational for the commercial bank transactions in certain cities. The presence of multiple rating agencies provides an efficient rating mechanism in India.

The Indian corporate debt market has, however, remained confined to AAA or AA+/AA rated borrowers. The investors are mostly institutions with very few retail investors. Hence, the disintermediation process is only partial. Transparency is limited both in the primary and the secondary markets and liquidity is poor and many bonds are held till redemption. The legal recourse in case of non-payment of interest and principal is complicated and bankruptcy laws provide little comfort. The legal and regulatory requirements, accounting and auditing standards for issuers and the infrastructure for trading, clearing and settlement need to be further developed.

Section IV. Government Securities Market

A well-developed Government securities market facilitates market-based conduct of monetary policy and provides a domestic credit risk-free rupee yield curve serving as a benchmark for prices of other securities. However, prior to 1991, the Government securities market was not developed because of inefficient market practices and lack of proper institutional infrastructure. Subscriptions to the Government securities emanated mainly from the Reserve Bank as it

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[1] Under DVP III mode of settlement, both securities leg and funds leg of transactions are settled on a net basis.

monetized the budget deficits of the Government and banks as part of fulfillment of their statutory obligations. The main factor that inhibited the development of the sovereign yield curve in India in the pre-reform period was the prevalence of artificially low administrative coupon rates on these securities which were out of alignment with other interest rates in the economy. The coupon rates remained virtually unchanged up to 1979-80. Thereafter, although coupon rates were revised upwards, especially for the securities of longer tenor, the yield of a 30-year Government bond remained lower than the maximum bank deposit rate. The Reserve Bank, despite being the debt manager for the Government, did not have control over volume, maturity and term structure of interest rates in the Government securities market. This was mainly on account of absence of any limit to the automatic monetization of budget deficits of the Central Government. Consequently, the market remained narrow with captive participation from institutions as dictated by statutory requirements. Apart from the Reserve Bank holding securities on its own account, the major investors were banks, insurance companies, provident funds and other trust funds. The Reserve Bank did not have special representatives in the market and had to make use of services of stock-brokers. The non-remunerative yields and captive nature of the Government securities market impeded secondary market activity. The maturity structure of the Government securities remained highly skewed in favour of longer term of more than 15 years.

The reform process for the Government securities market focused on the following major areas:

§ A need was felt to phase out the administered interest rate system and bring in market discovery of prices of Government securities so as to ensure broad-based participation. Accordingly, auction-based system for issuances of Government dated securities was initiated from June 1992. The auctioning system has been essentially of multiple-price variety, whereby successful winning bids are filled at the bid price. Occasionally, however, for dated securities, with a view to eliminate the typical "winner's curse" problem of the multiple price method and for broadening investor participation, uniform price auction has been adopted whereby successful bidders pay a flat price, called the cut-off price. Furthermore, to diversify participation, allotment is also made through non-competitive bids outside the notified amount to State Governments, non-government provident funds, other central banks and individuals.

- § An appropriate network of intermediaries [Discount and Finance House of India (DFHI) in 1988, Securities Trading Corporation of India (STCI) in 1994 and primary dealers (PDs) in 1995] was created with the objective of strengthening securities market infrastructure. A PD provides a minimum bidding commitment, maintains a minimum success ratio, underwrites and offers two-way quotes in the Government securities market. The PD system enables a lowering of the market borrowing cost of the Government as far as possible consistent with a prudent degree of rollover risk. There were 18 primary dealers in March 2004, which accounted for more than a quarter of outright turnover in the Government securities market. Endeavour has also been made to make participation in this market wider and voluntary. The statutory liquidity ratio (SLR), the proportion of net demand and time liabilities that a bank had to keep as investments in Government and other approved securities, was brought down from 38.5 per cent to its minimum value of 25 per during the first half of 1990s. The Reserve Bank's monetization of Government deficits through subscriptions of Government dated securities was also reduced; the Reserve Bank's primary subscriptions occur now with the objective of managing liquidity or to devolve the gilt on its own account when market conditions are not conducive so as to off-load the same through sales under open market operations (OMO) with the return of market conducive conditions. Foreign institutional investors were permitted in the gilt market from July 1997. The retailing of Government securities was promoted by allowing trading of Government securities in the stock exchanges through anonymous screen-based order-driven basis for providing countrywide access.

- § The Reserve Bank shifted from passive to active management of public debt as the practice of automatic monetization of the Central Government deficit through ***ad hoc*** Treasury Bills was phased out and replaced by a scheme of Ways and Means Advances (WMA). As the ***ad hoc*** Treasury Bills bore a fixed coupon rate of 4.6 per cent and WMA is extended at interest rates linked to the Bank Rate, the abolition of ***ad hoc*** Treasury Bills has served as a major landmark for migrating to a system of market-related interest rates in the Government securities market.

- § Attempts were made to introduce new instruments so as to suit the diverse investor requirements like zero coupon bonds (January 1994), floating rate bonds (September 1995), capital indexed bonds (December 1997) and bonds with call and put options (July 2002). However, plain vanilla bonds have remained the mainstay. Since 1999-2000, a policy of reissuance of key securities through price-based auctions has been undertaken to enable passive consolidation of public debt, help in emergence of benchmark securities and promote liquidity in the Government securities market. Active consolidation

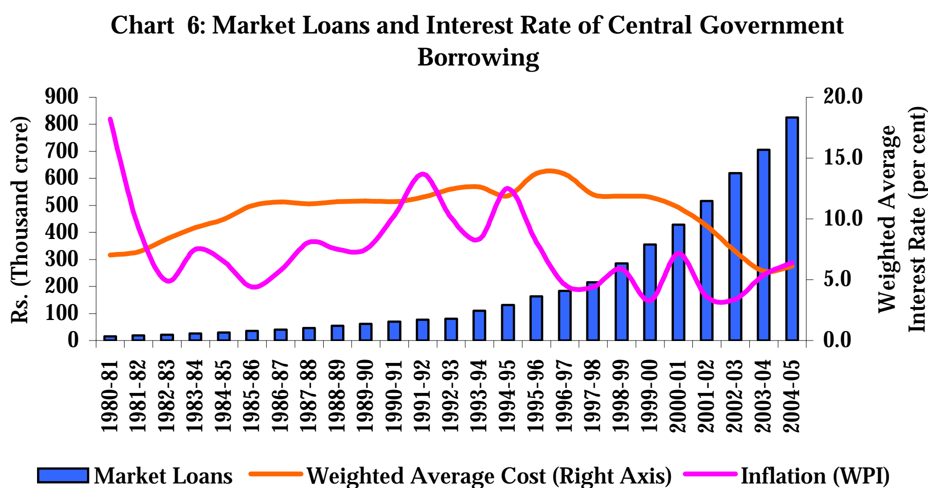
of public debt was undertaken under debt buyback scheme in July 2003 under which high cost and illiquid securities issued in the past were bought back by the Government in exchange of new securities at the prevailing market yield.

§ A policy priority has been to improve the market practices in Government securities as per the best international practices. Efforts have been made to calibrate technological upgradation of trading, payment and settlement structure in the gilt market in a phased manner so as to make it safer, transparent and efficient. Settlement risk has been lowered with the introduction of delivery *versus* payment (D*v*P) system in July 1995, which ensures settlement by synchronising the transfer of securities with cash payment. The D*v*P graduated into the third stage from April 2004 where settlement of both securities and funds are on a net basis. The Clearing Corporation of India Limited (CCIL) commenced operations from February 15, 2002 in clearing and settlement in Government securities. Backed by a settlement guarantee fund (SGF), CCIL acts as central counterparty and provides guaranteed settlement. The Negotiated Dealing System (NDS), which was also set up simultaneously, provides on-line electronic bidding at the auctions and permits 'paperless' settlement of transactions in Government securities with electronic connectivity with CCIL and D*v*P system. Measures were introduced from May 2002 for holding of Government securities in dematerialised mode instead of physical fashion, which had carried the potential risks of irregularities through non-delivery. Screen-based order-driven trading of gilts was also allowed in stock exchanges in January 2003. The operationalization of real time gross settlement (RTGS) was undertaken from March 2004 for continuous processing and settlement transfer of funds so as to minimise payment risk. Efforts have been made to wider investor base in the Government securities market. The Reserve Bank of India authorised banks and primary dealers to open Constituent Subsidiary General Ledger (CSGL) accounts for their constituents for wider participation in the Government securities market. The cumulative debt investment for foreign institutional investors (FIIs) was raised from US$ 1 billion to US$ 1.75 billion with the ceiling on corporate debt at US$ 0.5 billion being kept over and above the ceiling in government securities of US$1.75 billion.

The switchover to the system of market-related interest rates facilitated the Government to raise substantial market loans since the early 1990s (Chart 6). Reforms ushered flexibility both in the supply and demand sides of the Government securities market. On the supply side, the Reserve Bank undertook active debt management by modulating maturity structure of primary gilt issuances as per the requirements. It was shortened from 16 years in 1990-91 to 5.5 years in 1996-97 to reduce costs of Government borrowing. However,

subsequently, with a view to avoid bunching of repayments, the maturity structure of Government securities was elongated to 15 years in 2003-04. Availability of ample liquidity enabled the Reserve Bank to elongate the maturity of gilt issuances with substantial reduction in weighted average yield from 13.7 per cent in 1996-97 to 5.7 percent in 2003-04. Strikingly, the auctioning system has facilitated a market-related softening of the interest cost of Government borrowing as opposed artificial lowering of the interest cost in the pre-reform administered interest rate regime.

Chart 6: Market Loans and Interest Rate of Central Government Borrowing

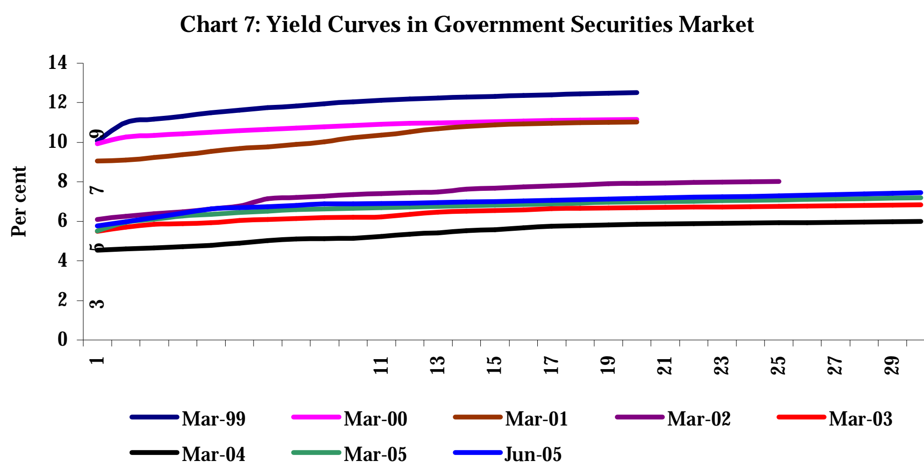


On the demand side, investor base for Government securities has widened from commercial banks, financial institutions, provident and pension funds to co-operative banks, regional rural banks, mutual funds and non-bank financial companies in the recent years. The Reserve Bank's share in the total stock of Government securities has steadily declined reflecting its sterilization operations as well as its policy of keeping private placements/devolvements on its own account to the minimum. Strikingly, despite SLR reductions, banks have been maintaining gilt investments much above the stipulated levels voluntarily, especially during phases of slack in credit time and market expectations of softening of interest rates. Mutual funds dedicated exclusively for investments in Government securities or gilt funds have been set up to encourage retailing of gilts. Furthermore, a scheme of non-competitive bidding reserving up to 5 per cent of notified amount in the auctions for individuals was introduced from January 2002.

These developments have enabled evolution of a smooth yield curve in the Government securities market. The maturity of the yield cure has gradually

elongated in the recent years. Persistent rallies in the prices of Government securities have progressively shifted down the yield curve. Furthermore, with the prevalence of liquidity overhang and repo rate as an anchor of short-term rates, the yield curve has progressively flattened in recent few years (Chart 7). The transactions in the secondary market in the Government securities market have expanded at a phenomenal pace, increasing from Rs.1, 22,942 crore in 1996-97 to Rs.27, 23,621 crore in 2004-05. The sharp increase especially in the recent years reflected a sustained rally in the prices of Government securities market as well as increased use of the repo market.

Chart 7: Yield Curves in Government Securities Market



Section V. Assessment of Reforms and Future Challenges

The progress made by the Indian capital markets in the post-liberalization phase in terms of implementing international standard practices, widening and deepening of capital markets and the technological progress has been remarkable. It should, however, be noted that this period was also marked by greatest turmoil that the markets have ever witnessed. With timely and appropriate policy initiatives, systemic failures were avoided. Some of the fundamental problems relating to Indian capital markets include existence of huge number of illiquid stocks, lack of depth with few companies accounting for the majority of trading volume, low delivery ratio and concentration of trading with a few brokerage houses. Although some of these problems are chronic and difficult to solve for any regulatory authority, these problems underline the need to develop the capital markets further.

With the initiation of financial sector reforms, the avenues for raising

long-term finance for the Indian corporates are undergoing some shift. While corporates now have increased access to international capital markets, the channelization of funds from the traditional source of long-term finance to the corporate sector, ***i.e.***, development financial institutions (DFIs) have been slowing down. With some of these DFIs converting themselves into universal banks, one can expect a boost in the flow of medium to long-term finance from the banking sector to the corporate sector as these DFIs have existing client base and expertise for evaluation and monitoring of project finance. After the East Asian crisis, a unanimous view has emerged according to which a multi-agency approach for meeting the demand for long-term funds would be both effective and efficient. Under such an approach, the equity market, the debt market, banks and financial institutions should together meet the long-term financing needs of the corporates.

The development of corporate debt market is, however, still relatively inadequate. The investors are mostly institutions with very few retail investors. Transparency is limited both in the primary and the secondary markets, liquidity is poor and many bonds are held till redemption. The legal recourse in case of non-payment of interest and principal is complicated and bankruptcy laws afford little comfort. To develop corporate bond market, conscious efforts have to be made for increasing the supply of high quality paper, creating adequate institutional investor base, ensuring a variety of instruments of differing maturities and mounting supporting infrastructure. Emphasis also needs to be placed on efficient legal systems as important infrastructure for deep and liquid bond markets. Among legal reforms, bankruptcy laws or capacity to seize collaterals are particularly important. Experience also indicates that in many emerging countries, since the risk is transferred to the creditor in bond markets as compared to banks, there is a preponderant bias towards bank deposits among household savers in many countries. In other words, development of domestic corporate debt market is bound to be a long drawn process and banks will have to continue to be special and dominant in the financial systems of most emerging economies.

Some success has also been achieved in creating a deep and liquid Government securities market as the investor base has widened with the participation of non-bank players, limited primary purchases of the Reserve Bank and market-related movement of coupon rates. The elimination of automatic monetization by the Reserve Bank and reduction of statutory pre-

emption of banks have provided the much needed autonomy for the conduct of the monetary policy. Considerable progress has been made in establishing state-of-the-art institutional framework, risk-management systems, clearing and settlement systems and transparency in debt management operations in the Government securities market. However, several challenges continue to remain. First, the need for better co-ordination of the debt and monetary management functions continues to be there as the timing and amounts of issuance of Government securities may not always coincide with compulsions of monetary management. A progress has already been made in this direction as an indicative half-yearly calendar for issuance of Government securities is announced so as to minimize the uncertainty on the part of both the debt manager as well as the investors. Secondly, there is a need to introduce new instruments like longer-term repos, rollover of repos and separate trading of the coupon instruments with the operationalization of Separate Trading for Registered Interest and Principal of Securities (STRIPS). Capital Indexed Bonds (CIBs) with modified features would be introduced shortly so as to offer inflation-linked returns both on the coupons and the principal repayments. Thirdly, the derivatives market is in an evolving stage in India and, therefore, its development has to be cautiously planned to avoid pitfalls. There is a need to harmonize the regulatory prescriptions for over-the-counter (OTC) and exchange traded interest rate derivatives. Furthermore, in order to strengthen the OTC derivatives market and to mitigate the risks involved, a clearing arrangement through CCIL also needs to be worked out. The trading volumes of Government securities in the stock exchanges continue to suffer. Finally, market operation mechanisms need to be worked out for the phase commencing April 2006 when the Reserve Bank of India would not participate in the primary market of Government securities. An appropriate role needs to be designed for the primary dealers for successful completion of primary auctions during this phase.

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