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Corporate Debt Market in India: Issues and Challenges[1]

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Abstract

At the current time, when India is endeavoring to sustain its high growth rate, it is imperative that financing constraints in any form be removed and alternative financing channels be developed in a systematic manner for supplementing traditional bank credit. While the equity market in India has been quite active, the size of the corporate debt market is very small in comparison with not only developed markets, but also some of the emerging market economies in Asia such as Malaysia, Thailand and China. A liquid corporate bond market can play a critical role by supplementing the banking system to meet the requirements of the corporate sector for long-term capital investment and asset creation. While it is true that the Indian corporate debt market has transformed itself into a much more vibrant trading field for debt instruments from the elementary market about a decade ago, yet there is still along way to go. In this brief note, we systematically study the issues and challenges facing the corporate debt market in India, throw light upon the steps already taken by regulatory authorities to give fillip to this debt market and also provide our own recommendations.

JEL Classification: G1, G2

Key Words: Corporate bond market, Government Securities, Secondary market, Interest rate futures, Private placement.

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INTRODUCTION

At the current time, when India is endeavoring to enhance its growth rate, it is imperative that financing constraints in any form be removed and alternative financing channels be developed in a systematic manner for supplementing traditional bank credit. In this context, development of long-term debt markets – corporate debt as well as municipal debt – is critical in mobilization of the huge magnitude of funding required to finance potential business expansion and infrastructure development.

Before we discuss the evolution and current state of Indian corporate debt market, it may be useful to discuss the rationale for long-term debt markets, in general as well as in context of the Indian economy and to analyze the significant role played by long-term debt markets in supporting economic development, especially in emerging market economies (henceforth EMEs).

a) Ensuring financial system stability: A liquid corporate bond market can play a critical role by supplementing the banking system to meet the requirements of the corporate sector for long-term capital investment and asset creation. Banking systems cannot be the sole source of long-term investment capital without making an economy vulnerable to external shocks. Historical and cross-sectional experience has shown that systemic problems in the banking sector can interrupt flow of funds from savers to investors for a dangerously long period of time (Jiang, Tang, & Law, 2002). One of the lessons from the 1997 Asian financial crisis was the importance of having non-bank funding channels open. In the aftermath of this crisis, a number of countries in the region that were badly affected by the financial turmoil, including Korea, Malaysia, Singapore and Hong Kong, have made progress in building their own corporate debt markets. Spreading credit risk from banks' balance sheets more broadly through the financial system lowers the risks to financial stability. Bond financing reduces macroeconomic vulnerability to shocks and systemic risk through diversification of credit and investment risks.

b) Enabling meaningful coverage of real sector needs: The financial sector in India is too small to cater to the needs of the real economy. A comparison of the asset size of the top ten corporations and that of the top ten banks (as shown in Figure 1 below) reveals that banks in India are unable to meet the scale or sophistication of the financial needs of

corporate India. Needless to say, the financial system is not big enough to meet the needs of small and medium-sized enterprises either. While these are pointers to the fact that the banking sector in India needs to be larger than its current size, they are also clear indicators that debt markets need to grow manifold to ensure that the financial sector becomes adequate for an economy as large and ambitious as India's.

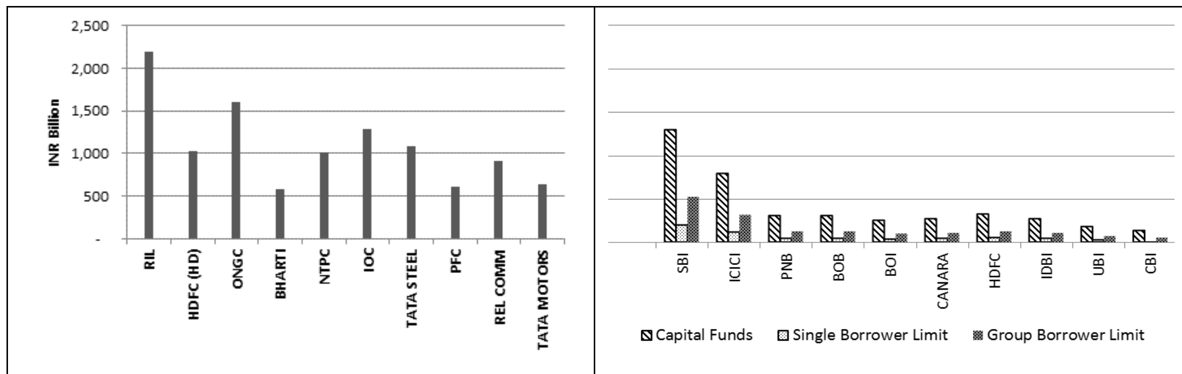

Figure 1: A comparison of the asset size of the top ten corporates and exposure limits of the top ten banks above reveals the disparity in credit demand and supply. Panel A: Assets of top 10 corporations (2011) Panel B: Capital funds and exposure limits of top 10 banks (2011)

c) Creating new classes of investors: Commercial banks face asset-liability mismatch issues in providing longer-maturity credit. Development of a corporate debt market enables participation from institutions that have the capacity as well as aptitude for longer maturity exposures. Financial institutions like insurance companies and provident funds have long-term liabilities and do not have access to adequate high quality long-term assets to match them. Creation of a deep corporate bond market can enable them to invest in long-term corporate debt, thus serving the twin goals of diversifying corporate risk across the financial sector and enabling these institutions to access high quality long-term assets. Thus, access to long-term debt opens up the market to new classes of investors with an appetite for longer maturity assets and thereby helps prevent maturity mismatches.

d) Reduced currency mismatches: The development of local currency bond markets has been seen as a way to avoid crisis, not only by supplementing bank credit but also because these markets help reduce potential currency mismatches in the financial system. Currency mismatches can be avoided by issuing local currency bonds. Thus, well-developed, liquid bond markets can help firms reduce their overall cost of capital by

allowing them to tailor their asset and liability profiles to reduce the risk of both maturity and currency mismatches.

e) Term structure and effective transmission of monetary policy: The creation of long-term debt markets also enables the generation of market interest rates at the long end of the yield curve, thereby facilitating the development of a more complete term structure of interest rates. A deeper, more responsive interest rate market would in turn provide the central bank with a mechanism for effective transmission of monetary policy.

CURRENT STATUS OF INDIAN CORPORATE DEBT MARKET

India has been distinctly lagging behind other EMEs in developing its long-term corporate debt market. While the equity market in India has been quite active, size of the corporate debt market is very small compared to not only developed markets, but also major EMEs in Asia such as Malaysia, Thailand and China. Traditionally, bank finance coupled with equity markets and external borrowings has been the preferred funding source in India. Small and medium enterprises face significant challenges in raising funds for growth.

The proportion of bank loans to GDP in India is approximately 37% (Reinhart, C. M. & Rogoff, K. S.), while that of corporate debt to GDP is only 5.4% (BIS, 2012). The BIS report estimates the corporate debt securities in India to be nearly INR 4.5 trillion in 2011. However, according to the Securities and Exchange Board of India (henceforth SEBI) database, outstanding corporate bonds amount to around INR 9 trillion during the same period making it nearly 10.5% of GDP (SEBI, 2012). In contrast, corporate bond outstanding is close to 90% of GDP in USA where the corporate bond market is most developed and bond market financing has long replaced bank financing; around 34% in Japan, and close to 60% in South Korea (BIS, 2012). In terms of size, as of 2011, the Indian corporate bond market is close to 7% of that of China and 15% of that of South Korea (BIS, 2012). For a sample of eight Indian corporations that featured in Forbes 2000, corporate bonds accounted for only 21% of total long term financing. In contrast, corporate bonds accounted for nearly 80% of total long term debt financing by

corporations in the four developed economies of USA, Germany, Japan and South Korea.[2]

In India the long-term debt market consists largely of government securities (henceforth G-Secs). In 2011, in terms of size, Indian corporate bond market stood at INR 8,895 billion which was only 31% of G-Secs, the outstanding issuances of which stood at a staggering INR 28,427 billion (SEBI, 2012). Based on the experience of G7 countries since the 1970s, Goldman Sachs has estimated that the total capitalization of the Indian debt market (including public-sector debt) could grow nearly four-fold over the next decade from roughly USD 400 billion in 2006 to USD 1.5 trillion by 2016 (Goldman Sachs, 2007). This growth, if not crowded out by public sector debt, could result in increased access to debt markets for Indian corporates.

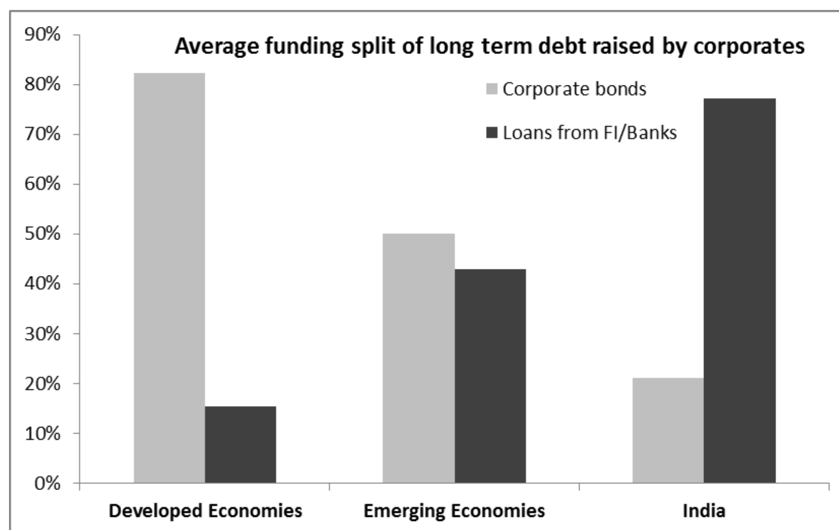

Figure 2: Funding split of long term debt raised by corporations

The total corporate bond issuance in India is highly fragmented because bulk of the debt raised is through private placements. The dominance of private placements has been attributed to several factors, including ease of issuance, cost efficiency and primarily institutional demand (Patil, 2005). Furthermore, trading is concentrated in a few securities, with the top five to ten traded issues accounting for bulk of the total turnover

[2] Based on data collected for a sample of 72 corporations across 9 countries, including India, for FY 2010-11.

(SEBI, 2010). The secondary market is also minuscule, accounting for only a small share of the total trading Figure 3.

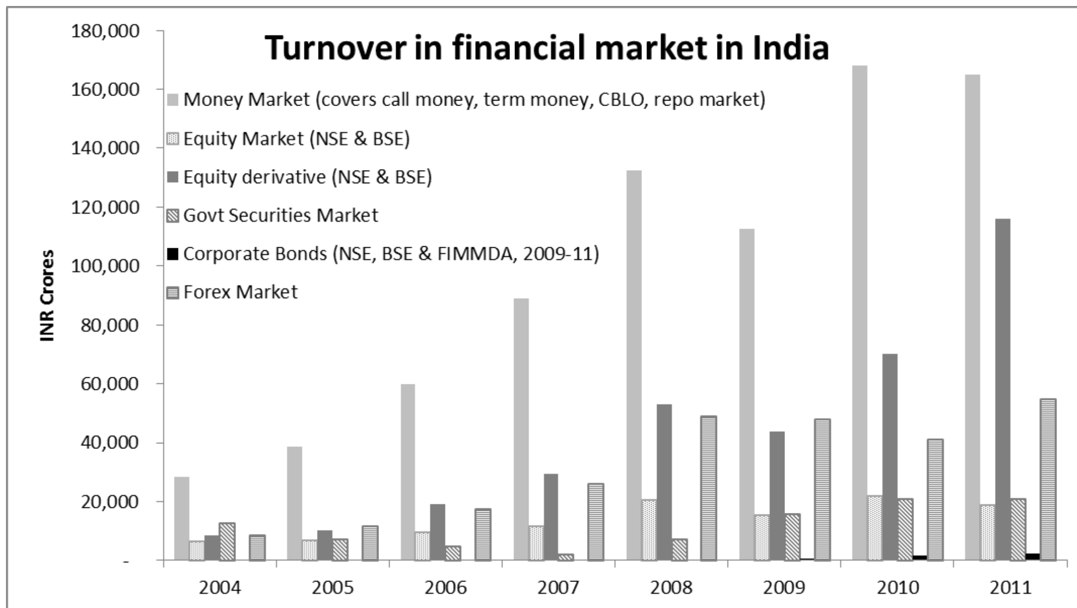

Figure 3: Turnover in Indian financial market (Source: RBI Database on Indian Economy, www.indiastat.com, SEBI)

Development of the domestic corporate debt market in India is constrained by a number of factors; the prominent ones being-low issuance leading to illiquidity in the secondary market, narrow investor base, high costs of issuance, and lack of transparency in trades. The market suffers from deficiencies in products, participants and institutional framework.

All these despite the fact that India is fairly well placed insofar as pre-requisites for the development of the corporate debt market are concerned. There is a reasonably well-developed government securities market, which generally precedes the development of the market for corporate debt securities. The major stock exchanges in India have trading platforms for transactions in debt securities. Infrastructure also exists for clearing and settlement in the form of the Clearing Corporation of India Limited (CCIL). Finally, the presence of multiple rating agencies meets the requirement of an assessment framework for bond quality.

Supply Side Issues

The peculiar issue with the Indian corporate debt market is not that it faces challenges due to a lack of adequate infrastructure as mentioned above. Some of the constraints are structural while some emanate from regulatory roadblocks. In what follows, we have systematically categorized these issues into supply-side, demand-side, secondary-market and risk-hedging related issues and have made an attempt in this chapter to explore each of these issues in detail.

Analysis of the Private Placement Market

As mentioned earlier, the total corporate bond issuance in India is highly fragmented because bulk of debt raised is through private placements. In fact over 95% of the issuances in India are through private placements. The private placement route requires that the issuer make an offer to a select group of investors, no more than 50, to invest in the debt securities for issue. However, corporations are known to circumvent the 49 investor cap in private issuances by making multiple bond issuances for many groups of 49 investors or satisfying the greater demand through immediate secondary market transfers upon the completion of the primary issue, thus diffusing the issue among a greater number of subscribers. Therefore there is a clear need to remove impediments that hinder the development of the institutional side of the market.

The *SEBI Issue and Listing of Debt Securities Regulations 2008, in Ch III, Sec 20* lays out conditions for private placement that include, compliance with *The Companies Act of 1956*, obtaining credit rating, listing of securities, mandating disclosure standards as per Sec 21 that stipulates the documentation and disclosure requirements (detailed in *Schedule I of the Regulations*[3]). The private placement disclosure and documentation requirements are viewed by the market to be comprehensive yet not being too onerous in terms of compliance. On the other hand, disclosure and documentation requirements for public placement of securities are viewed by the market as being extremely onerous and difficult to comply with.

In addition to the *Schedule I* requirements for private placements, public placements also have to comply with additional disclosure requirements, as specified in *Schedule II of The Companies Act of 1956*. These are an exhaustive set of disclosures in

three parts. The first part contains general information, capital structure information, terms and issue particulars, information on company, management and project as well as information on all companies under the same management, and finally management perception of risk factors. The second part contains additional general, financial, statutory and other informational disclosures. With such an extensive set of disclosure requirements for public issues, it seems that the market has been avoiding this route for issuing bonds. This is evident from Figure 4 that private placement route outscores the public offer route for resource mobilization among the Indian corporates.

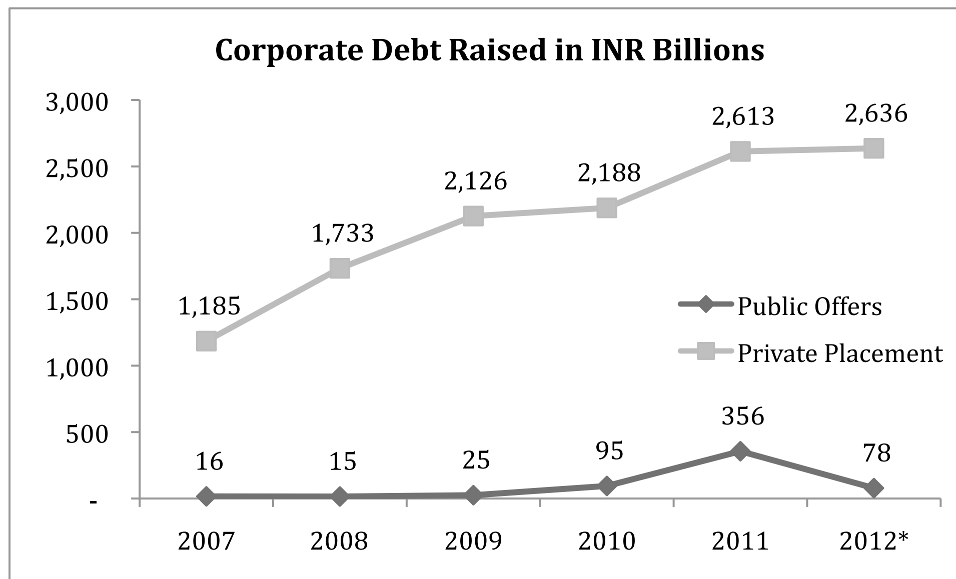

Figure 4: Corporate debt raised through public offers and private placements (*2012 data is as of Dec 2012) (SEBI Handbook, 2012)

Table 1: Resource mobilization in private placement market (RBI Handbook, 2012)

	Private Sector					
	Financial Institutions		Non-Financial Institutions		Total	
Year	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount
2008-09	687	606	383	351	1,070	957
2009-10	1,630	1,424	640	909	2,270	2,333
2010-11	878	720	460	495	1,338	1,215
	Private Sector					
	Financial Institutions		Non-Financial Institutions		Total	
Year	No. of Issues	Amount	No. of Issues	Amount	No. of Issues	Amount
2008-09	123	656	91	428	214	1,084
2009-10	151	743	67	357	218	1,100
2010-11	212	990	38	180	250	1,169

Table 1 above reiterates that over the years, number of issuances by the private sector has been much more than that of the public sector. However, volumes of the private sector have been lower than public sector. This indicates that the average size of issue by private sector corporations has been close to INR 1 billion as against the larger size of public sector issuances amounting to INR 4 to 5.5 billion over the years.

Table 1 also reveals that financial corporations dominate over their non-financial counterparts both in private and public sectors, in the number as well as volume of issues over the years. Figure 5 also corroborates this finding.

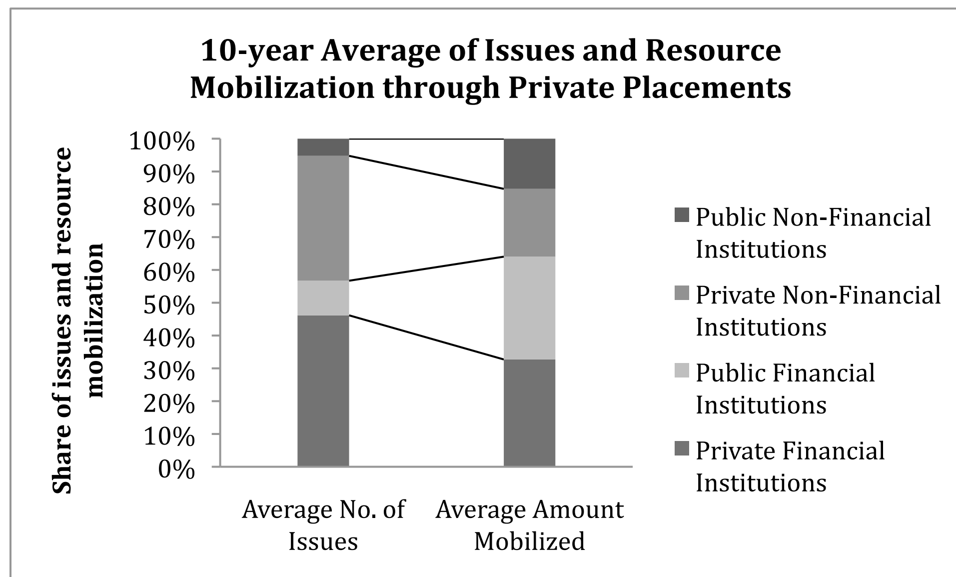

Figure 5: Break-up of private issues and resource mobilization- 10 year average over the period 2000-2010 (RBI Handbook, 2012)

Recent steps to address supply side issues

In 2005, a High Powered Expert Committee (HPEC) on Corporate Bonds & Securitisation led by Dr. R.H. Patil—the Patil Committee, made a variety of recommendations to address prevailing issues in Indian corporate bond market. The recommendations were spread across three broad areas – (i) Primary Market, (ii) Secondary Market and (iii) Securitisation. One of the primary recommendations to address supply-side issues was enhancement of the issuer base. The Patil Committee recommended that in order to reduce the time and cost of public issuance, disclosure norms and listing requirements be reduced. The Committee also recommended that in the

case of issuers that are already listed, these requirements be reduced even further (Patil, 2005).

In 2007, SEBI was made the regulator for the primary and secondary bond markets. In December of the same year, SEBI vide circular dated December 3, 2007 amended the provisions pertaining to issuances of Corporate Bonds under the *SEBI (Disclosure and Investor Protection) Guidelines, 2000*. The changes to the guidelines were as below:

- For public issues of debt instruments, issuers now need to obtain rating from only one credit rating agency instead of from two. This was done with a view to reduce the cost of issuances.
- In order to facilitate issuance of below-investment grade bonds to suit the risk appetite of investors, the stipulation that debt instruments issued publicly shall be of at least investment grade has been removed.
- Further, in order to provide issuers with desired flexibility in structuring of debt instruments, structural restrictions such as those on maturity, put/call option, conversion, etc have been done away with.

In May 2009, SEBI issued a *Listing Agreement for Debt Securities* that provided for a simplified regulatory framework for the issuance and listing of Non-Convertible Debentures (NCDs). The circular released by SEBI was split in two parts. The first part prescribed incremental disclosures for issuers that were already listed and the second part pertained to issuers who were unlisted and prescribed detailed disclosures for them.

To conclude, supply-side issues in the Indian corporate debt market remain primarily cost related and to some extent related to heavy disclosure norms, some of which have recently been simplified through regulatory changes. Hopefully the steps taken by regulators to address these issues will help further deepen the bond market development by promoting more public issuances in multiple categories.

DEMAND SIDE ISSUES

Development of a smooth-functioning corporate debt market needs to be driven by demand-side reforms as well. A study of investment norms for banks, insurance

companies, pension funds, and provident funds helps to understand specifics of the investment bottlenecks that may have prevented the development of a well-functioning corporate debt market in India.

According to the eligible Statutory Liquidity Ratio (SLR) investments (as per *Master Circular – Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR) issued on July 01, 2011*), banks are required to hold 24% of their liabilities in cash, gold, central and state government investments, thereby leaving non-government bond market instruments completely out of the picture.

For a life insurer it is very important to generate high returns while maintaining asset quality to avoid credit risk. In India, norms for insurance company investments are made in the *Insurance Regulatory and Development Authority (IRDA) Investment Amendment Regulations, 2001*, and cover the following businesses: life insurance, pension and general annuities, unit linked life insurance, general insurance and re-insurance. The only section of the Act that allows for long-term, non-government investments is the infrastructure and social sector investments of 15+% and unapproved investments of 15%. Further, according to this Act, the pensions and annuities businesses cannot have any portion of their funds invested in non-government linked investments. Investment regulations governing life businesses require that at least 65% of assets be held in various types of public sector bonds.

Funds are permitted to invest in corporate bonds, but the category of "approved investments" only includes bonds rated AA or above. Bonds below AA (which are rare in India), can be held in unapproved assets. Then again, total unapproved assets cannot exceed 15% of the portfolio and are subject to exposure norms limiting exposure to any company or sector. In practice, insurance companies hold less than 7% in unapproved assets. For instance, as of 2011 and 2012 the proportion of unapproved assets in the total investments by life insurance companies were 4.85% and 4.42% respectively (IRDA, 2012).

A major part of investments (approx. 47%) for life and pension businesses is thus being held in G-Secs and other government approved securities, which are relatively safe instruments. In other words, the investment norms of insurance companies, banks, pension funds in India are heavily skewed towards investment in government and public

sector bonds which acts as a detriment to the corporate bond market development. Without long-term investors like pension funds and insurance companies investing in corporate debt, it is difficult to see how the corporate debt market will take off.

The adverse effect of this legal/regulatory lacuna on corporate debt market is further aggravated by the fact that the high fiscal deficit of the Government of India (GoI) is financed by the issue of GoI bonds or G-Secs. The fact that the *Fiscal Responsibility and Budget Management (FRBM) Act* that required the GoI to reduce its deficit to sub-3% levels by 2009 has been put in abeyance in the wake of the financial crisis of 2008, implies that the fiscal deficit has been going up and government bond issuances continue to finance this deficit. This has effectively served to further crowd out private corporate debt issuance.

The discussion above highlights the following key issues:

1. High level of G-Sec issuances in the Indian debt market,
2. Low level of corporate bond issues; both these issues are inter-related since large government debt issuance on account of high fiscal deficit has a crowding out effect on corporate debt,
3. Market preference for very safe AA and above rated assets with little market for issuances below AA thus creating a very thin debt market. In fact till 2007-08, AA and above rated bonds accounted for nearly 70% of the total issues by number and nearly 92% by volume. Only in the last few years has the market seen a significant increase in the number of issuances of non-investment grade bonds. During 2010-11, bonds rated BBB and below accounted for nearly 75% of total issuances by number (Figure 6) but only 12% by volume Figure 7. AA and above rated bonds continue to dominate the market with nearly 80% of the share by volume in 2010-11.

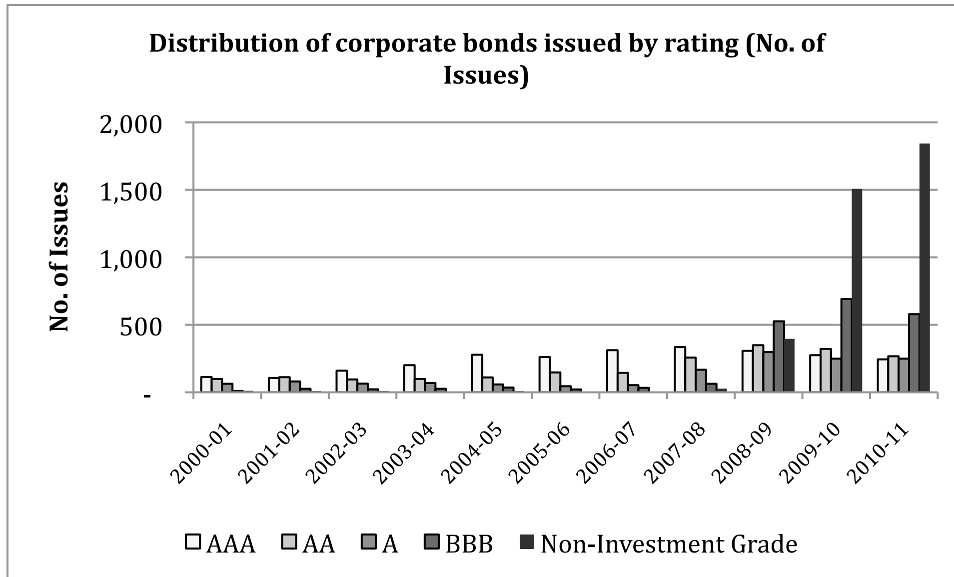

Figure 6: Distribution of corporate bonds by rating (Issues) (SEBI Handbook, 2012)

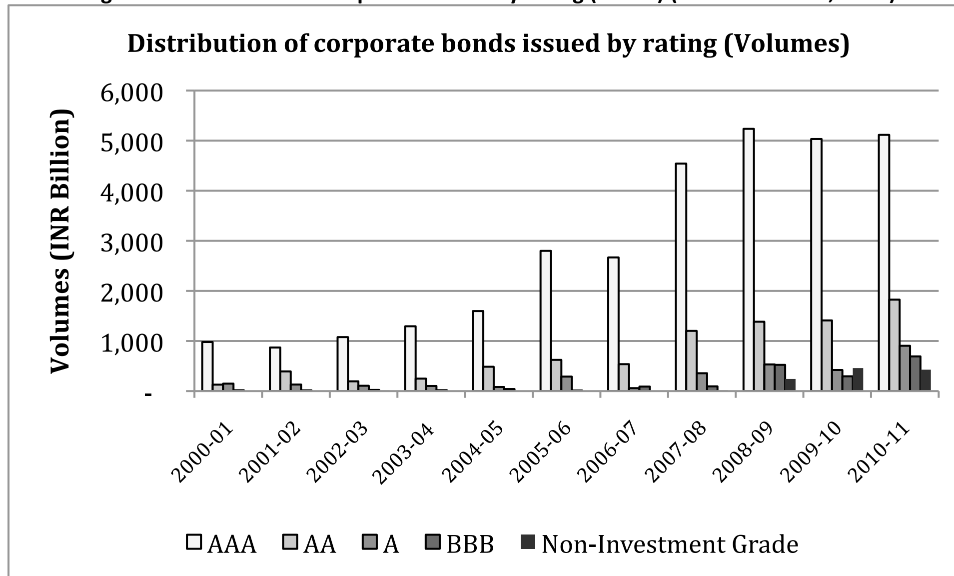

Figure 7: Distribution of corporate bonds by rating (Volumes) (SEBI Handbook, 2012)

Recent steps to address demand side issues

The Patil Committee made a few recommendations on enhancing the investor base – an important demand-side issue that was subsequently addressed in part by the SEBI. In order to enhance the investor base and diversify its profile, the Committee recommended that the investment guidelines of Provident/Pension Funds be directed by the risk profile of instruments rather than the nature of instruments. The Committee also recommended an increase in investment limits for Foreign Institutional Investors (FIIs).

In the "*Plan for a unified exchange traded corporate bond market*" – a report of the internal committee of SEBI in 2006, it is mentioned that the point is to be taken up with the Government and Reserve Bank of India (RBI) wherever relevant – "*So as to encourage the widest possible participation for domestic financial institutions, IRDA, the Central Board of Trustees of the Employee Provident Fund Organisation (EPFO) and the Pension Fund Regulatory and Development Authority (PFRDA) should modify their respective investment guidelines to permit insurance companies, provident and gratuity funds, and pension funds respectively to invest/ commit contributions to SEBI registered Infrastructure Debt Funds*."

In July 2011, the EPFO put out requests for proposal while appointing custodians of Securities of EPFO. The document listed the investment guidelines for EPFO fund managers alongside terms and conditions and duties of custodians. Though the prescribed pattern of investment for EPFO favours investments in central and state government securities, it allows up to 30% to be invested in any central government securities, state government securities or securities of public financial institutions (public sector companies) at the discretion of the Trustees. Of this, one-third is permitted to be invested in private sector bonds/securities, which have an investment grade rating from at least two credit rating agencies, subject to the Trustees' assessment of the risk-return prospects.

Demand-side issues remain trickier to resolve as they are tied to a variety of other regulations on investment and an over-arching prescription for "safe investments" i.e. for instruments rated AA and above. Understandably, demand exists only for such instruments and the market caters to this demand, creating in turn a thin-market. A market for high-yield bonds is practically non-existent, suggesting that risk-return profiles are uniform throughout the market, which need not necessarily be the case.

Moreover, much of this lack of appetite is also linked to the lackluster secondary market in corporate bonds. Investors in any market would require an active platform where they would be able to liquidate their assets or square off positions if need be, especially in a high-yield market. In the case of India's fledgling secondary market in corporate bonds, market activity is highly bunched up at one end of the market at all times, making holding fixed-income securities riskier unless they are being held till

maturity. In keeping with the Patil Committee's recommendations, investment guidelines that are directed by risk/return profile of investments and investor appetite rather than the nature of investments will help boost demand for a wider range of debt securities and hopefully help in building a deeper, more active market with varied investor profiles.

SECONDARY MARKET ISSUES

The absence of secondary markets for corporate bonds in India is arguably one of the most important reasons for this market not seeing the kind of growth one would expect. The public (G-Secs) debt market with an outstanding amount close to INR 27,468 billion (USD 610.40 billion) (BIS, 2012), had a secondary market turnover of around Rs. 29,689 billion (USD 660 billion) for the year 2011 (RBI, 2012). The outstanding amount of corporate debt was Rs. 8,895.1 billion (USD 197.7 billion) in 2011 (SEBI, 2012). The corporate debt turnover in the secondary market was roughly Rs. 6,041.9 billion (USD 134.26 billion) during the year 2010-11. To put these numbers in context, by the end of 2008, the Indian equity market turnover was roughly Rs. 46,808.8 billion (USD 1,040.2 billion) (RBI, 2012).

Besides the G-Secs market, there is a market for corporate debt papers in India which trades in short term instruments such as commercial papers and certificate of deposits issued by banks and also in long term instruments such as debentures, bonds, zero coupon bonds, step up bonds etc. Investors have stayed away from the fixed income secondary market as the market has lacked liquidity, transparency and depth. Some of the key issues that have traditionally plagued the secondary markets in long term debt in India are: i) absence of market makers and liquidity; ii) preference to bank deposits, postal savings schemes, NSCs etc over bonds because of liquidity risk; iii) lack of pricing and benchmarking-there is no yield curve at longer horizons due to thin trading volumes and poor price discovery.

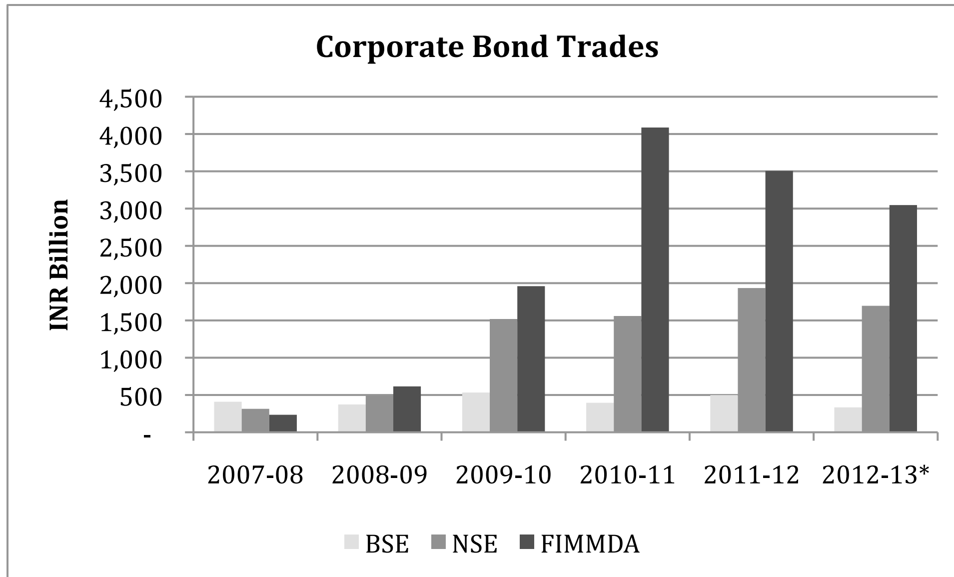

Figure 8: Corporate bond trading volumes (*2012-13 data is till Dec-2012) (SEBI Handbook, 2012)

Although in principle, it is possible to determine a 30-year yield curve but insufficient liquidity makes it less credible; iv) small institutional investor base; v) lack of adequate risk management products; vi) higher interest rates; falling interest rates during 2000s made G-Secs attractive and trading peaked during these periods. However, the reversal of the interest rate trend since 2004 has robbed the trading in G-Secs off its sheen.

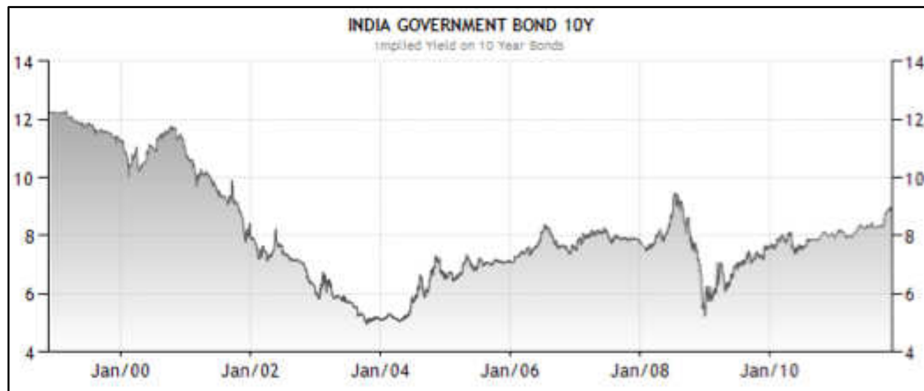

Figure 9: 10-year G-Sec yield (Source: www.tradingeconomics.com)

This reluctance in investor participation warrants some amount of surprise as the necessary infrastructure for an active secondary market, i.e. trading, clearing and settlement seems to be in place. It is commonly accepted that even with sufficient market infrastructure, the corporate bond market continues to operate over-the-counter (OTC). This is the case even in bigger and more developed markets like the corporate debt

markets of the USA, where most trading occurs in an OTC dealer market. In the US, broker-dealers execute majority of the transactions in a principal capacity and act on behalf of their clients. In India however, SEBI has mandated that all OTC trades are to be reported, settled and cleared through the authorized clearing-houses. This paves the way for greater price discovery and an actual measure of activity in the OTC bond market. To explore the steps taken by SEBI to deepen secondary market activity, we feature a timeline in Box 1 that lists the developments in trading, reporting, clearing and settlement over the years.

Box 1: Steps taken by SEBI to develop secondary market

1. In 2005, the Patil Committee mandated the creation of a corporate bonds database by the major stock exchanges that would cover credit events in addition to other information about the bonds. Also, in order to address outstanding issues on the trading, reporting, clearing and settlement of corporate bonds, the committee also mandated that all trades be reported.

2. In order to develop an exchange traded market for corporate bonds SEBI vide circulars dated December 12, 2006 and March 01, 2007 authorized the two stock exchanges – BSE and NSE, to set up and maintain corporate bond reporting platforms to capture all information related to trading in corporate bonds as accurately and as close to execution as possible. Subsequently, Fixed Income Money Market and Derivatives Association (FIMMDA) has also been permitted to operate a reporting platform. As per the circulars, all issuers, intermediaries and contracting parties are granted access to the reporting platform for the purpose and transactions are to be reported within 30 minutes of closing the deal. The data reported on the platform is disseminated on the websites of BSE, NSE and FIMMDA.

3. Trades executed by members of BSE/NSE are to be reported on the respective platforms of their stock exchanges. In the case of OTC trades parties can choose between any one of the three platforms. BSE and NSE shall coordinate amongst themselves to ensure that the information reported with them is aggregated, checked for redundancy and disseminated on their websites in a homogenous manner. The mandate applies to all trades in listed debt securities issued by banks, public sector undertakings, municipal corporations, bodies corporate and companies. Subsequent to the launch of the corporate bond-reporting platform at NSE, reporting may be made to either platforms of BSE or NSE but not to both for the same transaction.

4. Further, in March 2007, NSE and BSE were advised by SEBI to provide data pertaining to corporate bonds comprising issuer name, maturity date, current coupon, last price traded, last amount traded, last yield (annualized) traded, weighted average yield price, total amount traded, rating of the bond and any other additional information as the stock exchanges think fit. In August 2007, SEBI started placing information on secondary market trades (both exchange and OTC trades) on its website on the basis of data

provided by the two exchanges.

5. As a second phase of development, SEBI vide Circular dated April 13, 2007 permitted BSE and NSE to have in place corporate bond trading platforms to enable efficient price discovery and reliable clearing and settlement in a gradual manner. To begin with, BSE and NSE have launched an order driven trade-matching platform, which retains essential features of an OTC market where trades are executed through brokers. OTC trades however continue to be reported on the exchange reporting platforms. In order to encourage wider participation, the lot size for trading in bonds has been reduced to Rs.1 lakh. On November 11, 2013 NSE launched its own trading platform.

6. On October 16, 2009, SEBI mandated the clearing and settlement of corporate bond trades through clearing corporations. It was decided that all trades in corporate bonds between specified entities namely, MFs, FIIs, VCs, Foreign Venture Capital Investors, Portfolio Managers and RBI regulated entities shall necessarily be cleared and settled through the National Securities Clearing Corporation Limited (NSCCL) or the Indian Clearing Corporation Limited (ICCL). NSCCL issued a circular on November 23, 2009 facilitating a centralized clearing and settlement mechanism for enabling smooth and robust transaction closures. The provisions of the circular apply to all corporate bonds traded OTC or on the debt segment of stock exchanges on or after Dec 01, 2009. However, the provisions are not applicable to trades in corporate bonds that are traded on the capital market or equity segment of the stock exchanges and are required to be settled through clearing houses of stock exchanges.

7. On November 29, 2010 SEBI requested the Ministry of Labor to issue directions to authorities responsible for Provident Funds/Pension Funds/Pension Schemes to ensure mandatory reporting of corporate bond trades and to ensure clearing and settlement of such trades through NSCCL or ICCL. Subsequently the Pension Fund Regulatory and Development Authority (PFRDA) in a circular dated December 30, 2010 asked all Provident Funds to mandatorily report and settle the trades in corporate bonds with the Clearing Corporation.

Through these measures, SEBI has tried to promote secondary market activity in the bond market. With the infrastructure that these measures have spawned, the Indian bond market potentially enjoys improved transparency and pre-requisites for greater activity such as an established clearing and settlement mechanism, a market-driven trading platform and smaller lot sizes for trading. For a variety of other reasons however, secondary market activity continues to be subdued. As recent as November 2013, SEBI underscored the need for a unified trading platform for corporate bonds in order to integrate the activities of the OTC platform, the exchanges and FIMMDA.

Retail Debt Market

The retail trading in G-Secs started on January 16, 2003 in accordance with the SEBI Circular dated January 10, 2003. Both NSE and BSE introduced trading facility through

which retail investors could buy and sell G-Secs. Table 2 below shows the dismal picture of volume and number of trades in the retail debt market (RDM) at NSE.

Table 2: Business growth in NSE's RDM segment

Period	No. of Trades	Traded Quantity	Traded Value (INR Lakhs)
2003-2004	912	372,820	464
2004-2005	31	122,390	149
2005-2006	0	0	0
2006-2007	4	121,20	14
2007-2008	0	0	0
2008-2009	0	0	0
2009-2010	5	50	0
2010-2011	2	20	0

Wholesale Debt Market (WDM)

NSE's WDM segment provides trading facilities for a variety of debt instruments including Government Securities, Treasury Bills and Bonds issued by Public Sector Undertakings/ Corporates/ Banks like Floating Rate Bonds, Zero Coupon Bonds, Commercial Papers, Certificate of Deposits, Corporate Debentures, State Government loans, SLR and Non-SLR Bonds issued by Financial Institutions, Units of Mutual Funds and Securitized debt by banks, financial institutions, corporate bodies, trusts and others. The WDM segment showed robust growth during the period 1995-2004 at which point the G-Sec secondary market lost its steam due to rising interest rates after 2004 (Figure 10).

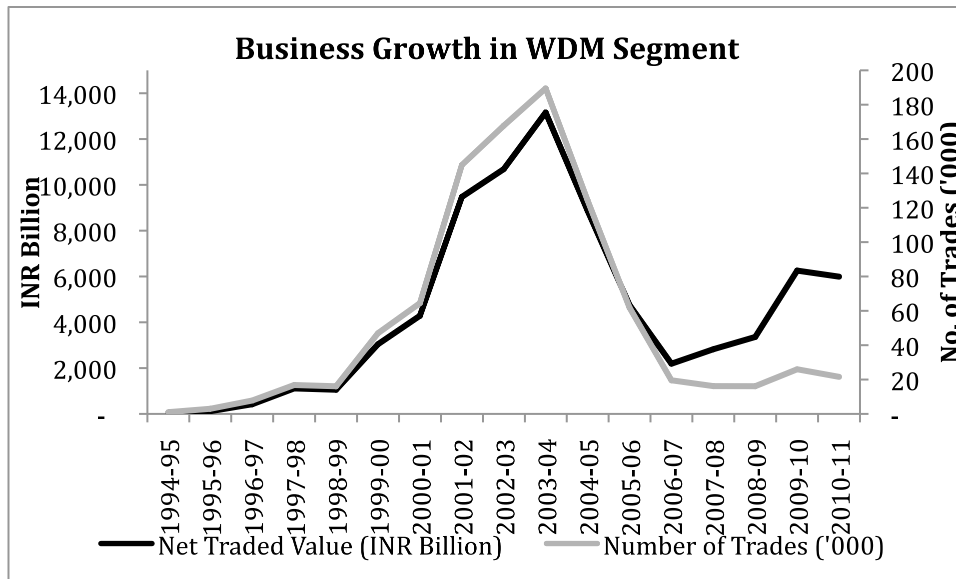

Figure 10: Business growth in NSE WDM segment

The market regulator (in this case, SEBI) has systematically attempted to weed-out secondary market issues and tried to promote more activity, in the process of attempting to enable the corporate bond secondary market and making them more efficient. However, data suggests that secondary market activity remains subdued. Though the necessary infrastructure is in place for a conducive and active secondary market, there is one more portion of the larger issue that regulators have tried to address time and again but without much success– the presence of an active hedging market or the availability of adequate risk-management tools. The hedging market is fairly new and has witnessed very low levels of activity owing to it being highly complex and regulated.

RISK AND HEDGING RELATED ISSUES: CDS

One of the standard instruments used to hedge against risk in a corporate debt market is the credit default swap or CDS instrument. A CDS is a credit derivative contract between two counterparties. The buyer makes periodic payments to the seller, and in return receives a payoff if an underlying financial instrument defaults or experiences a similar credit event. Development of a CDS market may lead to a gradual deepening of the

corporate bond market as CDSs can enhance the bond market investors' appetite for lower rated issuers, beyond their traditional favorites in the high-safety category.

CDS market in India

India's fledgling CDS market kicked-off on Dec 6, 2011 with two deals covering 100 million rupees ($1.9 million) worth of bonds. The deals, both 1-year trades were between ICICI Bank and IDBI Bank (underwriter), at 90 basis points and covered 50 million rupees each of 10-year bonds issued by Rural Electrification Corp (REC) and India Railway Finance Corp, according to details on the Clearing Corp of India Ltd's website. The RBI has since then allowed banks to begin hedging their banking and trading books using CDS, signalling that the infrastructure is finally in place for the launch of the instruments in Asia's fourth biggest bond market.

According to *paragraph 113 of the Second Quarter Review of Monetary Policy for year 2009-10*, an Internal Group was constituted by the RBI to finalize the operational framework for the introduction of plain vanilla OTC single-name CDS for corporate bonds in India. Draft guidelines on CDS based on the recommendations of the Group were placed on the RBI website on February 23, 2011 and were open for comments from all concerned. Comments were received from a wide spectrum of banks, primary dealers and other market participants and accordingly the guidelines were suitably revised in the light of the feedback received. The guidelines became effective from October 24, 2011.

The RBI guidelines which incorporate learning from the CDS markets worldwide ensure that CDS is neither used for speculative purposes nor to build up excessive leveraged exposures. Following stipulations are directed particularly at avoiding any serious systemic threat that maybe caused by such an innovative and complex financial product:

- Only investors who own the underlying securities are allowed to purchase CDS insurance thereby ruling out the entire gamut of 'naked' CDS contracts and ensuring that the CDS market cannot get bigger than the underlying debt market. The investors are required to submit an auditor's certificate or custodian's certificate to the protection sellers, of having the underlying bond while entering into/unwinding the CDS contract. This is good for ensuring

liquidity in the bond market without inviting systemic risk related troubles by curbing speculation but bad for the CDS market development per se.

- Trading in the derivative contracts will remain confined to lenders based in India thereby limiting the number of participants and making it easier to regulate and monitor. At the moment only banks can sell protection whereas in markets like the US, the sellers would include hedge funds, insurance companies, and asset managers. In India, only Banks, primary dealers, financially strong non-bank finance companies and any institution approved by the RBI will be eligible as market makers and will be allowed to sell protection. Foreign participants and hedge funds, which typically have a big appetite for credit risk, are not allowed to sell protection. Foreign institutional investors are allowed as "users", which means that they can buy credit protection to only hedge their credit risk. Although RBI's guidelines allow insurance companies and mutual funds to be sellers, this is subject to their respective regulators (IRDA and SEBI) permitting them to do so. This is not likely to happen until the market has become a bit more developed.
- Entities permitted to quote both buy and/or sell CDS spreads — market makers — need a minimum capital to risk (weighted) assets ratio (CRAR) of 11 percent and Net NPAs of less than 3 per cent.
- Users or buyer of CDS contracts are not allowed to sell protection and are not permitted to hold net short positions in the CDS contracts.
- Investors can exit their bought CDS positions by unwinding them with the original counterparty or by assigning them in favor of buyer of the underlying bond. The RBI has also included restructuring under credit events for CDS. Buyers will have a grace period of 10 business days from the sale of the underlying bond to unwind the CDS position.
- CDS will be allowed only on listed corporate bonds as reference obligations. However, CDS can also be written on unlisted but rated bonds of infrastructure companies.
- The CDS contract shall be denominated and settled in Indian Rupees.

- The RBI does not permit dealing in any structured financial product with CDS as one of the components neither will it allow dealing in any derivative product where the CDS itself is an underlying.
- Fixed Income Money Market and Derivatives Association of India (FIMMDA) shall devise a Master Agreement for Indian CDS. There would be two sets of documentation: one set covering transactions between *user* and *market-maker* and the other set covering transactions between two *market-makers*.
- The CDS contracts shall be standardized. The standardization of CDS contracts shall be achieved in terms of coupon, coupon payment dates, etc. as put in place by FIMMDA in consultation with the market participants. This guards against customized contracts wherein the market-makers and users are free to determine the terms.
- Protection seller in the CDS market shall have in place internal limits on the gross amount of protection sold by them on a single entity as well as the aggregate of such individual gross positions. These limits shall be set in relation to their capital funds. Protection sellers shall also periodically assess the likely stress that these gross positions of protection sold, may pose on their liquidity position and their ability to raise funds, at short notice.
- Market makers shall report their CDS trades with both users/investors and other market-makers on the reporting platform of CDS trade repository within 30 minutes from the deal time. The users would be required to affirm or reject their trade already reported by the market- maker by the end of the day.
- For CDS transactions, the individual market participants would maintain the margins. Participants may maintain margins in cash or Government securities.

The vast majority of the Indian corporate debt market consists of bonds from state banks and quasi government entities. The rest comprises mostly of debt from high investment-grade corporate borrowers where the motivation of the bondholder to buy CDS protection is low. The volume of medium to low investment-grade corporate bonds in India is insignificant but the availability of CDS protection may help it grow substantially.

Increased use of CDS, over the medium term, has the potential to impart additional liquidity to the bond markets, which have so far been predominantly illiquid. It will help lower rated borrowers diversify their funding sources by accessing the bond markets. CDS also holds promise of providing a thrust to the much-needed infrastructure financing. RBI has allowed dealing in CDS for infrastructure companies even on unlisted bonds, rather than only on the listed ones. A coordinated action by the other regulators can allow insurance companies, pension funds, and provident funds to also participate in this space through the CDS route.

RISK AND HEDGING RELATED ISSUES: INTEREST RATE FUTURES

A corporate debt market also suffers from an inherent interest rate risk-one of the most pervasive risks in an economy. The increasing importance of interest rate risk for the corporate sector in a deregulated interest rate environment is now widely appreciated. A way to hedge against such a risk is to use an interest rate future (henceforth IRF).

Like the CDS, an IRF is a financial derivative based on an underlying security, a debt obligation that moves in value as interest rates change. Buying an interest rate futures contract will allow the buyer to lock in a future investment rate. When the interest rates scale up, the buyer will pay the seller of the futures contract an amount equal to the profit expected when investing at a higher rate against the rate mentioned in the futures contract. On the flip side when the interest rates go down, the seller will pay off the buyer for the poorer interest rate when the futures contract expires. In other words, IRFs are an agreement to buy or sell an underlying debt security at a fixed price on a fixed day in the future, and the prices of these derivatives mirror the rise and fall in the yield of the underlying government bonds. Unlike overnight interest rate swaps, IRFs have to be traded on exchanges rather than over the counter.

IRFs account for the largest volume among financial derivatives traded on exchanges worldwide. For financial markets in India, IRFs present a much needed opportunity for hedging and risk management by a wide range of institutions and intermediaries, including banks, primary dealers, corporations, foreign institutional investors, retail investors etc.

2003 Initiative in India

As a part of the process to make Indian financial market more robust, the finance ministry and regulators like Reserve Bank of India introduced some new financial products between 2000 and 2005. Introduction of IRFs in 2003, which allowed participants to take a call on the future movement of interest rates as a hedging tool, was one such move.

The SEBI group on Secondary Market Risk Management first discussed the introduction of interest rate derivatives in India at its meeting on March 12, 2003 and then the NSE first launched 10-year bond futures in June 2003. According to the RBI, it was necessary to supplement the OTC market for interest rate products by an active exchange-traded derivative market. However the initiative turned out to be a failure; in less than three months after the launch, trading in bond futures literally stopped. Among other factors, restrictions on short selling and requiring financial institutions to use derivatives only for hedging purposes could account for the inactivity of the product. In other words, the absence of speculators may have robbed the market off badly needed liquidity.

2009 Initiative

As the market for IRFs failed to pick up and almost vanished, it was reintroduced in August 2009 to allow participants to buy protection against and bet on interest rates changes. Trading in interest rate futures on 91 day Treasury Bills began on August 31, 2009, clocking trading volumes of Rs 276 crore on the first day of trade. The SEBI and the Reserve Bank of India have limited the maturity of IRF contracts between a minimum of three months and a maximum of 12 months. While the maximum tenor of the futures contract is 1 year or 12 months, usually it would have to be rolled over in three months making the contract cycle span over four fixed quarterly contracts.

This time around banks were allowed to hedge interest rate risks as well as take bets on the rate trajectory. Also, foreign institutional investors were given access to the market. This apart, a company, or a non-resident Indian or a retail investor was also eligible to trade in the IRFs market. The following are some of the advantages of this initiative:

- Interest rate futures on 91-day treasury bill can be used for hedging against volatile interest rates.
- They are cash-settled, as a result, investors can trade without the worry of being saddled with illiquid contacts, which could have been the case if the contracts were physically settled.
- No securities transaction tax (STT) is levied.
- Low margins required as compared to trading in equities and equity derivatives.
- The new product would be traded in the currency segment of the exchange so there is no requirement of any new formalities of a new account.

However the 2009 initiative failed to click as well. The average daily trading turnover on NSE fell from Rs 77.5 crore in September 2009 to Rs 6 crore in January 2010. By February 2010, the average trading value dropped to a meager Rs 3.02 crore. Since then NSE began registering almost nil volumes for several months. Trading in IRFs has thus slowed to a trickle as initial enthusiasm has been replaced by worries about the limited variety of players in the market and fears that the dice are loaded in favor of sellers. According to bankers, one problem seems to be that the underlying bonds are illiquid. In a bid to ease concerns over delivery obligations, in December 2009, SEBI allowed exchanges to set any period of time during the delivery month as the delivery period for the securities.

According to SBI officials, the product itself is defective because only the seller gains as he has the discretion of delivering either liquid or illiquid securities. Moreover, developed markets where IRFs have already taken off allow short selling and provide a good repo market. In India, short selling is not allowed beyond five days, and the repo market is not adequately developed. As a result there are mostly people who want to the sell the futures and buy bonds on spot thereby creating a situation wherein everyone sits on one side of the market.

To alleviate some of these concerns, Life Insurance Corp. of India, India's largest insurer, and RBI decided to purchase government bonds from members who desire to liquidate the securities received against their interest rate derivative obligations. Analysts have also pointed out that the three months' tenor for the underlying asset (91- day Tbills in this case) is too short to base an IRF product on. IRFs seem to be on a deathbed due to

complete lack of interest among the participants. In fact, in some of the trading days the volume has been as low as Rs 9 lakh. Lack of awareness among the Indian financial institutions is another major reason while the foreign financial institutions find the Indian market too small and the size of the deals tiny.

The second reason is the lack of depth because only two government securities have been introduced for future options while large number of other government bonds and corporate bonds are still out of the purview of interest rate futures. Moreover, according to market players, the prime reason for the failure of this segment is that banks are staying away from it. While the OTC market sees huge participation from foreign and private sector banks, the exchange platform has not been able to attract the same players. In order to revive this promising financial product and to make it robust, a long term planning is required. We need to create much more awareness on the efficacy of interest rate future as a hedging tool against interest rate volatility, and there should be many more securities.

2011 Initiative

In 2011, SEBI decided to introduce new products in the sagging IRF segment such as derivatives based on shorter-tenure bonds that can be cash-settled. On Dec 30, 2011, RBI and SEBI decided to introduce IRFs on notional 2-year and 5-year coupon bearing G-Secs. The 2-year and 5-year IRF contracts shall be cash-settled and the final settlement price shall be based on the yields of the basket of securities underlying each Interest Rate Futures contract specified by the respective stock exchange. Shorter duration products that can be settled in cash are expected to attract market players.

The industry has been asking for such products and the policymakers are hoping that it will provide new life to the IRF segment. However according to skeptics, the market has totally shunned these instruments and the current environment does not guarantee any success for the new products either. No one is willing to bet on rates on account of high inflation and high borrowing.

CONCLUSION

Development of long-term debt markets is critical for the mobilization of the huge magnitude of funding required to finance potential businesses as well as infrastructure expansion. Despite a plethora of measures adopted by the authorities over the last few years, India has been distinctly lagging behind other developed as well as emerging economies in developing its long-term corporate debt market. Traditionally, bank finance, coupled with equity markets and external borrowings have been the preferred funding sources. The domestic corporate debt market suffers from deficiencies in products, participants and institutional framework. As India aims to regain its erstwhile high growth rates of the early 2000s, there is bound to be a lot of pressure on infrastructure financing which is currently done primarily through budgetary support or bank credit and this is where a well-developed corporate bond market can play a significant role.

Some of the main challenges facing the corporate bond market as detailed in this chapter remain the inadequate liquidity in the secondary market, lack of debt market accessibility to small and medium enterprises, dearth of a well-functioning derivatives market that could have absorbed risks emanating from interest rate fluctuations and default possibilities, inadequate market infrastructure, excessive regulatory restrictions on the investment mandate of financial institutions, large fiscal deficit, high interest rates and the dominance of issuances through private placements and AAA rated bonds which in turn also prevent retail participation and aggravate the dependence on bank financing.

According to a survey conducted by the Confederation of the India Industry (CII), the Indian corporate bond market is estimated to attain a size equal to 15% of GDP by the end of the 12th Plan i.e. by 2017. In order for this to be achieved there has to be concerted policy and regulatory reforms as well as adequate political will to bring about legislative and fiscal changes. Bold and sustainable reforms are urgently needed to develop the interest rate futures and credit default swap markets in order to give market participants a chance to hedge their risk, create a liquid and active secondary market thereby preventing investors from following their current buy and hold strategies, and of course, encourage wider investor participation.

For India to have a well-developed, vibrant, internationally comparable corporate debt market that is able to meet the growing financing requirements of the country's dynamic private sector, there needs to be effective co-ordination and co-operation between the market participants that include investors as well as corporations issuing the bonds and the regulators. Self-regulation by market players may also be more effective than any enforced control. Issues such as crowding of debt markets by government securities cannot be addressed by market participants and regulators alone. Better management of public debt and cash could result in a reduction in the debt requirements of the government, which in turn would provide more market space and create greater demand for corporate debt securities.

Clearly, the market development for corporate bonds in India is likely to be a gradual process as experienced in other countries. Regulators as well as market participants need to play a proactive role. It is important to understand whether the regulators have sufficient willingness to shift away from a loan-driven economy and also whether the corporations themselves have strong incentives to help develop a deep bond market. Only a conjunction of the two can pave the way for the systematic development of a well-functioning corporate bond market.

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