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MARKET STRUCTURE OF BOND MARKET IN INDIA

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ABSTACT

Bond market is an integral component of capital market segment. It is a known fact that it becomes the cynosure when the equity markets are dull and lackluster, but the seasoned movement of bond market will not suffice the requirement of developed financial market. However, Indian equity market is well developed and has world class infrastructure but the whole financial system needs to be developed for the economy to grow. Although the Indian bond market is flooded with government securities having deep liquidity and adequate infrastructure, yet corporate bond market lacks liquidity and depth because of various constraints with respect to supply, demand; regulatory, operational and infrastructural issues. Problems in primary market give a spillover effect on secondary market. The two markets should maintain a balance between them. The paper gives an overview of market structure of bond market in terms of primary and secondary market and it was found out that few numbers of debt public issues and low rated corporate bonds are prevalent in the corporate bond market. Until and unless primary market is well developed; secondary market cannot be developed. There are very few trades taking place in this market, which are restricted only to AAA rated bonds. Various initiatives are taken by regulators to improve the development of corporate bond market.

Key words: Corporate bond, primary market, secondary market, private placement, credit rating

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INTRODUCTION

India is a lower-middle income developing country and its financial system and financial markets are underdeveloped **(Akram and Das, 2015).** Financial markets facilitate transfer of funds from those who have excess funds to those who are in need of them ie. from surplus units to deficit units **(Madura, Jeff, 2016).** Important role of financial markets is to facilitate corporate financing activity. Broadly financial markets are categorised into capital market and money market and it is further segmented on the basis of products – equity, debt, foreign exchange and futures. All the markets are interrelated and interdependent on each other, this is the reason that why, every market has to be developed for the overall growth of economy. India depends heavily on the budgetary support system and banking system for the growth and development of infrastructure, whereas across the world, the sovereign, municipal and corporate bond market covers the major chunk. Therefore, the size of debt markets is three times larger than the equity market in developed and matured economy **(Raju et.al., 2004);** Whereas, it is just opposite in the case of India. Equity markets are more developed than debt market. However, the expansion of debt market is of vital significance in India as it can support the infrastructure financing. After the closure of development finance institutions (DFI's), there was a shift of long term financing by DFI's to commercial banks but the asset liability mismatch doesn't allow the latter to support infrastructure growth. Hence, debt market particularly corporate bond market which is growing has a huge potential to fill this void. Indian bond markets consist of Government securities[1]market and non Government securities market. The government securities market consists of central government and state government securities. Central government issues treasury bills and dated securities, whereas state government issues state development loans. The government raises funds for financing its fiscal deficit whereas, Issuers such as financial institutions, public sector units (PSUs), and non financial private sector comes under the purview of corporate bonds. The government securities (G-secs) are issued by Reserve Bank of India on behalf of government via auctions[2]. Companies being the deficit unit of financial system need funds for growth and expansion of their business and raise funds either by equity ie. owner's funds or debt ie borrowed funds **(Jangili and Kumar, 2010).** In other words, there are two main ways of raising funds – Shareholders funds and borrowed funds. Shareholders' funds include equity shares, preference shares and retained earnings, whereas borrowed funds include term loans from

[1] 'Government Security' is created and issued by the government for the purpose of raising public loan.

[2] Auctions can be either on price basis or on yield basis; on price basis, the coupon is pre decided and the bidding is done only on price per Rs. 100 of the face value, whereas if auction is done on yield basis, then the bids are received for the coupons and the maximum rate of yield or the minimum offer price is determined. G-secs are issued for a minimum amount of Rs. 10,000 and in multiples of that.

banks/Financial institutions or via debentures/bonds from public.

In March, 2016, bank assets accounted for 89% of GDP, corporate bond market was about 14% and equity was 80% of GDP[3]. This shows that India is a bank based economy but these days, bank is facing increasing bad loans and approx. 8.5% of GDP had been declared non-performing assets according to credit Suisse (September 2016). However, 11 public sector banks were put under prompt corrective action (PCA) framework since April, 2017, yet they continue to report low profitability and high NPA's. This led to increase in NPA ratio for the total banking sector to 11.6% in March 2018[4]. Therefore, there is a dire need to have robust alternate channels of debt funding.

The data shows that the companies prefer to raise funds through debt issue to equity issue. Refer table 1. Further, Corporations issue securities either by floating public issue or through private placements. In terms of public issue, equity outgrows debt and there is a constant increase in the number of public issues in equity since 2012-13, whereas; in terms of private placement, debt emerges as the most favorite route and the amount raised through latter is incomparable to other issues. Private placement through equity is vey less both in terms of number of issues and amount raised. It can be seen from table 1 that more than 75% of the total funds (equity + debt) every year are raised through private placement of debt. In 2016-17, the total resources raised increases by 56% as compared to its previous years. However, there is a slight increase in the public equity issue, and a decline in public debt issue but, a huge jump in share of private placements of debt, which increased to 91%. Also, it can be seen that Indian companies are debt laden companies as the debt component comprises of close to 95-96% of total resource mobilization from the financial markets. Yet the corporate bond market is miniscule. It is due to various constraints with respect to supply, demand and regulatory framework such as laxity in corporate insolvency framework, lack of transparency and standardization both in primary and secondary market the corporate bond market has not grown as equity market **(Khanna & Varottil, 2012)**. However, it has a potential to increase up to 15% of GDP provided the supply, demand and regulatory issues are resolved. Section II discusses the primary market of both government and corporate. it also gives a status of government and non government trading. Section III gives an overview of secondary market in both government and corporate bond market whereas section IV discusses the initiatives taken by regulators to improve the corporate bond market. Section V concludes the study.

Table 1: Resources Raised by Corporate Sector via Capital Market

[3] http://www.livemint.com/Opinion/FlBq03pUT8MEDmeFXAp8pM/Indias-corporate-bond-market-puzzle.html

[4] IMF country report No. 18/254, INDIA-2018 Article IV Consultation – Press Release; Staff report; and statement by the executive director for India.

Year	Equity				Debt				Total resources raised (Equity+ Debt) (A+B+C+ D)	Debt private placement as a % of total resources	Debt as a % of total resources
	Public & Rights issue (A)		Private Placement(B)		Public & Rights issue (C)		Private Placement (D)				
	No.	Amt (Rs. In bn)	No.	Amt (Rs. In bn)	No.	Amt (Rs. In bn)	No.	Amt (Rs. In bn)			
2008-09	46	147.19	NA	NA	1	15.00	NA	NA	NA	NA	NA
2009-10	70	324.27	49	367.18	3	25.00	2439	3065.60	3782.05	81.06	81.72
2010-11	77	376.27	19	136.70	10	94.31	1569	2247.20	2854.48	78.73	82.03
2011-12	51	128.60	6	51.60	20	356.10	852	2131.00	2667.30	79.89	93.24
2012-13	48	138.80	23	66.80	20	169.80	1011	3187.00	3562.40	89.46	94.23
2013-14	55	132.70	NA	270.10	35	423.80	NA	3626.40	4453.00	81.44	90.95
2014-15	64	97.90	44	287.50	25	97.10	2612	4177.00	4659.50	89.64	91.73
2015-16	87	240.00	21	194.20	20	338.20	2652	3889.80	4662.20	83.43	90.69
2016-17	118	325.20	24	137.00	16	295.50	3412	6534.00	7291.70	89.61	93.66
2017-18	227	1052.0	56	694.00	7	50.00	2518	6107.00	7903.00	77.27	77.91

Source: RBI Annual Report & SEBI

SECTION II PRIMARY MARKET

Primary market provides an opportunity to companies to raise the funds from the market. This is the market, where new issue take place i.e. companies float securities (equity or debt) first time for the subscription to the public and receives cash proceeds from the sale of securities. The first time subscription of the securities to the public is known as initial public offer and it is the most common way of raising fund through the primary market. It is one of the important components of capital markets, which enables government, non government/corporations and public sector units (PSU's) to raise funds for different projects.

Particularly in debt, Corporate debt market includes Non-convertible debentures, partly convertible debentures, secured premium notes, debentures with warrants, deep discount bonds, PSU bonds/Tax free bonds, issued by private corporate sector and PSU's including public financial institutions; whereas government securities are issued by the Reserve bank of India on behalf of government through auctions. The whole primary market for Indian securities is governed by Securities exchange Board of India (SEBI); however, the companies have to stick to the eligibility and disclosure norms given by Issue of Capital and Disclosure requirements (ICDR) Regulations 2009 prescribed by the SEBI.

As stated earlier, Public issue and private placement[5] are the two ways to issue securities and raise capital in

[5] Section 42 of the companies Act 2013 defines 'private placement' as: any offer of securities or invitation to subscribe securities to a select group of persons by a company (other than be way of public offer) through issue of a private placement offer letter and

primary market. Public issue is made available to public in general and private placement involves the issuance of securities to a relatively small number of investors. All government securities whether publicly issued or privately placed, can be made available for trading in the wholesale debt market segment (WDM[6]). Either of the ways leads to the listing[7] of security on the stock exchange and then it becomes available for trading in the secondary market.

Indian bond market is dominated by the government securities market leaving little room for corporate securities. Refer table 2. It provides the statistics on resources mobilized from debt market by corporate and the government.

The table 2 indicates that the issuances by government are much more than those of corporate securities. Moe than 70% of total debt issuances are by the Government. It is only after 2014-15, the share of g-secs has declined. Also, share of issuances by central government[8] in government securities is more than 50% whereas those of state government constitute approx. 15%-20%. Corporate securities issuances out of total issues by government and corporate combined shares a share of 26% in 2013-14, 32% in 2014-15, 42% in 2015-16 and 49%in 2016-17. Gradually, the share of corporate securities increased.

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which satisfies the conditions specified in this section including the condition that the offer or invitation is made to not more than 50 or such higher number of persons as may be prescribed in a financial year.

[6] WDM segment of NSE permits only high value transactions in debt securities via screen based trading platform through the NEAT. All types of SLR (G-Secs, T-bills) and non SLR (CP's, CDs) trade at this segment.

[7] Listing means the formal admission of security to the trading platform of a stock exchange.

[8] Securities issued by Government: **1**. **Treasury bills** generically known as T-Bills are issued for the fulfillment of short term reasons. Their maturity ranges from 91 day T-bill to the maximum of 364 days. They come in 3 tenors 91 day, 182 and 364 days. These are issued at discount and redeemed at par hence they are zero coupon securities with no interest payment. The difference between the issue price and the face value is their return. These are usually held by financial institutions including banks and the latter give T-bills to RBI to get money under repo. The annual calendar of T-Bills issuance is released in the last every They are issued via auctions, which is conducted every Wednesday by RBI. 91 day t-bills are issued every Wednesday whereas, 182 and 364 day T-bills are issued every alternate Wednesday. 181 day T-bills are issued on Wednesday prior to a non-reporting Fridays and 364 day T-bills are auctioned on Wednesday preceding the reporting Friday.

2. Dated Securities: The long term securities issued by government are known as dated securities. Depending upon the coupon disbursement, there are various types of dated securities – fixed rate bonds, floating rate bonds, zero coupon bonds, bonds with call/put, STRIPS, securitized bonds. The tenor of dated securities can be upto 30 years. State government issues bonds or dated securities which are called state development loans.

Table 2: Resource mobilization in debt markets by Government and Corporate sector

Year	Government Securities		Corporate Securities$	Government sec. as a % of total amount
	Central Government (Rs. Bn)	State Government*(Rs. Bn.)	Rs.in bn.	
2008-09	3,186	1181.38**	1758.27	71.29
2009-10	4924.97	1311.22	1834.777	77.27
2010-11	4794.82	1040.39	2016.763#	74.32
2011-12	6004	1588	2871	72.56
2012-13	6885	1773	3688	70.13
2013-14	7005	1967	3133	74.12
2014-15	7412	2408	4659	67.82
2015-16	4559	2594	5179	58.00
2016-17	4268	3427	7375	51.06

Includes Rs 120,000 million dequestered from the MSS cash account during 2008-09

*** Gross and net borrowings include MSS de-squestering**

 # Includes NDS-OM turnover

$ Includes public issue and private placements both

Source: ISMR, NSE

Since, the issuances by government cover a huge portion of total issues; therefore the corporate sector is being crowded out by government borrowings creating a supply side issue for the latter.

With in the corporate debt securities, hardly the companies raise funds through public issue and very few companies float initial public offer (Refer Table 3). These companies issued the non convertible debentures in several series through book building process

TABLE 3: INITIAL PUBLIC OFFER OF DEBT SECURITIES

year	Name of the Issuer	Name of the Issuer
2012 *	1. India Infrastructure Finance Company Limited (AAA) 2. Rural Electrification Corporation Limited (AAA) 3. SREI Infrastructure Finance Limited (AA) 4. Muthoot Finance Limited (AA-)	5. Religare Finvest Limited (AA-) 6. Shriram City Union Finance Limited (AA) 7. India Infoline Finance Limited (AA-)

2014	1. IFCI Limited (AA-) 2. D S Kulkarni Developers Limited (BBB+) 3. Shriram Transport Finance Compan Limited (AA+) 4. ECL Finance Limited (AA) 5. SREI Infrastructure Finance Limited (AA) 6. Kosamattam Finance Limited (BB+) 7. India Infoline Housing Finance	9. Rural Electrification Corporation Limited (AAA) y 10. Indian Railway Finance Corporation Limited (AAA) 11. Muthoottu Mini Financiers Limited (BB+) 12. Indian Renewable Energy Development Agency Limited (AAA) 13. India Infrastructure Finance Company Limited (AAA) 14. National Highways Authority of India (AAA)
2015	1. National Highways Authority of India (AAA) 2. Indian Railway Finance Corporation Limited (AAA)	4. Srei Equipment Finance Limited (AA) 5. ECL Finance Limited (AA)
2016	1. Indiabulls Housing Finance Limited (AAA) 2. Srei Infrastructure Finance Limited (AA)	4. Edelweiss Housing Finance Limited (AA) 5. Indian Railway Finance Corporation Limited (AAA)
2017	1. Srei Equipment Finance Limited (AA+) 2. Srei Infrastructure Finance Limited (AA+)	3. Srei Equipment Finance Limited (AA+)
2018	1. ECL Finance Limited (AA) 2. Shriram Transport Finance Company Limited (AA+) 3. Indiabulls Commercial Credit	5. Shriram Transport Finance Company Limited - NCD 8 (AA) 6. Dewan Housing Finance Corporation Limited (AAA) 7. Edelweiss Retail Finance

SOURCE: NSE

( ) mentions credit rating of the respective issue

*Details of public debt issue is available from 2012 onwards on NSE website

Hence it can be seen that the private placement through debt is a preferred route for corporate both in terms of amount raised and number of issues. More than 95% funds raised through primary issues in debt market are through this route and it is the institutional investors who invest in private placements. This clearly indicates low participation of retail investors in debt market. The institutional investors hold the corporate bonds till maturity; and they have already assumed the risk and hold under mark to market category **(Golaka Nath, 2012). Shukla & Prabhu (2016)** analyzed the factors that determine the choice of privately placed debt and found out that firms with higher assets, higher age and a situation of higher financial distress prefer to use private placement for resource mobilization. Also, the reason for popularity of private placement amongst corporate is may be because of the less disclosure, relaxed regulatory, compliance and operational norms **(RBI 2016, RBI 2007, Sophastienphong et al. 2008; Nath 2012).** From the perspective of cost effectiveness, it entails a cost of 0.5% whereas the same is 3-4 % for public issue **(Nath, 2012)**. The private placement issue distributes a brief document to the investor enclosing the brief details about the issue and the company issuing the bond. This does not require any kind of statutory disclosures, whereas public issue is an offer made to general public by issuing prospectus (document containing details about the company). Further, NSE launched NSE's electronic debt bidding platform in 2016 for issuing debt securities on private placement so as to bring efficiency and transparency and reduce time and cost for the same.

On the investors' front, majorly institutional investors are ones who invest in primary market. These are predominantly banks and domestic institutional investors such as pension funds, insurance companies and foreign institutional investors to a little extent. All these investors have a restriction on the types of bonds they can invest in. For example insurance companies can invest 75% of their corpus in AAA rated bonds as per their regulatory authority - IRDA. Also they cannot invest in companies rated below AA. Pension funds and Retiral funds can't invest in bonds rated below AA. Therefore most of the issuances of bonds are around AAA and AA and A rated (Refer Table 3). Table 4A shows that approx. 65% bond issuances are of AAA rated and more than 85% amount raised are by bonds having credit rating >A. The amount raised by non-investment grade bonds is very less. However, the number of bonds raised by the latter is approx.

70% which gradually declined and bonds having rating greater than 'A' which was having less than 30% share initially gradually increased to 78% by December 2017. Bonds with credit rating

>A have captured the market both in terms of number and amount raised.

Table 4A: Ratings assigned to corporate debt securities having maturity>1 year

Year	Highest safety (AAA)		High Safety (AA)		Adequate Safety (A)		Moderate Safety		Non-Investment grade		Percent of amount raised by bonds,	Percent of No. of bonds raised by
	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount		
2010-11	244	5,11,583	267	1,82,584	249	90,445	579	69,283	1,843	42,704	87.51	23.88
2011-12	256	5,36,245	380	2,38,381	267	88,534	710	53,401	2,793	56,239	88.73	20.49
2012-13	244	7,98,560	449	2,46,970	313	86,799	648	47,193	2,558	54,090	91.79	23.88
2013-14	169	7,58,737	303	2,01,516	187	79,790	422	81,244	1,351	38,475	89.68	27.10
2014-15	201	7,14,360	354	2,53,555	246	52,227	292	28,655	703	30,711	94.50	44.60
2015-16	178	10,31,140	309	1,93,074	214	40,889	151	6,180	100	8,886	98.82	73.63
2016-17	244	1308971	418	3,09,641	252	61,125	173	10,268	117	12,714	98.65	75.91
Apr.17-Dec-17	216	10,45,376	413	3,00,067	165	52,701	154	12,337	63	6,697	98.66	78.54

SOURCE: Handbook of statistics, SEBI 2017-18

The data indicates that almost 90% issuances are covered by AAA, AA and A rated bonds irrespective of the fact that whether the issue is publicly placed or privately placed (Refer table 3 and table 4) . There is hardly any market left for low rated bonds (Refer table 4A). Specifically looking at the data of June 2018 (Refer table 4B), approximately 62%bonds issued are AAA rated, 20% are AA and the percentage of total issuances decline with decrease in credit rating.

Table 4A: Distribution of issuances based on credit rating for year 2017-18

Credit Rating	% of share in total issuances
AAA	64.7
AA+	16.9
AA	7.8
AA-	5.1
A+	1.6
A	1.3
A-	0.4

Table 4B: Rating analysis of corporate bond issuances June 2018

Rating	No.	Amount (Rs. crores)	Avg. Tenor	Avg. Coupon (%)
AAA	24	34,745.00	4.79	8.14
AA	18	4075.00	3.14	9.53
A	11	1001.60	5.05	10.22
BBB	4	2730.00	6.12	11.05
BB	6	1036.20	4.26	11.17
NA	27	12556.96	5.74	12.57

Further, delving into corporate bonds; the data in table 5 shows that since 2008-09, the public issue of debt securities every year is miniscule as compared to the number of issues in private placement. Particularly in 2017-18, approx. Rs. 6 lakh crores were raised through bond issuances, out of which 99% are issued via private placement.
Out of total 2713 issuances in same year, only 7 belong to public issue. By June 2018, there are more than 5000 privately placed bonds listed on NSE and 157 publicly issued bonds. These 157 bonds are issued by only 12 companies (compiled from NSE website, 2018).

Table: 5 Resource mobilized by corporate in the form of corporate debt

Year	Public issues			Private placement					Total	
	No. of public issues	No. of comp a nies issuin g Publi	Amount Rs. (Cr.)	Number of issues				Amount Rs. (Cr.)	(Amount of public issues & amount of private placement) Rs. (Cr.)	% of private placement of total amount
				Only on NSE	Only on BSE	Both on NSE & BSE	Total No. of issues			
2008-09	1	1	1500	699	285	57	1041	173281.18	174781.2	99
2009-10	3	2	2500	647	597	34	1278	212634.92	215134.9	99
2010-11	10	5	9451.17	774	591	39	1404	218785.41	228236.6	96
2011-12	20	14	35610.71	1152	783	18	1953	261282.65	296893.4	88
2012-13	20	15	16982.05	1295	1094	100	2489	361462	378444.1	96
2013-14	35	20	42382.97	837	997	90	1920	276054.18	318437.2	87
2014-15	25	14	9713.43	1094	1386	131	2611	404136.50	413849.9	98
2015-16	20	16	33811.92	1198	1619	158	2975	458073.48	491885.4	93
2016-17	16	10	29547.15	1023	2177	177	**3377**	640715.51	670262.7	96
2017-18	7	5	4953.05	721	1812	173	**2706**	599147.08	**604100.1**	99
2018-19*	6	6	19067.38	90	410	28	528	100671.69	119739.1	84

* As on June 2018.
Source: compiled from SEBI

As far as the data with respect to number of bonds are concerned; particularly, in June 2018, corporate raised Rs. 56,145 crore by issuing 90 bonds in the primary market (Table 5). Majority of the bonds (60% of total issues) issued are medium term bonds; maturity ranging between 2-5 years. Also, all the bonds issued are fixed rate bonds and not a single issue is based on floating rate. This indicates that the Indian bond market has more of medium term bond but for long term sustainability, long term bonds are required, which are missing from the market. On the other side government bonds have a long term maturity (Refer table 6A).

Table 6: Tenor wise issuance of corporate bonds (Private Placement): June 2018

Tenor	No.	Amount (Crore) Rs.	Fixed	Floating	Zero Coupon	Avg. Fixed coupon	Max. Coupon	Min. Coupon
<= 1 year	4	2062.00	4	-	-	14.08%	22.00%	8.90%
> 1 year	13	3369.00	13	-	-	9.5%	12.00%	7.90%
>2 years<=5 years	53	34884.20	53	-	-	10.48%	18.00%	5.75%
>5 years=<=10 years	12	5726.60	12	-	-	9.84%	11.70%	8.90%
>10 years<=15 years	6	9795.00	6	-	-	9.04%	9.75%	8.00%
>15 years	2	307.96	2	-	-	11.25%	11.25%	11.25%

Source: Rakshitra, June 2018, CCIL

Table : 6A Maturity Profile of Outstanding Central Government Dated Securities

Maturity bucket	End march 2011	End march 2012	End march 2013	End march 2014	End march 2015
<1 year	3.41	3.5	3.10	3.95	3.65
1-5 years	25.54	26.70	27.90	25.99	24.59
5-10years	34.09	34.7	35.0	31.52	30.35
10-20 years	21.42	22.0	22.9	25.20	28.32
20 years and above	15.53	13.10	11.20	13.34	13.09

Source: RBI Report, December 2015

Further, table 7 shows industry wise corporate bond issuances where it can be seen that financial sector has always dominated the corporate bond sector (the figures given in table are approximate values). Majority of the bonds issued in FY 17-18 in bond market are done by banks/term lending business, financial service industry and housing industry (refer table 7A). Approx. 73% issuances are being made by the above mentioned industries in year 2017-18. Table 8 indicates the position of financial service sector, where Rs. 34,097 crore was raised only in the month of June 2018. Although government is trying to push corporate bond market for infrastructure financing, yet the data reveals that most of the issues in primary market are restricted to financial service sector. Borrowings from Manufacturing and construction are miniscule. Particularly in June 2018, approximately 56% bonds are issued by financial firms, 38% by infrastructure companies and 7% by others. According to RBI notification No/RBI/2006-07/205/PBOD No FSD.BC.46/24.0.1.028/2006-07/ dated December 12, 2006, banks exposure limits on any NBFC (Non banking finance companies) are reduced from 25% of the bank's capital funds to 10% of its capital funds. Hence, financial firms tap corporate bond market for its financing.

Table 7 Sector Wise Analysis of Primary Issuances of Corporate Debt

Year	Percent of Financial Sector to total issuances	Percent of Non-Financial Sector to total issuances
2014-15	76.1	23.9
2015-16	75.2	24.8
2016-17	73.6	26.4
2017-18	74.3	25.7

Source: CARE RATINGS, September, 2017

Table: 7A Industry Wise Issuances in FY 2017-18

Type of industry	% of share in total issuances	Cumulative %
Banking/term lending	29	29
Financial services/investments	23.9	53.9
Housing finance	19.2	72.1
Power generation & supply	6.9	79
Roads & Highways	5.1	84.1
Diversified	4.2	88.3
Housing/Civil construction/Real Estate	3.7	92

Telecommunications	1.6	93.6
Textiles	0.7	94.3
Travel/Transport/Courier (Passenger/Cargo)	0.7	95

Source: CARE RATINGS, 2018

Table 8: Sector wise analysis of corporate bond issuance, June 2018

Sector	**Percent of total companies**	**Amount (Rs.)**
Financial Firms	56	34,097
Infrastructure	38	18,783
Others	7	3,265
Total	100 % (90 companies)	56,145

Source: Compiled, CCIL

SECTION III
SECONDARY MARKET

Once the security has crossed primary market and is listed on the stock exchange, it now comes to the other market, known as secondary market. Investors buy and sell securities in this market from each other. Government securities are deemed to be listed as soon as they are issued and trading for such securities is highly active (Refer table 9). G-Secs market is dominated by wholesale market and can be bought and sold either on over the counter (OTC), or on the negotiated dealing system (NDS)[9] or negotiated dealing system-order matching (NDS-OM). G-Secs are usually traded on negotiated deals (Banks, FI's, MF's, PD's having SGL account with RBI) and settlement of such traded transactions are done via CCIL (clearing corporation of India Ltd.) through member's securities/current accounts maintained with RBI by delivering securitie s and payments on the net basis. Other than Banks, institutional investors such as insurance companies, provident funds are large holders of government securities. Primary dealers, being the market participants are the most active participants of any secondary market and very rapidly turn over their portfolios bringing

[9] RBI provides negotiating trade system for government securities on NDS. Whereas, NDS-OM is an electronic screen based anonymous trading system provided by RBI for facilitating electronic dealing in G-secs. The trades on this platform are automatically sent for settlement to CCIL.

liquidity to the system. However, provident funds are the most inactive participant in secondary market and do not mark their portfolios to market. Data shows that almost 98% trading takes place in government securities.

Table 9: Summary of government securities bond trading (Rs. Crore)

Year	Total for government securities*	
	Trade	Value (Rs. Crore)
2012-13	6,15,288	65,82,592
2013-14	8,18,509	89,39,294
2014-15	9,78,654	1,01,66,304
2015-16	8,83,363	97,38,003
2016-17	13,40,376	1,68,55,741

*includes Central government, SDL and T-bills

Source: ISMR, 2017, NSE

On the other side, the trading in corporate bonds is very thin (Refer table 9A and table 10).

Table 9A: Summary of corporate bond trading (Rs. Crore)

Year	Total for corporate bonds	
	Number of Trades	Traded Value (Rs. Crore)
2008-09	-	1,45,828
2009-10	-	4,02,157
2010-11	44,043	6,05,221
2011-12	51,533	5,93,783
2012-13	66,383	7,38,631
2013-14	70,887	9,70,799
2014-15	75,791	10,91,295
2015-16	70,123	10,22,408
2016-17	88,495	14,70,663
2017-18(up to Dec.	25,365*	10,00,159

*upto September, 2017

Source: ISMR, 2017, NSE

Table 10: Percentage of non government securities turnover of total turnover in debt market

YEAR	Non Government securities* turnover as a percent of total turnover in the debt market
2008-09	0.73%
2009-10	1.68%
2010-11	2.2%
2011-12	2.2%
2012-13	1.6%
2013-14	1%
2014-15	1.57%
2015-16	NA
2016-17	NA

* Non Government securities include FI (financial institutions) bonds, PSU bonds and corporate bonds/debentures

Source: NSE

The total turnover in 2017-18 was Rs. 13,21,737.75 crore for corporate bonds. Average daily traded value was Rs. 5,484.39 crores in the same year with an average of around 258 trades being reported on a daily basis (NSE annual report, 2018). The percentage of non government securities turnover of total turnover is between 0.7% - 2.5%. Although there is a 115% increase in turnover from 2008-09 to 2014-15 yet it is miniscule as compared to government securities trading. The former is either traded as a bilateral agreement between two counterparties or on a stock exchange (BSE and NSE both) through brokers. Further, these corporate bonds are traded on electronic limit order book on exchanges.

On BSE, debt securities are divided into two segments depending upon the issuer. 'F' group includes corporate bonds and 'G' group includes government securities and are traded on clean price but settled on dirty price. Similarly, NSE also has two segments - Non Government securities, which are public issued are traded on CM (Capital market) and those of which are privately placed are traded on WDM (Wholesale debt market)[10] segment of NSE. Since Public issues of NCD[11]'s which are listed, is very low therefore the trade in secondary market at CM segment is insignificant (Refer table 5). Turnover on WDM

[10] Includes only high value transactions in debt securities. It is NSE's fully automated screen based trading system. All types of SLR and non SLR securities and all eligible securities whether publicly issued or privately placed can be made available for trading on WDM

[11] Debt securities in India mean non convertible debentures. Issuers of corporate bonds: Public sector units including public financial institutions and bonds issued by private corporate sector.

segment for non government securities is highest, whereas it is insignificant on BSE and CM segment of NSE (Refer table 11). The turnover of Non government securities on WDM segment in year 2012-13 is Rs. 1,944 billion, which has shown an increase of 15.16% over preceding year and 13% increase in 2013-14 over 2012-13; whereas there is a decline of 47.12% in case of CM segment of NSE in 2012-13 and a further decline of 10% in 2013-14. However, the data on retail trades (trading volume less than 1 crore) on WDM have been discontinued and starting from July 1, 2015 WDM segment is closed and the whole segment is now called as debt segment.

The trades at CM segment are settled along with equity shares through clearing corporations/clearing houses of stock exchanges. Whereas, settlement of trades in corporate bonds between entities such as mutual funds, foreign institutional investors, venture capital investors, portfolio managers, and RBI regulated entities specified by RBI itself would be settled by National securities clearing corporation limited (NSCCL) and Indian clearing corporation limited (ICCL).

The thin trading in corporate bonds may be because of the issues associated with the secondary trading of corporate bonds - such as the investors have to report at multiple stock exchanges ie. both NSE and BSE. This creates data mismatch. Until recently the investors used to settle their trades themselves but now they are settled at clearing corporation. Also, it is difficult for the investors to keep a track of rating migration as there is no one particular reporting system where this information is put up. Because of unavailability of data with respect to issue size and other important optionality to the public, judging the probability of default of corporate bonds is extremely difficult. Most of the corporate bonds issued at sector level are finance companies, manufacturing companies, and infrastructure companies. **(Amrendra Acharya, 2013)**

Table 11: Turnover of Non- government Securities

Securities	2011-12 (Rs. Bn.)	2012-13 (Rs. Bn.)	2013-14 (Rs. Bn.)
CM segment of NSE	36	19	17
WDM segment of NSE	1,688	1,944	2,232
‘F’ Category of BSE	36	31	21

Table 12: Details of corporate bond at BSE

Group at BSE	No. of securities listed	No. of securities available for trading
F	11580	9213
FC	42	39

Source: BSE

Till 07th August, 2016, trading of all bonds which were part of scrip groups 'F' or 'G' is done on dirty price. In debt OTC market, trading of all bonds are done on clean price and yield. In order to align with the debt OTC market, exchange proposed to move trading of some of the corporate and government bonds on clean price and YTM mechanism. In clean price and yield trading mechanism, the trader has an option of entering order using clean price or YTM.

Table 13 shows the trade statistics on BSE, NSE and FIMMDA. The data shows that initially in year 2007-08and 2008-09, the number of trades were much higher on BSE than on NSE and FIMMDA. But gradually NSE took over the market, the number of trades and amount traded has outgrown the other reporting platforms. As per SEBI, the number of corporate bonds outstanding as on quarter ended June 2018 – 24,640 amounting to Rs. 2,837,683.10 crores.

Table 13: Trade statistics at BSE, NSE and OTC

Year (Secondary Market)	BSE		NSE		FIMMDA**	
	No. of trades	Amount (Rs. Mn.)	No. of trades	Amount (Rs. Mn.)	No. of trades	Amount (Rs. Mn.)
2007-08	27,697	4,11,870	3787	3,14,530	4,089	234,790
2008-09	8,327	373,200	4,902	495,050	9,585	615,350
2009-10	7,408	533,230	12,522	1,519,200	18,300	1,959,550
2010-11	4465	3,95,810	8,006	1,559,510	31,589	91,768
2011-12	6424	4,98,420	11,973	1,934,350	33,136	3,505,060
2012-13	8639	5,16,224	21,141	2,421,050	36,603	4,449,040
2013-14	10,187	1,030,270	20,809	2,757,010	39,891	5,920,710
2014-15	17,710	2,045,055	58,073	8,867,875	8	8
2015-16	16,900	20,76,520	53,223	81,47,560	-	-
2016-17	24,372	29,21,540	64,123	1,17,85,090	-	-

Source: compiled from ISMR, NSE

**As per RBI circular dated 24, February, 2014, reporting of secondary market transactions have been discontinued with effect from April,1 2014

SECTION IV
ROLE OF REGULATORS

The rising NPA's has taken a toll on banking sector due to which union budget in 2018-19 proposed the introduction of compulsorily financing from corporate bonds to the corporate up to certain extent. In fact RBI has laid the foundation for same in March 2017 and have directed the companies to raise additional funds from debt market if the bank borrowings exceed Rs. 25000 crore. 50% of their incremental borrowings can be raised through banks and rest by debt market. This move will deepen the market by increasing the issuer base. Also, to improve transparency in price discovery, SEBI tried to streamline the procedure of issuance of private placement by making the issuance through electronic book mechanism mandatory for Rs. 500 crores or above. If the amount raise is less than Rs. 500 crore in any financial year, issuer shall disclose every bit of information with respect to coupon, yield, amount raised, number of investors, and category of investors, to EBP (electronic book provider – stock exchanges) and the same information shall be available on their website.

To improve the liquidity in the market, reissuance procedure was restructured, SEBI vide its circular dated June 30, 2017, maximum of 17 ISIN s (International Securities Identification Numbers) maturing are allowed in any financial year so as to enhance the float in the corporate bond market. However, this rule is not applicable under certain conditions such as – if the tier II bonds are issued by Housing finance companies. And primary dealers with minimum maturity of 5 years, additional tier I and tier II bonds issued by banks for lending to long term infrastructure sub-housing and affordable housing, subordinated bonds issued by insurance companies.

Further, RBI has allowed partial credit enhancement to project companies rated BBB or above in the form of non funded irrevocable contingent line of credit so as to increase investor base. Although steps are being taken up time to time, yet the progress is slow. Refer Appendix A.

SECTION V CONCLUSION

The Indian companies are heavily debt laden and bank assets contribute to 80% of GDP whereas corporate bond market is very less as compared to this. Huge bank loans to corporate have become a burden on the banks balance sheet, leading to increasing Non-performing assets. Thus corporate bond market has a huge scope in Indian financial market as an alternate financing mode. According to ADB working paper of 2008, corporate bond was

3.9% of GDP, which declined to 2% of GDP in 2011-12 but has a potential to reach 15% of GDP according to some sources. However, there are various issues related to primary market and majority of debt market is captured by government securities market leaving little room for non government securities. Long tenor and low rated bonds are missing from the market, further narrowing the depth of the market. Various regulatory authorities have also restricted the investors to invest in this market. Also, few numbers of public issues are posing a challenge to secondary market, which is holding back the liquidity in this market, further restricting its growth. More than 90% issues are privately placed. RBI is issuing various guidelines time to time for the growth of corporate bond market. It was found that although this market seems to fill the gap for infrastructure financing, yet banking and financial services are the major issuers of corporate bonds among private sector. Until unless the number of public issues increases, long tenor and low rated bonds are there, this market will continue with less growth. Need is there to increase the participation of retail investors, more of long tenor bonds should be introduced, various regulatory authorities should relax their norms, market makers should be given their portion. Also to improve transparency in the market, a centralized place should e there where all kinds of data related to corporate bond is available.

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APPENDIX A
CHRONOLOGICAL ORDER OF REFORMS INITIATED WITH THEIR

OBJECTIVES Year	**Reform Initiated**	**Objectives and Outcome**
January 1994	Securities Trading corporation of India was Established First time zero coupon bonds were introduced	An initiative to bring innovative financial instruments and to add additional financial intermediary
August 1994	Issue of Ad hoc treasury bills restricted to certain limit. This was done by making an agreement between RBI and GOI	Step taken to do away with automatic monetization so that cash management of Government improve
March 1995	Introduction of market makers- Primary dealers	To add liquidity to the market which further brace the market intermediation.
July 1995	Delivery vs. payment system was introduced in sovereign bond market	This is to reduce the settlement risk.
Sept. 1995	Floating rate bonds were introduced	So that new financial instruments can be added but it didn't work out
April 1997	FIMMDA was established	So that market practices and ethic be developed and it improved also
July 1997	FII's were allowed to invest in G-secs	To broaden the investors base
December 1997	Capital indexed bonds were introduced	So that investors can hedge themselves against inflation but couldn't work out
February 2002	Clearing corporation of India limited was established	This acts as a clearing agency in government securities market. This brought major stability in market.
October 2002	Trade data of Negotiated dealing system was made available on RBI	This was to improve transparency all types of investors.

January 2003	Retail trading was started in G-secs market	To gain wider participation. Though it was not taken very well yet it improved position up to an extent
February 2003	Participation in repo market was allowed	This step again widened the mark
June 2003	Interest rate futures were introduced	To bring hedging instrument in market, but didn't taken off.
August 2004	Straight through process was allowed	So that NDS members can get more efficient trading system
December 2005	R.H. patil committee gave recommendations on corporate bonds and securitization	Objective was to highlight the need for a corporate bond market and securitization.
December 2006	SEBI permits BSE to set up reporting platform.	The step was taken to get all trading information about corporate bonds so as to enable efficient price discovery, reliable clearing and settlement system
January 2007	SEBI was responsible for primary and secondary market whereas, RBI would look for repo and reverse repo in corporate bond	This brought clarity with the roles agencies on different segments of the corporate debt market.
January 2007	Trading started in corporate bonds on NSE and for all types of investors.	So that existing infrastructure can be used efficiently and effectively.
April 2007	Both the stock exchanges were allowed to provide services for clearing and settlement of corporate bonds.	So that efficient transparent secondary market can be developed
April 2007	Both NSE and BSE were permitted by SEBI to	So that efficient price discovery
October 2009	SEBI mandated the clearing and settlement of a trades through National Securities Clearing Corporation (NSCCL) or the Indian Clearing Corporation Limited (ICCL).	Clearing and settlement of trades in this market to follow the International Organisation of Security Commissions (IOSCO) standards and the global best practices by way of well-established clearing and settlement procedures through recognised clearing and settlement agencies.

April 2010	Guidelines for securitization companies and reconstruction companies are modified	To bring more market discipline and transparency
May 2012	SEBI permintted Qualified foreign investors to invest in corporate bonds either already listed o being sold through a public offer without any lo or residual maturity in	To improve the investor base in corporate bond market.
April 2013	SEBI rationalises debt limits for FII- governme securities- US $ 25 billion and corporate bonds 51billion	
August 2013	SEBI eased the bond market investment norms QFI by allowing them to directly purchase corp debt securities that companies intend to list on s exchanges	To ease the bond market investment norms
October 2013	Centralised database for corporate bonds/debentures	To give complete information to investors so that they can take the valued decisions
October 2013	Amendments were made by SEBI to simplify debt listing agreement	Objective is to bring transparency to further develop the corporate bond market
November 2013	SEBI designated more FII categories as long term investors	This step was taken to develop infrastructure debt fund.
November 2013	RBI had permitted the FIIs and QFIs to invest in credit enhanced bonds up to a limit of US $ 5 billion	
March 2014	SEBI prescribed that all OTC trades in corporat bonds should be reported only on any one of the reporting trading platforms within 15 minutes of the trade.	To develop the Securitised debt instrument market
June 2014	RBI allowed Indian companies to issue non convertible/redeemable debentures to Non Resident Indians	To improve the investor base in the market
March 2015	Amendments were made in Issue and listing of securities regulations by SEBI	To provide enabling provisions for consolidation and re-issuance of debt securities and right to call or redeem prior to maturity.
	Corporate bonds and securitisation advisory committee was formed	For enhancing liquidity in the corporate bond market