Corporate Bond Market in India: Current Scope and Future Challenges

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Research Report
On

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A. Corporate Bonds Market: A Glimpse

Two broader types of securities issued in the financial market of an economy are: Equity and Debts. Equity is a perpetual liability because it signifies an owner's legal claim, after all liabilities are met, upon the assets of the entity in which the equity share is held. Bonds are debt securities, in which the authorized issuer owes the holders a debt and, depending on the terms of the bond, is obliged to pay interest (the coupon) and/or to repay the principal at a later date, termed maturity. Depending on the issuer of bonds, it can be classified as Govt. Securities, i.e. bonds issued by the Central / State Govt. of an economy, and Corporate Bonds, i.e. bonds issued by private and public corporations. Debt instruments can also be categorized in terms of their maturity, nature of interest, special features embedded in it, etc. Short term debt instruments, issued by the Central Govt. and by corporates, are respectively known as Treasury Bills and Commercial Papers. Similarly securities issued with a maturity of more than one year are known as dated securities. The original maturity of a debt security may range from 1 year to 30 years.

When Governments, Financial Institutions, Companies, and other entities want to raise long term finance, without diluting their share holdings (or, indeed, when cannot issue shares), they turn to the bond markets and can raise money without having to pay it back may be for decades.

Corporate borrowers issue debt securities to meet their financing requirement. Corporate bond market provides an alternative means of long-term resources, alternative to bank financing, to corporate. The size and growth of this market depends upon several factors, including financing patterns of companies. A liquid corporate bond market can play a crucial role in supporting economic development as it supplements the banking system to meet the requirements of the corporate sector for long-term capital investment and asset creation. It provides a stable source of finance when the equity market is volatile. Corporate bond markets can also help firms, reducing their overall cost of capital by allowing them to tailor their asset and liability profiles.

A.1. Types of Corporate Bonds

Fixed Rate Bond / Straight Bond / Plain Vanilla Bond: This is the most popular type of corporate bond traded in most of the markets, paying a semiannual but fixed coupon over their life and the principal at the end of the maturity.

Floating Rate Bond / Floater: These are the bonds, even if the coupon of which are usually paid semiannually, the coupon rate is not fixed throughout the life and varies over time with reference to some benchmark rate. These types of bonds may have some Floor or Cap attached on it, representing that even if the benchmark rate change by any value, the coupon rate even if floating but will always lies within the range of Floor and Cap rate. Some of the well known benchmark rates used in Indian market are MIBOR, Call Rate, T-bill rate, PLR, etc.

Zero Coupon Bond: Zero Coupon Bonds (ZCBs) are issued at a discount to their face value and the principal/face value is repaid to the holders at the time of maturity. Instead of paying any periodic coupons, the ZCB holder gets the price discount in the beginning itself. Therefore, ZCBs are alternatively known as Deep Discount Bonds.

Bond with Embedded Option: Bond may have an option (Call or Put) embedded in it, giving certain rights to investors and / or issuers. The more common types of bonds with embedded options are: Callable bond, Puttable bond, and Convertible bond. *Callable* bond gives the issuer the right to redeem or buy back them prematurely on certain terms. The call option can be an American or a European option. The purpose of such option is to reduce the cost of issuer in the regime of falling interest rates. On the other hand, *Puttable* bond gives investor the right to prematurely sell them back to the issuer on certain predefined terms. Puttable bond safeguard the interest of bond holders when interest rates rises in the market. *Convertible* bonds, alternatively known as *Hybrid Securities*, give bond holder the right to convert them into equity shares on certain terms. Such bond can be fully or partly convertible. In case of partly convertible, investors are offered equity shares for the part which is redeemed and the other part remains as a bond.

Tax-Savings Infrastructure Bonds**:** In order to facilitate infrastructure financing through the bond route, some special types of tax-free bonds, issued by some infrastructure companies, are offered to the investors.

Debentures**:** Debentures are also fixed interest debt instruments with different maturity, but is usually secured in nature and therefore offers lower interest comparative to bonds. Debentures, based on their convertibility to the form of equity, can be of three types: *Non-Convertible (NCD), Partially Convertible (PCD), and Fully Convertible Debenture (FCD).*

Foreign Currency Convertible Bonds (FCCB)**:** In order to raise money in foreign currency, corporates may issue certain bonds in currencies different from the issuers' domestic currency, retaining all features of a convertible bond. Several Multinational corporations tap the foreign bond markets by issuing FCCBs which are quasi-debt instruments and tradable in stock exchanges. FCCBs are attractive to both Issuers and Investors. Investors get the safety of guaranteed payments on the bonds and are also able to take advantage of any price appreciation in the company's stock. FCCBs may also carry an option feature (Call or Put) and normally offer an interest (if any) lower than a normal debt paper or foreign currency loans or External Commercial Borrowings (ECBs). FCCBs have been extremely popular with Indian corporate for raising foreign funds at competitive rates.

Municipal Bonds: Municipal bonds are debt obligations, issued by States, Cities and other Government Bodies, to meet the financial requirement of any Public Infrastructural projects like School building, Highways, Hospitals, Sewage systems etc. Interest of such bond is paid through the revenue generated from the business that backs the obligation. These types of bonds, even if very popular in developed economies like US, are hardly issued in India.

Perpetual Bonds**:** Perpetual bonds, having no specific maturity like equity, are classified as hybrid instrument because they have both equity and debt features. These bonds, usually issued by banks, are not redeemable unless the issuer desires, and therefore are treated as equity. RBI considers such bonds as part of banks' Tier-I capital, which traditionally comprised equity instruments.

Public Sector Undertaking Bonds (PSU Bonds): Bonds, usually for medium or long term, issued by the central Public Sector Undertakings are very common in India and is known as PSU Bonds. These bonds are supported by Govt. of India and therefore have a strong demand in Indian market. PSU Bonds are mostly sold through Private Placements to the targeted investors at market determined interest rates.

Junk Bonds**:** Any bond issued by a corporate having a credit rating below investment grade is known as Junk bond. Due to poor credit worthiness, issuer of such bond offers very high yield, comparative to high rated bond of similar tenor, to compensate bond holder for the additional risk.

Secured / Unsecured Bonds**:** Corporate bonds can be either secured against assets of the corporates or can also be unsecured. Holder of secured corporate bonds, in the event of winding up of the company, can be repaid by selling off the assets against which the bonds were secured. Holders of senior secured bonds are ranked higher than the holders of subordinated secured bonds and unsecured bonds in repayment of dues in case of closure of the company. Unsecured bond holders are paid off before any payment is made to the holder of preference shares issued by the corporation.

As far as corporate bond market in India is concerned, there are several types of securities, including fixed rate bond, floating rate notes, structures notes and others. The total number of outstanding securities and the net amount outstanding in these several categories of corporate bonds in different months are specified in table **T-1**. It is very clear from the table that there is a dominance of fixed rate bonds in any of the months, but at the same time other securities are also available in the market, but with a very less volume. Due to the complex nature of structured notes, the volume of such instruments is comparatively very less, which may not be the case in developed markets like US, Japan and Korea. The percentage share of corporate bonds with different types of coupons are also mentioned in table **T-2**. The table clearly shows that even if the outstanding volume of FRN is much lower than that of the fixed rate bonds, the proportionate share of FRN is almost half of the fixed rate bonds, indicating the sufficient issue of FRN but may be with a lower volume. Similarly, there are Zero Coupon securities as well, but with a very smaller proportion, with a average figure of 4.5%.

Table T-1: Total Outstanding in Various Corporate Debt Instrument

Quarter	No. of Outstanding Security				Net Amount Outstanding (Rs. In Crore)			
	Fixed Rate	FRN	Structured Notes	Others	Fixed Rate	FRN	Structured Notes	Others
Jun-10	9028	944	653	903	696225.80	38325.76	6298.20	53172.45
Sep-10	9243	950	680	974	735433.10	31958.60	5565.90	60866.96
Dec-10	9264	955	711	996	759063.15	27575.54	5344.12	61530.66
Mar-11	9407	1092	729	927	795418.83	27292.48	5005.31	61793.22
Jun-11	9327	1066	817	1003	815157.50	23815.81	5146.26	58170.61
Sep-11	9564	1134	880	1073	862725.69	23306.84	4953.36	47351.67
Dec-11	9739	1155	900	1382	902887.01	23010.65	4764.78	52763.31
Mar-12	9989	1118	878	1736	964061.46	20753.76	4380.61	62442.87

Source: SEBI Statistics on Corporate Bonds, SEBI

Table T-2: Percentage Share of Corporate Bonds with Different Types of Coupon

Year	Type of Coupon			
	Fixed	Floating	Zero Coupon	Others
2008-09	64.47	31.35	4.18	0.00
2009-10	64.47	27.49	4.31	3.73
2010-11	68.05	23.40	7.01	1.54
2011-12 (Q1)	61.59	35.16	3.05	0.20

Source: NSDL

A.2. Risks and Return in Corporate Bonds

When an investor thinks about purchasing a bond, there are four key risks attributes, namely Issuer, Currency, Coupon, Maturity; that they will assess to determine whether the bond is a good fit with their portfolio, and whether the price is fair.

Issuer – Bond Issuer defines the credit risk of the bond. Alternatively, it describes the likelihood that the investor will be repaid their periodic returns (if any) and the face value of their original investment at the end of maturity. The risk is reflected by the credit rating allotted to the bond issuer by external rating agency (s).

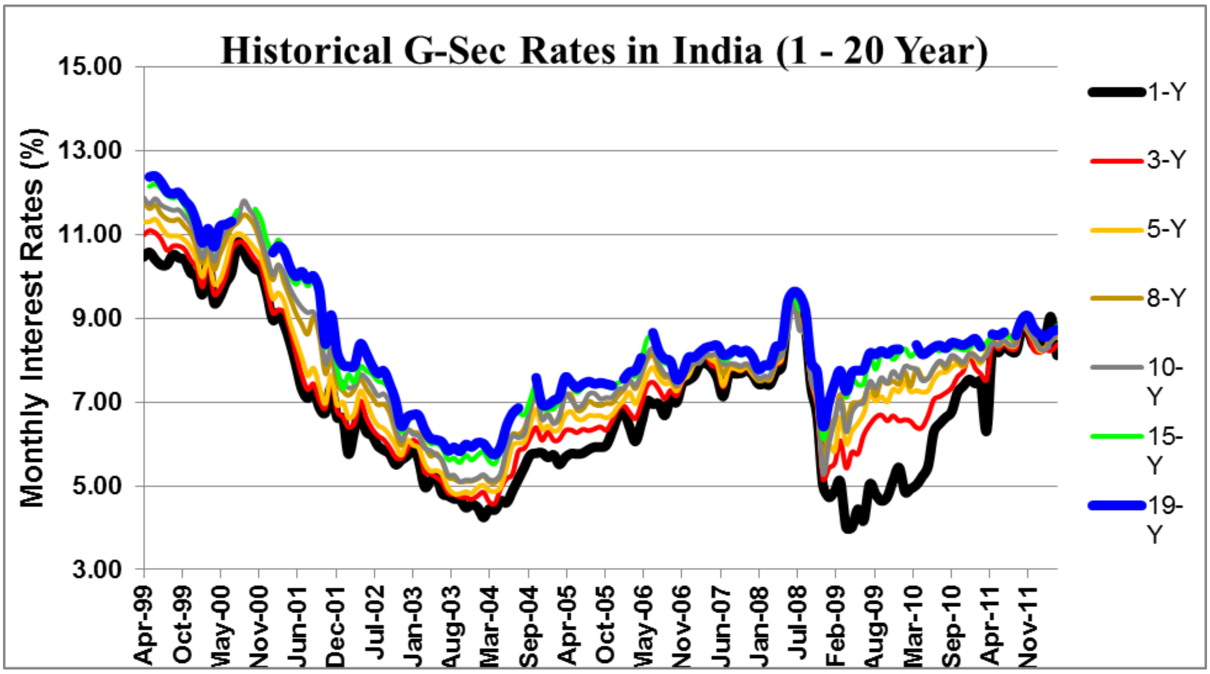
Currency − Unlike equity, bond can be issued in many currencies. Therefore, bond markets talk about the currency of issuance and not the country of issuance. The currency of the bond defines the second key risk characteristic of the bond.

Coupon – Coupon rate defines the rate of interest expected to be paid on a bond issue. This interest can be paid annually, semi-annually or even every 3 months, depending on the way the bond is structured. The stated coupon rate is linked to the face value, not the actual price (higher or lower than the face value) paid, of the bond to derive the coupon income. The size of the coupon can also give an indication of the credit risk of the bond. The greater the likelihood of the issuer to default, more would be the interest asked by the investor to compensate for the higher risk.

Maturity – Unlike in case of equity, bonds have a specific life or maturity, after which investors get their money back. Longer the date of maturity, more is the likelihood that the bond issuer may get into trouble and may fail to settle the claim of investors, leading to a higher credit risk for corporate bonds. Therefore, corporate bonds with longer maturity always attract higher risk premium. There may be also certain types of debt security the value of which never needs to be paid back, except under certain circumstances. These type of undated bonds are known as *Perpetual* bonds.

These above attributes of corporate debt security cause for several risk for the investors. The primary risk of investing in any debt security, irrespective of the nature of the security, is the *Interest Rate Risk*. Price of a debt instrument is inversely related to the movement in risk-free rate of interest, say yield of Govt. securities. Therefore, as and when interest rate increases, the price of bond is expected to fall, leading to a loss for the holder of the security. Unfavorable movement in the interest rates may also cause for a fall in income expected to be generated through the reinvestment of periodic interest or coupon received from the security. The historical movements of risk free rate of interests, from Govt. securities of several maturities, are depicted in figure **F-1**. The figure explains how Indian economy has experienced the tenor specific risk-free rates over a period of time. The figure clearly demonstrate that the risk-free rates in India, irrespective of the tenors, broadly tends to fall almost till March 2004, and then started rising thereafter but at a slower pace. Sometime in mid-2008, all the risk-free rates shoot up more than 9% level which seems to be the highest in last one decade. This may be attributed to the effect of US subprime crisis that invariably affect the global markets, and makes the Indian debt market as well extremely risky for the investors. The interest rate risk again has found to be more in short term debts, because of higher volatility in the short term rate of interest. 2004 onwards, Indian market has experienced a rising tendency in the risk-free rate of interest; thereby increasing the interest rate risk in the bond portfolio hold by Indian investors.

Figure F-1:

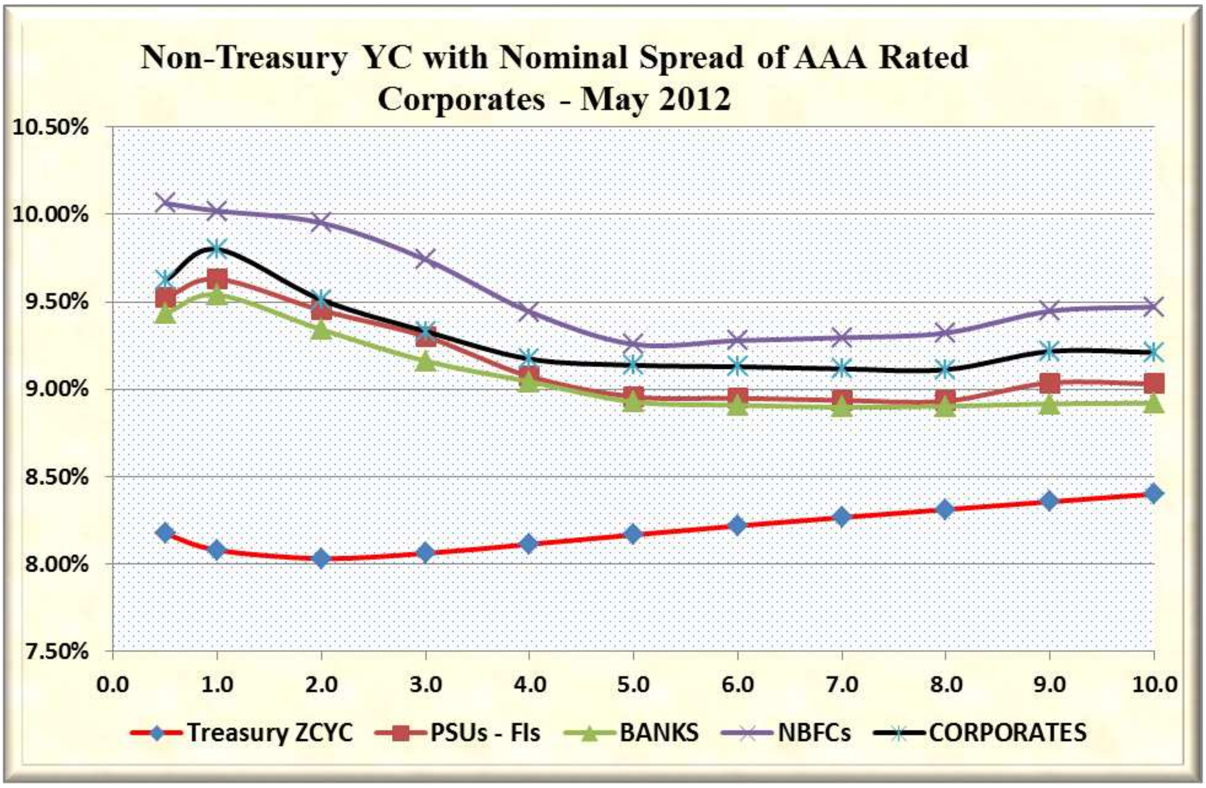


Source: RBI Database on Indian Economy

Liquidity Risk is another type of risk that bond investors may face. Liquidity risk arises from the illiquidity of a debt issue in the secondary bond market. In other words, whenever an investor fails to sale a security at a fair price due to lack of sufficient demand, the market is said to be illiquid for that security, and creates liquidity risk for the investors. Since most of the corporate bonds, especially in underdeveloped bond market like in India, are not regularly traded in the secondary market, liquidity risk is of grave concern for the investors expected to enter into the corporate debt market.

Apart from interest rate and liquidity risk, the most important risk associated with corporate bonds is the *Credit Risk*. Credit risk in bond investment basically refers to Credit Spread Risk and Default Risk. Credit spreads reflects the credit worthiness of corporate borrowers, and depend upon the credit rating provided to the corporates by external rating agencies. The value of a corporate bond not only depends upon the risk-free rate, but also on the credit spread of respective securities. Poorer the credit quality of a corporate bond issuer as reflected through a lower credit rating, greater would be the credit spread, leading to fall in bond price. Therefore, credit spread risk is the risk of fall in bond price due to migration of issuers' credit rating from higher to lower level, say from AAA to A, and therefore rise in risk premium. This risk is one of the most important constraints for the investor restricting them to invest in corporate bonds, especially with poor rating. Credit spread risk not only depends on the credit rating of the corporate issue but also on the maturity of the concerned security. The credit spread risk normally widens as the maturity of the bond increases. Default risk is the extreme side of credit risk. Continuous fall in credit quality lead to sharp rise in credit spread and therefore the credit spread risk, which ultimately may force the issuer to default in his bond obligation, leading to default risk, causing investors to book huge amount of losses in their investments. Therefore, presence of various instruments or mechanism to transfer or mitigate the credit risk is of extreme importance for the growth of corporate debt market in an economy. The Non-Treasury yield curve, applicable to different AAA rated Non-Govt. entities including PSUs & FIs, Banks, NBFCs, and Corporates, in comparison with the risk-free Treasury yield curve in India as on May 2012, as captured in figure **F-2**, can be explained to understand the nature of credit spread across the highly rated entities and across the tenors or maturity. The figure exhibits the fact that the volume of credit spreads, irrespective of the nature of entities, is the highest for securities with lower maturity segment, and tends to narrow as the maturity increases. Interestingly, it is observed from the figure that even if the spread, as reflected by the gap between Treasury and Non-Treasury yield curve, reduces as the maturity increases; but the gap becomes almost stable beyond a certain maturity, here say 5 years. This signifies that the credit risk of Non-Govt. securities, beyond a medium term, remains almost same irrespective of their tenors. The figure also exhibits that the credit risk of debt securities issued by Indian banks is the least and that of the Indian NBFCs is the highest, followed by corporate entities, as on May 2012.

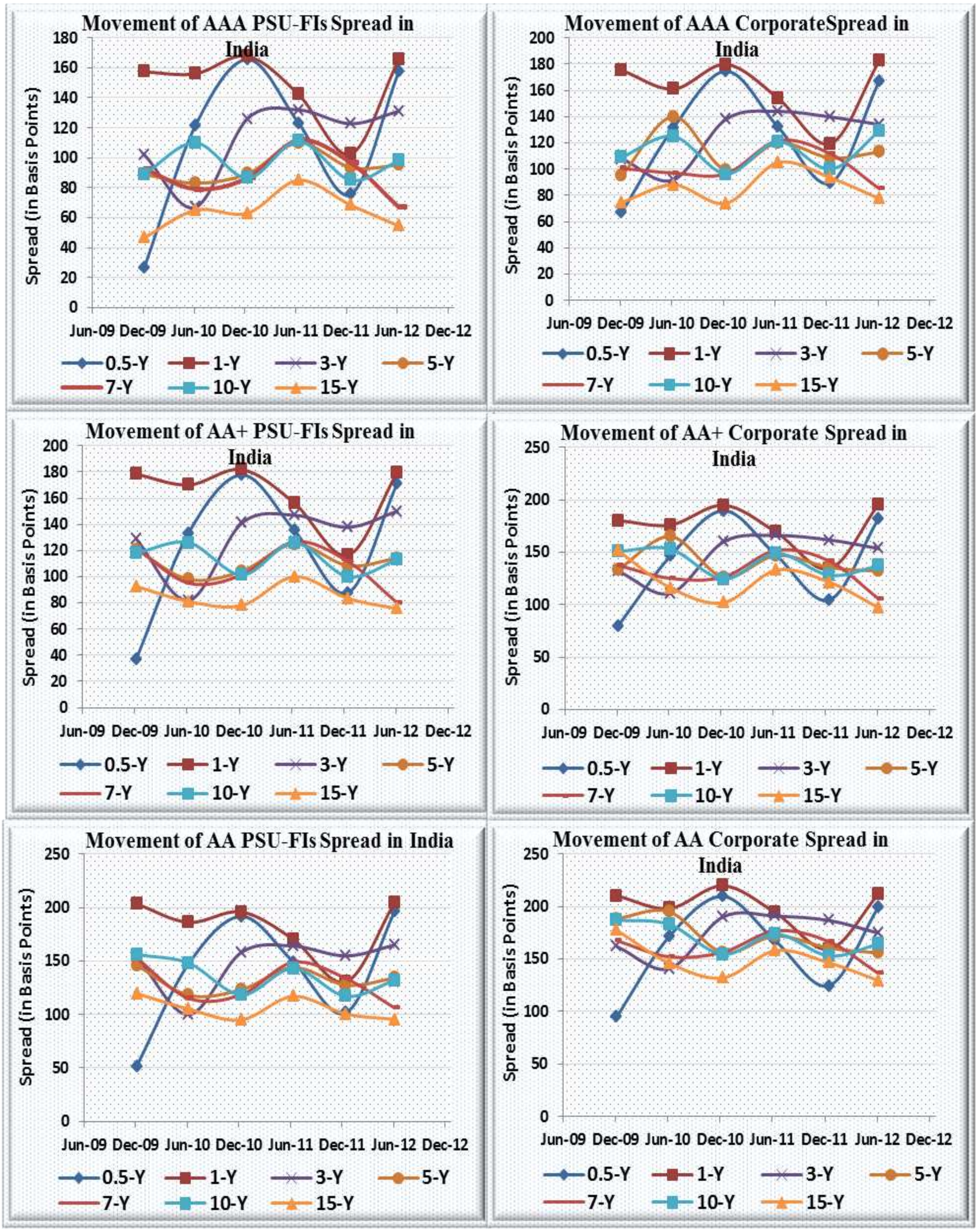
Figure F-2:



Source: RBI, FIMMDA

The movements of credit spread, applicable to Non-Govt. debt securities issued by different types of entities with different rating grades and maturity, as captured in figure **F-3**, in Indian debt market can be explained to understand the movement of credit risk even in highly rated Non-Govt. securities over the periods. The spread data are collected at a semiannual frequency for a period December 2009 to June 2012, only for PSU & FIs, and corporates. The figure exhibits the fact that there is no consistency in the spread attached to a Non-Govt. security, irrespective of whether the same is issued by a PSU and FIs or a corporate, over the period. But what is observed is that, the level of fluctuation in the spread is slightly less in case of PSUs and FIs in all the three rating grades. At the same time, the higher volatility in the short-term spread, and maximum stability in the long term spread are also well established from the figure. More interestingly, even if with different levels, depending on the nature and credit worthiness of entities, a common trend is observed in the movement of short-term (e.g. 0.5 and 1 year) spread between the entities and also between the rating grades. This fact is also ensured by a very high degree of association among the short-term spreads, attached to different entities and for different rating grades. This reveals a common market perception towards the credit risk of short-term Non-Govt. securities throughout the periods, irrespective of the issuer and their rating grade.

Figure F-3:



Source: FIMMDA

B. Global Bond Markets - A Review

Financial market of an economy gets the status of Developed Market if characterized by proper Financial, Legal and Regulatory frameworks. Even if the equity segment of the financial market in most of the world economies, including India, is well developed, there is a mixed status as far as the bond, especially the corporate bond, market is concerned. Exploring the status of corporate bond market in most of the developing economies including in India is not only a matter of research for the academic world, but also is of grave concern for several regulatory bodies of the concerned economy. The review of global bond markets, with special reference to the corporate debt market, mostly emphasizes on the aspects of market microstructure (e.g. Trading and Reporting Platform, Pricing, Clearing & Settlement, etc.) and various costs (e.g. Tax and Stamp Duty) associated with investments in corporate bonds. The following section deals with the broader overview of the bond market in some of the developed and emerging economies which have experienced significant growth in developing their debt (Govt. and Corporate) market segment. In this review more focus would be given to the market of developed and emerging Asian economies, to facilitate a fare comparison with Indian debt market. Total outstanding volume of debt and outstanding volume in corporate debt in 35 countries, as quoted by BIS, over a period of 7 years are specified in table **T-3** and **T-4**. These tables reveal the trend in the growth of overall debt and corporate debt market in these economies.

Table T-3: Total Outstanding Volume in Worldwide Domestic Debt Markets:

		Amount Outstanding (in Billions of USD)						
Rank	**Country**	**Dec-05**	**Dec-06**	**Dec-07**	**Dec-08**	**Dec-09**	**Dec-10**	**Sep-11**
	All Issuers	**45,612.40**	**50,787.90**	**56,028.80**	**59,415.10**	**63,998.30**	**67,514.40**	**69,938.20**
1	United States	20,741.00	22,651.00	23,314.30	24,530.20	25,602.90	25,828.30	26,176.20
2	Japan	8,370.60	8,406.30	8,855.70	11,052.10	11,521.50	13,733.90	15,138.50
3	France	1,886.90	2,246.30	2,734.70	2,874.70	3,146.00	3,131.40	3,384.00
4	China	899.20	1,183.60	1,687.30	2,209.50	2,565.40	3,031.40	3,232.10
5	Italy	2,161.30	2,576.40	3,033.90	3,248.00	3,191.00	2,998.40	3,114.40
6	Germany	1,937.80	2,248.00	2,633.70	2,592.10	2,801.80	2,606.70	2,647.60
7	UK	1,002.80	1,237.60	1,358.10	1,219.30	1,548.80	1,648.90	1,745.50
8	Canada	946.20	988.70	1,208.80	1,038.20	1,324.60	1,485.40	1,507.40
9	Spain	923.10	1,243.20	1,644.00	1,750.10	1,560.80	1,450.90	1,472.30
10	Brazil	549.00	696.10	952.80	858.80	1,237.20	1,456.70	1,367.70
11	South Korea	847.30	1,010.00	1,076.60	863.50	1,066.10	1,111.00	1,123.30
12	Australia	369.60	457.40	807.00	638.80	874.90	1,048.30	1,012.00
13	Netherlands	680.30	771.40	903.30	941.80	1,005.50	977.00	1,002.30
14	**India**	**279.10**	**325.70**	**458.40**	**426.70**	**603.10**	**708.50**	**648.90**
15	Denmark	434.00	492.20	589.10	591.10	691.20	641.40	571.70
16	Belgium	407.40	456.40	546.20	623.20	585.80	548.40	566.20
17	Mexico	270.80	308.90	352.60	319.50	362.80	429.00	445.30

18	Sweden	285.60	349.40	389.40	346.10	371.10	412.30	425.40
19	Ireland	99.20	129.30	124.80	111.70	317.80	304.30	312.20
20	Switzerland	209.30	223.30	242.80	259.00	259.50	291.00	300.50
21	Austria	208.80	251.10	377.20	340.80	364.70	362.40	298.00
22	Portugal	145.40	173.10	223.70	251.10	231.00	261.50	294.50
23	Malaysia	123.50	146.20	157.90	172.70	189.10	263.60	284.00
24	Greece	218.70	264.70	181.00	224.30	227.60	256.50	268.20
25	Norway	102.10	125.20	144.00	135.90	238.30	245.60	240.60
26	Thailand	79.00	109.70	140.20	143.40	180.40	225.50	232.60
27	Poland	105.20	129.50	162.60	147.80	183.70	202.00	203.50
28	Turkey	185.00	181.20	218.70	180.60	221.70	232.20	199.50
29	South Africa	107.90	109.40	120.70	93.80	140.40	193.60	178.90
30	Hong Kong	49.80	51.00	51.40	50.20	99.90	65.50	128.50
31	Singapore	68.30	80.90	97.20	96.40	113.00	127.60	125.20
32	Indonesia	53.60	76.40	85.60	69.80	97.70	102.30	103.70
33	Finland	108.30	120.00	141.10	135.60	93.20	87.40	87.30
34	Czech Republic	62.50	81.20	105.00	101.10	80.30	77.40	86.30
35	Argentina	72.30	76.70	75.70	66.20	57.30	58.20	56.50

Source: BIS Quarterly Review

Table T-4: Total Outstanding Volume in Worldwide Domestic Corporate Debt Markets:

		Amount Outstanding (in Billions of USD)						
Rank	**Country**	**Dec-05**	**Dec-06**	**Dec-07**	**Dec-08**	**Dec-09**	**Dec-10**	**Sep-11**
	Corporate Issuers	**5,183.50**	**5,642.80**	**6,151.60**	**6,545.60**	**6,445.60**	**6,933.60**	**7,224.80**
1	United States	2,689.30	2,794.30	2,888.30	2,926.70	3,025.80	3,143.80	3,244.70
2	Japan	704.80	671.70	728.20	766.60	782.70	900.40	936.10
3	China	39.40	70.40	104.40	185.50	353.70	522.10	628.20
4	South Korea	256.40	258.20	231.00	218.10	309.50	380.60	398.80
5	Germany	117.70	143.20	189.70	299.90	344.70	352.10	388.10
6	Italy	241.70	296.00	327.80	413.30	435.60	363.80	358.50
7	France	228.30	266.70	267.80	284.30	278.10	287.30	294.30
8	Canada	116.20	116.10	131.50	109.70	142.70	165.00	171.40
9	Netherlands	52.40	60.50	76.80	75.30	114.70	120.00	114.30
10	Malaysia	47.30	53.00	52.10	55.70	60.50	85.10	86.30
11	Thailand	24.70	36.30	41.10	43.00	51.60	57.90	57.90
12	Portugal	23.40	30.50	43.00	46.70	46.70	45.40	51.20
13	Australia	34.10	42.60	43.30	29.60	38.30	44.10	43.30
14	Sweden	25.00	32.60	37.40	33.40	34.90	32.80	38.90
15	Mexico	24.80	27.40	27.80	25.00	29.20	35.50	35.90
16	Belgium	37.80	41.50	37.10	46.30	30.30	25.00	33.20
17	Switzerland	11.70	13.80	15.70	14.80	21.80	29.70	33.20
18	Norway	9.00	12.30	29.10	21.10	27.00	26.60	27.50
19	South Africa	13.70	14.30	17.00	13.40	21.60	28.90	24.80
20	Spain	221.00	343.30	545.60	663.80	22.90	22.70	24.20
21	**India**	**3.80**	**5.30**	**10.20**	**7.90**	**19.30**	**25.00**	**22.90**

22	UK	22.70	23.10	23.10	15.70	21.90	21.00	19.90
23	Austria	18.50	22.70	33.60	31.90	40.50	43.90	19.00
24	Finland	11.50	12.80	14.50	11.50	12.40	12.00	14.80
25	Hong Kong	6.20	7.80	8.80	9.90	11.60	11.90	13.10
26	Brazil	4.80	5.70	7.80	6.70	9.80	10.60	9.80
27	Czech Republic	2.40	3.90	5.20	5.00	7.80	9.20	9.40
28	Indonesia	4.10	4.00	4.90	3.60	5.10	6.20	6.60
29	Argentina	10.80	11.40	8.30	7.80	7.50	6.50	6.10
30	Ireland	62.20	88.10	76.40	51.10	2.30	2.70	1.80
31	Singapore	4.50	6.10	3.70	6.60	2.80	2.00	1.60
32	Turkey	–	0.10	0.50	0.50	0.40	2.30	1.40
33	Denmark	19.40	23.10	2.10	2.00	1.70	1.40	1.20
34	Greece	6.80	13.10	19.00	25.90	28.50	0.10	0.10
35	Poland	–	–	–	–	–	–	–

Source: BIS Quarterly Review

US Debt Market:

Bond market in US is the largest market in the world, as also supported by the above tables. The proportion of debt securities in US securities market is almost equal to that of equities, reflecting a significant importance of debt market in US, comparative to other economies where concentration of equities is more than the debts. Corporate bond market in United States is again the largest market in the world, not only in terms of outstanding volume, but also in terms of annual turnover. US debt market is a very well developed and efficient market with high level of liquidity in the secondary markets. The reason being the interest of not only the corporate but also banks and other institutions in taping the debt market, rather than seeking loans or deposits to meet their financial requirements. US bond market is also well diversified and consists of several instruments, such as Treasury Bonds, Federal Agency Securities, Municipal Bonds, Corporate Bonds, Mortgage Backed Securities, Asset Backed Securities, etc. In order to strengthen the demand for corporate bonds, developed market like US has experienced a significant demand from the financial institutions like banks, mutual funds, insurance companies, pension funds. US corporate bond market has experienced a wider investor base that also includes retail investors. Not only have the domestic investors, foreign investors also played a dominant role in the world's largest corporate bond market. Again OTC market plays the dominant role in making US the largest market for corporate bonds.

Unlike in other markets worldwide where Government securities captures the highest market share, the outstanding volume in in US treasury securities is almost equal to that of corporate bonds and MBS. Even the sum of MBS and ABS may lead to a higher volume than the Govt. securities. The outstanding volume, as on 4Q 2011, in Treasury securities, Municipal bonds, Corporate bonds, MBS and ABS are respectively USD9928.4 billion, USD3743.4 billion, USD7921.2 billion, USD8439.5 billion, and USD1824.5 billion. Out of the total outstanding debt in US market as on 4Q11, the percentage share of MBS & ABS reached the highest level (27.92%), followed by the Treasury securities (27.01%), corporate bonds (21.55%), Municipal and Agency bonds (16.52%), and Money-market instrument (7%). The current US debt market structure is quite different from the same way back in 1990 and in the year 2000. Even if the market share of corporate bonds and MBS & ABS are quite high in US in comparison with other developed and emerging markets worldwide, the share of Treasury securities and of Municipal bonds in US market as on 4Q1990 was 28.68% and 15.39% against the share of Corporate bond (17.64%), and MBS & ABS (17.68%) during the same period. This clearly shows the dominance of Govt. securities during 90's. But over last two decades, the scenario has changed. In 4Q2000, the MBS market captures the highest share (21.03%), followed by corporate debt (19.80%), Treasury Issues (17.41%), Agency securities (10.93%), Municipal Bonds (8.73%), and ABS (6.4%), along with the share of money market instruments by 15.70%. Even if there is no significant change in the share of MBS & ABS, and corporate debts in US between 2000 and 2011, reasonable changes have taken place in the share of Treasury and Agency securities. Not only combine share of these two classes of securities has increased during 2011, but also the dominance of Treasury securities is again established through the rise in its market share almost by 10%, may be due to the high risk in Non-Treasury securities in last few years especially after the US Subprime crisis. US corporate debt market is not only different in terms of its share in total outstanding debt, but also in terms of average maturity of the corporate debt issues. Even if the average maturity of corporate bonds in most of the economies is in the lower side, may be within 5 to 10 years, the same is quite different is US market and mostly crosses the 10 year mark, especially after 2006. The average maturity of corporate bonds in US is 13.1 years in 2011, as against 13.7 years and 13.5 years respectively during 2008 and 2007.

European Debt Market:

Although individual countries in European region have their domestic bond markets, the European bond markets are increasingly acting like a single market. In Europe, bonds are about 2/3 of the total amount of securities outstanding in bonds and shares. Apart from bonds issued by Governments and corporates, other types of fixed income securities commonly traded in European markets are: collateralized debt obligations, structured products, covered bonds etc. Covered bonds are debt issued by banks that are fully collateralized by residential or commercial mortgage loans or by loans to public sector institutions, and typically have the highest credit ratings. The notes offer an additional protection to bondholders than asset-backed debt because in addition to looking at the collateral pool as an ultimate source of repayment, the issuing bank is also liable for repayment. Covered bonds are the second largest segment of the European bond market after government bonds. About 60% of the European bond market is government debt, followed by corporate issues (29%), and asset-backed securities (11%). Bond markets in European countries, e.g. France, Germany, London, Italy, Spain, Switzerland, etc., are reasonably well developed. The majority of bond market participants in Europe are institutional investors, such as pension funds, insurance companies and banks. Direct holdings of bonds by individual investors nevertheless vary a lot in between European countries. In Italy, individual investor holdings of bonds comprise 20%

or more of total financial holdings. In Germany, the equivalent percentage is between 10-15%, and in other countries it will be typically lower than 5% the lowest figure being that for the UK (just 1.5%).

An important feature of European corporate bond market is that, most of the bonds are listed in exchanges, but a significant proportion of trading takes place through OTC platform. In such case, listing is preferred not to facilitate trade through exchanges, but to enable institutional investors and fund managers who are restricted to invest in Un-listed bonds. There are several trading platforms, like EUROMTS, EUREX-BOND, in European markets that efficiently provide trading solutions to all such OTC trades. MTS Group is the first wholesale electronic market in the euro area which has promoted the integration of the euro denominated bond market by broadening the range of securities traded and services offered and by extending its platform to other European countries. The EUREX-BOND provides participants with an electronic platform for OTC wholesale trading in European bonds, ensuring higher liquidity for European bonds and thereby increasing transparency for all market participants.

The total value of LCY bond outstanding in September 2011 in France, Germany, and UK are respectively USD3384 billion, USD2648 billion, and USD1745 billion, with the respective world market share of 5%, 3.9%, and 2.6%.

Japanese Debt Market:

Japan raises significant amount of debt capital, offering a wide range of financial tools to meet a range of issuer and investor requirement, to finance government expenditures. Other than traditional instruments like corporate bonds, and commercial papers, several securitized products are also available in Japan's security market. Domestic and foreign securities companies, serving as dealers, brokers, traders, and underwriters, are the major participants in Japanese primary and secondary markets. Both foreign and retail investors are allowed to trade bonds in Japan. Various types of bonds traded in Japanese bond market include: Central government bonds, Local governments bonds, Government agency bonds, Local public corporation bonds, Local governments agency bond, Corporate bonds (e.g. Straight corporate bonds, Asset-backed corporate bonds, Convertible bonds), Bank debentures, and Non-resident bonds.

The total value of public and corporate bonds issued in fiscal 2010 (ending 31 March 2011) was Yen183.7 trillion, of which Yen151.1 trillion, or 82% of the total value, was accounted for by government bonds. The value of total issue in corporate bonds reached Yen10.1 trillion in fiscal 2010, keeping almost the same level for 4 consecutive years, but occupying only 5.5% of the total bond issue value. Total LCY bonds outstanding in Japan is USD11991.25 billion in June 2011, comprising USD10887.29 billion for Govt. bonds and USD1103.96 billion for Corporate bonds. The total size of Japanese LCY bond market in percentage of its GDP stood 204.7% in June 2011, where the size of corporate bond to the GDP is 18.8%. The trading volume in Japanese bond market, in June 2011, is recorded at

USD12339.59 billion, of which the share of corporate bond is only USD94.28 billion. According to JSDA and Japan Bankers Association, the total value of securitized products issued in Japan felt from Yen9.8 trillion in 2006 to about Yen2.6 trillion in 2010. This sharp fall may be attributed to the weakening of the economy kicked off by the recent US subprime crisis. The volume of primary issue in the corporate bond segment in Japan rises to a level of Yen9.9 trillion in 2010. Trading in Japanese OTC bond market is dominated by bond dealers, such as securities companies and banks. Foreign investors are also playing an increasingly large role in the Japanese bond market as a means of investing in yen-denominated government bonds and notes over the past few years. Majority of bond transactions in Japan take place in OTC, where the secondary market transactions are mostly dealer-driven, instead of order-driven trading as followed in the stock exchange.

Even if strictly regulated till end of eighties, several initiatives including relaxation of market eligibility standards, establishment of rating agencies, initiation of bond futures trading, abolition of securities transaction tax, deregulating brokerage-commission, well established legal framework for securitization, etc. have largely contributed to the significant development of the bond market in Japan. Absence of any specific rules for retail investors has made the bond market more interesting also for the individual investors and contributed in widening the investor base. But unlike in US market, Japan has not experienced tremendous growth in its corporate bond market, and still dominated by Govt. debt issues. Even if majority of the corporate bonds in Japan are traded in OTC market, series of initiatives are taken by the Japanese Security Dealers Association (JSDA) to reform the OTC bond market to ensure fare and efficient bond transaction, by providing sufficient information and statistics to all the concerned parties, followed by ensuring investors protection as well.

Emerging East Asian Debt Markets:

Total bonds outstanding in emerging East Asia's Local currency (LCY) bond market rose 7.0% y-o-y and 2.2% q-o-q to reach USD5.7 trillion at the end of 4Q11, from 5.7% in 3Q11, especially driven by strong growth in corporate bonds. The government bond market grew by a modest 2.5% y-o-y in 4Q11, while the corporate segment of the region's bond market grew by a much more robust 17.1%. Even if in the cases of Viet Nam, Singapore, and Malaysia, bond market growth was mostly due to the rapid expansion of their respective government bond markets respectively by 19.9%, 16% and 12%, the Republic of Korea's y-o-y growth rate owes most of its growth to the robust performance of its large corporate bond sector with a y-o-y growth rate of 12.1%. As far as the q-o-q growth, especially in corporate bond sector, is concerned, Indonesia and the People's Republic of China (PRC) have experienced the maximum growth in 4Q11 respectively by 9.2% and 8.7%.

People's Republic of China (PRC) Debt Market:

Bond market in People's Republic of China is broadly composed of both exchange and Inter-bank Bond Markets. Exchange bond market is basically a retail market, in which individual and small- and medium-size institutional investors, including Qualified Foreign Institutional Investors (QFII), carry out trading. On the other hand, Inter-bank Bond Market acts as an OTC wholesale market, where market positioning of institutional investors and one-to-one quote-driven trading take place. The Inter- bank Bond Market accounts for about 94% of outstanding bond value, and 99% of bond trading volume. Types of bonds available in PRC's bond market is highly diversified, and include policy bank bonds, central bank bills, general financial bonds, subordinated bonds of commercial banks, hybrid capital bonds, super and short-term commercial papers, commercial papers, medium term notes (MTNs), credit asset securitization products, listed companies bonds, local government bonds, international development institution bonds, SMEs collective notes, and private placement notes. Several bond trading instruments, other than Spot and Repurchase (Repo) trading, evolved in PRC's bond market are: Bond Forwards, Forward Rate Agreement (FRA), Interest Rate Swap (IRS), Bond Lending, Credit Default Swap (CDS), Credit Risk Mitigation Warrant, etc. The main traded instruments in the Inter-bank Bond Market include cash bond, collateral repo, outright repo, bond lending, and bond forward. PRC's OTC bond market had introduced the market-maker mechanism in 2001 to improve market liquidity and enhance efficiency, and presently 25 market makers provide bid-offer quotation for underlying bonds. As of December 2011, there are 46 settlement agents in the inter-bank bond market, through whom non-financial companies can invest in the inter-bank bond market. National Inter-bank Funding Center, the unified trading platform for the inter-bank Bond market in China, with comprehensive functions of trade, post-trading service, risk management, and information service, contains all instruments in the PRC's bond market. Three central securities depositories (CSDs) serve China's bond market in settling all types of trades. Settlement in inter-bank bond market is done in a near-real-time trade-by-trade mode with a settlement cycle of T+0 or T+1, and with a settlement cycle is T+1 for exchange traded securities. Even if there are different settlement methods in the Inter-bank Bond Market, the exchange market follows the method of Delivery versus Payment (DVP).

Even if the People's Republic of China have experienced an y-o-y overall growth of 5.9% (0.5% for Govt. Bonds and 26% for Corporate Bonds) in 4Q11, PRC's government bond market, comprising Treasury bonds, Central bank bonds, and Policy bank bonds, was still the largest in the region, amounting to USD2.5 trillion, with the respective share of USD1.2 trillion, USD338 billion, and USD1.0 trillion. The most rapidly growing sector of the PRC government bond market in 4Q11 was the policy bank bond sector, which grew at a y-o-y rate of 25.5%, in comparison to the y-o-y growth rate of 10.8% in Treasury bonds during the same period. Similarly, the acceleration of the PRC corporate bond market's y-o-y growth rate from 20.0% in 3Q11 to 26.0% in 4Q11 was driven primarily by commercial bank bonds, medium-term notes (MTNs), and local corporate bonds, with the respective y-o-y growth rates of 51.6%, 45.9%, and 37.3%. Since that most of these commercial bank bonds are subordinated notes and will qualify as Tier II capital under Basel III capital requirements, the commercial bank bond segment in PRC has experienced the highest growth in the corporate bond sector. Even if most of the bond segments in PRC have experienced a positive y-o-y growth from 3Q11 to 4Q11, the commercial paper and asset-backed securities have declined respectively by 23.1% and 47.7%, especially from the risk consideration. But at the same time, the y-o-y growth rate in PRC's Government and Corporate Bond sectors has fallen respectively from 15.1% in 4Q10 to 5.9% in 4Q11, and 37.2% in 4Q10 to 26% in 4Q11. Top 30 corporate bond issuers in PRC, as on the end of December 2011, accounted for a total outstanding amount of USD476.12, 56.7% of the total LCY corporate bond outstanding in PRC during the said period. As far as the investors profile in PRC's bond market is concerned, banks not only found to be the largest holder in PRC's Treasury bond market (66%), but also in bank bonds (84%), and corporate bonds (49%) during the year 2011. The other major investors in PRC's corporate bond market are Insurance Companies and Fund Institutions with a respective share of 21% each.

Indonesian Debt Market:

Indonesia's bond market has grown steadily in recent years to offer a more diversified array of debt instruments and cater to a broader investor base. Both Government and Corporate bonds in Indonesia are available in the form of conventional bonds and 'S*ukuk'* of several tenors. Even if both government and corporate bonds are listed in Indonesia Stock Exchange (IDX), they are mostly traded Over-the-Counter (OTC).

Total local currency (LCY) bonds outstanding in Indonesia reached USD110 billion at the end of December 2011, expanded by 3.6% y-o-y in 4Q11 after declining 1.8% in 3Q11. The corporate bond market, even if comprising a small percentage (14.8%) of Indonesia's LCY bond market, reported a robust growth in 4Q11, expanded by 28.0% y-o-y. Again, the outstanding bonds of the top 30 corporate issuers, dominated by banking and financial sector, in Indonesia in 2011 accounted for almost 80% of total LCY corporate bonds outstanding. Banking institutions remain the largest holder (37%) of LCY government bonds in Indonesia, followed by foreign holders (31%), and Insurance Companies (13%).

Republic of Korea's Debt Market:

Before the Asian financial crisis in the late 1990s, the Korean bond market comprised mostly corporate bonds. But during the financial crisis in 1998, the International Monetary Fund (IMF) bailout prompted the Korean government to vitalize the Govt. bond market. Accordingly, primary dealers (PDs) were introduced in 1999, and the inter-dealer market (IDM) was opened in the Korea Exchange (KRX). The Korean bond exchange market is comprised of the inter-dealer market and the retail market. Bonds publicly offered in Korean market include Government bond, Municipal bond, Special bonds (monetary stabilization bond (MSB), bank bonds, and other financial bonds), corporate bonds, and Asset-backed securities (ABS). The over-the-counter (OTC) market accounts for 80% of the Korean bond market.

Despite of several deficiencies exist in the structure of the Korean corporate bond market, it has experienced a tremendous growth, especially after the 1997 financial crisis that seems to be one of the crucial components of Korea's rapid economic advancement. Among all types of fixed income instruments available, the market for asset-backed securities (ABS) is an important feature of the Korean bond market. Even if most of the bond issues are listed in the Korean stock market, more than 95 percent of bond trades take place over-the counter. Among several structural changes undertaken in Korean bond market, especially after the 1997 financial crisis, some of the considerable steps are: introduction of several credit enhancements mechanism, increased awareness of credit analysis and credit ratings, prudent regulation and supervision, consolidation of several supervisory bodies for greater management proficiency, etc. Even if the Korean secondary bond market experienced liquidity constraints because of strong presence of institutional investors, preferring buy-and-hold investment strategy, several initiatives have contributed to building greater depth and liquidity in Korean bond market. OTC market accounted for the maximum trading in corporate bonds, especially due to lower trading costs, flexible terms of trade, etc.

Republic of Korea, has experienced a y-o-y growth of 9.5% in its LCY bonds outstanding during 4Q11, comprising a growth of 6% and 12.1% respectively in the Govt. and Corporate bond segment during the same period. Corporate bonds issued by the private sector entities, having an outstanding market volume of USD306.8 billion at the end of 4Q11 and accounted for 42% of their total corporate bond market, grew by 22% y-o-y during 4Q11. Unlike in case of PRC, Indonesia, the investors profile in Korean bond market is different and is not dominated by banks. The largest investor in Koran LCY Govt. bond market, at the end of December 2011, is Insurance Companies & Pension Funds (25%), followed by Government (24%), Banks (18%), and Foreign Holders (11%). On the other hand, the major investors in Korean LCY corporate bond market, during the same period, are Insurance Companies & Pension Funds (32%), Other FIs (31%), Banks (18%), Government (12%), and Foreign Investors (1%).

Malaysian Debt Market:

The Malaysian bond market is one of the most developed and dynamic bond markets in the East-Asian region, and is the largest local currency bond market in the Association of Southeast Asian Nations (ASEAN). The phenomenal development of the Malaysian bond market has largely been achieved through the exceptional growth of the corporate bonds and *Sukuk* markets. Malaysia's well developed government bond market is complemented by a sizeable corporate bond market, which constituted 40% of the market size as of the end of 3Q11. The market also offers a wide range of instruments, considering the fact it has the largest *Sukuk* market in the world. *Sukuk*, or Islamic bonds which are issued on Islamic principles, play a major role in Malaysia's capital market development.

Total LCY bonds outstanding in Malaysia reached to USD 263.2 billion at the end of December 2011, showing a growth of 10.4% y-o-y. The LCY Govt. bond market in Malaysia, with an outstanding volume of USD157.5 billion, have experienced a growth of 12% y-o-y in 4Q11 in relation to 19.8% growth posting in the same market in 3Q11. Total government bond issuance in Malaysia has increased to 60.6% in 2011. The corporate bond market in Malaysia has grown by 8.1% by December 2011. LCY corporate bonds outstanding in Malaysia have been steadily increasing since 2005, largely driven by the surge in *'Sukuk'*. Even if the outstanding volume in conventional LCY corporate bonds remains almost stable between 2001 and 2011, within a range of MYR88 billion to MYR129 billion, the Islamic bonds have experienced a regular growth throughout the period, starting from an outstanding volume of MYR39 Billion in 2001 to a large volume of MYR206 billion in 2011. In regards to the investors' profile in LCY Government bonds, Financial Institutions are the largest holder with 42% share, followed by Foreign Holders (26%), Social Security Institutions (24%), and Insurance Companies (6%) by the end of December 2011. On the other hand, domestic commercial and Islamic banks were the largest holders of LCY corporate bonds, with an estimated share of 45% at end-December 2010; followed by Life insurance companies (30%) and the Employment Provident Fund (13%), Foreign Banks and Investment Banks (8% each).

Ibrahim and Wong (2006) in their paper have tried to bring out the status and operation of corporate bond market in Malaysia. The paper highlighted the key developments in Malaysian corporate debt market, its characteristics and functioning, growth of Islamic private debt securities. They have tried to explain how several regulatory initiatives, such as establishment of single regulatory body, independent rating agencies, Bond Dealers Associations, Financial Markets Association, and bringing them in line with international best practice, launching of fully automated system in bond trading and settlement, have strengthen the corporate debt market in Malaysia. The study has also depicted the growth in the secondary market turnover in corporate debts. The study has also explained how the concept of Islamic bond has evolved and how Malaysia has become not only one of the world's largest Islamic bond markets, but also the centre for Islamic capital market. They have also shown how liberalization measures in Malaysia paved the path for significant growth in corporate bond market.

Thailand Debt Market:

The Thai bond market has experienced rapid growth in recent years after the 1997 economic crisis. In order to support the cash-strapped financial institutions, the government started issuing bonds for the first time in June 1998, with a volume of THB500 billion. This event opened a new era for the Thai bond market. Since then, the government continued to issue bonds with the primary objectives of: financing the budget deficit in each financial year, supporting social and economic development, and restructuring public debt. Bond trading is conducted either OTC or via the Bond Electronic Exchange (BEX) for retail bonds, established by the Stock Exchange of Thailand (SET) in November 2003.

The outstanding size of the LCY bond market in Thailand at end-December amounted to USD225 billion, comprising USD182 billion for Govt. bonds and USD43 billion for corporate bonds, rising by 5.3% y-o-y during December 2011. Total government bonds, which accounted for 81% of total bonds outstanding in Thailand, increased by 4.4% y-o-y. But Thailand corporate bond market has experienced a growth of 9.1% y-o-y at the end of

December 2011. The top 30 issuers of LCY corporate bonds at end-December 2011 accounted for about 67% of the total LCY corporate bond market in Thailand. Contractual savings funds and insurance companies are the two largest holders of LCY government bonds in Thailand at end-December 2011, respectively accounting for 24% and 21% of the total; followed by the resident investors (15%), commercial banks (14%), and foreign investors (12%). But a unique feature in Thai corporate bond market is highest exposure of individual retail investors. Individual retail investors capture the largest share in LCY corporate bonds in Thailand, holding 45% of the total as of end September 2011; followed by Contractual Savings Funds and Mutual Funds (each by 11%), Insurance Companies (9%), Commercial Banks (4%).

As far as the widening of the corporate bond market in most of the emerging economies is concerned, the role of several financial institutions (FIs), such as Insurance Companies, Pension Funds, Provident Funds, etc. are building their portfolios of corporate bonds as rapidly as in the case of government bonds. FIs have become an increasingly important investor class in the emerging East Asian bond market in recent years, reflecting the ongoing maturation of the region's bond markets. The proportion of total government bonds outstanding held by such FIs varies a great deal from one market to another across the region. It is the lowest in the PRC, where the percentage of PRC government bonds held by insurance companies is only 6.9%. The percentage is highest in Thailand, where the share of government bonds (excluding central bank bonds and SOE bonds) held by insurance companies and contractual savings funds is 45% of the total. Investments by insurance companies and pension funds account for 32% of all bonds (excluding financial debentures) in the Republic of Korea's corporate bond market. In Malaysia, a combination of insurance companies and the Employees Provident Fund held 46% of total corporate bonds at the end of 2010. In the PRC's corporate bond market, insurance companies held 21% of total corporate bonds, including medium term notes, commercial paper, and commercial bank bonds. However, insurance companies held 57% of commercial bank bonds in PRC. The share of FIs corporate bond holdings exceeds that of their holdings in government bonds in all markets except Thailand.

The maturity profiles of the region's government bond markets generally improved between mid-year and the end of 2011, while maturity profiles for most corporate bond markets remained largely unchanged. Government bond maturities remained more concentrated at the short-end of the yield curve at the end of 2011 in Hong Kong, China Korea Thailand, and Viet Nam, with a maximum concentration of 15% in securities with a maturity of more than 10 years. Similarly, markets with a minimum concentration of 20% in long dated (more than 10 years) Government securities are Indonesia (42%), Philippines (39%), Singapore (23%), and PRC (20%). On the other hand, the maturity profile of the corporate bond markets of emerging East Asia is not consistent among the markets. Even if the market share for corporate bonds with a maturity range of 1-3 years are highest in most of the markets, PRC, Malaysia, Philippines and Singapore experience maximum concentration in bonds with a maturity range of 5 – 10 years at the end of 2011. PRC, Hong Kong, Malaysia, and Singapore also exhibit a concentration of more than 10% in corporate bonds with a maturity of more than 10 years, with a highest concentration in Malaysia (30% approx.) at the end of 2011.

Development of the region's corporate bond market over the next several years could also be influenced by the tightening of bank lending standards in preparation for the implementation of Basel III capital regulations. Specifically, the tightening of lending standards and higher capital requirements and liquidity coverage ratios could possibly result in greater corporate bond issuance. There are several Policy and Regulatory Developments taken place in most of these East Asian bond markets that lead to the significant growth in the bond market segment, especially in corporate bonds.

ADB in its study on Bond Market Development in East Asia (2002) has pointed out that the development of domestic bond markets, especially during a post crisis era, is a key requirement to strengthen the financial sectors of East Asian countries and to reduce their vulnerabilities to future financial crises. Even if there is a great diversity in terms of the level of bond market development across East Asian countries, Hong Kong and Singapore are found to be ahead of other countries, followed by Korea and Malaysia, Thailand, Philippines, and Indonesia. The study exhibited the fact that even if it is important to develop the domestic bond market, the development mechanism cannot be uniformly applicable and compelling for all the countries. The study suggested the necessity of some initiatives, such as: sustaining a stable macroeconomic environment with low inflation and stable interest rates; development of a healthy government bond market, serving as a benchmark for the corporate bond market; improvement of corporate governance structure, strengthening regulatory framework, rationalizing tax treatment of bonds, broadening the investor base, etc.

Table T-5: Bond (Govt. & Corporate) Outstanding as % of GDP

Bond (Govt. & Corporate) Outstanding (as % of GDP)								
Rank	**Country**	**Dec-05**	**Dec-06**	**Dec-07**	**Dec-08**	**Dec-09**	**Dec-10**	**Sep-11**
1	**Japan**	144.46%	154.88%	164.02%	187.93%	191.74%	211.94%	220.92%
		(38.63%)	(38.07%)	(39.27%)	(39.98%)	(37.08%)	(38.29%)	(37.00%)
2	**United States**	46.89%	46.57%	46.99%	55.16%	73.06%	81.50%	83.15%
		(117.43%)	(122.76%)	(119.20%)	(116.48%)	(110.62%)	(96.30%)	(90.27%)
3	**Denmark**	32.79%	30.36%	28.00%	24.83%	31.34%	33.30%	36.49%
		(135.64%)	(149.03%)	(161.20%)	(147.06%)	(190.83%)	(172.25%)	(135.10%)
4	**Ireland**	18.17%	18.40%	18.59%	22.91%	24.14%	31.60%	27.61%
		(30.54%)	(39.35%)	(29.35%)	(19.29%)	(117.89%)	(115.42%)	(115.82%)
5	**Italy**	74.00%	82.09%	83.20%	76.77%	93.20%	93.82%	91.50%
		(46.79%)	(55.35%)	(59.22%)	(63.34%)	(57.55%)	(51.67%)	(50.14%)
6	**Portugal**	51.15%	55.25%	53.52%	53.77%	42.10%	50.13%	50.07%
		(24.51%)	(30.45%)	(42.87%)	(45.43%)	(56.33%)	(64.07%)	(73.17%)
7	**France**	50.51%	53.52%	54.33%	50.55%	64.34%	64.84%	64.82%
		(37.75%)	(45.89%)	(51.39%)	(50.58%)	(55.20%)	(57.35%)	(57.07%)
8	**Netherlands**	40.62%	41.04%	39.19%	42.80%	47.88%	49.40%	48.96%
		(65.75%)	(72.69%)	(76.08%)	(64.84%)	(78.45%)	(75.74%)	(70.30%)
9	**Belgium**	79.01%	83.01%	85.02%	77.62%	62.77%	61.31%	57.64%
		(28.76%)	(31.04%)	(33.72%)	(44.72%)	(60.79%)	(55.31%)	(52.65%)
10	**Malaysia**	37.40%	37.79%	37.31%	34.38%	48.72%	50.17%	44.85%
		(52.12%)	(55.47%)	(47.21%)	(43.13%)	(49.24%)	(60.68%)	(57.05%)
11	**South Korea**	45.50%	48.32%	44.41%	36.24%	51.03%	46.81%	43.66%
		(54.79%)	(57.80%)	(58.20%)	(56.47%)	(76.79%)	(62.66%)	(56.99%)

12	Spain	35.92%	36.29%	34.33%	33.73%	41.35%	45.12%	46.29%
		(45.58%)	(64.17%)	(79.56%)	(75.59%)	(65.59%)	(58.89%)	(52.28%)
13	Greece	85.13%	92.08%	48.68%	52.05%	55.33%	52.09%	52.37%
		(4.94%)	(7.69%)	(9.48%)	(12.25%)	(14.18%)	(31.89%)	(36.16%)
14	Canada	53.62%	48.35%	51.89%	44.93%	69.48%	66.31%	61.17%
		(29.84%)	(28.98%)	(32.99%)	(24.16%)	(29.55%)	(27.88%)	(25.62%)
15	Sweden	36.81%	38.51%	31.44%	23.18%	29.30%	28.63%	23.02%
		(40.26%)	(49.04%)	(52.76%)	(48.01%)	(62.15%)	(60.59%)	(56.03%)
16	Germany	38.69%	42.08%	41.85%	37.47%	46.79%	52.47%	50.68%
		(31.23%)	(35.29%)	(37.27%)	(33.72%)	(37.92%)	(26.85%)	(23.34%)
17	United Kingdom	29.76%	34.11%	32.06%	31.08%	54.52%	58.60%	59.27%
		(14.15%)	(16.44%)	(16.20%)	(14.81%)	(16.50%)	(14.26%)	(12.93%)
18	Austria	28.80%	31.54%	31.90%	26.58%	34.64%	35.58%	31.82%
		(39.54%)	(45.66%)	(68.53%)	(55.32%)	(60.64%)	(59.83%)	(39.26%)
19	Australia	12.14%	12.48%	12.52%	10.36%	23.24%	27.67%	25.72%
		(38.34%)	(46.30%)	(72.81%)	(50.20%)	(64.97%)	(56.51%)	(42.29%)
20	Thailand	30.39%	35.20%	39.23%	35.70%	47.59%	52.08%	49.62%
		(14.35%)	(17.77%)	(17.57%)	(16.91%)	(20.82%)	(18.63%)	(17.68%)
21	Brazil	47.48%	47.03%	50.80%	33.07%	49.54%	44.29%	33.99%
		(14.78%)	(16.88%)	(18.94%)	(18.96%)	(26.73%)	(23.69%)	(20.87%)
22	Hong Kong SAR	9.96%	9.42%	8.93%	9.75%	33.35%	13.69%	36.87%
		(18.11%)	(17.43%)	(15.84%)	(13.56%)	(14.43%)	(15.52%)	(15.99%)
23	Norway	13.62%	14.41%	12.07%	10.90%	25.27%	23.59%	17.33%
		(19.93%)	(22.41%)	(24.55%)	(19.03%)	(38.29%)	(35.21%)	(32.42%)
24	Singapore	37.39%	38.35%	38.35%	38.27%	47.46%	45.21%	40.10%
		(17.06%)	(17.15%)	(16.39%)	(12.48%)	(13.41%)	(10.91%)	(8.08%)
25	Switzerland	28.73%	28.45%	26.74%	23.81%	22.98%	23.77%	19.54%
		(27.46%)	(28.63%)	(29.19%)	(27.66%)	(29.74%)	(31.35%)	(27.70%)
26	China	27.29%	28.96%	32.53%	31.34%	29.25%	27.36%	20.24%
		(12.55%)	(14.67%)	(15.76%)	(17.54%)	(22.15%)	(23.75%)	(24.05%)
27	South Africa	30.53%	26.73%	25.26%	20.86%	30.43%	35.57%	29.85%
		(13.20%)	(15.16%)	(16.97%)	(13.31%)	(18.93%)	(17.69%)	(14.02%)
28	Czech Republic	41.82%	46.37%	47.26%	36.20%	28.50%	26.26%	27.41%
		(6.15%)	(8.42%)	(10.92%)	(8.65%)	(12.39%)	(12.90%)	(12.68%)
29	Poland	34.61%	37.90%	38.23%	27.92%	41.02%	41.24%	37.31%
		(0.00%)	(0.00%)	(0.00%)	(0.00%)	(1.65%)	(1.79%)	(2.28%)
30	**India**	**33.14%**	**33.56%**	**36.16%**	**30.97%**	**42.31%**	**38.07%**	**33.24%**
		(1.37%)	**(2.29%)**	**(3.60%)**	**(3.12%)**	**(5.78%)**	**(6.28%)**	**(5.48%)**
31	Mexico	16.49%	17.77%	18.51%	15.96%	23.81%	23.86%	23.42%
		(15.43%)	(14.70%)	(15.55%)	(13.24%)	(17.34%)	(17.58%)	(15.15%)
32	Finland	31.41%	32.62%	30.35%	25.18%	11.78%	13.84%	10.62%
		(23.86%)	(25.03%)	(26.90%)	(24.49%)	(27.05%)	(22.85%)	(22.13%)
33	Turkey	38.33%	34.24%	33.61%	24.67%	36.02%	31.16%	25.23%
		(0.00%)	(0.02%)	(0.08%)	(0.07%)	(0.07%)	(0.45%)	(0.41%)
34	Argentina	30.82%	28.22%	24.08%	16.58%	15.05%	13.16%	10.63%
		(8.63%)	(7.62%)	(4.81%)	(3.60%)	(3.45%)	(2.57%)	(1.97%)
35	Indonesia	16.45%	18.83%	17.65%	12.31%	16.30%	12.80%	10.82%
		(2.34%)	(2.11%)	(2.15%)	(1.35%)	(1.84%)	(1.62%)	(1.44%)

Source: BIS Quarterly Review and IMF World Economic Outlook Database

Figures in Parenthesis represent Corporate (FIs plus Corporate) Bond Outstanding as % Share of GDP

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Table T-6: Sector-wise Bond Market Turnover in Various Exchanges

Exchange	Cur.	Sector-wise Turnover (In Millions of LCY) Year-to-date_Dec-2011 Domestic private	Domestic public	Foreign	Total
Colombia SE	LKR	327 937 000.0	1362 870 000.0	1 856 630.0	1692 663 630.0
Korea Exchange	KRW	6 393 360.0	818 424 000.0	0.0	824 817 360.0
Santiago SE	CLP	45 326 100.0	66 940 600.0	0.0	112 266 700.0
Johannesburg SE	ZAR	518 978.0	20 357 400.0	1 799.4	20 878 177.4
BME Spanish Exchanges	EUR	5 445 390.0	6 975 010.0	0.0	12 420 400.0
MICEX / RTS	RUR	5 147 010.0	3 562 300.0	38 629.8	8 747 939.8
NSE India	**INR**	**704 843.0**	**5 068 920.0**	**0.0**	**5 773 763.0**
London SE Group	EUR	74 626.0	3 533 160.0	244 900.0	3 852 686.0
Oslo Børs	NOK	354 422.0	2 937 220.0	2 628.1	3 294 270.1
NASDAQ OMX Nordic	EUR	1 122 680.0	782 613.0	26 077.6	1 931 370.6
Bombay SE	**INR**	**42 920.3**	**902 841.0**	**0.0**	**945 761.3**
Tel Aviv SE	ILS	176 884.0	703 794.0	0.0	880 678.0
Istanbul SE	TRY	8 179.3	769 308.0	85 078.4	862 565.7
Shanghai SE	CNY	496 820.0	136 914.0	0.0	633 734.0
Budapest SE	HUF	6 934.4	284 247.0	0.0	291 181.4
Tokyo SE Group	JPY	245 622.0	0.0	0.0	245 622.0
SIX Swiss Exchange	CHF	37 040.4	48 491.6	90 806.6	176 338.6
Buenos Aires SE	ARA	4 036.5	129 956.0	0.0	133 992.5
Shenzhen SE	CNY	73 629.3	1 002.3	0.0	74 631.6
Deutsche Börse	EUR	8 675.2	28 398.8	11 287.0	48 361.0
Egyptian Exchange	EGP	862.3	30 499.3	0.0	31 361.6
Irish SE	EUR	0.0	29 494.0	0.0	29 494.0
NYSE Euronext (Eur.)	EUR	0.0	1 849.0	7 479.0	9 328.0
Casablanca SE	MAD	7 141.4	388.4	1 067.5	8 597.3
TMX Group	CAD	0.0	6 236.3	0.0	6 236.3
Colombo SE	LKR	2 690.7	28.4	0.0	2 719.0
Warsaw SE	PLN	1 764.8	775.3	0.0	2 540.1
Saudi Stock Market	SAR	1 809.2	0.0	0.0	1 809.2
Lima SE	PEI	1 538.0	125.0	17.2	1 680.2
Hong Kong Exchanges	HKD	1.0	842.3	0.0	843.3
The S E of Thailand	THB	787.6	0.0	0.0	787.6
Wiener Börse	EUR	615.8	5.8	32.9	654.5
Bursa Malaysia	MYR	601.3	0.0	0.0	601.3
Malta SE	EUR	34.3	438.0	0.0	472.3
RTS Exchange		292.7	0.0	0.0	292.7
BM&FBOVESPA	BRL	190.8	79.8	0.0	270.6
Luxembourg SE	EUR	0.0	20.5	123.9	144.4
Ljubljana SE	EUR	19.8	39.8	0.0	59.6
Mauritius SE	MUR	28.0	0.0	0.0	28.0
Cyprus SE	EUR	26.0	0.5	0.0	26.5
Athens Exchange	EUR	0.2	0.0	15.4	15.6
Amman SE	JOD	0.6	0.0	0.0	0.6

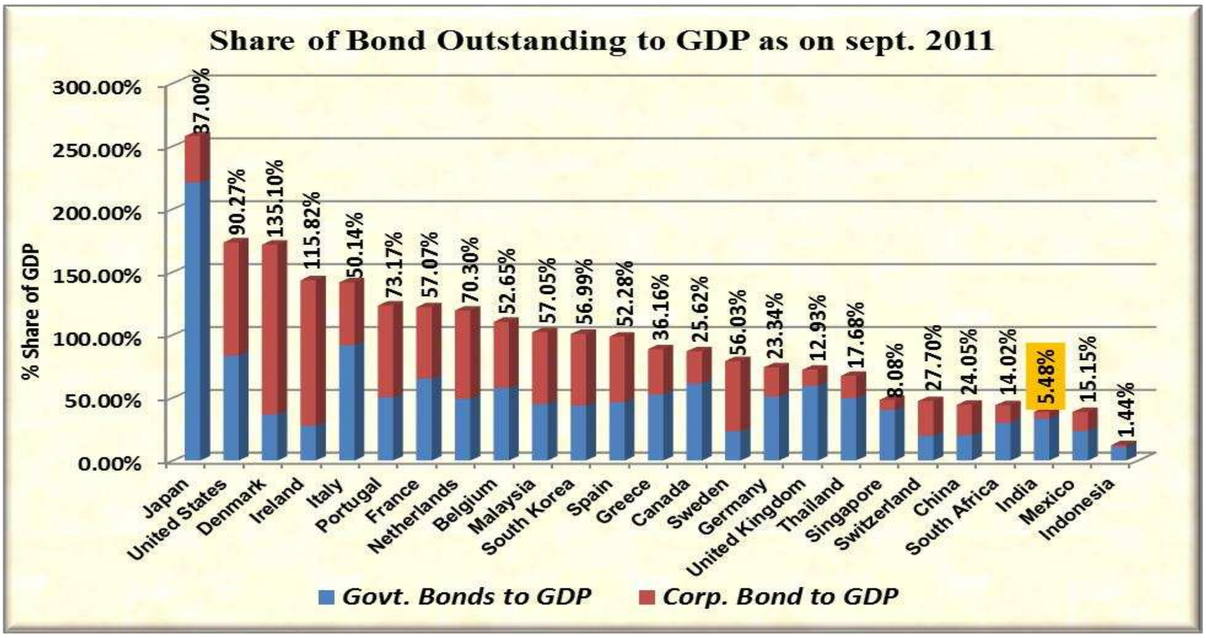
Source: World Federation of Exchanges (WFE)

C. Corporate Bond Market in India:

Until the mid-nineties, Indian equity markets were ranked at the bottom of the confederation of global equity markets. But the initiation of automated nationwide real-time trading facilities, depository mode of settlement, and widening investor base, experienced during the last two decades, have brought remarkable transformation in Indian equity markets. However, the radical transformation, witnessed in relation to the Indian equity markets, has not been percolated to the corporate debt segment of Indian economy. The underdevelopment of the corporate bonds market is directly reflected through the significant financing gap in corporate sectors, especially for infrastructure development, a crucial factor for maintaining and enhancing overall growth of an economy. Although several initiatives are taken by Indian regulators to revive the corporate bonds market in India, there is hardly any major progress observed on that front.

Even if India boasts of a world-class equity market, its bond market segment is still underdeveloped and is dominated by government securities. The value of outstanding government bonds in India is 33.24% of its GDP as of September 2011 in comparison with Japan (220.29%), Italy (91.50%), United States (83.15%), France (63.82%), UK (59.27%), Germany (50.68%), South Korea (43.66%), China (20.24%), as reflected in Table T . The value of corporate bond (bonds issued by FIs and corporate entities) outstanding in India however was only 5.48% of its GDP during the same period, compared to Denmark (135.10%), US (90.27%), France (57.07%), Malaysia (57.05%), South Korea (56.99%), Japan (37%), and China (24.05%). As far as the total outstanding debt, including both Govt. and Non-Govt. debt, of a country to its GDP is concerned; Japan is in the first rank, followed by US; whereas India's rank is 30th. Share of bond (Govt. and Corporate) outstanding in several countries to their respective GDP as on September 2011 are depicted in figure **F-4**.

Figure F-4:

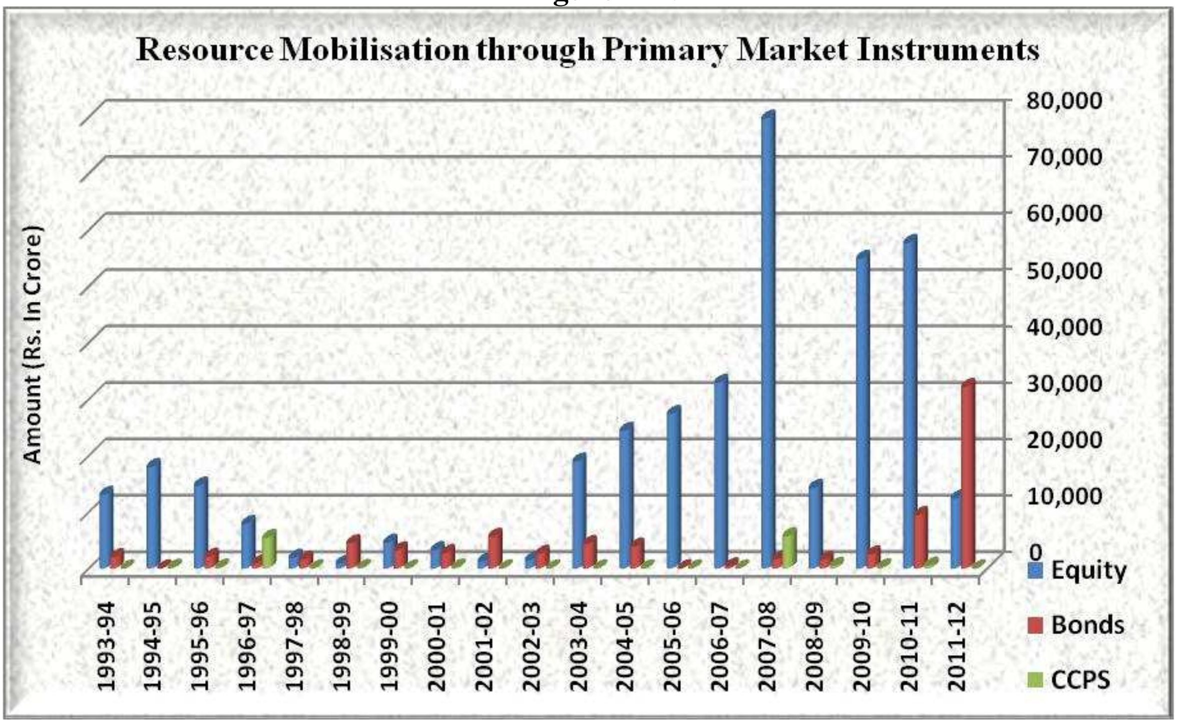


Source: BIS Quarterly Review and IMF World Economic Outlook Database

C.1. Primary Issuance of Corporate Bond in India

Securities available to be issued in primary market can be Equity, Bonds, Cumulative Convertible Preference Shares (CCPS), and Others. The level of resources mobilized in the primary market through these instruments over the periods can be demonstrated through the following figure **F-5**. The figure clearly establishes the importance of equities in resource mobilization in primary market in all the periods. The picture is different during 2011-12 just because of non-consideration of the data for the later half during the said period. But this figure also emphasizes the strength of bond issues in the primary market, especially during 2011-12.

Figure F-5:



Source: SEBI (Handbook of Statistics, Annual Report, Bulletin)

C.1.i. Issuers of Corporate Bonds in India:

Corporate bonds in India are issued by Public Sector Undertakings (e.g. REC, KRCL, NTPC); State-level Undertakings (e.g. Power Transmission Corporations, Power Finance Corporation, Road Transport Corporation); Municipal Bodies; Public or Private Sector Banks; Non-banking Finance Companies (e.g. Tata Capital, Reliance Capital); All India Financial Institutions (e.g. IDFC, EXIM, NABARD); Private Sector Entities (e.g. Reliance Industries, Tata Motors, ACC); Housing Finance Companies (e.g. HDFC, NHB). A list of such issuers, recently issuing various debt instruments in India with a minimum issue size are tabulated in table **T-7**. Again, the volume of debt securities, both Government and Non-Government, issued in Indian primary market over several years are captured in figure **F-6**. The table clearly shows an increasing pattern not only in the total debt issues, but also in Govt. and Non-Govt. debt issues, except during 2004-05, and 2010-11, when there is a slight reduction in the total debts but only due to fall in Govt. issues. But at the same time, the table also depicts that the proportionate annual rise in Government securities, especially during 2007-10 are comparatively much higher than the rise in Non-Govt. securities.

Table T-7: List of Some Recent and Major Issuers of Corporate Bond in India

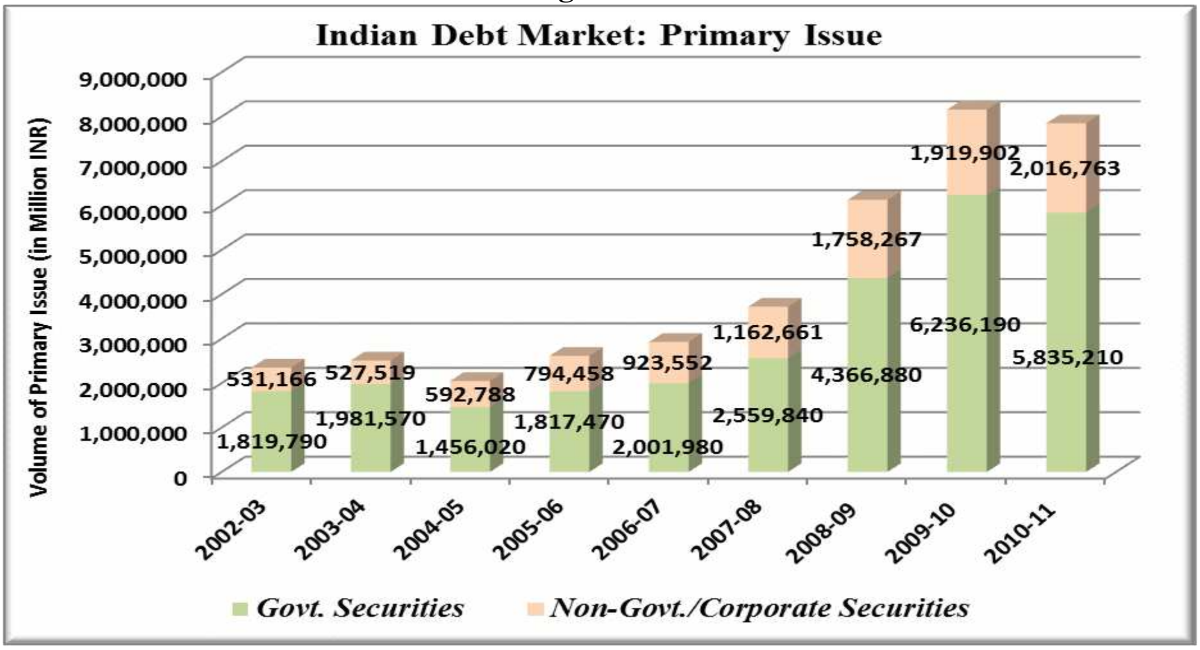
AHMEDABAD MUNICIPAL CORPORATION	L&T INFRASTRUCTURE FINANCE CO LTD
AIRPORTS AUTHORITY OF INDIA	LIC HOUSING FINANCE LTD
ALLAHABAD BANK	MRF LTD
ANDHRA BANK	NATIONAL BANK OF AGRICULTURE & RURAL DEVELOPMENT
ASHOK LEYLAND LIMITED	NATIONAL HOUSING BANK
ASIAN DEVELOPMENT BANK	NEYVELI LIGNITE CORPORATION
BANK OF BARODA	NHPC LIMITED
BANK OF INDIA	NORTH KARNATAKA EXPRESSWAY LIMITED
BHARAT FORGE LIMITED	NUCLEAR POWER CORPORATION
BHARAT PETROLEUM CORPORATION LIMITED	ORIENTAL BANK OF COMMERCE
CAIRN INDIA LIMITED	POWER FINANCE CORPORATION LIMITED
CANARA BANK	POWER GRID CORPORATION OF INDIA LTD
CHOLAMANDALAM INVESTMENT & FINANCE CO. LTD.	PUNJAB NATIONAL BANK
CITIFINANCIAL CONSUMER FINANCE INDIA LTD	RELIANCE INDUSTRIES LIMITED
CORPORATION BANK	RURAL ELECTRIFICATION CORPORATION LTD
EMBASSY PROPERTY DEVELOPMENTS LIMITED	SMALL INDUSTRIES DEVELOPMENT BANK OF INDIA
EXPORT IMPORT BANK OF INDIA	SREI EQUIPMENT FINANCE PRIVATE LIMITED
FULLERTON INDIA CREDIT COMPANY LTD	STATE BANK OF BIKANER AND JAIPUR
HCL TECHNOLOGIES	STATE BANK OF INDIA
HDFC BANK	STATE BANK OF PATIALA
HINDUSTAN PETROLEUM CORPORATION LIMITED	SUNDARAM BNP PARIBAS HOME FINANCE LIMITED
HOUSING AND URBAN DEVELOPMENT CORPORATION	SUNDARAM FINANCE LIMITED
HOUSING DEVELOPMENT FINANCE CORPORATION LIMITED	SYNDICATE BANK
ICICI BANK LIMITED	TAMILNADU STATE
ICICI HOME FINANCE COMPANY LTD	TATA CAPITAL HOUSING FINANCE LIMITED
INDIA INFOLINE FINANCE .LTD.	TATA CHEMICALS LIMITED
INDIA INFRASTRUCTURE FINANCE CO.LTD.	TATA COMMUNICATIONS LTD
INDIAN HOTELS COMPANY LIMITED	TATA IRON AND STEEL COMPANY LIMITED
INDIAN OIL CORPORATION	TATA MOTORS LIMITED
INDIAN OVERSEAS BANK	TECH MAHINDRA LIMITED
INDIAN RAILWAY FINANCE CORPORATION	THE ASSOCIATED CEMENT COMPANIES LTD
INDUSIND BANK LIMITED	THE GREAT EASTERN SHIPPING CO. LTD
INDUSTRIAL DEVELOPMENT BANK OF INDIA	TML FINANCIAL SERVICES LTD.
INFOTEL BROADBAND SERVICES LTD.	TUBE INVESTMENTS OF INDIA
INFRASTRUCTURE DEVELOPMENT FINANCE COMPANY LTD	UCO BANK
ING VYSYA BANK LIMITED	ULTRATECH CEMENT LIMITED
IVRCL ASSETS & HOLDINGS LIMITED	UNION BANK OF INDIA
KALYANI STEELS LTD	UTI BANK LIMITED
KOTAK MAHINDRA BANK LTD	VIJAYA BANK
L&T FINANCE	WIRE AND WIRELESS (INDIA) LTD

Source: NSE Website.

Note: Issuers of Bonds only with recent and minimum traded value of 10 Crore are considered here

The compositions of bonds primarily issued by Govt. and several other Non-Govt. entities as on March 30th 2012 are highlighted in table **T-8**. It is very clear from the table that Central Government bonds, as on March 30th 2012, captures 57.86% of total market capital in India, followed by State Govt. bonds & State Loans (17.72%), FIs and Bank bonds (7.81%), Treasury bills (6.07%), PSU bonds (5.71%), and Corporate bonds (4.74%). In all types of debt issues, there is an increase in the issue size from March 2011 to March 2012, with the highest increase in Treasury bills by almost 90%; whereas the percentage increase in corporate bonds is only 19%, leaving the share of corporate bond issue to total market cap only at 4.74%. These figures clearly depict the fact that Indian market is giving an increasing preference to generate capital through debt securities, especially Govt. securities.

Figure F-6



Source: Indian Securities Market Review (ISMR), NSE

Table T-8: Market Composition in Indian Bond Market as on Mar. 30 2012

Types of Securities	No. of Securities as on Mar. 30 2012	Issue Size as on Mar. 30 2012 (In Millions of Rs.)	Issue Size as on Mar. 30 2011 (In Millions of Rs.)	% Increase / Decrease in Last 1 Year	Market Capitalization as on Mar. 30 2012	% Share of Total Market Cap. as on Mar. 30 2012
Govt. Bonds	132	25475372	22219127	14.66%	24721786.01	57.86%
State Govt. Bonds / State Loans	1416	7555003	6182693	22.20%	7572812.84	17.72%
Treasury Bills	52	2666837	1404176	89.92%	2592708.92	6.07%
State Enterprise / PSU Bonds	971	2466451	1915422	28.77%	2441650.12	5.71%
Financial Institutions / Bank Bonds	952	3358779	2865899	17.20%	3337573.45	7.81%
Corporate Bonds	1605	2014588	1693371	18.97%	2026638.05	4.74%
Supra Institutional Bonds	1	5000	5000	0.00%	3912.22	0.01%
Local Bodies	19	30178	30178	0.00%	30283.16	0.07%
Total	5148	43572208	36315866		42727364.77	

Source: Market Review, NSE

The proportionate share of corporate bonds issued by different sectors, like Finance, Manufacturing, Infrastructure, and Others are also briefed in table **T-9**. The figures prove the fact that the corporate bond market in India, even if very shallow, is primarily driven by the finance sector like banks and other FIs, followed by the infrastructure companies. The impact of infrastructural growth seems to be very important in the overall growth of an economy. The proportionate share of bonds issued by infrastructure companies can be a significant indicator for infrastructure growth, which is taking place in India, may be at a slower pace, as reflected from the increasing share of infra bonds during 2010-11. But on the other hand, the proportionate share of Indian manufacturing sector is comparatively very less in taping the primary bond market, which has even fallen from 14.11% in 2009-10 to 8.17% in 2010-11. This insignificant participation clearly reveal the lack of corporate sectors' interest in meeting their financing needs through the bond route, and strengthen their dependence on alternative channel like bank loans.

Table T-9: Category-wise Issue of Corporate Bonds in India

Year	Category of Corporate Bond Issuer (% Share of Total Issues)				
	Finance	Manufacturing	Infrastructure	Oil	Others
2008-09	65.36	9.90	16.75	0.38	7.61
2009-10	64.69	14.11	14.99	0.22	5.99
2010-11	64.24	8.17	21.36	0.11	6.13
2011-12 (Q1)	76.22	6.91	11.99	0.00	4.88

Source: NSDL

C.1.ii. Procedure for Primary Issuance

Private Placements:

Majority of the issuances in the Indian corporate bond market takes place through private placements. Under Section 81 of the Companies Act, 1956, a private placement is defined as an issue of shares or of convertible securities by a company to a selected group of persons. The maximum number of investors in the private placement markets is limited to 49. Private placement process is flexible and is operationally easy for the bond issuers to raise money from the market.

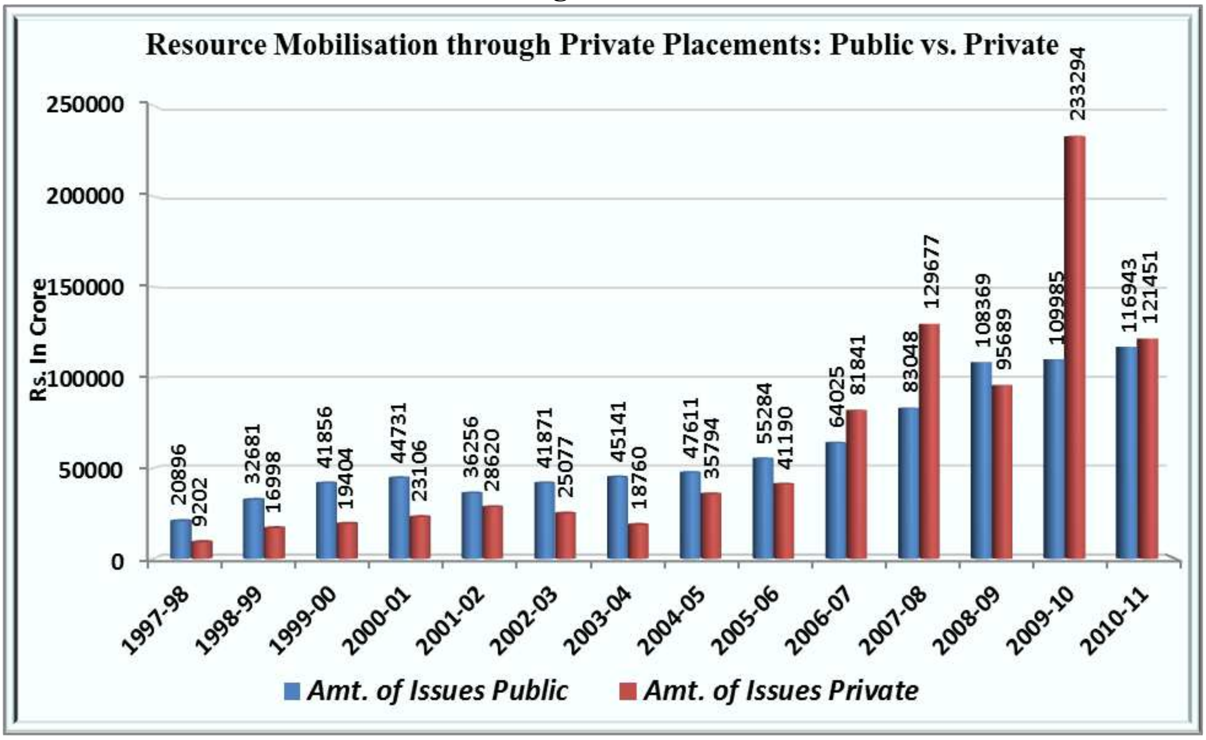
Public Issue:

A public issue is an offer made to the public in general to subscribe to the bonds. In a public issue, the company has to issue a prospectus before issuing the bonds. A prospectus is a document containing details about the company and the bonds to be issued. After the public issue, these bonds are listed on a recognized stock exchange in India. In case of a listed bond, the investor can buy the bonds in the public issue at the face value or from the exchange at a premium or discount. Public issue, even if involves more stringent process, offers the advantage of wider investor participation and thus diversification of risk.

Private placements not only dominate the corporate debt market, but also lead the primary segment of both the public and private issues. Corporate have continued to prefer private placements over public issues. As a result financial institutions have tended to dominate public issues in the primary corporate debt market.

Figure **F-7** describes the total resource mobilized from public and private issues only through private placements in India over several years. The figure clearly shows that the volume of privately placed public sector issues, till the year 2005-06, remains almost stable and found to be higher than the volume of private sector issues. But 2006-07 onwards, both public and private sector issues, made through private placements in India, started rising, with stronger rise in private sector issues. More interestingly, during 2009-10, the Indian private sector have experienced a huge rise, more than double of the public sector, in the number and volume of securities issued through private placements. Table **T-10** describes the resource mobilized by Indian financial and non-financial institutions, both from the public and private sector through private placements of securities in several years. Irrespective of the nature of the instruments, it is commonly observed from the total figures that both the number and amount of private placement issues tends to increase over the years, except in some periods when trends are found little different. These have made it very clear that market would always prefer private placements to mobilize the necessary resources. If the nature of resources raised only by the corporate sector is evaluated, as briefed in table **T-11**, it is very clear that on an average 80% of the corporate resources, in most of the years, are raised from the debt market. Out of this debt issues, corporates are found to raise more than 90% through private placements in most of the years, except a few. These estimates makes it very clear that even if corporate sector attempt to tap the debt market to meet their financing needs, they mostly prefer to go for private placements route, rather than depending on public issues. This fact is again supported by figure **F-8**, where the strength of debt financing, especially through private placements, are brought out along with the possibility for financing through equities.

Figure F-7:



Source: SEBI Annual Reports

Table T-10: Resource Mobilization through Private Placements in India

Year	Private Sector (Amount: Rs. in Crore)						Public Sector (Amount: Rs. in Crore)						Grand Total	
	Financial Institutions		Non-Financial Institutions		Total		Financial Institutions		Non-Financial Institutions		Total		No. of Issues	Amt. of Issues
	No. of Issues	Amt. of Issues	No. of Issues	Amt. of Issues	No. of Issues	Amt. of Issues	No. of Issues	Amt. of Issues	No. of Issues	Amt. of Issues	No. of Issues	Amt. of Issues		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1995-96	—	2136	—	1934	—	4070	—	4552	—	4739	—	9291	—	13361
1996-97	—	1847	—	646	—	2493	—	6541	—	6032	—	12573	—	15066
1997-98	—	4324	—	4879	139	9202	—	9660	—	11237	118	20896	257	30099
1998-99	87	12174	93	4824	180	16998	67	20382	69	12299	136	32681	316	49679
1999-00	176	10875	191	8528	367	19404	119	17981	92	23874	211	41856	578	61259
2000-01	208	13263	171	9843	379	23106	112	26201	96	18530	208	44731	587	67836
2001-02	363	16019	309	12601	672	28620	167	17358	119	18898	286	36256	958	64876
2002-03	327	9454	550	15623	877	25077	157	20407	110	21464	267	41871	1144	66948
2003-04	344	12551	296	6209	640	18760	132	26461	102	18679	234	45141	874	63901
2004-05	255	20974	462	14820	717	35794	124	25531	69	22080	193	47611	910	83405
2005-06	375	26463	571	14727	946	41190	137	39165	32	16119	169	55284	1115	96473
2006-07	632	48414	892	33426	1524	81841	127	52117	30	11908	157	64025	1681	145896
2007-08	905	88291	711	41386	1616	129677	132	56186	67	26863	199	83048	1815	212725
2008-09	687	60586	383	35103	1070	95689	123	65615	91	42753	214	108369	1284	204057
2009-10	1630	142441	640	90853	2270	233294	151	74290	67	35696	218	109985	2488	343280
2010-11	877	71975	460	49476	1337	121451	212	98983	38	17960	250	116943	1587	238394

Source: RBI Database on Indian Economy

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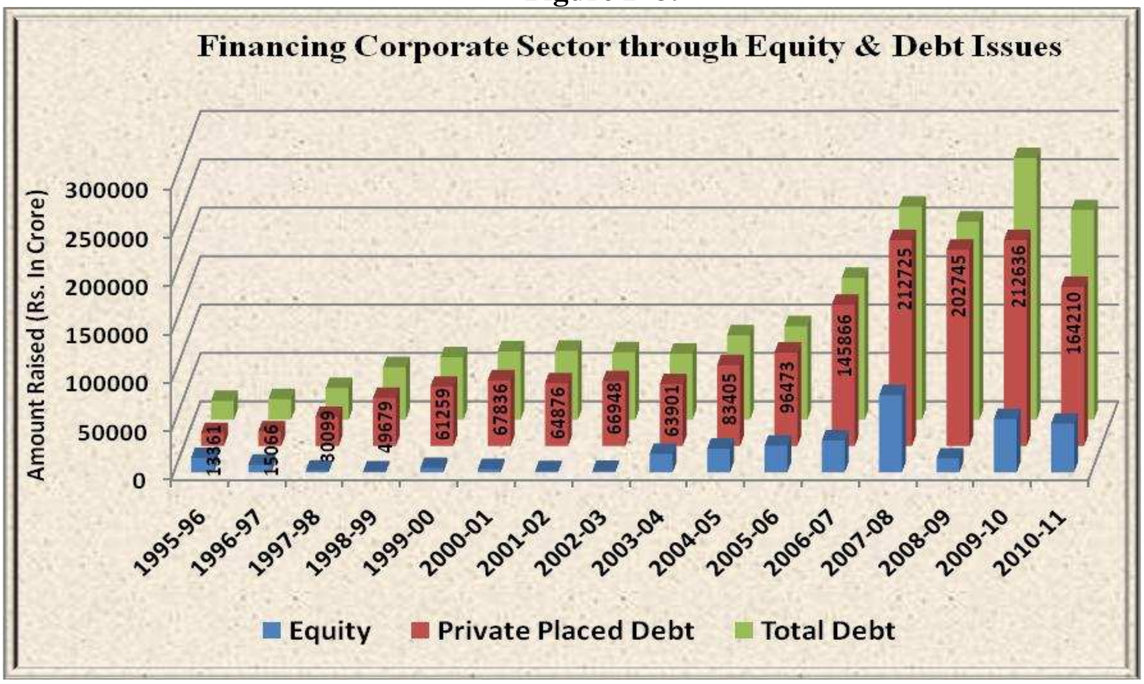
Table T-11: Resource Raised by Corporate Sector

Year	Equity Issue	Debt Issue (Rs. in Crore)			Resource Mobilization (2+5)	% Share of Private Placements in		% Share of Debt in Total Resource Mobilization
		Public & Right Issues	Private Placements	Total (3+4)		Total Debt	Total Resource Mobilization	
1	2	3	4	5	6	7	8	7
1995-96	14830	5974	13361	19335	34165	69.1	39.1	56.6
1996-97	7853	6286	15066	21352	29205	70.6	51.2	73.1
1997-98	1892	2678	30099	32777	34669	91.8	86.8	94.5
1998-99	935	4652	49679	54331	55266	91.4	89.9	98.3
1999-00	4566	3251	61259	64510	69076	95	88.7	93.4
2000-01	3368	2740	67836	70576	73944	96.1	91.7	95.4
2001-02	1272	6271	64876	71147	72419	91.2	89.6	98.2
2002-03	1457	2613	66948	69561	71018	96.2	94.3	97.9
2003-04	18948	4324	63,901	68225	87173	93.7	73.3	78.3
2004-05	24388	3867	83405	87272	111661	95.6	74.7	78.2
2005-06	27372	10	96473	96483	123855	100	77.9	77.9
2006-07	32903	605	145866	146471	179374	99.6	81.3	81.7
2007-08	79739	7290	212725	220015	299754	96.7	71	73.4
2008-09	14272	1948	202745	204693	218965	99	92.6	93.5
2009-10	55055	2500	212636	270190	325246	78.7	65.4	83.1
2010-11	50,173	2,197	164,210	216,579	266,751	76	61.6	81.2

Source: SEBI (Annual Report, Bulletin)

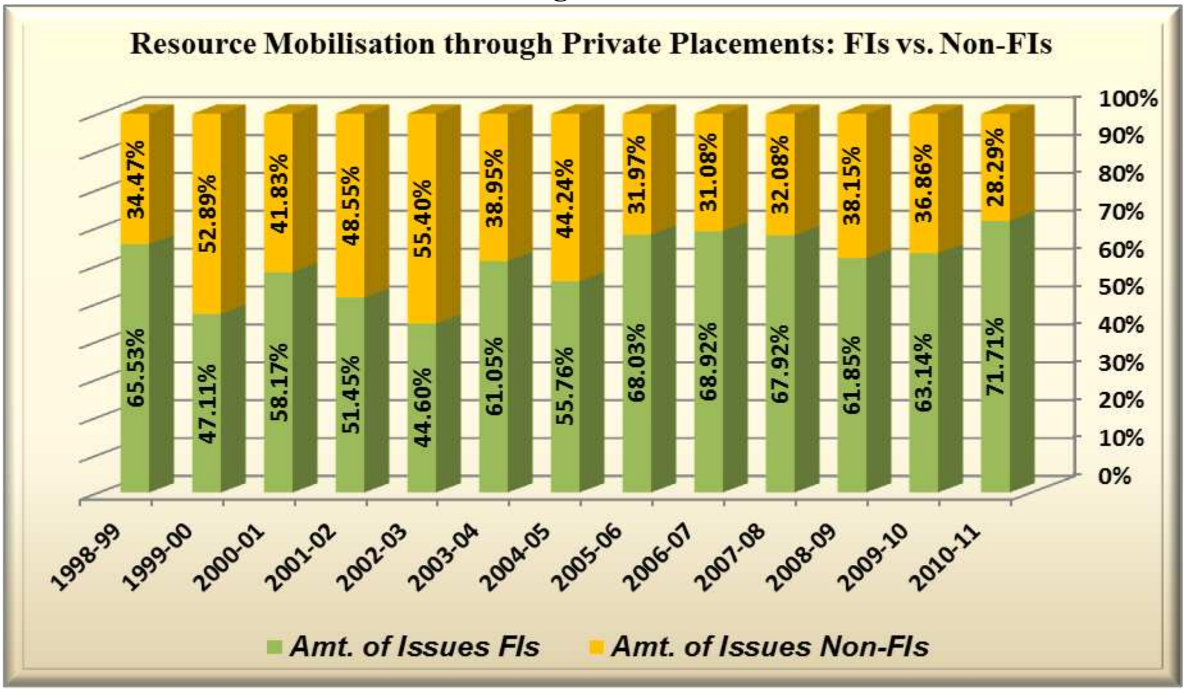
Figure F-8:



Source: SEBI

The roles of Financial and Non-Financial Institutions in mobilizing resources through private placements are also depicted in figure **F-9**. The figure shows that the role of financial institutions in mobilizing resources through private placements is stronger than the non-financial institutions. Almost in all the years, the FIs are found to raise resources by 55% to 60%, or even more. 2010-11 is the period when the FIs are found to play the strongest role in private placement market, in last one decade, through resource mobilization by 71.71%. Therefore, it is very clear that private placement market in India is mainly dominated by the FIs, by raising more resources than their Non-FIs counterpart.

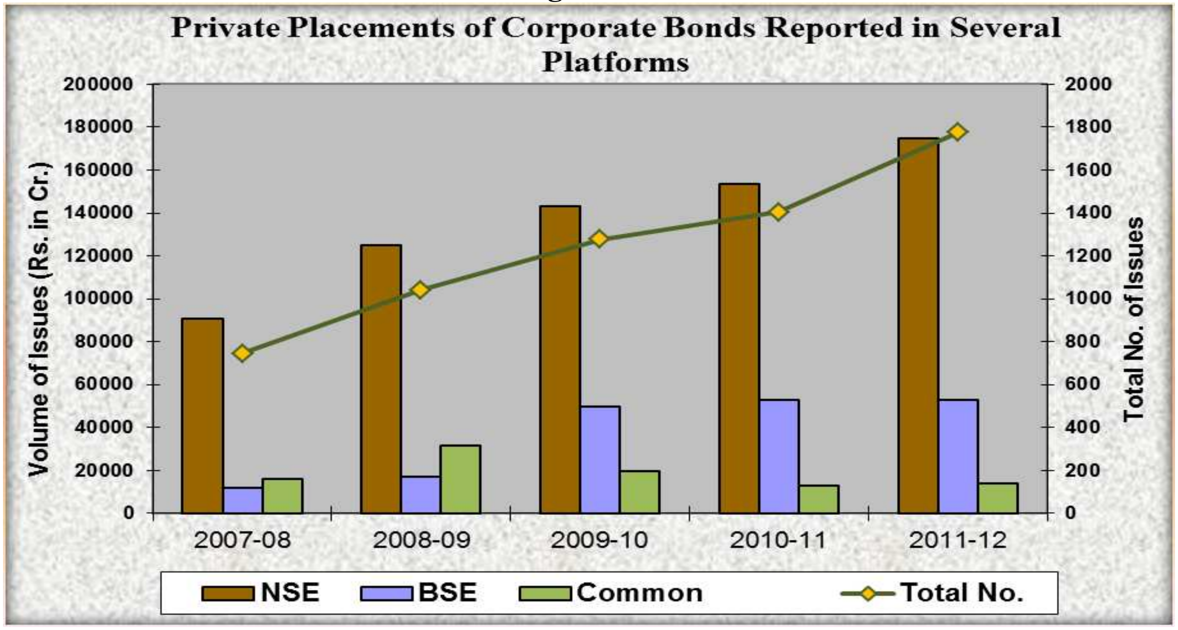
Figure F-9:



Source: SEBI Annual Reports

Even if the issuers of corporate debts prefers to go for private placements rather than public issues, as supported by several figures, SEBI has made it mandatory to report all the trades in corporate bonds, even if issued through private placements, to be reported at least in one of the platforms, viz. NSE, BSE and FIMMDA. The number and volume of such private placement issues, reported in these platforms, over the periods are depicted in figure **F-10**. It is very clear from the figure that there is a consistent rise in the total number of issues, and the volume of issues, especially reported in NSE. This also demonstrates the growing importance of private placements in issuing corporate debts in India, and also the importance of the National Stock Exchange as the major reporting platform for issue of corporate bonds.

Figure F-10:



Source: SEBI Annual Report (2010-11, 2009-10)

C.1.iii. Investors in Indian Corporate Bond Market and their Exposure:

Both Institutional and Retail investors can participate in Indian corporate bond market. Institutional participants include: Banks, Primary Dealers, Insurance Companies, Mutual Funds, Provident Funds, Pension Funds, etc. Investors can also be classified as General Investors, like commercial and retail banks, Govt. institutions, private corporations, as well as retail investors; and Asset Pooling Industries, such as Government pension schemes, private pension funds, insurance companies, mutual funds, and asset management firms. These investors can again be Domestic as well as Foreign investors.

Banks:

Among all possible institutional investors, banks are the largest group of investors in this market, but are highly regulated by RBI due to the risky nature of the instrument. Reserve Bank of India has defined several restrictive norms for banks in regard to investment in Non-SLR securities including corporate bonds. These include:

- Restriction on investment in Non-SLR securities with maturity of less than 1 year other than in Commercial Paper, Certificates of Deposits and NCDs issued by corporate;
- Restriction on investment in unlisted Non- SLR securities beyond 10 per cent of their total investment in Non-SLR securities as on March 31st of the previous year.
- Enhancement of investment in unlisted Non-SLR securities by an additional 10 per cent, provided the investment is made in Securitized papers issued for infrastructure projects, and bonds/debentures issued by Securitization Companies and Reconstruction Companies, set up under the SARFEASI Act, 2002.

- Restriction on investment in unrated Non- SLR securities, except issued by companies engaged in infrastructure activities, within the ceiling of 10 per cent for unlisted non-SLR securities
- Restriction in case of investment in newly issued Non-SLR securities which are proposed to be listed in future. Such investment may be considered as investment in listed security, but only till the specified period, beyond which the same will be reckoned for the 10 per cent limit specified for unlisted Non-SLR securities
- Enhancement of investment limit in corporate bonds provided to FIIs from the current level of USD 20 billion to USD 40 billion, especially to attract investment in infrastructure sector.

Insurance Companies, Provident and Pension Funds, and Mutual Funds:

Other than banks; insurance companies, provident funds and pension funds also invest in corporate bonds due to their long term investment requirements, in order to meet long term liabilities. However these institutions are also subject to several restrictions imposed by their respective regulators. Insurance companies not only are restricted to invest in unrated instruments, but also in any security with a rating less than AA. Total investment, including equity and corporate bonds, of insurance companies should not exceed 10 per cent of their total assets in case of non-life insurers and 10 percent of controlled funds in case of life insurers. As per the New Pension System, Non-Govt. provident funds are allowed to invest 10 per cent of their assets in corporate debt. Provident funds also can invest in bonds issued by financial institutions and companies, rated by at least two rating agencies, and having credit rating at least within investment grade. Mutual funds lend support to the corporate debt market mainly through their participation at the shorter end of the yield curve.

Foreign Institutional Investors (FIIs):

Role of FIIs in the development of capital market in an economy in general, and corporate bond market in particular is very important. FIIs always try to invest in several securities in several markets worldwide to diversify their huge portfolio. FIIs had played a significant role for the development of Indian capital market as well. But the way they are involved in the equity segment, the same is not observed in the debt segment, especially the corporate debt segment. At present, foreign investors in the form of foreign institutional investors in India can invest up to $15 billion in government bonds, $20 billion in corporate bonds. As per the SEBI circulars, apart from the normal limit of investment in corporate bonds, “the existing limit of USD 5 billion for investment by foreign Institutional investors (FIIs) in corporate bonds issued by companies in the infrastructure sector with a residual maturity of over five years has been increased by an additional limit of USD 20 billion taking the total limit to USD 25 billion. FIIs shall now be eligible to invest in unlisted bonds issued by companies in the infrastructure sector that are generally organized in the form of special purpose vehicles. Investments in such bonds shall have a minimum lock-in period of three years. However, during the lock-in period, FIIs will be allowed to trade amongst themselves. During the lock-in period, the investments cannot however, be sold to domestic investors" (SEBI Circular: CIR/IMD/FIIC/5/2011). Apart from FIIs, the finance ministry in its 2012-13 budget had announced that Qualified Foreign Investors (QFIs) would be allowed to invest in the corporate bond market in order to deepen capital market reforms. The finance ministry is likely to keep a cautious stance and allow only about $5 billion of investment from QFIs in corporate bonds.

Retail Investors:

India's gross domestic savings amounted to INR 2207423 crore in FY 2009-10, accounting for 33.70% (32.3% in 2010-11) of GDP, out of which the contribution of Household sector during 2010-11 is almost 70% of total savings, or 22.8% of GDP. Retail investors' or Households' investment in financial assets during 2009-10 period represents around 50.23% of their total savings, and is broadly invested in bank deposits, small savings schemes, provident and pension funds, and life insurance policies. Retail investors' investment in shares and debentures of private corporate business is also very marginal.

The principal factors driving retail investment are tax benefits, returns, liquidity and safety. Perhaps the investment needs of the individual are adequately met through bank deposits and the small savings schemes offered by the government. Furthermore, currently the returns on the small savings schemes are much higher than those on bank deposits, government securities or highly rated corporate debt. As far as marketable instruments such as shares and debentures are concerned, a retail investor can buy or sell such securities in any exchanges through a broker, or participate indirectly through a mutual fund. In India, banks do not offer a buy/sell facility for retail investors in stocks or bonds across their branch networks. Participating in the equity and debt market through several intermediaries makes the instruments little complicated for the general people who otherwise may like to park a part of their savings in those instruments. On the other hand, most of common people in India are ready to accept comparatively lower return from their investment, but what they would prefer to ensure is the absence of risk or at least lower risk. In the case of corporate bonds, poor liquidity in the secondary markets, inconsistent tax burden on interest income, cost of entry/exit, etc. are prohibiting retail investors to invest in such securities, even if they are ready to take risk to generate higher return.

C.1.iv. Intermediaries in Corporate Bond Market:

Intermediaries are involved in the issuance, sale, and trade of debt securities in both primary and secondary markets. Principal or Primary Dealers assume a major role in government debt markets. They are normally required to tender for all primary issues and to deal with central banks in open market operations. PDs play a significant role in market making for Govt. securities in most of the economy. PDs can also take a leading role in market making for corporate debt instruments, at least for securities qualifies for minimum criterion. Existence of these intermediaries ensures sufficient liquidity in the debt market.

Indian debt market have already experienced the role of such intermediaries in its Govt. debt segment and also looking for its existence also in the corporate debt segment.

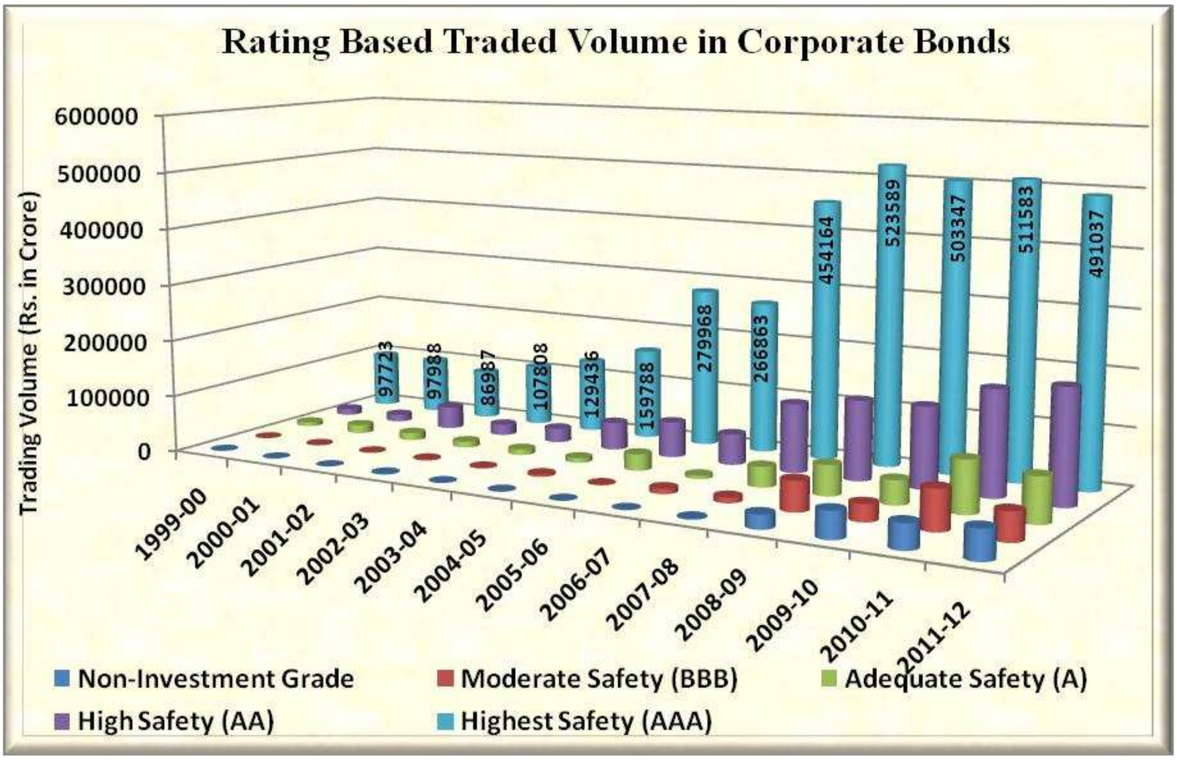
C.1.v. Rating Agencies:

Debt securities issued by corporate are considered to be riskier than Govt. debts and therefore need to be rated by external Rating agencies. They can be Global as well as Domestic rating agencies. Rating of a security exhibits the credit worthiness of the issuer, and is used by investors to take the investment decision in a specific corporate issue. Process of arriving at a rating, considering all possible factors related to a corporate, varies from one agency to other. But at the same time, there should not be a major inconsistency among the ratings provided by more than one rating agency. Most of the markets have their domestic credit rating agencies. A typical rating methodology uses financial reports as a starting point for the assessment of creditworthiness.

Some of the global rating agency includes: Standard & Poor, Fitch; whereas CRISIL, ICRA, CARA are three major domestic rating agencies in India. In order to facilitate the development of a vibrant primary market for corporate bonds in India, SEBI in December 2007 has amended the rating and issuance norms for corporate bonds. In order to reduce the cost of issuance of debt instruments, issuers can get their rating from only one credit rating agency as against the earlier stipulation of not less than two rating agencies.

Ratings assigned to various corporate issues are broadly divided into five categories: Highest Safety (AAA), High Safety (AA), Adequate Safety (A), Moderate Safety (BBB), and Non-Investment Grade (Lower than BBB). Trading in corporate bond, especially in countries like India, is mainly concentrated in the bonds with Highest Safety (AAA), followed by the High Safety (AA) issues. Concentrations of trading volume in various corporate debt issues, depending on their credit rating, are reported both in figure **F-11** and table **T-12**. The figure exhibits the fact that highest concentration is observed in bonds with highest safety. At least 70% of the rated bonds traded in Indian market are found to possess the highest credit rating, at least till the year 2007-08, till when trading in non-investment grade bonds took place just in some fraction of percentage (e.g. 0.26% in 2007-08). After this period, not only the percentage share of trading in bond with second and third level of safety (AA and A rated) started rising, but also the non-investment grade security in Indian corporate debt market started experiencing an average trading volume of 5%, as compared to 0.26% in 2007-08. These shifting of trading, even if smaller in magnitude, between the rating grades clearly indicate that even if Indian investors prefers to trade in high rated corporate bonds, at least within investment grades, a significant change is observed in investors' perception supported by regulatory initiatives to widen the investment opportunities and making investment based on the risk-return appetite of the investors.

Figure F-11:



Source: SEBI (Handbook of Statistics, Annual Reports); Rating Agencies

Table T-12: Ratings Assigned to Corporate Debt Securities (Maturity >= 1) in India

Year	Investment Grade (Rs. in Crore)								Non-Investment Grade	
	Highest Safety (AAA)		High Safety (AA)		Adequate Safety (A)		Moderate Safety (BBB)			
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
1999-00	77	97,723	57	11,106	55	7,227	17	896	14	723
2000-01	113	97,988	99	12,880	63	14,890	9	1,689	11	405
2001-02	106	86,987	112	39,312	80	13,086	26	1,525	10	292
2002-03	160	107,808	95	19,513	64	10,652	22	2,335	10	1,463
2003-04	201	129,436	99	24,908	69	10,200	26	1,812	4	645
2004-05	278	159,788	110	48,602	58	8,191	35	4,139	9	688
2005-06	261	279,968	147	62,316	45	28,957	21	1,200	4	144
2006-07	312	266,863	144	53,766	53	5,905	33	9,014	2	75
2007-08	335	454,164	257	120,199	167	35,661	63	9,478	27	1,603
2008-09	307	523,589	349	138,471	298	53,240	526	52,372	396	24,220
2009-10	275	503,347	321	141,089	249	42,121	691	29,550	1,507	45,942
2010-11	244	5,11,583	267	1,82,584	249	90,445	579	69,283	1,843	42,704
2011-12	186	491,037	300	198,449	233	77,945	617	49,201	2,480	50,511

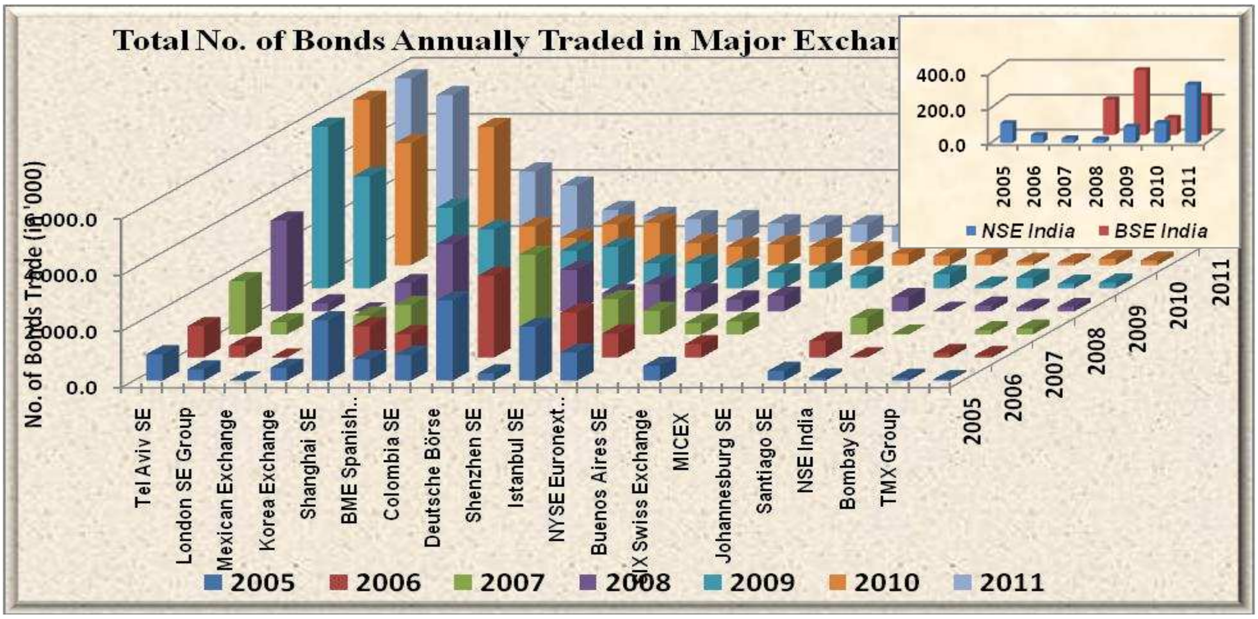
Source: SEBI (Handbook of Statistics, Annual Report); Credit Rating Agencies

C.2. Secondary Market for Corporate Bond

Even though any securities including corporate bonds are primarily issued in the primary market, either through public or private placements, the secondary market plays a number of important function, including: providing effective price discovery; shifting risk; pricing new issues; offering an alternative mode of investment; aiding management of resources; and enforcing discipline on the issuer. Even if there is few corporate, primarily prefer to tap the corporate bond market, at least through private placements, there is hardly any significant trading volume in the secondary market. The secondary corporate bond market in India is still in the very nascent stage, comparative to other developed economies. First of all, predominance of private placements of corporate bonds makes it almost impossible for majority of the issues to enter into the secondary market, leading to narrowing down the scope for secondary market trading. Further, whatever public issues comes in the market, hardly are used for trading in the secondary market. Once some large new corporate bonds are issued, some trading is observed for few days, especially due to the existence of the underwriter as the market maker. Most of such bonds are purchased by investors with the intention of holding till maturity, leading to a severe problem of illiquidity in the secondary market.

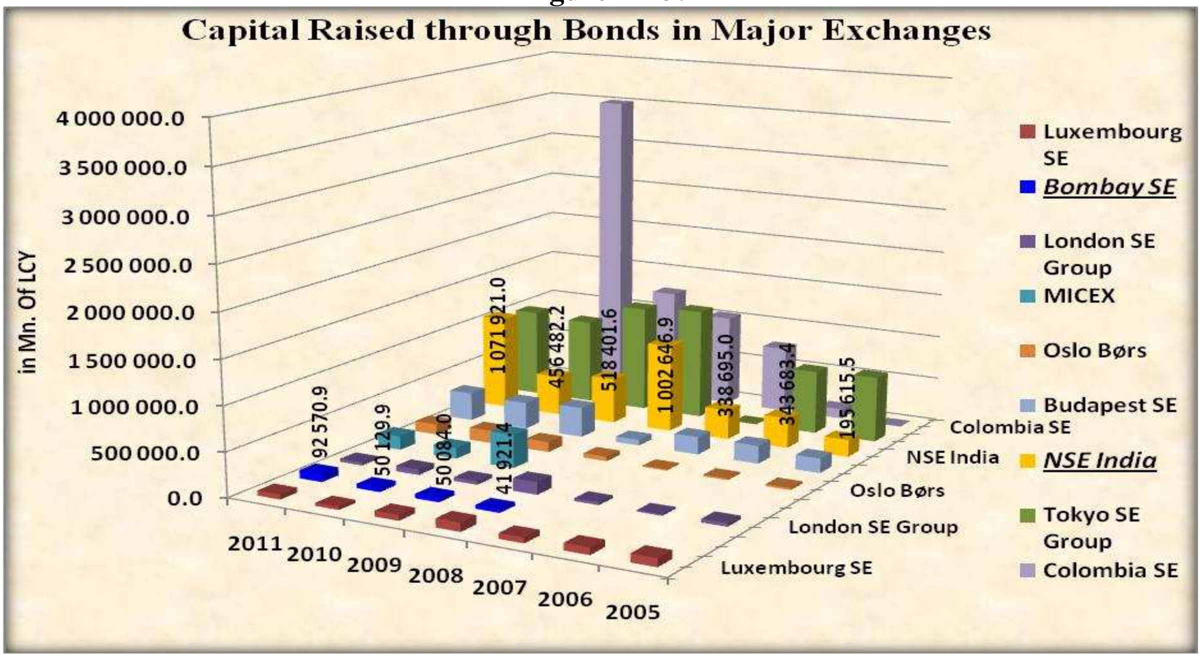
While comparing the total number of bonds traded in several years in major exchanges worldwide, as captured in figure **F-12**, a consistently rising trend is found almost in all the exchanges, including Indian exchanges (NSE and BSE). This figure support the growing size of secondary debt market worldwide through major exchanges. At the same time, the growing trend in the capital raised through bond issues traded in major exchanges, as captured in figure **F-13**, also reveals the importance of secondary bond market in capital formation of an economy.

Figure F-12:



Source: World Federation of Exchanges (WFE)

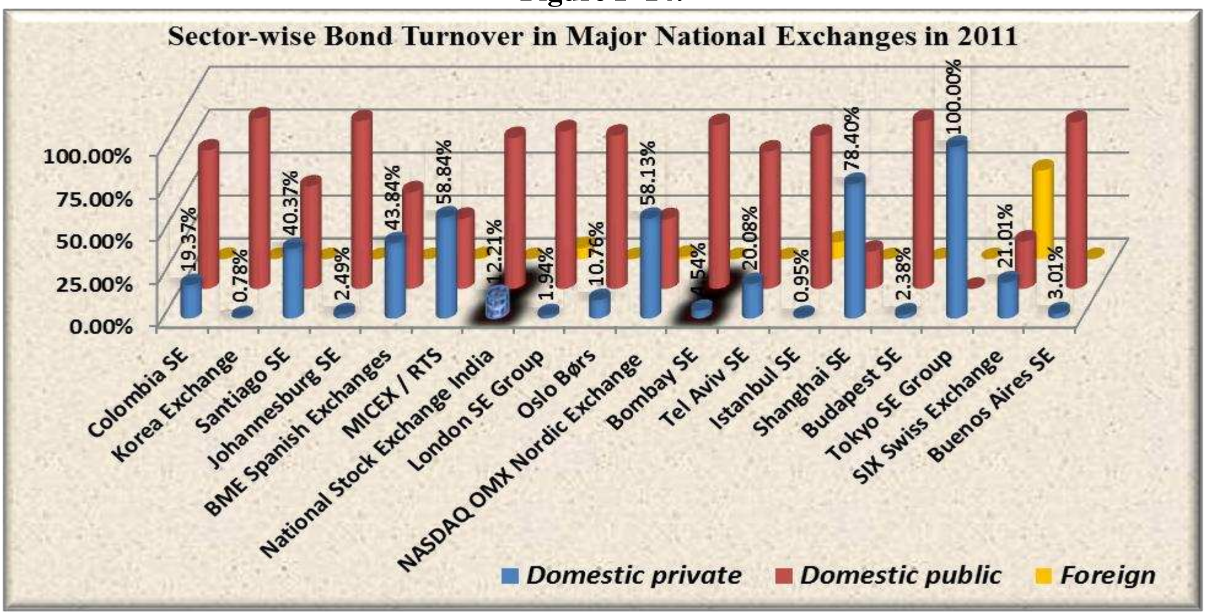
Figure F-13:



Source: World Federation of Exchanges (WFE)

Sector-wise (Domestic Private, Domestic Public, and Foreign) bond market turnover, during the year 2011, in major national exchanges are depicted in figure **F-14**. Even if the Govt. bonds issued in the domestic market are found to dominate most of the national exchanges in many economies, there are still some economies where exchanges are dominated by Non-Govt. securities. The proportion of exchange traded Non-Govt. securities in Indian exchanges, viz. NSE and BSE, are found to be quite insignificant in comparison with other developed markets.

Figure F-14:



Source: World Federation of Exchanges (WFE)

Table T-13: Turnover in Indian Debt Market: Primary & Secondary Segment

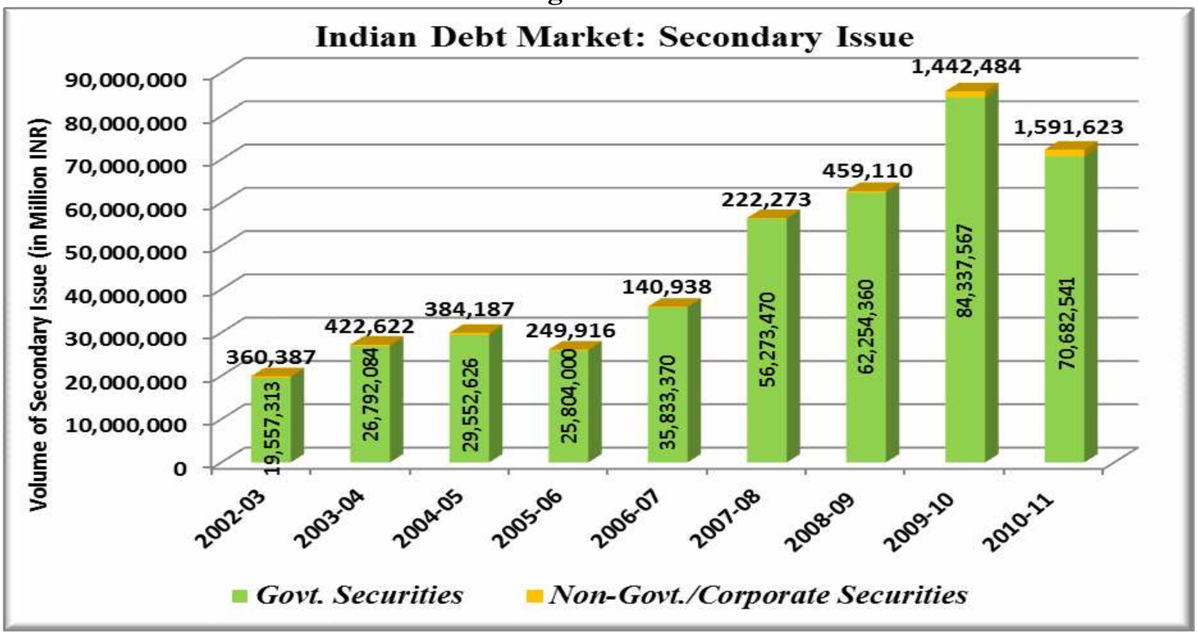
	Primary Market (Rs. in Million)				Secondary Market (Rs. in Million)								
Year	Govt. Securities	Non-Govt./Corporate Securities	Total	Proportion of Non-Govt. Securities to Total	Government Securities			Non-Govt. Securities				Grand Total	Proportion of Non-Govt. Securities to Total
					WDM Segment of NSE	Rest of SGL	Total	CM Segment of NSE	WDM Segment of NSE	F' Category of BSE	Total		
2002-03	1819790	531166	2350956	**22.59%**	10,328,264	9,229,048	19,557,313	683	358,755	949	360,387	19,917,700	**1.81%**
2003-04	1981570	527519	2509089	**21.02%**	12,743,020	14,049,064	26,792,084	2,220	417,947	2,455	422,622	27,214,706	**1.55%**
2004-05	1456020	592788	2048808	**28.93%**	8,496,166	21,056,460	29,552,626	5,215	376,771	2,202	384,187	29,936,813	**1.28%**
2005-06	1817470	794458	2611928	**30.42%**	4,508,016	21,295,984	25,804,000		247,219	2,697	249,916	26,053,916	**0.96%**
2006-07	2001980	923552	2925532	**31.57%**	2,053,237	33,780,133	35,833,370	1,406	137,828	1,704	140,938	35,974,308	**0.39%**
2007-08	2559840	1162661	3722501	**31.23%**	2,604,088	53,669,382	56,273,470	845	219,082	2,346	222,273	56,495,743	**0.39%**
2008-09	4366880	1758267	6125147	**28.71%**	2,911,124	59,343,816	62,254,360	1,005	448,391	9,714	459,110	62,713,470	**0.73%**
2009-10	6236190	1919902	8156092	**23.54%**	4,207,985	80,129,581	84,337,567	5,219	1,430,174	7,091	1,442,484	85,780,050	**1.68%**
2010-11	5835210	2016763	7851973	**25.68%**	4,035,492	66,647,050	70,682,541	29,544	1,558,976	3,103	1,591,623	72,274,164	**2.20%**

Source: Indian Securities Market Review (ISMR), NSE

The trading volume in Govt. and Non-Govt. securities, both in primary and secondary market over the years are briefed in table **T-13**. The facts as discussed in the above section regarding the secondary market trading, is well proved from this table. Even if Indian debt market is dominated by Govt. securities, there is a sizable trading volume (25% - 30%) of Non-Govt. securities, but only in the primary market, especially due to the dominance of private placements. The trading volume of Non-Govt. securities in secondary market is extremely negligible (1.2% on average in last 10 years, with an exception of 2.2% during 2010-11).

Alternatively, the secondary market turnover in Govt. and Non-Govt. securities, over several years are exhibited in figure **F-15**. The figure clearly indicates the dominance of Govt. securities in India's secondary market throughout the whole decade. 2009-10 and 2010-11 are the only periods when the secondary market in India could experience slightly better trading in Non-Govt. securities.

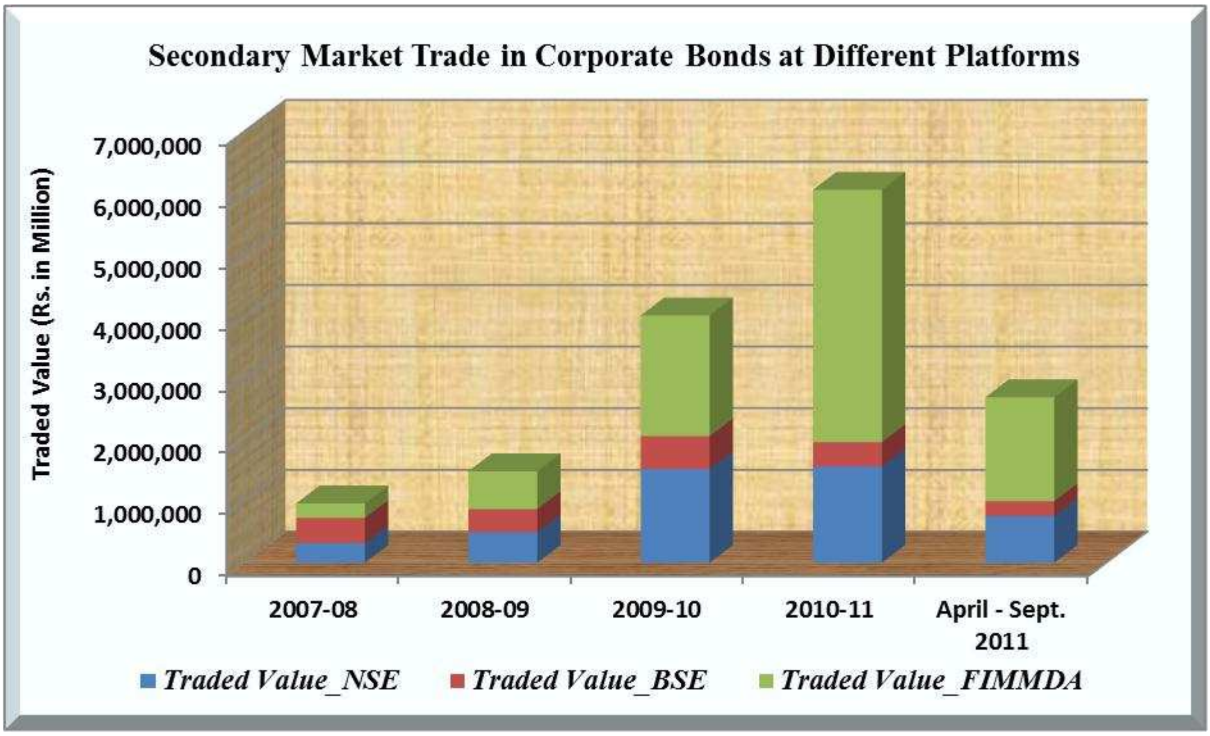
Figure F-15:



Source: Indian Securities Market Review (ISMR), NSE

Again, as far as the secondary market trade in corporate bonds in India is concerned, there are basically three trading platforms, viz. NSE, BSE for exchange traded contracts and FIMMDA for OTC contracts. The annual volumes of secondary market trading in corporate bonds in all these three platforms over last five years are depicted in figure **F-16**. The figure broadly concentrates two aspects: level of trading concentration between exchange and OTC, and level of concentration between the exchanges. The table clearly exhibits that OTC trading volume in corporate bonds is much higher than the same experienced in both the exchanges, especially 2009-10 onwards. This signifies the importance of OTC trades also in Indian corporate debt market. On the other hand, the volume of trading undertaken in BSE is comparatively less in all the periods and is falling over the years, indicating its unpopularity among the market players.

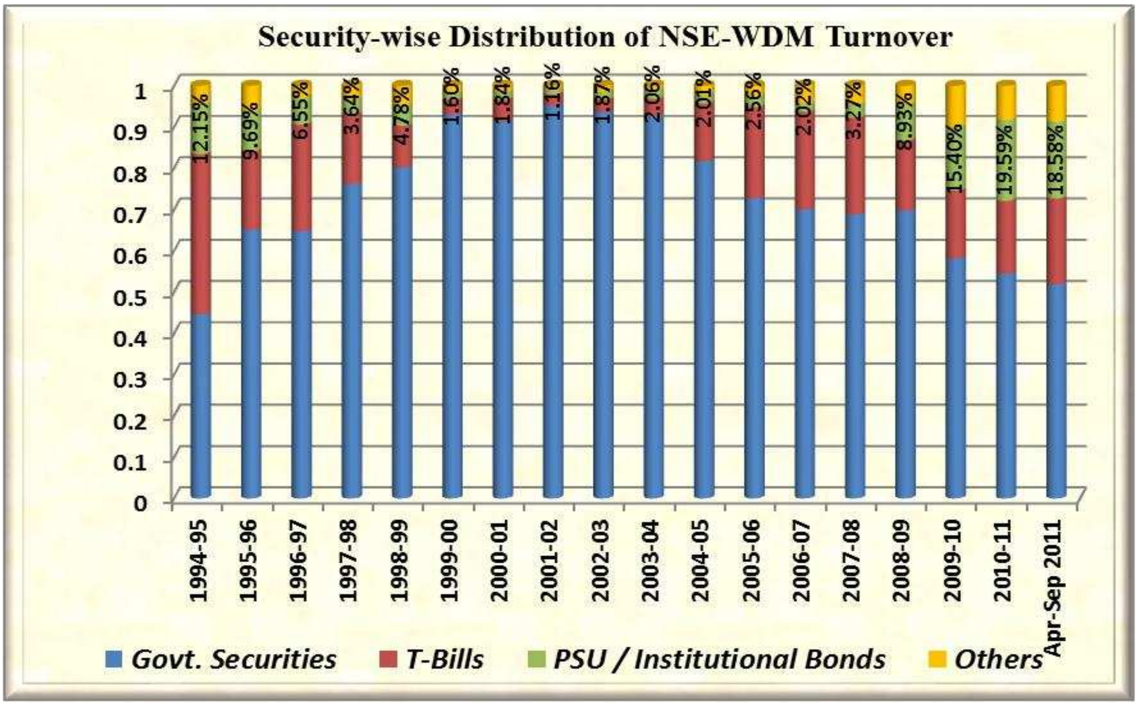
Figure F-16:



Source: SEBI (Handbook of Statistics, Annual Report)

Out of the total debt market turnover at NSE-WDM segment over the years, the security wise distribution is captured in figure **F-17**. As supported by the previous table, it is again observed that there is a consistent dominance of Government securities, followed by Treasury bills over the years. But the dominance of Govt. debts has slightly reduced 2008-09 onwards. The volume of trading observed for PSU / Institutional bonds and other debt instruments including corporate bonds have increased almost by double during the last three years, becomes almost stable at that level without any significant rise thereafter. The exchange traded (NSE-WDM) volumes of PSU/Institutional bonds, and other debt instruments including corporate bonds, during last three years, are found to lies in the range of 15% - 20% and 8% - 10%. At the same time, out of the total market capitalization captured in the NSE-WDM segment, the share of various instruments over the periods are described in table **T-14**. The share of Non-Govt. securities in total market cap, as figured out in the last column of the table, clearly reveals an average share of 10-12%, especially during last few years. This clearly indicates the insufficient role of corporate debts in capital formation in India.

Figure F-17:



Source: Indian Securities Market Review (ISMR), NSE; SEBI Handbook of Statistics

Table T-14: Market Capitalization of NSE-WDM Securities in India

Market Capitalization (in Per cent)					
Year	**Govt. Securities**	**PSU Bonds**	**State Loans**	**T-Bills**	**Others**
March-95	54.48%	16.23%	3.71%	10.83%	14.75%
March-96	60.40%	14.47%	6.67%	4.07%	14.40%
March-97	58.01%	12.37%	6.45%	4.60%	18.57%
March-98	57.20%	10.29%	6.99%	5.10%	20.42%
March-99	63.19%	8.50%	7.42%	2.74%	18.15%
March-00	64.75%	7.97%	7.99%	3.11%	16.19%
March-01	68.39%	6.26%	7.68%	3.05%	14.62%
March-02	71.70%	5.28%	8.11%	3.15%	11.76%
March-03	76.12%	4.44%	8.34%	4.04%	7.07%
March-04	78.90%	4.67%	6.53%	2.69%	7.21%
March-05	68.83%	4.68%	15.27%	5.03%	6.19%
March-06	67.61%	5.66%	15.43%	4.48%	6.82%
March-07	66.24%	5.02%	14.00%	6.45%	8.28%
March-08	65.57%	4.53%	14.87%	5.25%	9.78%
March-09	64.95%	4.55%	14.83%	5.18%	10.49%
March-10	61.61%	5.15%	16.96%	4.29%	12.00%
March-11	60.80%	5.31%	17.30%	3.83%	12.75%
Sept.-11	59.18%	5.66%	17.30%	5.53%	12.33%

Source: Indian Securities Market Review (ISMR), NSE; SEBI Handbook of Statistics

Indian debt market not only suffers from the lower trading volume in secondary market, but also from the lack of consistent participation by various categories of market players. Participation of different group of market players in the Wholesale Debt Market turnover (Govt. plus Non-Govt. debts) at NSE platform, over the last two decades are specified in table **T-15**. The major participation comes from the trading members, followed by Indian banks, and foreign banks. Even though the level of participation by Indian banks was higher than that of their foreign counterpart till 2006-07, thereafter the situation becomes reverse. The participation of Primary Dealers as well comes down significantly after the same period. Interestingly, these figures may be misleading to understand the level of participation by Indian banks and PDs in India's debt market. Actually, after the onset of Negotiated Dealing System, setup by the Reserve Bank of India, as an alternative trading platform for Banks and PDs to trade in Government securities, their trading participation in exchanges have reduced significantly, but the fact is still valid that India's debt market is mainly dominated by banks and PDs. But, the level of participation by other financial institutions including insurance companies and mutual funds, and corporates in the WDM turnover at NSE is always comparatively very small in comparison with other developed markets. An average level of participation by 4% - 5% till 2005-06 has also comes down to a range of 2% - 3% thereafter. This clearly indicates a consistently lower level of participation by these non-banking financial institutions including corporates in the development of India's secondary debt market in general, and secondary corporate debt market in particular.

Table T-15: Participant-wise Distribution of Turnover in NSE Wholesale Debt Market:

Participant-wise Distribution of WDM Turnover at NSE:					
Year	**Trading Members**	**FIs / MFs / Corporate**	**Primary Dealers**	**Indian Banks**	**Foreign Banks**
1994-95	57.82%	6.43%	0.02%	14.16%	21.57%
1995-96	23.48%	7.60%	1.16%	30.07%	37.69%
1996-97	22.95%	3.81%	6.10%	30.01%	37.13%
1997-98	19.75%	4.30%	12.06%	41.24%	22.65%
1998-99	15.48%	4.93%	14.64%	42.12%	22.83%
1999-00	18.63%	4.18%	19.42%	42.72%	15.05%
2000-01	23.24%	4.18%	22.14%	33.54%	16.90%
2001-02	23.52%	4.16%	22.50%	36.60%	13.22%
2002-03	24.81%	3.77%	22.03%	38.77%	10.62%
2003-04	34.80%	4.56%	17.03%	36.36%	7.25%
2004-05	33.96%	5.14%	18.50%	29.89%	12.51%
2005-06	32.01%	3.92%	21.89%	28.07%	14.11%
2006-07	30.88%	2.70%	19.82%	26.03%	20.57%
2007-08	38.15%	2.34%	8.64%	23.78%	27.09%
2008-09	44.65%	3.40%	6.58%	18.11%	27.26%
2009-10	49.23%	2.62%	4.63%	19.84%	23.67%
2010-11	53.51%	2.41%	4.21%	13.09%	26.78%
2011(April - September)	52.68%	12.26%	4.37%	11.43%	19.27%

Source: Indian Securities Market Review (ISMR), NSE; SEBI Handbook of Statistics

Table T-16: Transaction in Indian Stock Exchanges by Mutual Funds

Transaction Volume (Rs. in Crore)									
Year	Equity			Debt			Total		
	Gross Purchase	Gross Sales	Net Purchase / Sales	Gross Purchase	Gross Sales	Net Purchase / Sales	Gross Purchase	Gross Sales	Net Purchase / Sales
2000-01	17,376	20,143	-2,767	13,512	8,489	5,023	30,888	28,631	2,257
2001-02	12,098	15,894	-3,796	33,557	22,594	10,963	45,655	38,488	7,167
2002-03	14,521	16,588	-2,067	46,664	34,059	12,604	61,185	50,647	10,538
2003-04	36,664	35,356	1,308	63,170	40,469	22,701	99,834	75,825	24,009
2004-05	45,045	44,597	448	62,186	45,199	16,987	107,232	89,796	17,435
2005-06	100,436	86,133	14,303	109,720	72,969	36,801	210,202	159,102	51,104
2006-07	135,948	126,886	9,062	153,733	101,190	52,543	289,681	228,075	61,606
2007-08	217,578	201,274	16,306	298,605	224,816	73,790	516,183	426,090	90,095
2008-09	144,069	137,085	6,984	327,744	245,942	81,803	471,815	383,026	88,787
2009-10	195,662	206,173	-10,512	624,314	443,728	180,588	819,976	649,901	170,076
2010-11	1,54,217	1,74,018	-19,802	7,62,644	5,13,493	2,49,153	9,16,861	6,87,511	2,29,352
2011-12	1,21,552	1,21,360	192	9,18,679	6,84,433	2,34,248	10,40,231	8,05,792	2,34,439

Source: SEBI (Handbook of Statistics, Annual Report, Bulletin)

Note: Values for the year 2011-12 is till February 2012.

Secondary market transaction in Indian stock exchanges made by mutual funds over the last one decade is also briefed in table **T-16**. Even if their net positions in equities are comparatively very small and sometimes negative (gross sales are more than gross purchases), the net positions in overall debts (Govt. and Non-Govt. issues) is always positive and increase consistently over the years, may be due to more exposure in Govt. debts.

C.2.i. Secondary Market Trading and Reporting

After the initiatives taken by SEBI during April 2007, trading and reporting platforms are launched in BSE and NSE in order to ensure efficient price discovery and reliable clearing and settlement of all trading. Even if some amount of trading takes place through these platforms, majority of the trading happens through OTC where the trades are executed through brokers. All trades including from OTC segment are mandatorily required to be reported on reporting platform of either of these exchanges or of FIMMDA. All Commercial Banks, Primary Dealers, NBFCs and selected All India Financial Institutions (AIFIs) are specially required to report their OTC secondary market transactions on FIMMDA's reporting platform. All corporate bond trading are required to be reported within 30 minutes from the closure of the deal and the settlement of the same need to be reported within 1 trading day from the completion of the settlement. Since most of the corporate bonds trading are undertaken by banks, PDs, NBFC and other FIs, the FIMMDA reporting platform in India captures the maximum share among others. The share of the FIMMDA reporting platform in 2010-11 is 68%, whereas the same in NSE and BSE are respectively 25% and 7% during the same period, as depicted from table **T-17**.

Table T-17: Reporting of Corporate Bond Trades in Different Platforms

Reported Volume of Trading (Rs. in Crore)			
Year	FIMMDA	NSE	BSE
2008-09	59502	48831	37494
2009-10	192993	154737	54425
2010-11	408603	149372	40628
2011-12 (Q1)	74773	35679	10229

Source: FIMMDA, NSE, BSE

C.2.ii. Settlement

The clearing house opened by NSE and BSE are respectively National Securities Clearing Corporation Limited (NSCCL), and Indian Clearing Corporation Limited (ICCL). Any OTC trades in corporate bonds have to be mandatorily cleared and settled through these clearing houses. On the other hand, corporate bonds traded through the platform of stock exchanges are required to be settled through their respective clearing corporations. Settlements of corporate bond trades shall be carried out between Monday to Friday for three settlement cycles viz., T+0, T+1 and T+2. The total number of trades settled and the total value of settlement observed in the clearing corporations of NSE (BSE), during 2011-12, are respectively 34697 contract (2916 contracts), and INR391120 Crore (INR10680 Crore). It is commonly observed, both during 2010-11 and 2011-12, that more than 90 per cent of the settlement, both in terms of number of trades and total value of settlement are recorded in NSE.

The settlement in corporate bond trades through either of the clearing corporations follows the following steps to ensure any settlement:

- Clearing corporations expect explicit intentions from both buy and sell participants to settle the corporate bond trades through them;
- Trades are settled at participant level on Delivery Versus Payment (DVP I) basis i.e., on trade-by-trade basis;
- On the settlement date, sell participants shall be required to transfer the securities to the Depository account specified by NSCCL and buy participants are required to transfer the funds to the bank account specified by NSCCL within the stipulated cut-off time;
- On successful completion of pay-in of both securities and funds, the securities / funds shall be transferred by NSCCL to the depository / bank account of the counter-party.

Compulsory settlement of trades through clearing corporations of stock exchanges seems to be a well-coordinated move, which all entities regulated by RBI and SEBI required to comply. Other regulators, including those overseeing insurance companies and pension funds are also following the same and now almost all corporate bond trades are settled through clearing corporations. It’s fair to assume that market participants would now be much more comfortable transacting in corporate bonds, simply because centralized settlement considerably reduces counterparty risk.

C.2.iii. Repo on Corporate Bonds

Repo on corporate bonds represents pledging of corporate bonds between Banks, corporate and primary dealers to raise short-term money. It is similar to banks pledging government securities with RBI to raise short-term money. Unlike pledging of G-secs, here the borrower who pledges corporate bonds does not receive the entire value of the bond.

Repos allow viable funding alternative to traders who in turn can provide liquidity in the corporate bond market. If Repo is permitted on corporate bonds, it will enable traders to fund assets with lesser capital requirement. As per RBI directives, only listed corporate debt securities being rated 'AA' or above by the rating agencies are eligible for repo. Commercial Papers (CPs), Certificates of Deposit (CDs), Non-Convertible Debentures (NCDs), and any other instruments of less than one year of original maturity are not eligible securities for undertaking repo. All repo trades are required to be reported within 15 minutes of the trade on the FIMMDA reporting platform. The trades shall also be reported to any of the clearing houses of the exchanges for clearing and settlement. The maturity of repo deals could range from one day to one year and they were to be settled through clearing platforms of stock exchanges either on T+1 or T+2 basis, representing that the settlement could be done in two or three trading days after striking the repo deal. The security acquired under repo could not be sold by the repo buyer (lender of the funds) during the period of repo. The eligible participants were scheduled commercial bank excluding RRBs and LABs, primary dealers, NBFCs, All-India Financial Institutions (Exim Bank, NABARD, NHB and SIDBI), mutual funds, housing finance companies, insurance companies and other entities specifically permitted by the RBI. In order to cope up with the credit risk in corporate bonds, initially a flat Haircut of 25% was implemented on the prevailing market value of the corporate bonds at the time of the bond being repoed. But based on the demand from the market participants to reduce the haircuts, the flat rate of 25% has been reduced to a band of 10-15%. Presently, a haircut of 10% / 12% / 15%, depending on the credit rating of the bond and settlement, is applicable on the market value of the corporate debt security prevailing on the date of trade of the 1st leg. The repo market in corporate bonds in India is just taking off and FIMMDA provides the necessary supporting platform for its trade.

C.3. Regulatory Bodies involved in Indian Corporate Bond Market

Different segment of financial sector of an economy are regulated by a single or multiple regulators. Presence of multiple regulatory bodies for a specific segment of financial market may have some negative impact for the growth of that segment. Even if corporate debt market in India is primarily under the jurisdiction of Securities and Exchange Board of India (SEBI), a part of the market is also regulated by the Reserve Bank of India (RBI). According to the Govt. circulars issued in January 2007, the primary corporate debt market (public issues as well as private placement by listed companies), along with the secondary market (OTC as well as Exchange) are under the regulation of SEBI; whereas the RBI looks after the market for repo/reverse repo transactions in corporate debt. This regulatory framework is applicable irrespective of the players involved in corporate bond transaction.

D. Need for Developed Corporate Bonds Market in India

Bond and Equity market are the two important pillars of financial sector of any economy. The overall growth of an economy largely depends on the growth of its financial sector. There is no doubt that equity market in India has experienced tremendous growth over the last few decades and has significantly contributed to the GDP of Indian economy. As far as bond market is concerned, even if Govt. debt market in India is quite well developed in comparison with other developed economies, but the same is not true in case of corporate debt market. Even if the outstanding government debt in India is nearly 34% of the GDP, the corporate debt market is still at its nascent stage and the share is merely 6% of India's GDP, as on September 2011. This figure is very insignificant when compared to that of in US, Japan, South Korea, UK, Malaysia, even China.

The need for well developed corporate bond market can be explained from the view point of Investors, Lenders, corporate Borrower, and also of the whole economy. Investors in corporate bond consists of Institutional investors (Domestic and Foreign), and Retail investors (Domestic and Foreign). Lenders would be the one who would otherwise lend to corporate in absence of corporate debt route. On the other hand, borrower or the bond issuer would be the corporate bodies expected to get their projects financed. At the end, the concerned national economy, the growth of which depends on the developments of each segment of its financial sector in general, and of corporate bond market in particular.

In terms of risk, the fact is that bonds are less risky than equity and therefore should get more priority as the means of investment, at least for the risk-averse investors. Therefore, the less risky debt market is expected to develop before the development takes place in the risky equity segment. But the situation is just reverse in India. Even if Indian equity market has developed significantly, the corporate debt market is still at the nascent stage. Even though corporate bond and equity both are issued by corporate, some basic difference still persists in view of the investors. Equity investment is considered to be more risky because, there are no committed periodic payments, and in case of insolvency equity holders gets their payment after the bond holders gets paid. Investors may prefer more committed periodic payments, a higher priority in receiving payments, and return of the principal amount at some point in time. In such case, debt contract issued by a corporate seems to be more attractive than its equity. Therefore, there is a strong logic why investors (institutional and retail) should prefer to invest in debt instrument, before they think about equity, provided the debt market is as developed and vibrant as the equity. International experience, at least for some of the major economies, makes it very clear that there is a strong demand for debt instruments issued by private corporate, as reflected from the percentage share of outstanding corporate debt to the GDP of the respective economies in table T . A developed bond market can be an appropriate route of channelizing the savings of the investors in capital formation. Even if Indian equity market has grown significantly, it still fails to reach a large segment of individual who prefers to channelize their savings in fixed income instruments. Indian savers typically prefer to park their savings in several time deposits schemes offered by banks and other FIs. Corporate debt could also be an attractive investment alternative for such investors as it provides them committed but higher returns as compared to time deposits.

At the same time, adequate development of corporate bond market is of great importance for the existing lenders who, in absence of well developed corporate debt market, are liable to meet the financing, even of long term, requirement of corporate to ensure the targeted growth of the concerned economy. In order to meet the financing requirement of corporate, several Development Financial Institutions (DFIs) were primarily set up in India to meet the long term financing requirement of the corporate. But withdrawal of Budgetary Support, and Govt. Guarantee on raising funds at Concessional Rates, and other Policy changes introduced during the economic reforms has made it very difficult for the existing DFIs to continue to be the major lender in term loan market. As a result, DFIs tends to enter into commercial banking and commercial banks become the major lender to corporate world in India. There is essentially no problem for the banks to lend to corporate. The problem arises only when a large loan amount has to be sanctioned for longer tenor, especially in case of financing long term infrastructure projects. Since the liability of commercial banks consists of deposits accepted from the public which are essentially short term in nature, it is difficult for the banks to maintain huge amount of long term assets in the form of long term infrastructure loans. At the same time, due to several reasons, banks cannot deny to extend finance to such long-term projects as long as there is any alternative means of financing available to the corporate. Therefore, in order to reduce the possibility of such Asset-Liability mismatch in their balance sheet, commercial banks as a lender to corporate would always prefer to have a well developed corporate bond market that can successfully substitutes bank loans at least up to some extent. A reasonably well developed bond market could supplement the banking system in meeting the requirements of the corporate sector for long term capital investment and asset creation.

Similarly, there is also a strong interest for the corporate borrower, expecting to raise money through bond issues. Corporate borrowers have two broader ways to meet their financing needs: Bank Loans and Corporate Bonds. Bank loans can be in the form of Term Loans or Cash Credit. There is no doubt that raising bank loans are comparatively easier, at least for a credit worthy corporate borrower, than approaching the securities market. But raising money by issuing corporate bonds seems to be much cheaper, at least for less credit worthy borrower, than approaching banks to extend term loans. In other words, less credit worthy corporate borrower can issue bonds comparatively at a cheaper rate than otherwise have to be paid to the banks for their term loans. Here strong credit worthy borrower may find bank loan cheaper than bond financing. But a common fact, in almost all economies, is that number of strong credit worthy borrowers are comparative very less and therefore bank loan route, for most of the corporate borrower, is costlier than the bond route. At the same time, this cost effectiveness between loan and bond route is meaningful only when the corporate bond market is well developed with complete standardization of trading, reporting, pricing & settlement. In absence of such development in the bond market, corporate borrowers do not have any choice and therefore invariably prefer to tap the bank loans to meet their financing requirement. But it is well established, at least in developed economies, that corporate borrower largely prefer to go via bond route before availing bank loans.

Above all, there is a strong need for a well developed corporate bond market also for the growth of an economy. The growth of an economy depends on the development of both its real and financial sector, which themselves are interlinked. If financing becomes easier and cheap for the corporate through the bond route, the growth in production and output and therefore in the real sector will expedite which lead the economy as well to achieve significant growth. Infrastructural developments play a significant role in the growth of an economy. But infrastructure growth can be ensured only when there is sufficient financing available to the infrastructure companies or the organizations involved in such development process. Basically, such infrastructure projects are long term in nature and also involve several risks. Therefore, it is very difficult for banks, the major financier in Indian economy, to finance such projects, even after forming a consortium of several banks. The restrictions are long-term payoffs coupled with the uncertainties to recover the payoff. But at the same time such growth should take place to keep the economy viable. The other option left is the corporate bond market where the necessary amount of finance can be successfully raised at a cheaper rate and also for a longer tenor. Therefore, it is very important also for an economy to have a well developed corporate bond market, in order to maintain a reasonable growth.

D.1. Developed Corporate Bond Market: How Important is for Indian Banks

Banks can meet the financing requirement of corporate through two important routes: providing term loans to corporate or investing in bonds issued by the corporate. Due to several factors, causing inconvenience to tap the bond market, Indian corporates are habituated to a culture of approaching banks for meeting their financial requirements. A large chunk of public deposits are also utilized by the banks to provide such corporate loans for various terms. But at the same time, irrespective of the problems arise in bond investment, banks requires the corporate to adopt the bond route at least to meet a part of their financing requirement. Ultimately, as major financial institutions, banks are supposed to invest in the bonds issued by corporate. But there is a significant difference between financing corporate through term loans and through investing in corporate bonds. The major problem with loan is that it is not transferable. If a bank extends term loans to corporate, it is stuck up with the borrower until the loan matures. Since the term loans may be of long term in nature, while most of banks' liabilities (Deposits) are essentially short term, there may be a strong possibility for the banks to get exposed to the problem of having Mismatches among their Assets and Liabilities. This may lead to a severe problem for the bank while immunizing their balance sheet. Here the advantage of bond exposure, even if of longer terms, is that banks as an investor can enjoy the freedom to reshuffle their bond portfolio any point of time to avoid any major maturity mismatches in their balance sheet, provided the corporate bond market is liquid enough. The problem of asset liability mismatch is more prominent in case of bank loans required to finance long-term infrastructure projects. Neither banks are comfortable to finance these long term projects, nor do they pull out their hands from the same. The only option left with them is to finance those projects but through bond route. In order to incentivize banks for investing in long-term infrastructure bonds, RBI has also allowed banks to include such securities to their Held Till Maturity (HTM) bucket, so that they can avoid any valuation losses caused by daily MTM.

When the Government plans for enormous infrastructure developments with massive investments of around $ 1 Trillion in the span of next 5 years, the development of corporate bond market is very important.

Banks may also be allowed to raise resources by way of bonds to the extent of banks' term loan portfolio. Presence of banks both as investors and fund raisers in the corporate bond market will help in reducing their asset liability mismatches up to a greater extent.

Even though maturity mismatches can be partially managed through prudential regulations, but is not a permanent solution and make banks more vulnerable to market crisis. Existence of a robust bond market acts as a substitute of long-term loans and helps to mitigate the potential maturity mismatch of a bank-dominated financial sector.

Existence of well-developed domestic bond market not only helps to narrow the gap between domestic and foreign interest rates, but also helps to reduce the amount of domestic investment financed by foreign borrowing, leading to a potential reduction in the currency mismatch (Domestic currency assets vs. Foreign currency liabilities), which seems to be another source of vulnerability to a financial system.

D.2. Corporate Bond Portfolio of Indian Banks:

The investment portfolio maintained by the treasury department of commercial banks in India largely consists of, as specified in their annual reports, Government securities, Other SLR approved securities, Equity Shares, Debentures and Bonds, Investment in Subsidiaries and Joint Ventures, Other securities including units of Mutual Funds, Commercial Papers, etc., and Investment outside India. The ratio of Investment to Total Assets, in most of the major public sector banks (e.g. SBI, BOB, PNB, BOI, UBI) in India ranges between 20% – 25%, whereas the same in case of major private sector banks (e.g. ICICI, AXIS) is found to vary within a range of 25% - 30%. Out of this total investment, the proportion of investment goes to Government securities are within a range of 75% - 85% for major public sector banks, and of 55% - 60% for major private sector banks. The nature of investments for foreign banks operating in India (e.g. Standard Chartered Bank) also concentrated on Govt. securities, falling within a range of 80% - 90%.

The consolidated view of the asset structure of Indian commercial banks, excluding the Regional Rural Banks, over last two decades is reflected in table **T-18**. The table exhibits the rising trend in the proportion of Non-SLR investments to Total investment, at least till

2001-02. Even if there is a temporary fall in the proportion of Non-SLR investments to Total investment during 2002 – 05, it again started rising thereafter. Presently (2009-10), the same proportion is found to be 19.45%. This increasing concentration in Non-SLR securities indicates the development of corporate debt market in India, but at a very slower pace.

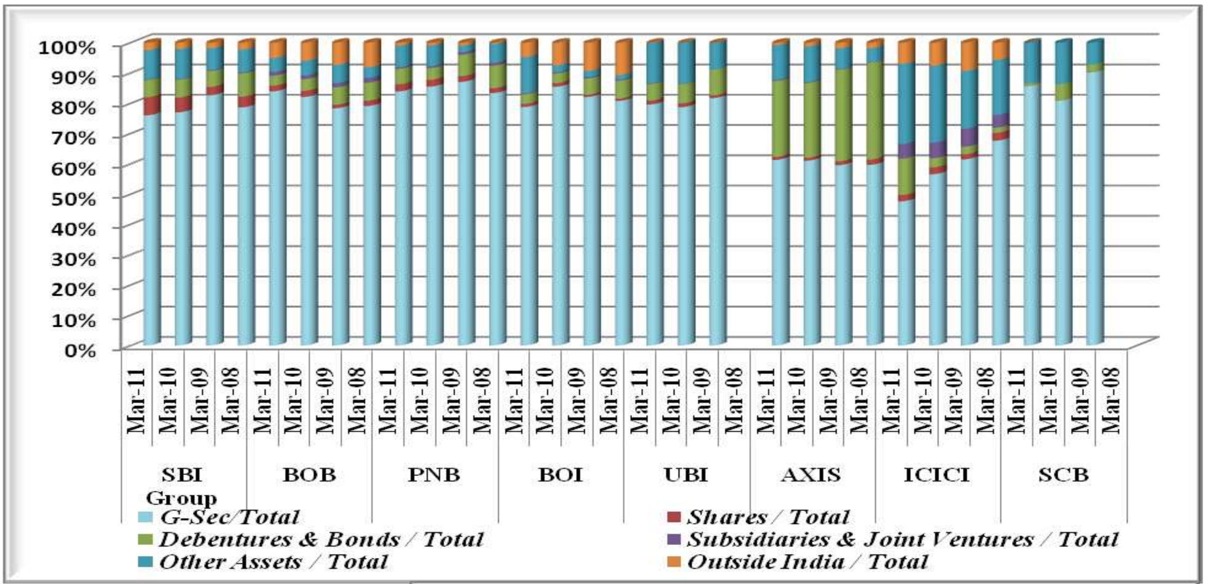
Table T-18: Consolidated Assets of Scheduled Commercial Banks (Ex. RRBs) in India

Assets (Rs. in Crore)								
Year (End-March)	Cash and Balances with RBI	Bal. with Banks and Money at Call and Short Notice	Investments in SLR Securities	Investments in Non-SLR Securities to Total Investments	Investments	Loans and Advances	Fixed Assets	Other Assets
1990-91	36842	6327	75065	**4.78%**	78837	143692	1599	19094
1991-92	35474	13674	90196	**8.65%**	98736	159808	1991	31841
1992-93	39464	14502	105656	**10.08%**	117504	173524	3587	37197
1993-94	51561	12773	132523	**13.99%**	154083	168338	5042	43150
1994-95	63050	17442	149253	**13.65%**	172849	208819	7062	45768
1995-96	70194	30361	164782	**11.22%**	185612	252438	9537	51025
1996-97	60930	47005	190514	**14.90%**	223880	275635	10855	54432
1997-98	71590	60195	218705	**19.62%**	272074	324586	12608	54453
1998-99	81342	88858	254595	**25.01%**	339496	369570	14500	56781
1999-00	85371	81020	308944	**25.35%**	413871	443469	15480	71158
2000-01	84504	105900	370159	**24.75%**	491908	525683	16209	70771
2001-02	86760	117518	438269	**25.47%**	588058	645743	20083	77350
2002-03	86064	74531	547546	**21.00%**	693085	739233	20198	83635
2003-04	113246	81962	677588	**15.59%**	802755	863632	21403	92023
2004-05	118075	95357	739154	**15.01%**	869737	1150836	23051	98453
2005-06	144474	116440	717454	**17.20%**	866505	1516810	25080	116540
2006-07	195264	158298	791516	**16.77%**	950977	1981235	31363	142809
2007-08	322971	109109	971715	**17.46%**	1177329	2476936	42394	197425
2008-09	297267	196516	1166410	**19.53%**	1449551	2999924	48361	247023
2009-10	365812	183455	1384752	**19.45%**	1719185	3497054	49564	210070

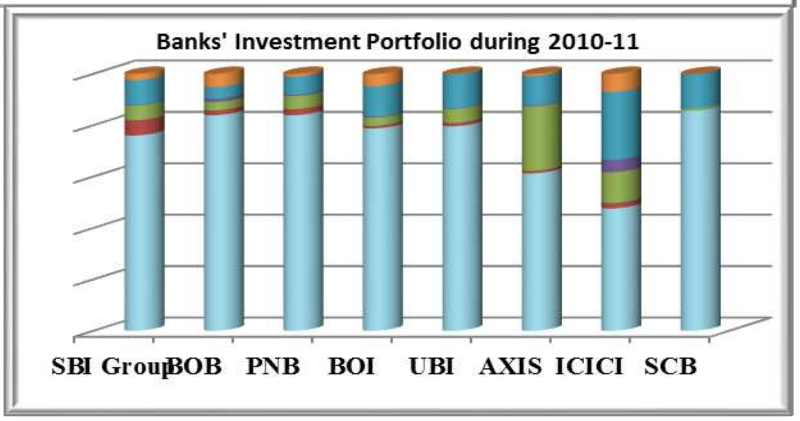
Source: RBI Database on Indian Economy, RBI

The segment-wise investment made by selected major public and private sector banks, and a major foreign bank, during last four financial years (2007-08, 2008-09, 2009-10, and 2010-11), as reported in their respective annual reports, are brought out in figure **F-18**. Even if a marginal variation is observed among the segments in the selected public sector banks, the proportion of investments especially in Debentures & Bonds are found to be almost stable over the periods, may be with some variation among the banks, depending on their own internal policy towards the cap in Non-SLR investments. As far as the private sector banks are concerned, their investment behavior are found to be little different, at least in one segment of investment. Unlike other banks, AXIS bank has found to invest almost 25% - 30% of its total investable funds in Debentures & Bonds throughout the periods. Similarly ICICI bank has found to invest the similar proportion in securities fall under 'Other Asset" that includes MFs, CPs, etc., which is nothing but an alternative way to invest in Non- Govt. securities. Therefore, it is clearly observed that the exposure of banks, especially public sector banks in Non-Govt. securities including corporate bonds are comparatively very less, and also restricted only to the securities with Highest or High safety. If this is the case for the larger banks, the exposure of the smaller banks in the corporate debt market is expected to be even thinner.

Figure F-18: Nature of Investments Portfolio of major Indian Banks over Different Periods



Source: Banks' Annual Report



E. Initiatives Taken to Strengthen Indian Corporate Bond Market:

Even if a series of initiatives are taken to strengthen the corporate debt market in India, the market is still at the nascent stage and requires enormous changes to ensure the necessary growth and to place India parallely with its Asian counterparts like Japan, Korea, Malaysia, who have experienced a tremendous growth in this segment of the financial market. In order to ensure reasonable growth in corporate bond market, Govt. of India (GoI), Reserve Bank of India (RBI), Securities and Exchange Board of India (SEBI) had initiated the reform process way back in 1990s. Some of such initiatives are mentioned hereunder:

- Abolition of any ceiling on interest rate on corporate debentures;
- Withdrawal of several supports to the development banks (DFIs) in meeting financing requirement for long-term projects;
- Transformation of securities, even if issued through private placements, into the dematerialized form, making it much easier for the depository;
- Adoption of significant directives by RBI and SEBI, such as mandatory trading of corporate bonds on the order matching screens of the stock exchanges, fixing ceiling for banks and PDs in holding unlisted corporate bonds in their investment portfolio;
- Initiation of Base-rate for the banks while lending to corporate, and thereby restricting corporate to avail low cost finance from the banks, and insisting them to raise money by issuing corporate bonds, may be even at a lower cost;
- Relaxation of norms for the corporate for being rated by two rating agencies and also having a credit rating equal to or above the investment grade;
- Simplification of documentation and disclosure requirement for companies which are listed in any of the Indian stock exchanges, leading to a reduction of cost of issuance and making debt market more attractive for the corporate;
- Opening up Repo market for corporate bonds, having a credit rating of AA and above, leading to enhance the liquidity in corporate bond market;
- Introduction of plain vanilla Credit Default Swaps (CDS) to hedge the credit risk in corporate bonds, incentivizing investors to invest even in low rated securities;
- Utilization of current PDs, acting as market makers in Govt. debt market, for market making of high rated corporate bond
- Proposing to open-up a separate window for Qualified Foreign Investors (QFIs) to invest in Indian corporate bonds and increasing the existing limit for FIIs in the same

Even if several initiatives are taken over the last decade to develop the Indian corporate bond market, Indian economy has not yet experienced a remarkable growth in the corporate debt segment. Whatever restricted growth is observed, it happened only for the corporate debt securities issued in OTC market through private placements. The important factors responsible for the insufficient growth of corporate debt market, especially in case of public issues, in India are described in the following section.

F. Causes for Insufficient Growth in Corporate Debt Market in India:

There are several factors causing for the insufficient growth in corporate debt market in India. It is very important, for all the concerned market players such as bond issuer, alternative financier in market, investor, intermediators, regulators, etc., to address those factors with due care to achieve the level of growth that other developed markets have already achieved in their corporate debt segments. These important factors are discussed in the following section:

F.1. Unpopularity of Debt Financing to the Corporate Sector

In order to achieve the necessary growth in corporate debt market, the primary requirement is to have a developed primary market by ensuring a significant supply and demand for the security. In order to ensure sufficient supply, it is very important to enhance the issuer base. Corporate entities have two major options to meet their financing requirements: Loan from banks and issuing bonds. Even if corporate in most of the developed economies prefer to tap the bond market as a means of financing, the similar culture has not yet been developed in India. Majority of the Indian corporate still prefer to approach banks to meet their financing requirements. Insufficient flexibilities and inefficient market practices seems to be the important reason for such unpopularity of this channel of financing. Besides that, the demand for corporate bonds in banks and insurance companies is also restricted to only highly rated issues, and also up to a certain amount, leading to narrow down the possibility for low rated corporate to issue bonds to meet their financing needs.

Insufficient standardization of debt contracts, lack of transparency, stringent disclosure norms, excessive illiquidity are some of the important constraints for many of the corporates, demotivating them to issue bonds. Many of Indian corporate would like to offer their debt issues in foreign markets. A number of Indian companies have also accessed bond funding from the international markets. Even though these bond offerings are marketed more widely than private placements in the domestic markets, the bonds are placed largely with institutional investors. These offerings enjoy the flexibility and benefits of standardization of international markets, and fall within the external commercial borrowings (ECB) regime which is far easier. At the same time, within international bond offerings, a substantial portion of them pertain to convertible bonds, commonly termed as Foreign Currency Convertible Bonds (FCCBs), wherein the investors will have the option to convert their debt exposure into equity of the issuer company at a predetermined price. The advantage for companies issuing such instruments is that these instruments internationally falls within the foreign direct investment (FDI) regulations promulgated by the Government of India. Therefore FCCB issuances become more attractive for Indian corporate.

F.2. Popularity of Private Placements

Since a substantial part of bond offerings are taken up by limited institutional investors (at most 49), debt issuers find it attractive to stay within the confines of a private placement.

Since private placements are less opaque with no statutory disclosure requirements, it perhaps attribute to the lack of standardization and transparency in the bond market. Since the institutional investors are small in number and likely to be repeat players in the private placement segment, aspects of mutual trust and reputation play a greater role than matters of disclosure mandate by statute or regulation.

Like in most of the developing economies, the private placement route is mostly preferred by the issuers of corporate bonds in India. The private placement market in India is basically dominated by Financial Institutions, Banks and PSUs, mobilizing about 80percent of the resources, while other private corporate sector entities mobilized only about 20percent of the resources, during 2010-11. Since the privately placed bonds are essentially hold by the investors till their maturity, it fails to provide necessary liquidity in the secondary market. This private placement route is popular because of its operational flexibility and ease, encouraging corporate issuer to avoid the public placements through exchanges, which significantly affect the growth of Indian corporate debt market.

F.3. Insufficient Supply & Lack of Varity

Unlike in developed markets like USA, Japan, France, UK which have a vibrant market for sub investment grade debt securities, there is hardly any corporate bonds in India with credit rating below investment grade. Major contributors in Indian debt market are restricted to invest in such sub-investment grade corporate debts, either due to regulatory restrictions or due their stringent internal policy. Banks are almost restricted to invest in any sub-investment grade corporate debt due to their own policy restrictions, whereas regulatory restrictions prevent insurance and pension companies from investing in low rated bonds. Due to these restrictions, total numbers of bonds available in Indian corporate debt market are very less, in comparison with other developed market, and therefore fail to offer a good pool of securities to investors with various risk-return appetites. Unlike in developed markets where securities with wider range of maturity, e.g. 3 months to 30 years, are available, the average maturity of bonds issued by Indian corporates hardly cross beyond 5 to 7 years. This also restricts the supply of corporate debts in India.

On the other hand, not only bonds with different rating grades, availability of different types of structured instruments may meet the multiple needs of wide range of investors, and therefore help to grow the market more faster. Internationally, bonds with several types of cash flows, like Step-up Bond, Step-down Bond, Deep Discount Bond, Inverse Floater Bond etc. are available to strengthen the supply side in the corporate debt market. However, in India mostly fixed rate coupon bonds are prevalent.

F.4. Insufficient Demand in Domestic Market and Restriction for Foreign Investors

The primary market for Govt. securities has been considerably strengthened through RBI's proactive encouragement in setting up of the Primary Dealers (PDs). PDs bid aggressively in the auctions for G-sec. and T-bills and take active market making in these instruments. Indian banks also prefer to hold Govt. securities, at least to meet the minimum SLR requirement. Risk-free nature of Govt. securities also attract different group of investors to invest their surplus funds. Due to all such forces, even if the investor base for G-Sec. in India is much wider, the situation for corporate bond is extremely different in India.

Even if Development Financial Institutions (DFIs) in India are primarily set up to meet the market requirement of term financing, such DFIs slowly found it difficult especially after the withdrawal of Budgetary Support, Govt. Guarantee on raising funds at Concessional Rates, and other Policy changes introduced after the onset of economic reforms. Accordingly, the DFIs tend to entered into the commercial banking to avail the public deposits, along with financing term loans. As a result, level of competition in the term loan segment has increased, that makes the bank loans more attractive for the corporate and left very less incentive to tap primary debt market. Regulatory asymmetry in the treatment of loans and bonds also insists banks to provide loans and advances rather than subscribing the bonds issued by the same company. Banks may also prefer to provide loans to the corporate rather than investing in the bonds issued by them, in order to avoid the Marked-to-Market (MTM) requirement and making provisions for valuation losses. Therefore there may be two possible circumstances: any fear of falling bond price due to downgrading of credit rating of the bond issuer, or fall in bond price due to rise in general level of future interest rates, when banks may keen to avoid investing in corporate bonds. Even if under Basle II norms banks are required to periodically revalue their loans extended to corporate entities with the help of their own internal model, there is still a lack of interest from the banking industry to finance corporate through bond route, leading to insufficient demand for corporate bonds in the domestic market. If not through loans, banks may be interested to provide financing to their highly rated clients by investing in their bonds issued through private placements, even if the bonds offers a return below the PLR. Cash Credit is one of the important alternatives for the corporate to meet their financing requirements and an obstacle for the growth of corporate debt market.

Not only banks, other institutional investors that can enhance the investor base in corporate bond market are insurance companies, mutual funds, provident and pension funds. Internationally insurance companies are among the largest participants in the corporate bond market. These investors in India mostly prefer to invest in Govt. securities in order to ensure safety and hardly invest in corporate bonds. Insurance companies in India are permitted to hold a maximum of 25% of their portfolio in bonds rated less than AA. Again pension fund managers are restricted to invest at most 10% of their funds in corporate bonds, only if they are of investment grade. Even if there is hardly any difference between State Govt. PSUs and private corporate sector entities, but still there is discrimination in the investment guidelines issued to investors for these different category of bond investments. This may cause a severe impact for the insufficient growth of corporate bond market in India.

The nature of investors in equity and corporate bond market is very different in India. Equity market is essentially tapped by both institutional and retail investors. While the corporate bond market in India fails to have a retail investor base. Even if the equity investment by retail investors in India is very small comparative to other developed economies, but still it has a meaningful contribution in the development of Indian equity market. Even if Indian retail investors prefer fixed income assets, but they are mostly restricted to assets like bank deposits, postal savings schemes, etc. where both the return and the principal investment are protected. However, the possibility of downfall in the principal value of debt issues, caused by the illiquidity in the secondary debt market, may fails to create the necessary interest among the retail investors to invest their savings in the debt market. Therefore a sincere effort to bring sufficient liquidity in the secondary debt market and narrowing the bid-ask spread by encouraging the market makers may prove to be an important step to strengthen the demand segment for corporate debts. Absence of retail investors makes a significant contribution for the insufficient growth of corporate bond market in India.

Presence of Foreign Institutional Investors' (FIIs) in any segment of the financial market of an economy makes a significant difference for the growth of that segment. FIIs always try to diversify their portfolio, especially by investing in equities and debts in emerging markets. Therefore their presence can significantly expand the demand base for any security. FIIs interest and their exposure in Indian equity market has led India to reach one of the top rank in case of developed equity market worldwide. At the same time, volume of such exposure by FIIs mainly depends on: Regulatory Restrictions, Efficiency of the Market in terms of Pricing and Settlement, availability of hedging instruments, etc. Even if there is a strong inflow of FIIs fund in Indian equity market, the same is not quite significant in case of Indian corporate debts. Existence of a broader limit and several sub limits, imposed by the regulators, on maximum investment expected to be made by FIIs discourage the flow of foreign capital for investment in corporate bonds. Opening market for FIIs and ensuring market efficiency can strengthen the investor base for corporate bond in India.

F.5. Lack of Committed Market Makers

Market makers have a very important role to play while developing any bond market, at least at the primitive stage. Primary Dealers (PDs) in India plays a significant role in making and strengthening the market for Govt. bonds. Market makers provide the necessary support as well as exit options to investors to buy or sell bonds whenever desired by them. Market Maker who offers two way quotes for trading in corporate bonds, just as it is being done in case of G-sec. which have increased their liquidity. Due to this significant market making mechanism, India's Govt. debt market has experienced considerable growth and developments. Market maker would also help in greater price discovery, liquidity and insurance against default. Since the corporate bond market in India is in a nascent stage, it may require a vibrant market making mechanism, at least in its initial phase. Banks, especially the Investment banks can not only help corporate to raise money from the market, but also can possibly be roped into market making in those bonds for which they have helped at the time of issuance.

F.6. Illiquid Repo Market for Corporate Bonds

As per RBI directives, even if Repo is permitted in corporate bonds, the same is applicable only to listed corporate debt securities being rated 'AA' or above by the rating agencies. Commercial Papers (CPs), Certificates of Deposit (CDs), Non-Convertible Debentures (NCDs), and any other instruments of less than one year of original maturity are also not eligible for undertaking repo.

Lack of market participation could be because of lenders or issuers maintaining a cautious approach as well as due to lack of proper trade guarantee mechanism. Also, the hair-cut margin of 10-15%, (which is the margin enjoyed by the investor on the day the agreement is reversed), is still very high. According to the investors' perception, the volatility in corporate debt market is not so high so that the risk of falling prices has to be addressed through such a high hair-cut. Interest rate is determined over-the-counter, but there is no mechanism for efficient discovery of prices. There is also no centralized clearing agency like the Clearing Corporation of India Limited (CCIL) for clearing repo trades on corporate bonds.

While all financial sector regulators have bought into the idea of centralized settlement, only RBI has approved corporate bond repos. As a result, the market hasn't taken off.

F.6. Illiquidity in Govt. Debt Market

Even if the Govt. debt market in India is quite big, it is practically true only in the primary segment. In other words, not only the variety of securities, issued by central / state Govt. or other public undertakings, are large in numbers, but also the volume at which trading takes place at the time of issue is also significant. This has placed India as one of the top Public debt driven economy. But at the same time, the secondary market for the public debt issues in India is very thin and there is lack of sufficient trading in most of the outstanding securities on regular basis. This has made the secondary Govt. debt market very illiquid. In order to bring more liquidity in the Government securities market, RBI's permission to allow banks and PDs implementing Short Selling on G-Sec., initially for over the night, followed by five days, and then for 90 days, also may fails to add much value in India. This illiquidity in the Govt. debt market caused for non-availability of risk-free benchmark yield curve, on which the price of every debt security including corporate bonds depends up to a greater extent. Lack of proper pricing mechanism may cause for insufficient development in corporate debt market.

F.7. Improper Pricing, Clearing and Settlement System

Lack of sound and transparent mechanism to price corporate debt issues has also restricted the growth of corporate debt market in India. The price at which a corporate debt issue of a specific maturity is expected to be traded in the market basically depends on the prevailing level of interest rate at which the government borrows for similar maturities, and the credit worthiness of the debt issuer. The Government borrowing rate for different tenors are available from the Treasury yield curve, and the credit spread captures the credit worthiness of the borrower. Therefore the rate of interest at which a corporate debt of a specific maturity is expected to be issued needs to be higher than the prevailing rate of interest applicable to Govt. securities of similar maturity. But Indian economy has experienced a lot of inconsistencies in pricing such debt issues. A corporate entity with good credit history and sound financial position can raise funds at highly competitive rates, which may not significantly above the rate at which Govt. raise funds through its securities of similar maturity. This strong competition in lending business, especially to credit worthy borrower, has also narrowed down the scope for the borrower to raise the necessary funds through bond issues and also at reasonable prices.

The secondary market also plays an important role in price discovery, which in turn allows investors to price primary issues. Illiquidity in the secondary market restricts a proper price discovery mechanism to be in place for corporate bonds in India. Absence of strong historical data base, on all corporate bonds traded in India, in public domain also led to an unfair pricing of corporate debts, resulting to more illiquidity in the secondary market.

Even if for Govt. securities, RBI has introduced Negotiated Dealing System (NDS) that significantly upgrades not only the pricing mechanism but also the settlement process through the Clearing Corporation of India Ltd. (CCIL), acting as the central counterparty, guaranteeing all the settlements in G-sec. and money market instruments, the settlement mechanism for corporate bonds are still requires some major advancement to make Indian corporate bond market more vibrant.

F.8. Risk Averting Investors and Lack of Hedging Instrument

Majority of the investors, even if institutional investors like banks, prefer to invest in corporate bonds issues having a rating at least above investment grade (i.e. BBB). In typical Indian scenario, investors hardly take any chance to invest in corporate bonds having a credit rating below AA or similar. Even if banks are comfortable in giving loan to low rated corporate client, the same is not applicable in case of corporate bonds. Therefore, it becomes always easier for a low rated corporate to tap the bank loan instead of issuing bonds to meet its financing requirements. Investors' preference for this superior credit quality of a corporate issue makes the primary corporate bond market very shallow in India. The secondary market trading is also heavily biased towards higher rated papers like AAA and AA+, thereby making the secondary market as well extremely illiquid.

Even if investors intend to take risk by investing in corporate bonds, may be below investment grades, they may prefer to hedge their risky positions accordingly by taking some counter positions in credit derivative contracts like Credit Default Swaps (CDS). CDS can give the necessary protection against the loss expected to be suffered by the investors due to the credit risk of the bond issuer in exchange of some price. Not only can be used for hedging, CDS can also help in providing valuable information towards the credit condition of a corporate and therefore contribute in loan pricing as well. Even if CDS is widely used worldwide to get the protection against the credit risk of corporate bonds, the history of this product in India is very poor. Even though RBI first thought of introducing CDS in the year 2003, it would not materialize, and finally the instrument is permitted in Indian market in the month October 2011. Since India is in the primitive stage of this new instrument, series of regulatory restrictions are imposed by the RBI to protect the economy from all the malpractices occurred in the recent sub-prime crises. Some of such restrictions, expected to slow down the growth of CDS in Indian market, includes:

- Participants eligible in the CDS market would be classified as Users and Market Makers. Users, such as commercial banks, PDs, NBFCs, mutual funds, insurance companies, housing finance companies, provident funds, listed corporates and FIIs, are permitted to buy credit protection only to hedge their underlying credit risk on corporate bonds. Market makers, such as commercial banks, primary dealers, NBFCs having sound financials and good track record, would be permitted to buy protection even without having the underlying bond.
- The reference entity in a CDS contract shall be a single legal resident entity.
- CDS will be allowed only on listed corporate bonds as reference obligations. CDS can also be written on unlisted but rated bonds of infrastructure companies and unlisted/unrated bonds issued by the SPVs set up by infrastructure companies.
- Since the users are envisaged to use the CDS only for hedging their credit risks they should not maintain their CDS position naked at any point of time during the contract.
- Users cannot exit their long CDS positions by entering into an offsetting short position. Long CDS position can be squared off either by unwinding the contract with the original counterparty or, in the event of sale of the underlying bond, provided the CDS positions is also passed on to the new buyer, subject to the consent of the original protection seller.
- The credit events specified in the CDS contract may cover: Bankruptcy, Failure to pay, Repudiation/moratorium, Obligation acceleration, Obligation default, Restructuring approved under Board for Industrial and Financial Reconstruction (BIFR) and Corporate Debt Restructuring (CDR) mechanism and corporate bond restructuring.
- The parties to the CDS transaction shall determine upfront, the procedure and method of settlement (cash/physical/auction) to be followed in the event of occurring a credit event. In case of transactions involving users, physical settlement is mandatory, but market-makers can opt for any of the three settlement methods.

F.9. Stringent Listing Norms and Disclosure Requirements

Even if there is a significant increase in the trading volume outstanding in corporate debt market, majority of the issuance are essentially through private placement. Many issuers prefer private placement route mainly because of its operational ease. These privately placed bonds are normally held till maturity and therefore create illiquidity in the secondary market.

Raising funds through Private Placement of Debts to Qualified Institutional Buyers (QIBs), especially by the well rated corporate, has become very effective tools, largely due to the stringent regulatory requirements involved in public issues. As per the SEBI directive, issued in early 2004, all secondary market trading should be on the automated order matching screens of the stock exchanges. Even if these directives were introduced to enhance transparency and to make price discovery process more efficient, it has created an unintended negative impact on the corporate bond market in India. Financial institutions, intending to invest in corporate bonds, may not prefer to go to the stock exchange and may enter into a direct bi-lateral deal with the borrower and make the settlement in two days. Therefore most of the deals which would have otherwise got reported to the stock exchange and would have thereby imparted some degree transparency to the secondary market in corporate debt are not being reported to the exchanges.

Most of the corporate, keen to issue bonds, are not happy with the listing guidelines implemented in Indian corporate bond market. Excessively detailed and exhaustive disclosures requirements, expected to be furnished by a corporate to get its bond listed in an exchange, and also every time whenever they approach the market with their debt issues, has made a severe obstacle in the growth of Indian corporate debt market.

It is widely accepted that there is hardly any retail investors interested in corporate debt issues. Majority of the investment made in corporate debts comes from the institutional investors, who are well informed with most of the details required to be mandatorily disclosed at the time of bond listing. Therefore, the disclosure requirement for corporate bond can be made simple and can be focused more on issuer's credit rating, at least by two external agencies. Since all important information related to a corporate boils down to its credit rating, it can be considered as the basic requirement for a bond to be listed in a stock exchange.

There is a general feeling that the current public issue requirements are too onerous, counter-productive and time consuming. Hence many corporate issuers prefer to tap foreign markets for debt, given the fact that it is relatively hassle free and fund can be raised faster.

F.10. Higher Transaction Cost (Stamp Duty)

Total Cost expected to be incurred for issuing debt securities, including lawyer's fees, registration-cum-stamp duty, fees payable to the rating agencies and bank fees, is not viable at least for issues of smaller amount. Stamp duty has been one of the major deterrents as it is levied both at the time of issue and transfer of corporate bonds. Also the stamp duty applicable differs according to the class of investors, discouraging corporate from issuing bonds to retail investors (either directly or through mutual funds), and to long-term investors like insurance companies, provident and pension funds. Further, stamp duty is different in different states. Different state governments follow different rate structure, leading to corporate executing deeds in states where the duty is low notwithstanding where their substantial business interest lies. Apart from the inconsistencies in the stamp duty structure, the rates themselves are also quite steep as compared to some of the developed markets. The highest stamp duty on debentures is 0.375 per cent ad valorem (as a percentage of issue size, without any volume discount), while on promissory notes it is 0.1 per cent. In order to avoid reporting to the stock exchanges as also to save cost of stamp duty on contract notes, many brokers tends to stop issuing contract notes, even if the trades are facilitated by them. Stamp duty is also a major barrier for the development of securitization market in India which in turn is an important step for increasing liquidity in the Indian corporate bond market.

F.11. Unfavorable Tax Treatment

Tax Deducted at Source (TDS) has been another issue which has hindered the growth of corporate debt market. Even if based on the recommendation made by the RBI to the Govt., it is abolished for Govt. bonds; the same is a major issue in Indian corporate bonds market. Since TDS is deducted on accrual basis, a buyer may receive only part of an accrued coupon from the corporate bond, and left with the tedious process of collecting a TDS certificate from a previous seller. Therefore in order to avoid the tax burden, there is physical exchange of cash when multiple trading takes place for a security in the market.

Another major problem in regard to the TDS on interest income from corporate bonds is that it is not uniformly applicable to all the investors. Even if insurance companies and mutual funds in India are exempted from the provisions of TDS, all other market players, including banks, individuals and companies belong to non-exempt category, are subject to provisions of TDS in respect of interest income from corporate bonds. This different treatment for different market players makes it very difficult to introduce an anonymous automated computerized trading system and a vibrant price discovery process.

F.12. Lack of Regulatory Clarity

The corporate bond market in India is affected by a number of regulatory bodies, such as SEBI, RBI, IRDA, etc. SEBI is the regulator for the primary and secondary corporate debt market. As the banks are major players in the corporate debt market, the regulatory actions of RBI also have a significant impact in the operation of corporate debt market. Similarly, involvement of insurance companies also led IRDA to get involved in the regulatory framework applicable in corporate debt market in India. In order to ensure the necessary growth in Indian corporate debt market, it is very important to ensure the coordination between these regulatory bodies. Lack of timely coordination among the regulators may result into unsatisfactory outcomes of any policy initiatives taken by either of the regulator to strengthen the corporate debt market. One of such important example presently faced by the Indian market is the initiation of Repo trading in debt securities issued by Indian corporates. Even if RBI has permitted banks for such trading, the same is still not cleared by SEBI and IRDA for their respective entities. Poor coordination among the regulators in this specific context is expected to restrict the growth of corporate bond market in India.

F.12. Sluggish Legal Enforcement of Contracts

A bond is a debt contract and usually provides a number of contractual protections to the lenders or investors. Therefore, one of the first important legal structures would be whether lenders can obtain expeditious enforcement of the terms of debt contracts. Enforcement of contracts is very challenging and difficult in India, primarily due to excessive delays in enforcement through an overburdened court system, and also due to prohibitive costs of bringing a civil action. Often borrowers take advantage of delays and other deficiencies in the legal system, thereby increasing the risk perception of lenders to debt contracts.

G. Future Challenges and Further Initiatives to be taken:

For creating robust corporate debt market in India, it is desirable that appropriate policy reforms are introduced to encourage building up of necessary market infrastructures, facilitating growth of not only an active primary market but also a vibrant and transparent secondary market. Based on the analysis of existing factors responsible for the sluggish growth of Indian corporate bond market, as described in the previous section, a series of important initiatives are expected to be taken to cope up with the future challenge in Indian corporate debt market and to ensure its reasonable growth. Some of such important initiatives are pointed out in the following section:

Repo on Corporate Bonds

It is needless to say that the market wouldn't have fully benefited from the centralized clearing and settlement system setup by RBI and SEBI, if all regulators, including Insurance Regulatory and Development Authority (IRDA) hadn't pushed for this. Repo on corporate bonds is primarily permitted by the RBI. But unless entities regulated by SEBI and the IRDA are allowed to participate in corporate bond repos, this segment of the market will not take off. Mutual funds, the biggest lenders in the collateralized borrowing and lending obligation (CBLO) market, also need to participate on the lending side of the Repo transaction, which would lead to a pick-up in volumes in the corporate bond repo market as well.

SEBI is still in the process of framing guidelines to allow mutual funds participate in this segment, may be due to a legitimate concern about the liquidity risk associated with corporate bonds. The concern is, if a large proportion of funds are lent against corporate bonds, a mutual fund could get into trouble if it exposed to any redemption pressure. At the same time, this problem can also be tackled by putting a limit on the participation of mutual funds in the repo market. Globally it is observed that repo market on corporate bonds substantially increases the liquidity of the underlying corporate bond market and help in widening its investor base both in primary and secondary markets.

Apart from the failure of the interest rate futures contracts in Indian market, even after its re-launch in September 2009, this is another glaring example of the pitfalls of having two regulators work together on a product. Therefore it is very important for policymakers to realize this and work accordingly to get the remedial measures without much delay.

Stamp Duty

Inconsistent stamp duty for different instruments issued by the same corporate, along with different rates applicable to different states, has led Indian corporate bond market very unhealthy and unpopular in the corporate world. The level and complexity of stamp duty applicable to corporate bonds in India encourages an arbitrage-based approach to corporate finance, so that decisions may be duty-driven rather than strategy-driven. There is a stated intention to reform stamp duty, probably by introducing a standard national rate with a maximum cap, as recommended in the Patil Committee Report. Even if the problem has been well known by all concerned entities for a long time, but the fact is that it would require changes to the Indian Stamp Act of 1899, leading to see a progress in this reform much slower than the market would expect.

TDS

Bond interest and tax on bond interest is calculated on an accrual basis, but is paid at the end of the tax year by the holder on that date. Therefore a buyer may have to collect the tax from the previous holder. The previous holder remits the tax owed by him for his holding period plus tax claimed from the previous owner in respect of the current tax year and so on. An additional complication arises because some entities, mainly mutual funds and insurance companies, are exempted from such tax. Exempted investors are sometimes reluctant to buy stock from non-exempted investors, as they become responsible for the tax payment, despite being themselves exempted from any such tax burden. Although government securities have been exempted from TDS, it remains in place for corporate bonds. The government should remove tax deduction at source (TDS) norm for the bonds floated by companies in order to strengthen the corporate bond market. TDS, even on non-resident investors, should also be removed to attract more participants in the corporate bond market.

Interest Rate and Credit Derivatives (IRS-IRF & CDS)

Interest rate and credit derivatives allow the market player to hedge their interest rate risk and credit risk involved in their investment in corporate debts. Even if there are both exchange traded and OTC interest rate derivative contracts in India, in the form of Interest Rate Futures and Forward Rate Agreement / Interest Rate Swaps, the market for the first instrument is completely dead, even after its re-launch with some necessary changes in the contract in September 2009. The IRS market, especially for longer tenors, is also not very active in India. Similarly, even if Credit Default Swaps (CDS) is implemented in India to hedge the credit risk of single corporate bond, the product has been introduced in a much regulated environment. There is no second opinion regarding the importance of such stringent regulatory measures, especially for that kind of product which plays a significant role in recent US subprime crisis, but the question is whether the market players will get the incentive to operate in such regulated market regime. Since CDS is at the nascent stage, it requires several policy initiatives to make the product useful for majority of the market.

Coordination among Regulators

Since corporate bond market in India is essentially regulated by both SEBI and RBI, the coordination of financial sector regulation between the Government of India and these two regulators through the Financial Stability and Development Council (FSDC) is very important to ensure a coordinated reform process. There is no doubt that the reform process involving the corporate bonds market is likely to be more complex than the same process for the equity market, but available mechanisms can be deployed to bring a change, at least incrementally, although not radically.

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