

A Microstructure Study of Indian Corporate Bond Market: A Review

Allauddin Abdulisaq Nadaf

Research Scholar

Kousali Institute of Management Studies,

Karnatak University Dharwad

Email: allauddin@kud.ac.in

Dr. Shivappa

Professor in Management

Kousali Institute of Management Studies,

Karnatak University Dharwad

Email: shivappa@kud.ac.in

Abstract

This Review study explores various dimensions of the Indian capital market, encompassing both equity and bond markets. It delves into the influence of equity market factors, macroeconomic variables, and corporate bond market growth on the overall financial landscape. The relationship between equity market returns, equity market volatility (VIX), and the rupee-dollar exchange rate on bond yields. They highlight that increasing volatility in the equity market leads to a higher demand for fixed income securities, subsequently reducing bond returns. The underscores the significance of a robust corporate bond market for financial system stability, credit availability, and mitigating corporate sector crises. It reviews the growth of the Indian corporate bond market and its implications for monetary, fiscal, and economic variables. The results indicate that a comprehensive corporate bond market does not exhibit a significant positive or negative association with these variables. However, GDP emerges as a crucial factor for India's bond market development, particularly in terms of foreign participants. Lastly, the influence of macroeconomic variables on the Indian corporate bond market over a 23-year period. They reveal a significant correlation between corporate bond market issuance and foreign exchange reserves. Through multiple regression analysis, they found that all selected variables, except GDP and trade openness, significantly explain the volumes of corporate bonds. Collectively, their findings contribute to a comprehensive understanding of the interplay between equity market dynamics, corporate bond market growth, and macroeconomic factors in the Indian capital market. The study provides valuable insights for policymakers and investors, aiding in informed decision-making regarding investment strategies, market stability, and economic growth.

INTRODUCTION:

Indian Financial System comprises of Banking and Capital Market. Banks have been performing the vital role of financial intermediation and Equity market performing very well in the market. The bond market and the equities market make up a well-developed domestic capital market. An effective capital market is thought to require a well-developed bond market with a sizeable role for the corporate bond market segment. To address the financing needs of private businesses, a thriving market for long-term debt is essential, and this is truer than ever given the pressing demand for physical infrastructure in a modernizing economy. Bonds are means of capital rising for the government, corporate, and individuals as an alternative to bank finance that has been present for centuries.

Multiple purposes are served by a vibrant corporate bond market. Corporate bonds can reduce the cost of long-term funding in addition to giving borrowers an alternative to bank financing. Due to the relative shorter tenor of their liabilities, banks are typically restricted from making long-term loans. An effective and affordable source of longer-term funds for corporations can be provided by a corporate bond market that is efficient, has lower costs, and issues bonds more quickly. It can also give institutional investors like insurance firms, provident funds, and pension funds access to long-term financial assets (also known as a "preferred habitat"), assisting them in balancing the durations of their assets and liabilities. This article focuses on the Indian corporate bond market growth and the factor influencing the Growth of corporate bond market development through previously studied data and the available data.

Literature Review

In recent years, the bond market has grown in significance as a source of capital for private corporations. The demand for corporate bonds in emerging markets is rising. Many developing market nations still have weak corporate debt markets. ([Luengnaruemitchai & Ong, 2005](#))

Underdevelopment of the bond market may lead to serious distortions in the economy, without a market-determined interest rate, the true opportunity cost of funds totally will affect the financial system of the country ([Herring & Chatusripitak, 2000](#))

Liquidity of an asset can be defined as the capability of individuals to trade quickly at prices that are reasonable of underlying demand/supply condition (Schwartz, 1991). Darst (1975) explains liquidity, or marketability, of a fixed income security is made up of two elements-the volume of securities which can be bought or sold at one time without significantly affecting its price and the amount of time needed to complete a desired transaction. These simple definitions of asset liquidity reflect two dimensions of a desired transaction, namely speed (transaction time) and price (transaction cost).

(Thumrongvit, Kim, & Pyun, 2013) examined the effect of bond market on economic growth as a third main part of any financial system. Using panel data of 38 countries, economic performance as a dependent variable and independent variables are divided into three sub variables like stock market, banking, and bond market. They examined the effect of development of domestic bond market on country's economic growth, as they found the three key elements like banking, stock market and bond

market substitute each other. As per the statistical results the government bond market has the positive relationship with the economic growth and corporate bond market has the negative relationship this is because the government bond market dominating. Having a well established bond market gives a healthy financial market.

(Chauhan, 2015) They highlighted the importance of bond market through the descriptive statistics. Bond market in India dominated by government bonds and banks remained only source of financing to the corporate. High tax rates and underdevelopment of credit markets effect on the capital structure of companies. Government should focus on the development of credit market in India.

(Che-Yahya, Abdul-Rahim, & Mohd-Rashid, 2016)

(Maurya & Mishra, 2016) focuses on the influence of macroeconomic variables on the Indian corporate bond market over a 23-year period. The analysis uncovers a notable correlation between corporate bond market issuance and foreign exchange reserves. Through multiple regression analysis, the study reveals that, apart from GDP and trade openness, all selected variables significantly explain the volumes of corporate bonds.

(Bhusnurmath & Ashra, 2018) Investigated the influence of economic factors on corporate bond market by considering base rate (bank lending rate), IIP and government yield as independent variables. They observed that base rate and IIP impacts positively while sovereign bond's yield impact negatively and here they conclude that bond market play as substitute to bank term loans. Due to the limited independent variables the model shows 0.6 (adjusted r-squared).

(Neemey & Sahay, 2019) highlights the vital role of a robust corporate bond market in ensuring financial system stability, facilitating credit availability, and mitigating corporate sector crises. It investigates the growth of the Indian corporate bond market and its impact on monetary, fiscal, and economic variables. The findings indicate that while a comprehensive corporate bond market does not exhibit a significant positive or negative correlation with these variables, GDP emerges as a critical factor, particularly in relation to foreign participants.

(Sharma, Chhabra, & Saxena, 2020) sheds light on the influence of equity market returns, equity market volatility (VIX), and the rupee-dollar exchange rate on bond yields. It reveals that heightened volatility in the equity market triggers an increased demand for fixed income securities, subsequently resulting in reduced bond returns. This underscores the importance of considering the dynamics of the equity market when analyzing bond yields.

(Panda & Bag, 2021) examined the different key elements for determining the bond yield and the external borrowings. Through secondary data analysis it is observed that there is a definite difference between coupon and zero coupon bonds. Further they analysed the significance of market indicators on corporate bond yield like, coupon rate, maturity, and ratings and for economic indicators LIBOR, REER, FDI, GDP, WPI so on. They observed a strong relationship between these variables.

The bond market in India

During COVID pandemic the Indian financial sector came under stress. The equity market in India is much larger than the debt market and banking sector has remarkable growth rate. Despite the Indian debt market is one of the largest markets in Asia. Still developing rapidly through introducing new instruments, increased liquidity, deregulation of interest rates and improving settlement system. Government bond or Government securities market dominates in Indian debt market as compared to corporate bonds market. A large part of raised funds through government securities goes to finance fiscal deficit of central government, while corporate bonds are issued by corporates aimed at financing the capital requirements of corporates. The major players in market are banks, insurance companies, provident funds, financial institutions, mutual funds, and foreign institutional investors, and cash rich corporates.

Although government debt market is well developed but still suffering from illiquidity, Government of India and Reserve bank trying to develop quality of infrastructure and boosting investor base by launching schemes for retail investors participation. It is observed in SBI report march 2022, Indian 10-year government bond yield increased to 6.8 per cent in February 2022, from 6.7 per cent in January 2022 and 6.5 per cent in December 2021.

The corporate bonds trading volume is minimum as compare to government bonds in India. Though relatively less liquid, is fast developing. Table I signify the turnover and trades for corporate bonds market.

Table 1 Total Corporate Bonds Trade for the Year

| Date | Data for 2021-22 | | | | | | | |
|---------------|------------------|-----------------|---------------|-----------------|---------------|-----------------|---------------|-----------------|
| | BSE | | NSE | | MCX-SX | | Grand Total | |
| | No. of Trades | Amount (Rs. cr) | No. of Trades | Amount (Rs. cr) | No. of Trades | Amount (Rs. cr) | No. of Trades | Amount (Rs. cr) |
| <u>Apr-21</u> | 7236 | 60888.55 | 4940 | 90992.76 | 0 | 0.00 | 12176 | 151881.31 |
| <u>May21</u> | 6259 | 54135.76 | 4925 | 79923.94 | 0 | 0.00 | 11184 | 134059.70 |
| <u>Jun-21</u> | 8007 | 61390.57 | 5665 | 91924.45 | 0 | 0.00 | 13672 | 153315.02 |
| <u>Jul-21</u> | 6745 | 48404.69 | 5099 | 66672.29 | 0 | 0.00 | 11844 | 115076.98 |
| <u>Aug21</u> | 7356 | 55957.11 | 5758 | 88259.38 | 0 | 0.00 | 13114 | 144216.49 |
| <u>Sep21</u> | 7886 | 63765.97 | 6038 | 126974.72 | 0 | 0.00 | 13924 | 190740.69 |
| <u>Oct-21</u> | 7224 | 49075.25 | 5423 | 97201.37 | 0 | 0.00 | 12647 | 146276.62 |
| <u>Nov21</u> | 6303 | 39177.13 | 4583 | 71902.03 | 0 | 0.00 | 10886 | 111079.16 |
| <u>Dec21</u> | 7396 | 51214.41 | 5468 | 94733.69 | 0 | 0.00 | 12864 | 145948.10 |
| <u>Jan-22</u> | 7322 | 45282.34 | 4804 | 82333.56 | 0 | 0.00 | 12126 | 127615.90 |
| <u>Feb-22</u> | 7841 | 60639.96 | 4886 | 81448.21 | 0 | 0.00 | 12727 | 142088.17 |
| <u>Mar-22</u> | 10745 | 77798.28 | 7712 | 133288.00 | 0 | 0.00 | 18457 | 211086.28 |
| Total | 90320 | 667730 | 65301 | 1105654 | 0 | 0 | 155621 | 1773384 |

Source: SEBI

Since from 2008 trading of corporate bonds are increasing but not at extraordinary rate. Banking finance, coupled with equity markets and external borrowing are preferred funding source for business. Above table shows the data for 2021-2022 trading of corporate bonds in different platforms where we can see corporate bonds turnover is minuscule as compare to equity market as well as government bond market ([Sengupta & Anand, 2014](#)). As in Table MCX-SX is newest platform for trading founded in October 2008 which has zero corporate bonds trading so far in the year 2021-2022.

Corporate Bond Markets

For business investment debt capital is generally considered to be suitable for long-term financing. Developing vibrant market for long-term debt is difficult for fulfilling capital needs of private business. Even though lot of initiatives have been taken in the past to develop the corporate bond market in India but still not the level which it needs to be.

Table 2 Debt issues and Equity issues (Rs. crore)

| Year | Equity issues (Rs. Crore) | | Debt issues (Rs. Crore) | | Share of debt in total resource mobilization (in per cent) | Share of private placement in total debt issues mobilization (in per cent) |
|-----------|------------------------------|-----------|----------------------------|-------------|--|--|
| | | Public | Private Placement | Total | | |
| 2007-2008 | 85,427.00 | 1,603.00 | 1,18,484.64 | 1, 20,088 | 58 | 99 |
| 2008-2009 | 14,720.00 | 1,500.00 | 1,73,281.18 | 1,74,781.18 | 92 | 99 |
| 2009-2010 | 55,055.00 | 2,500.00 | 2,12,634.92 | 2,15,134.92 | 80 | 99 |
| 2010-2011 | 58,158.00 | 9,451.00 | 2,18,785.41 | 2,28,236.41 | 80 | 96 |
| 2011-2012 | 12,857.00 | 35,610.71 | 2,61,282.65 | 2,96,893.36 | 96 | 88 |
| 2012-2013 | 15,473.00 | 16,982.05 | 3,61,462.00 | 3,78,444.05 | 96 | 96 |
| 2013-2014 | 13,269.00 | 42,382.97 | 2,76,054.18 | 3,18,437.15 | 96 | 87 |
| 2014-2015 | 9,789.00 | 9,713.43 | 4,04,136.50 | 4,13,849.93 | 98 | 98 |
| 2015-2016 | 24,054.00 | 33,811.92 | 4,58,073.48 | 4,91,885.40 | 95 | 93 |
| 2016-2017 | 32,520.00 | 29,547.15 | 6,40,715.51 | 6,70,262.66 | 95 | 96 |
| 2017-2018 | 1,05,097.00 | 5,172.56 | 5,99,147.08 | 6,04,319.64 | 85 | 99 |
| 2018-2019 | 18,235.00 | 36,679.40 | 6,10,317.61 | 6,46,997.01 | 97 | 94 |
| 2019-2020 | 3,06,327.00 | 15,068.37 | 6,74,702.88 | 6,89,771.25 | 69 | 98 |
| 2020-2021 | 2,29,786.00 | 10,588.02 | 7,71,839.98 | 7,82,428.00 | 77 | 99 |
| 2021-2022 | 2,41,584.00 | 11,589.41 | 5,88,036.94 | 7,83,429.39 | 93 | 75 |

Source: SEBI

Table 2 highlights private placement demonstrates that the most popular method for raising capital through corporate bonds is private placements, contributing to the market's overall illiquidity. Bank financing options for the corporate sector have been considerably constrained by regulatory restrictions

on single or group borrower lending due to exposure constraints. The demand for corporate debt in India has been further pressured by banks' statutory subscriptions to sovereign debt.

Given that corporate debt markets are often less liquid than their sovereign counterparts, it will be challenging to establish a liquid corporate debt market in India. Having said that, a moderately liquid corporate debt market would lower borrowing costs for businesses and make bank funds available for other purposes.

Factors influencing the growth of the corporate bond market in India

India is considered to have a mixed economy due to its status as a developing country, the combination of the public and private sectors, and its reliance on foreign trade. With rapid movement in start-ups and industries financial stability is required to give the acceleration. Banks are playing well in the Indian financial system but not fulfilling the required funds for the corporate. Channelizing corporate securities and developing a good base for the trading of corporate bonds required some more attention in developing countries like India. Poor liquidity, lack of awareness and credit rating mechanism and weak regulatory framework indicates the underdevelopment of market.

In an effort to pinpoint and address problems that were impeding the growth of corporate bonds in India, a high-level committee known as the R.H. Patil Committee was established in accordance with the budget announcement for 2005–2006.

The factors that influence the Indian corporate loan market are covered in the next section,

Inadequate financial framework

Financial system problems have the potential to complicate financial transactions, reduce the effectiveness of monetary policy, exacerbate depressions, cause capital flight and put pressure on exchange rates, as well as raise the cost of saving collapsing financial institutions.

The committee suggested that for the development of corporate debt market, a proper framework that encourages market-making by primary dealers and investment banks be put in place. It was proposed to obtain permissions to carry out repos under corporate bonds. (Patil, 2005)

The credit assessment process

Credit rating gives an opinion on the creditworthiness and reliability of the instrument. Assessing the securities creditworthiness and giving the ratings is an important part in securities market and the rating for securities determine trading. The credibility of the information is highly influenced by the variations between local and foreign rating organisations, such as Standard & Poor's, and this hinders the growth of the corporate debt markets. (Gyntelberg et al., 2005).

Bonds Issues

As we can see in Table 2 bonds are issue via private placement rather than public issue which hampers the liquidity because the private placement issue bond will not be traded in secondary market which definitely make corporate market illiquid.

Demand and supply of corporate bonds

Debt securities demand in an economy is heavily influenced by local institutional investors including banks, insurance companies, pension funds, and mutual funds. The majority of businesses choose for external financing that combines debt and equity. When it comes to the percentage of debt, businesses consider bank financing over financing through bonds in order to meet their financial needs. This is because it is complicated and challenging to raise money by issuing bonds, which results in low demand for the corporate bond market. The substantial demand for corporate bond markets in India has decreased as a result of the institutional changes on institutional investors to invest in the sovereign debt market. Additionally, the legislation requires parking assets in investment-grade securities, which prevents institutions from investing in securities with different credit ratings.

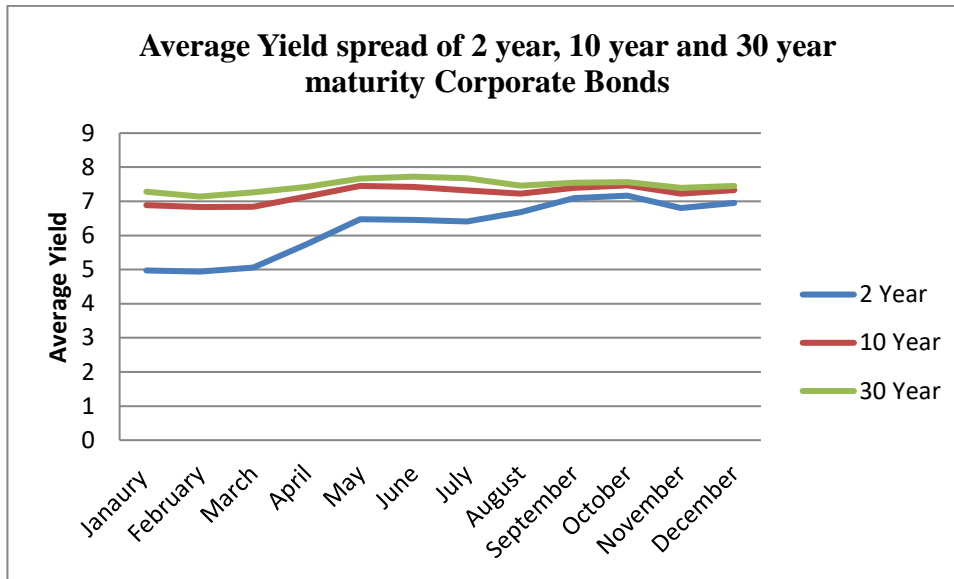
Retail Participation

The absence of individual investment leaves a big gap in the current structure of the debt market. It is found that the primary cause may be a lack of awareness or information regarding the risk and return mechanism of the debt markets. Despite being generally seen as a safe asset, any problems with debt instruments are handled rather harshly, which causes investors to virtually avoid the corporate debt market.

Yield Spread

Investors who are risk Takers usually hope for attractive return. Debt Market is known for the fixed return, obviously with decent risk free returns. Comparing the yield from the Indian bond market to other investment options like mutual funds, ELSS, etc., it is relatively lower. The yield spread for corporate bonds with varying maturities is displayed in the following chart.

Figure 1 Yield Spread



Source: Investment.com

The Above chart illustrates that the yield will increase as the maturity time does, with corporate bonds with a 30 year maturity period producing a better return than those with a 2 year and a 10 year maturity period. While the rate of return is not particularly high in comparison to other investment options, the long term maturity time will result in liquidity risk.

Settlement Risk

Since transactions in the corporate bond market are settled bilaterally between participants, there is no central counterparty to lower clearing risk. One of the obstacles to trading in corporate bonds is this. In order to provide centralised clearing and settlement for corporate bonds, SEBI is now contacting the stock exchanges.

Table 3 No of Corporate Bonds Trade and Settlement

| Year | Total Number of Trades | Total Number of Trades Settled | % of Trade Settled |
|---------|------------------------|--------------------------------|--------------------|
| 2009-10 | 38230 | 9386 | 24.55 |
| 2010-11 | 44060 | 32662 | 74.13 |
| 2011-12 | 51533 | 37613 | 72.99 |
| 2012-13 | 66383 | 44317 | 66.76 |
| 2013-14 | 70887 | 47135 | 66.49 |
| 2014-15 | 75791 | 53852 | 71.05 |
| 2015-16 | 70123 | 53856 | 76.80 |
| 2016-17 | 88495 | 71444 | 80.73 |
| 2017-18 | 91404 | 73332 | 80.23 |
| 2018-19 | 105150 | 84421 | 80.29 |
| 2019-20 | 127957 | 100347 | 78.42 |
| 2020-21 | 823689 | 115164 | 13.98 |
| 2021-22 | 798955 | 135921 | 17.01 |

Source: SEBI

From the data above, it can be concluded that a small percentage of trades are settled compared to all trades. Despite continuous growth, a higher standard needs to be attained to boost investor trust.

Issuance Costs

High Issuing costs are accompanied with the corporate bonds makes corporate to fall far commercial banks and equity market. As we can see the bonds market is quite sensitive to taxation laws of the country. Trading norms are different while we compare to other markets.

SUGGESTIONS

- If there are strong rules to protect investors' interests and preserving the integrity of the markets, investor confidence can grow.
- The stock exchanges would be the greatest place to build a tracking mechanism that is a database of corporate bonds issued. This would contain the appropriate interfaces with credit agencies to assess any changes in credit ratings.
- Building a proper mechanism for corporate bonds to enhance participation from issuers and investors by reducing the dependence on private placement.
- Creating the awareness about debt market to encourage retail investor's participation.

Conclusion

In this study, we have looked at the factors that have contributed to the Indian corporate bond market's slow expansion. According to the study, there are a number of impediments to the development of the corporate bond market in India, including the effect of private placements, a lack of demand, unattractive yields, default risk, settlement risk, and a high benchmark on rating. These challenges must be taken into consideration by policymakers, who must also quicken the expansion of the vital Indian Corporate Bond Market. However, there are still a lot of other elements at play, such tax complications, unclear regulations, limits on foreign investors, etc., which raise the possibility of further research.

REFERENCES:

1. Bhusnurmath, N. R., & Ashra, S. (2018). Corporate bond market as a source of capital funds in emerging economies – the Indian experience. *International Journal of Business & Economic Development*, 06(02), 51–62. <https://doi.org/10.24052/ijbed/v06nu02/art-05>
2. Chauhan, G. S. (2015). Capital Structure in India : Implications for the Development of Bond Markets. *Indian Journal of Economics & Business*, 14(2), 245–267.
3. Che-Yahya, N., Abdul-Rahim, R., & Mohd-Rashid, R. (2016). Determinants of corporate bond yield: The case of Malaysian bond market. *International Journal of Business and Society*, 17(2), 245–258. <https://doi.org/10.33736/ijbs.523.2016>
4. Herring, R. J., & Chatusripitak, N. (2000). The case of the missing market: The bond market and why it matters for financial development. *Recent Financial Crises: Analysis, Challenges and Implications*, 148–194. <https://doi.org/10.4337/9781847203014.00013>
5. Luengnaruemitchai, P., & Ong, L. L. (2005). An Anatomy of Corporate Bond Markets: Growing Pains and Knowledge Gains. *IMF Working Papers*, 05(152), 1. <https://doi.org/10.5089/9781451861716.001>
6. Maurya, A. K., & Mishra, O. N. (2016). The Macro-economic Determinants of Corporate Bond Market in India. *Pacific Business Review International*, 1(1), 163–176.
7. Neemey, P., & Sahay, N. (2019). Indian Corporate Bond Market: An Analysis of Growth and Impact of Macroeconomic Determinants. *Vision*, 23(3), 244–254. <https://doi.org/10.1177/0972262919850925>
8. Panda, R., & Bag, D. (2021). a Simple Linear Test of the Integration in Corporate Bond Markets. *Copernican Journal of Finance & Accounting*, 9(4), 77–85. <https://doi.org/10.12775/cjfa.2020.022>
9. Thumrongvit, P., Kim, Y., & Pyun, C. S. (2013). Linking the missing market: The effect of bond markets on economic growth. *International Review of Economics and Finance*, 27, 529–541. <https://doi.org/10.1016/j.iref.2013.01.008>
10. Sengupta, R., & Anand, V. (2014). Corporate Debt Market in India : Lessons from the South African Experience. *Indira Gandhi Institute of Development Research, Mumbai*, (July), 1–17.
11. Sharma, S. C., Chhabra, B., & Saxena, N. (2020). Empirical study on the factors affecting bond market returns-evidence from Indian markets. *International Journal of Bonds and Derivatives*, 4(2), 114. <https://doi.org/10.1504/ijbd.2020.109335>