HEMANT MANUJ

S. P. Jain Institute of Management & Research

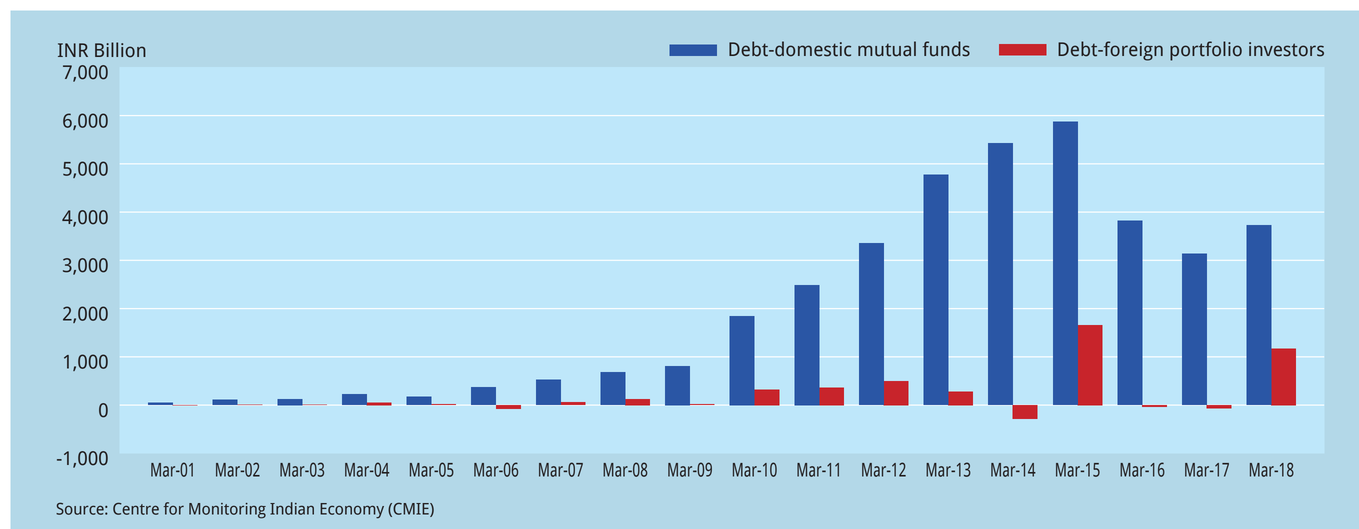
Developmental and Policy Issues of Bond Market in India

Overview of the Indian Economy and Bond Market

The Indian economy is the third largest economy by purchasing power parity and the sixth largest by nominal gross domestic product (GDP), which was at an estimated USD 2.597 trillion as of 2017.*[1] Over the last decade, the fast pace of growth in the Indian economy has led to expansion in the capital markets as well. The participation of both domestic and foreign investors has risen significantly during this period.

The Government of India (GOI) and the Reserve Bank of India (RBI) have, in the recent years, been supportive of a liberal investment policy that also included the foreign portfolio investors (FPIs). The FPIs were, in principle, allowed to invest in India since 1992 when the Indian markets were opened up for investments to foreign institutional investors for equity and debt investments. However, the norms and the limits for investments by FPIs have really been liberalised in the last decade only. The strong performance of the Indian economy, which grew at a compounded annual growth rate of seven percent per annum from 2008 to 2018, has led to an increased confidence among foreign investors. In November 2017, global rating agency Moody's Investors Service upgraded India's sovereign rating from Baa3 to Baa2. As a result of the several measures relating to development of capital markets, a fast growing economy, and growing confidence of the global investors, there has been a six-fold increase in annual investments by domes-

Figure 1: Annual Net Investments in Indian Bond Market



Source: Centre for Monitoring Indian Economy (CMIE)

tic and foreign investors in the Indian bond market between 2008 and 2018 (Figure 1).

Structure and Issues in the Indian Bond Market

Issuers and investors

The Indian bond market is dominated by government-issued securities. The central government and the state governments in India have consistently been incurring an aggregated fiscal deficit of the order of six percent. The governments borrow solely from domestic sources. As a result, government bonds comprise two thirds of the aggregate domestic bond market size in India (Figure 2).

The issuers in the corporate sector include companies from the public sector and private sector across financial and non-financial institutions. Access to bond markets is however limited to the highly rated borrowers, mostly with AAA and AA ratings. The lower rated borrowers have to depend upon credit facilities from either banks or non-banking financial companies (NBFCs).

Instruments and markets

The Indian bond market is a predominantly cash market with the following characteristics:

1. The short tenor (less than one year original maturity) instruments include commercial papers (issued by corporates) and certificates of deposit (issued by banks).

2. The long tenor (over one year original maturity) instruments include predominantly government/ corporate bonds and a few securitised products like pass-through securities and mortgage-backed securities (MBS).

3. The maximum tenor of a government security currently is 40 years, and 50 percent of the outstanding government securities have a tenor of less than 10 years.*[2]

4. The corporate bonds have a shorter maturity profile. The bonds with maturities over three years suffer from inadequate liquidity.

5. There is an absence of a standard credit spread curve. The credit spreads for corporate bonds with similar credit ratings have often a significant variance on account of low trading volumes and bilateral transactions.

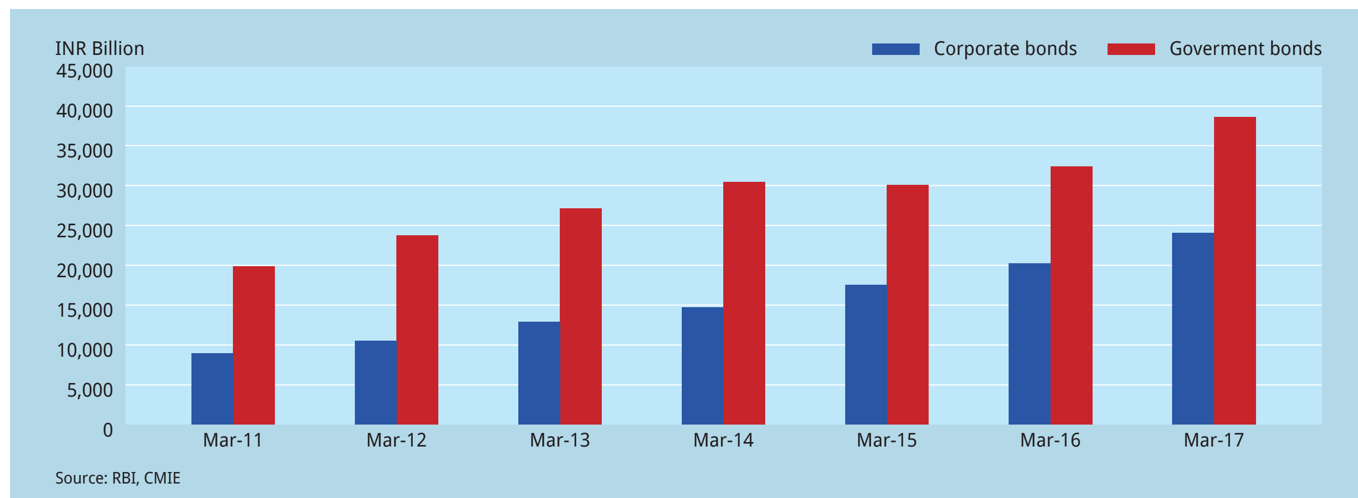
6. The fixed income derivatives market is limited mainly to interest rate swaps (IRS), which are traded in the over-the-counter (OTC) markets. The pricing of the overnight interest swaps (OIS) is linked to the National Stock Exchange Mumbai Inter-Bank Offer Rate (NSE MIBOR) rate. In addition, the interest rate swaps are also priced on a one-year Indian benchmark (INBMK) rate, which is based on polling of a few banks. While interest rate futures are traded on the stock exchanges, they have a very low turnover. As a result, corporates often face difficulties in hedging their interest rate risks.

7. The corporate bond issuances are conducted predominantly through private placements, rather than through public offers, since the former channel is subject to less stringent regulatory requirements, lower cost of issuance, and faster turnaround, compared to public issue of bonds.

One of the long outstanding difficulties faced by bond market participants in India is that there is an absence of a universally accepted yield curve. The 10-year government security is the most widely referred benchmark rate. For other maturities, there is inadequate trading in the government securities or the corporate bond markets. Currently multiple yield curves are published by rating agencies like CRISIL, data and clearing services companies like CCIL, and data vendors like Reuters. Bond market investors like banks or mutual funds use one of these yield curves for the pricing and valuation of securities.

The loans by banks are priced on the individual benchmark rates fixed by the respective banks themselves. There has recently been an initiative by the RBI to introduce, in a limited manner, the adoption of market-linked benchmarks for pricing of bank loans. This is, however, yet to be accepted by all banks as an industry practice.

Figure 2: Indian Domestic Bond Market Size



Source: RBI, CMIE

Regulation

The domain of regulation of the Indian bond markets has traditionally been split across RBI, the Securities and Exchange Board of India (SEBI), and the Insurance Regulatory and Development Authority of India (IRDAI). RBI is the primary regulator for all banks and financial institutions (FIs) and therefore regulates the scope of investments, valuation, provisioning, and asset classification of all investments by the banks and FIs. SEBI is the capital markets regulator and regulates the players and instruments in the traded markets for bonds, equities, and commodities. IRDAI is the primary regulator for insurance companies and thereby regulates the conduct of the latter in their investments in the capital markets.

The multiplicity of regulatory overview has at times led to inconvenience to the participants in the bond markets. The regulators have now been exchanging thoughts among themselves to pre-empt any confusion or conflict on account of this.

The regulation of financial services and trading has been a matter of much debate in India, as well as in many other countries, since the global financial crisis of 2008. GOI had, in 2011, instituted a Financial Sector Legislative Reforms Commission (FSLRC) to review the regulatory framework in India. FSLRC has submitted its report with recommendations to establish a super-regulator as well as multiple changes in the structure and domains of the existing regulators. There has however not been further action on the report.

Access for Foreign Portfolio Investors

The FPIs, registered with RBI, are permitted to invest in the Indian debt markets subject to limits prescribed by RBI. The limits for investment by FPIs apply, segment wise, to central government securities, state government securities, and corporate bonds. RBI has been periodically revising the limits, after considering the debt and monetary conditions and the demand from foreign investors.

GOI and RBI are quite conscious of monetary and exchange rate risks on account of a high level of investment by FPIs in the domestic bond markets. The investments by FPIs, being in the nature of market investments, can potentially lead to excessive volatility in the bond markets, if FPIs sell their investments on a large scale. The aggregate limit for FPIs in the debt markets is currently 3.5 percent of GDP. This is well within the current total external debt to GDP of India at 20 percent.*[3]

Credit Markets – a Historical Perspective

The credit rate spread on a bond is a function of the maturity of the bond and the default risk of the underlying issuer. The sophistication of a bond market is indicated by both the extent of trading in bonds across the categories of maturity and credit rating. The Indian bond market does not offer significant trading in bonds of either long maturity (greater than 10 years) or of lower credit rating (below AA). There has been slow progress in the underlying credit markets for these segments. The infrastructure projects with long maturity and corporate issuers of lower credit ratings have traditionally depended on banks and non-banking institutions for meeting their financing needs. The bond markets have not yet developed as a platform for such issuers. It is instructive to understand the historical perspective behind the financing of infrastructure projects and the factors affecting investors and issuers of low rated corporate debt.

Financing of infrastructure projects

Infrastructure projects have typically long gestation periods. These projects are also more risky than industrial projects on account of higher controls on their customer markets and user fees. Their cash flows are also such that they require funds with longer maturity.

There is a significant requirement of funds for the financing of infrastructure projects in India. According to the Indian Economic Survey 2017-18, the cumulative figure for India's infrastructure investment gap would be around USD 526 billion by 2040.

The most appropriate sources of funds for infrastructure projects are long term bond markets, pension funds, and insurance companies. However, in India, the long term bond markets are not deep. Indian insurance and pension companies have limited appetite for financing of infrastructure projects on account of their small sizes, limited experience, and regulatory constraints. As a result, these projects have traditionally been funded mostly by commercial banks. However, commercial banks have limited funds of long maturity and are not well placed for financing of infrastructure projects. This has led to an adverse asset liability maturity risk for the banks.

In the last few years, infrastructure projects, especially in the energy and transport sectors, were funded through a public private partnership (PPP) mechanism. The participation of the private sector was intended to help share the burden of financing the capital intensive projects. Several private sector players took a lot of interest and committed significant amounts of funds for the infrastructure projects. This led to a sharp rise in financial leverage of the participating private sector companies in the last few years. Also, the policy environment for the projects became challenging on account of delays in land acquisition, environmental clearance, and sudden cancellation of contracts in many cases. As a result, the development and operational commencement of several infrastructure projects was inordinately delayed, leading to financial difficulties. A large number of private sector infrastructure development companies became insolvent.

The failure of infrastructure projects on a large scale led to a sharp rise in non-performing assets (NPAs) on the balance sheets of commercial banks that had financed these projects. This has led, at a systemic level, to a twin balance sheet problem involving the corporate borrowers and the banks. A key lesson for the policymakers has been that the source of financing of large projects should not be concentrated with commercial banks.

The high-yield market

A mature bond market should comprise of bonds in various segments of the risk continuum. Igata, Taki and Yoshikawa (2009) mention that one of the important factors behind the success of the U.S. bond market is the continuing issuances of high-yield bonds (bonds rated BB or below). The attractive risk-return characteristics of high-yield bonds in the U.S. markets enable speculative grade, but promising and fast growing, companies to raise funds. In ad-

dition, the elongation of the average maturity of the traded bonds has helped deepen the U.S. bond markets.

While the risk-free government securities and the highest rated corporate bonds with AAA and AA ratings are frequently traded, bonds of lower investment grades and speculative grades are hardly traded in the Indian bond markets. There are several reasons behind the lack of trading in high- yield bonds:

- **Difficulty in price discovery:** There has been very little data available on the recovery rate of resolved loans in various sectors. This has impacted the ability to compute the fair values of low rated bonds and thereby leading to difficulty in discovery of prices of such bonds.

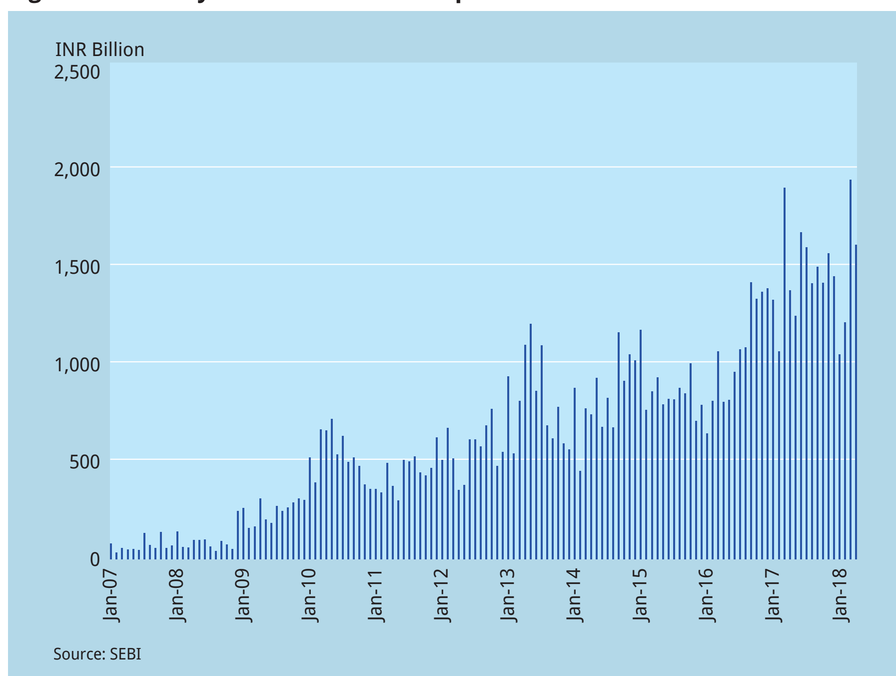
- **Inadequate legal framework:** Prior to 2016, there was no law to specifically address insolvency in India. The cases of corporate insolvency were resolved either bilaterally or through multilateral consultative mechanisms. A corporate debt restructuring group provided the lenders with an optional multilateral platform for negotiations between the lenders and the borrowers to resolve cases of default in loans. In 2016, the Insolvency and Bankruptcy Code (IBC) was promulgated to provide a legal framework for the resolution of insolvency cases. Until 2016, the certainty of recovery of defaulted loans was quite low, thus adversely impacting the interest of investors in low-rated bonds or the underlying assets. The experience after 2016 needs to be watched for a few years.

- **Low appetite for high-yield bonds:** The institutional investors, namely the mutual funds, insurance companies, and provident funds have been prohibited, as per their respective regulations, from investing in high-yield bonds. The commercial banks are required to invest a significant portion of their total liabilities in cash and government securities, currently four percent and 19.5 percent, respectively. As a result, they do not have any significant residual appetite for corporate bonds, especially of lower ratings.

Insolvency framework

A law titled the IBC was promulgated in May 2016 and became effective in December 2016. The NPAs of the Indian banks have risen sharply since 2015. As a follow up measure, in order to speed up the resolution of large size NPAs, RBI referred to the banks, some of the largest stressed accounts for resolution under the IBC. In June 2017, RBI issued directions to banks for initiating insolvency proceedings, as per the IBC, against twelve selected corporate debtors. These loans were required to be referred to the National Company Law Tribunal (NCLT), which is the adjudicating authority under the IBC. The loans outstanding for these twelve selected debtors were estimated to be of the order of INR 2 trillion (approximately USD 330 billion). These loans constituted about 25 percent of the aggregate non-performing assets of the Indian banking sector. The IBC stipulates that creditors are required to finalise a resolution plan within a maximum of 180 days (extendable to 270 days) from the date of referring a defaulting debtor to the NCLT. In cases where a viable resolution plan is not agreed upon by the banks, within the stipulated period, they should file liquidation of the debtor in the manner prescribed under the IBC.

Figure 3: Monthly Trade Amount in Corporate Bonds



Source: SEBI

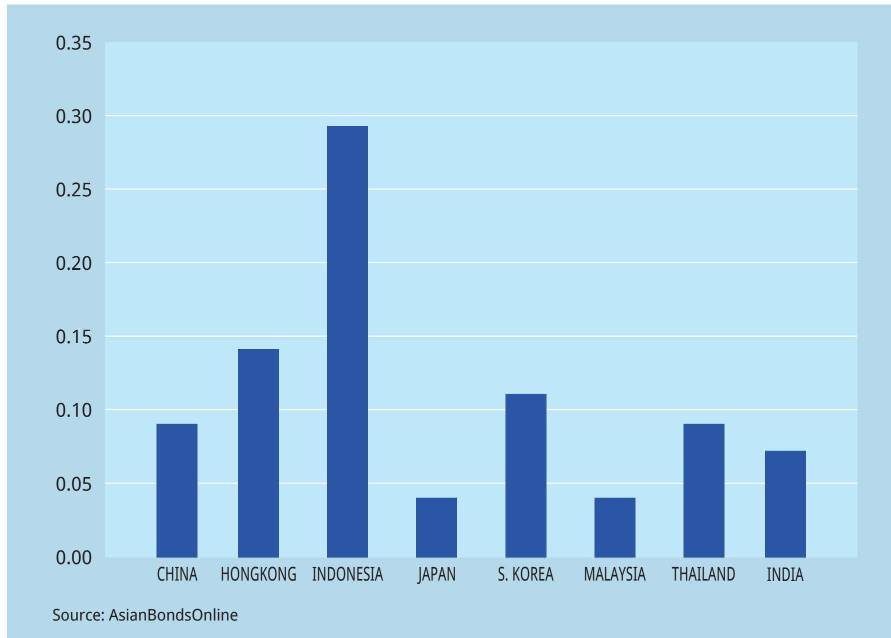
Efforts to Strengthen the Corporate Bond Market

Indian policymakers have been concerned about the lack of adequate depth and width in the Indian corporate bond market. SEBI has, in March 2018, constituted the Corporate Bonds and Securitisation Advisory Committee, chaired by Mr. H. R. Khan, a former deputy governor of RBI, to study and advise on ways to deepen the corporate bond market. Several committees have been established, in the past as well, to review the weaknesses in the bond market and suggest measures to make the market more vibrant. The last committee to work on the subject was the H. R. Khan Committee, which submitted its “Report of the Working Group on Development of Corporate Bond Market in India” to RBI on August 2016. The report had summarised the measures already taken by the government and/or the regulators and the measures that were yet to be initiated to strengthen the Indian corporate bond market.

Policy makers have, hitherto, mostly been focussed on improving the infrastructure and liberalising the regulations on participants and products in the bond markets. This has helped remove several obstacles to the growth of the bond markets in the past. The average monthly turnover in the corporate bond market has increased 16-fold in the last decade (Figure 3).

However, the Indian corporate bond

Figure 4: Corporate Bonds Turnover Ratio in Asia



Source: AsianBondsOnline

market is yet to catch up with some of its Asian peers in terms of depth, as indicated by the ratio of turnover to outstanding amount of bonds (Figure 4).

Recent Policy Initiatives

GOI and RBI have recently initiated some efforts to shift the excessive financing of loans from the banks to the bond markets. Some of these measures are as follows:

1. RBI has stipulated that any credit exposure of a bank to a large corporate borrower above a specified limit shall be subject to a risk-weight higher than that ordinarily prescribed for such a borrower. This is to encourage large corporate borrowers to diversify the sources of financing beyond the banking system.

2. The government has asked the insurance regulators, in the FY2018-2019 annual budget, to allow the insurance companies to invest in corporate bonds of "A" rating, which was not allowed earlier.

The last few years have also witnessed some developments that should help the bond markets to develop:

- Growth of the securitisation market, based on the receivables of power and road sector companies;

- Launch of infrastructure development funds (IDFs) which are focussed on financing of infrastructure projects;

- Development of some innovative financing instruments; and

- Launch of a new bankruptcy resolution law, which would enhance confidence in recovery of defaulted loans by the creditors.

Suggestions for Way Forward

In addition to the issues that have been earlier highlighted by various committees, there are certain structural issues that pose severe roadblocks to the deepening of the bond market. A few suggestions on the issues are as follows.

- **Monetary and fiscal framework:** The large fiscal deficit of the government leads to an elevated demand for funds. In a situation of market cleared prices, this would lead to a rise in interest rates which would settle at the equilibrium market rate. However, the biggest investors in the government bonds are Indian banks, which are mandated to invest a minimum of 19.5 percent of their deposits in government securities as their statutory liquidity ratio (SLR) requirement. The SLR acts as a policy constraint on the free discovery of the price of money. The artificially suppressed interest rate on government securities has imperfect consequences on other sections of the bond market. The participants in the market are inordinately focussed on the behaviour of the government deficit and the issuance calendar of government bonds. As a result, the interest of banks in the corporate bonds market gets affected.

  The policy on SLR should be liberalised to allow banks the flexibility to manage their investments in line with the overall prudential regulations of the banking system.

- **Absence of sound credit market mechanisms and price discovery:** The Indian banking system has been predominantly owned by the government until now. The public sector banks (PSBs) account for about 70 percent of the Indian banking system. The PSBs are characterised by skewed managerial incentives and sub-optimal returns to all, including minority, shareholders. However, a related, but less obvious phenomenon has been the secondary adverse impact on the credit assessment, pricing, and trading frameworks of the entire banking system, beyond the PSBs. The private sector banks, in themselves, are better aligned with incentives for appropriate credit assessment and pricing. However, in practice, they are often constrained to behave similarly to their PSB counterparts, on account of the dominant competitive behaviour of the latter. In the absence of any mark-to-market or trading in loans, the banks often take on risks which are not priced appropriately by

them. While the risk residing in the loan for a few years manifests later on, the provisioning on the loans lags the risk. A common example is the credit to long term infrastructure projects.

The moral hazard issues with respect to the backstopping of PSBs by the government should be resolved.

- **Lack of focus on end-use of bond markets:** A developed bond market can serve a large section of issuers and investors. It is, therefore, imperative for the policymakers to design and implement incentives to guide such borrowers away from the banking system, as may be better suited to raise funds from the bond markets. One such set of issuers is the infrastructure project developers. This set is best suited to raise capital from the bond markets, but has been forced to rely on bank loans in the absence of deep bond markets. The government would do well to design an appropriate process to partner with such issuers so that the development of bond markets is done jointly and efficiently. This would also imply that the investor base for the funds needs to be widened.

  A comprehensive review of the financing of infrastructure projects should be conducted to develop more efficient guidelines for the same.

Conclusion

The Indian bond market is among the largest Asian bond markets. It has evolved over the last decade and has the potential to be a large and deep market for domestic and global issuers, intermediaries and participants. There have been significant recent developments like increased foreign portfolio limits and a strong bankruptcy code that should encourage the market participants. GOI and the regulators need to keep working further on minimising the residual obstacles for the deepening of the bond markets.

Notes

*1 World Bank Open Data. https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=IN

*2 Data based on business statistics published by Clearing Corporation of India Limited (CCIL)

*3 CMIE and RBI database

References

Department of Economic Affairs, Ministry of Finance. (2018) *"Economic Survey of India 2017-2018."*

H. R. Khan Committee. (2016) "Report of the Working Group on Development of Corporate Bond Market in India August 2016," Rtrieved from http://www.pfrda.org.in/WriteReadData/Links/Corporate%20Bond%20Market984d464f-b7cb-4cd1-a193-a79b685bb115.pdf

Igata, Masahiko, Taki, Toshio and Yoshikawa, Hiroshi. (2009) "Examining the US Corporate Bond Market and the Changing Environment for Japan's Corporate Bond Market." *Nomura Journal of Capital Markets. 1(4)* , Winter 2009. Retrieved from www.nicmr.com

Press Information Bureau, Government of India and NITI Aayog. (2018) "Q4 Estimates of GDP a reflection of continuing momentum of growth: Economic Advisory Council to Prime Minister."
Retrieved from http://pib.nic.in/newsite/PrintRelease.aspx?relid=179676

Reserve Bank of India. (2017) "Report on Trend and Progress on Banking in India 2016-17." Retrieved from https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/0RTP20161778B7539711F14E088A31D52351BF6440.PDF

Reserve Bank of India. (2018) "Investment by Foreign Portfolio Investors (FPI) in Government Securities – Medium term Framework – Review." Retrieved from https://www.rbi.org.in/Scripts/NotificationUser.aspx?Id=11241&Mode=0

HEMANT MANUJ

Associate Professor and the Head of the Finance Area at S. P. Jain Institute of Management & Research

Dr. Hemant Manuj is an Associate Professor and the Head of the Finance Area at S. P. Jain Institute of Management & Research (SPJIMR). He teaches courses in Finance which include Corporate Finance, Securities and Portfolio Management, and Risk Management. He previously worked in the corporate sector for over two decades in the areas of securities regulation, fund management, equity research, risk management, portfolio management, and stressed assets prediction and resolution. He last served as Head – Portfolio and Market Risk Management at IDFC Ltd. and as Head - Early Warning Signals at IDFC Bank, a leading Indian bank.

Dr. Manuj is a Fellow in Management (Finance & Control) from the Indian Institute of Management, Calcutta and a certified Financial Risk Manager from the Global Association of Risk Professionals (GARP). He also holds a Bachelor of Technology degree from the Indian institute of Technology (ISM) Dhanbad and is an Associate of the Institute of Cost & Works Accountants of India.

He has published in prominent Indian business dailies and journals and has also served as a consultant to several leading Indian financial institutions. He is passionate about studying the emerging trends in firm behaviour and policy issues in global corporate finance and markets.