

RE-IMAGINING MUNICIPAL FINANCES: EXPLORING THE SCOPE AND CHALLENGES OF MUNICIPAL BOND MARKET IN INDIA

VIPANCHI V

Assistant Professor, JAIN (Deemed to be University), Bangalore, Karnataka.
Research Scholar, Department of MBA & Research Centre, RNS Institute of Technology, Channasandra, Bengaluru-5600, Affiliated to Visveswaraya Technological University, Belagavi, Karnataka.

Dr. U BHOJANNA

Professor and Dean, Department of MBA & Research Centre, RNS Institute of Technology, Channasandra, Bengaluru-5600, Affiliated to Visveswaraya Technological University, Belagavi, Karnataka.

Abstract

The cities are the centres of India's economic and demographic future. However, their infrastructure cannot be funded solely by grants and subsidies. Municipal bonds, issued through public offerings or private placements, are becoming a key link between the capital markets and urban development. Properly organised and professionally administered, these tools will bring fiscal restraint, access to long-term funding and allow cities to change their reliance on grants to actual creditworthiness. We are also remaking urban finance, and municipal bonds are not merely an option- it is also a stone whose presence is necessary to construct strong, responsible, and investment-capable Indian cities.

Keywords: Municipal Bond, Credit Rating, Municipal Finance, Urban Infrastructure.

INTRODUCTION

Municipal bonds (also known as muni bonds) are local debt instruments issued by municipal entities to finance infrastructure projects, including roads, sewage, sanitation, hospitals, schools, airports, and water supply. They are government-sponsored and considered relatively safe investments. These are the two principal types: general obligation bonds, which are serviced via the municipal revenues, and revenue bonds, which are repaid via the income of certain projects.

India's municipal bond market began in 1997 with the Bengaluru Municipal Corporation but gained traction after SEBI's 2015 regulatory framework. Since then, over three dozen ULBs—including Pune, Indore, Hyderabad, Ahmedabad, and Lucknow—have issued bonds, raising about ₹3,134 crore between June 2017 and May 2025.

Increased investor confidence is encouraged by the use of better credit structures, including ring-fenced revenues (such as property tax or user charges), escrow accounts, and protective mechanisms such as Debt Service Reserve Accounts (DSRA) and Sinking Fund Accounts (SFA). These engines guarantee on-time repayments and have enabled the majority of issuances to be rated AA or AA+ even when the underlying municipal finances are modest.

In addition to stimulating bond issuance, AMRUT 2.0 has provided incentives to the Ministry of Housing and Urban Affairs (MoHUA) to allow the granting of 13 crore per 100 crore raised (up to 26 crore) with respect to green bonds and further incentivise the

issuance of green bonds through the NCS framework under the SEBI. Funding may also be made available to smaller ULBs through pooled municipal bonds, issued by state-level finance organisations.

The next area of growth (after ESG-linked bonds) is green and eco-linked bonds, with cities such as Indore, Ghaziabad, and Pimpri-Chinchwad issuing them, which are oversubscribed within the framework of SEBI's sustainability standards.

In Karnataka, 38.67% of the population is urban (Census 2011), showing sharp regional variations—Bangalore is highly urbanised (90.94%), while Kodagu is the least (14.61%). Urbanisation is concentrated, with 70% of the state's urban population living in just 10% of towns. Bangalore's dominance has led to imbalanced regional development, drawing most investments and population while straining its infrastructure.

The state aims to promote inclusive, sustainable, and equitable urban growth through collaboration with ULBs and stakeholders. Despite several state and central initiatives, Karnataka still faces challenges in meeting growing infrastructure demands, especially in water supply, sanitation, and energy, due to rapid population growth and uneven urban development.

REVIEW OF LITERATURE

Geol, M. M., and Gage, I. (2021) analyzed the trends in public expenditure of municipalities and panchayats in Haryana. The study revealed that such expenditures play a significant role in promoting economic growth. However, it also highlighted that the municipalities' own financial resources are insufficient to meet their expenditure needs. The authors emphasized the necessity for adequate government grant transfers and the presence of efficient, responsive personnel and elected representatives to ensure the smooth and effective functioning of municipalities.

Chowdary, P., and Samanta, G. (2021) examined the municipal finances and expenditure patterns of urban local bodies in West Bengal. The study found that revenue expenditures consumed most of the income, leaving little for essential services, leading to dependence on higher tiers of government. It also highlighted disparities among ULBs, with larger ones generating more revenue due to stronger economic bases, while smaller bodies faced persistent financial constraints.

Govinda Rao, M. (2019) analyzed the finances of the Municipal Corporation of Greater Mumbai, aiming to identify reform areas essential for fostering agglomeration economies. The study examined key challenges related to urban infrastructure, public service delivery, and the constraints in mobilizing and collecting the corporation's own revenues. It highlighted the need for comprehensive reforms in legal, regulatory, and governance frameworks, along with a stronger focus on resource mobilization to enhance the efficiency and quality of public service delivery.

Gayatri, K. (2018) analyzed the trends in revenue and expenditure of local bodies in Karnataka, focusing on the recommendations of the first three State Finance

Commissions and the actual fiscal transfers from the State and Union governments. The study revealed that local governments in India, particularly in Karnataka, remain heavily dependent on financial assistance from higher levels of government to carry out their mandated functions effectively.

Mathur, Om Prakash (2018) examined infrastructure development and financing in urban local bodies, focusing on key sectors such as water supply, sanitation, waste management, electricity, and roads. The study identified a significant shortfall in service provision and noted a decline in the overall revenues of the municipal sector between 2007–08 and 2012–13. It emphasized that municipal bonds and public-private partnerships can serve as crucial instruments for strengthening infrastructure development in urban local bodies.

Maurya, Richa, and Singh, Bhanu Pratap (2017) examined the relationship between economic growth and public expenditure in India, analyzing both long-term and short-term dynamics among economic growth, public spending, and inflation. The study found that while increased public expenditure promotes economic growth in the long run, in the short run it also generates inflationary pressures. Moreover, inflation exerts a negative influence on economic growth in both periods, indicating that due to inflationary effects, public expenditure in the short run fails to produce sustainable growth outcomes.

Singh, Charan, and Singh, Chiranjiv (2015) analyzed the financial needs of urban local bodies for infrastructure development, focusing on plan allocations, Finance Commission grants, and municipal bonds. The study noted a steady rise in grants across successive Finance Commissions and emphasized strengthening own-source revenues through tax and non-tax measures to enhance fiscal sustainability.

Ramakrishna Nallathiga (2015) provided a detailed explanation of the operation of municipal bonds, distinguishing between taxable and non-taxable types. The study concluded that municipal bonds hold significant potential for financing infrastructure development in smart cities. Nallathiga further emphasized the need for strengthening institutional capacity and financial management within urban local bodies to enhance the effective utilization of such financing instruments.

M. Chandrasekaran and Katayama (2012) highlighted that municipal development projects in India are often constrained by financial limitations and central institutional structures. Referring to the 12th Finance Commission, they noted significant funding shortfalls, particularly in sectors like water and sanitation. The study emphasized that limited autonomy to issue municipal bonds forces municipalities to depend on central transfers, while municipal bonds present a viable alternative for financing urban infrastructure.

N. Govinda Rao and Richard M. Bird (2010) analyzed the state of urban finance in India and explored strategies to strengthen the financial capacity of municipal bodies. The study emphasized that urban local bodies play a vital role in efficiently allocating essential goods and services such as water supply, sewerage, transportation, recreation, and education. It further examined the key revenue sources available to these bodies,

including local taxation, intergovernmental transfers, and infrastructure financing mechanisms, highlighting the need for reforms to enhance fiscal sustainability and service delivery efficiency.

Research Problem

Rapid urbanization has exerted severe pressure on urban infrastructure, creating a growing gap between infrastructure demand and available resources. Despite the urgent need for large-scale investment to improve basic urban services, municipalities lack the financial autonomy and revenue-generating capacity required to fund and sustain such infrastructure projects. This raises critical concerns about the fiscal sustainability, governance capacity, and financing mechanisms of Urban Local Bodies in addressing the challenges of urban infrastructure development.

Research Gap

From the studies conducted so far, there is limited clarity regarding the significance of credit ratings in the issuance of municipal bonds. While obtaining a credit rating can promote financial discipline among Urban Local Bodies (ULBs), the adoption and success of municipal bonds have shown remarkable progress globally but remain relatively limited in India. Hence, this study aims to address these issues by examining the prerequisites, importance of credit ratings, and challenges associated with issuing municipal bonds in the Indian context.

Research Questions

What are the key prerequisites for Urban Local Bodies (ULBs) to issue municipal bonds in India?

How does credit rating influence the issuance and success of municipal bonds?

In what ways can obtaining a credit rating enhance financial discipline among ULBs?

What are the major challenges faced by ULBs in issuing municipal bonds in India?

Research Objective

1. To study the pre-requisite for issuing municipal bonds.
2. To study the importance of credit rating for issuing bonds.
3. To analyse the relation between credit rating and financial discipline among the ULBs
4. To study the challenges of issuing Municipal Bonds.

RESEARCH METHODOLOGY

The descriptive research method is used to provide an overview of municipal bonds and to understand the process of raising money through municipal bonds. The trend in municipal bond issuance in India is analysed using an analytical research method. The sources used to obtain secondary data included Government of India, reports by other

institution(s) or agencies like CARE, Indian Urban Infrastructure and Services, working papers and websites like National Stock Exchange (NSE), Bombay Stock Exchange (BSE), city finance, C bonds, INDmoney were used to find out the relevant data that would be used in conducting this study.

An analysis of the trend in municipal bond issuance in India is presented in a Bar graph. The article is limited to research on the municipal bond market applied to Indian municipal corporations and their municipal bonds.

Trend in municipal bond issuances since last seven years (in Rs. crore)

Financial Year (FY)	City / Municipality	Bond Issuance (₹ Crore)
FY2018	Pune	200
FY2018	Ahmedabad	200
FY2018	Hyderabad	200
FY2019	Ahmedabad	200
FY2019	Surat	200
FY2019	Hyderabad	195
FY2019	Bhopal	175
FY2019	Indore	139.9
FY2019	Visakhapatnam	80
FY2020	Hyderabad	100
FY2021	Lucknow	200
FY2022	Ghaziabad	150
FY2022	Vadodara	100
FY2023	Indore	122
FY2024	Pimpri Chinchwad	200
FY2024	Ahmedabad	200
FY2024	Vadodara	100
9MFY2025	Rajkot	100

ICRA REPORT -2025

Pre-Requisites for Issuing Municipal Bonds

Before issuing municipal bonds, Urban Local Bodies (ULBs) must ensure compliance with certain critical prerequisites to establish financial credibility, regulatory conformity, and investor confidence.

Credit Rating: The ULB must possess an active standalone credit rating. It is expected that the ULB maintains an outstanding entity credit rating reflecting its financial health and repayment capacity.

Audited Financial Statements: The ULB should have audited accounts completed up to the latest financial year, with audits finalized within six months of the financial year's closure.

Regulatory Framework: The municipal legislation must permit bond issuance, including provisions for escrow of receivables, creation of charges on assets or receivables, and mechanisms for debt protection and repayment security.

Eligibility Criteria: The ULB should meet the eligibility conditions outlined under the SEBI (Issue and Listing of Municipal Debt Securities) Regulations, 2015, which include:

- Preparation of accounts as per the National Municipal Accounting Manual (NMAM) for at least three consecutive years.
- A surplus income record over the past three financial years.
- No defaults in the previous year.
- No prohibitory or debarment orders from SEBI.
- No instances of wilful default by the municipal entity or its officials.

Management Information System (MIS): The ULB should have a robust MIS capable of generating and reporting accurate, timely information in accordance with **Schedule I and Schedule V** of the SEBI Regulations (2015).

Role of Municipal Advisors in the Pre-Issuance Phase

Municipal advisors serve as the cornerstone of the pre-issuance process, bridging the gap between municipalities and the complex regulatory environment of the bond market. Their expertise ensures that the issuance is strategically structured, financially sound, and fully compliant with statutory norms. Acting as fiduciaries, they safeguard the municipality's interests while enhancing transparency, financial discipline, and market readiness.

The process begins with a comprehensive assessment of the ULB's financial position, including the analysis of revenue sources, expenditure obligations, and debt sustainability. Based on this evaluation, advisors undertake debt structuring, determining the most appropriate bond type—whether fixed-rate, variable-rate, or callable—to align with the municipality's fiscal capacity and capital investment objectives.

Ensuring regulatory compliance is another central function, as advisors guide municipalities in adhering to SEBI, state, and local regulations, including disclosure requirements and tax obligations. They also formulate a pricing strategy to balance investor appeal with cost efficiency, using financial modeling to simulate market conditions and optimize returns.

Advisors further contribute to marketing and investor outreach, preparing the Official Statement—a document akin to a prospectus—that discloses financial and operational details of the issuer. They coordinate with underwriters, bond counsel, and auditors to ensure a cohesive issuance process and, post-sale, conduct a performance review to evaluate outcomes and inform future issuances.

Ultimately, the municipal advisor's role is strategic and integrative, extending beyond transaction execution to fostering the long-term financial sustainability of the ULB. Their involvement in the pre-issuance phase establishes a foundation of fiscal discipline, investor trust, and market credibility—essential components for a successful municipal bond offering.

Importance of Credit Rating for Issuing Bonds.

India requires any bond issuance (except Government bonds, which are rated T-bills) to be rated by a Credit Rating agency to access the market. The rating agencies can also conduct regular credit profile surveillance and review the credit ratings of outstanding bonds after each year of issue.

Credit ratings indicate the probability of default for the proposed bond and thus play a very important role in bond pricing. The rating of a Bond is related to the risk premium of a bond and, therefore, the required yield of the bond/ coupon interest of a bond issue, as well as the investors who can purchase the issue. The nomenclature for long-term debt ratings is alpha, with the highest credit quality usually represented by AAA, all the way down to D, which represents a high level of risk and a defaulted security. The following are the parameters that are usually assessed through giving a Municipal Bond credit rating:

1. The revenue potential and economic profile of the city.
2. Financial outlook and earning potential of the ULB.
3. Debt position
4. Organisational capability was in the form of project implementation track record, management information systems, Accounting and audit practices, etc.
5. Fiscal independence and ULB authority.
6. Project sustainability and financial feasibility of co-finance.

The Role of Credit Ratings and Risk Assessment in Market Preparation

Credit ratings and risk assessment play a pivotal role in preparing Urban Local Bodies (ULBs) for entry into the municipal bond market. They serve as essential tools for evaluating financial credibility, managing borrowing costs, and fostering investor confidence.

Credit Rating Agencies (CRAs): Specialized institutions such as CRISIL, ICRA, and CARE assess the creditworthiness of municipal issuers. They evaluate financial stability, debt obligations, governance quality, and the broader economic environment to assign a rating that reflects the issuer's capacity to service its debt.

Rating Scales: Credit ratings typically range from 'AAA' (highest safety) to 'D' (default). Most municipal bonds are categorized between 'AA' and 'BBB', indicating investment-grade quality and moderate to high creditworthiness.

Determinants of Ratings: CRAs consider diverse factors such as the ULB's revenue base, debt burden, fiscal management, economic resilience, administrative efficiency, and political stability.

For instance, a city with diversified revenue streams and transparent financial practices tends to receive higher ratings than one dependent on a narrow income base.

Impact on Interest Rates: Credit ratings directly influence borrowing costs. A higher rating enables the ULB to issue bonds at lower interest rates, reducing debt servicing costs, while lower ratings lead to higher interest premiums due to perceived risk.

Investor Confidence: Strong credit ratings enhance investor trust, making the bonds more attractive and easier to sell. They also improve liquidity in secondary markets, broadening investor participation.

Risk Assessment Tools: In addition to ratings, ULBs and investors employ analytical tools such as financial modeling, sensitivity analysis, and stress testing to evaluate potential risks under varying economic scenarios.

Case Illustration: The City of Detroit's bankruptcy in 2013 underscores the dynamic nature of credit risk. Despite holding a 'BBB' rating from S&P a year prior, rapid fiscal deterioration led to default, emphasizing the need for continuous monitoring beyond static ratings.

Regulatory Oversight: Following the 2008 global financial crisis, regulators imposed stricter norms on CRAs to ensure transparency, accountability, and consistency in rating methodologies, thereby mitigating conflicts of interest.

Alternative Ratings: Some issuers seek ratings from multiple or specialized agencies to obtain a broader and more nuanced assessment of their creditworthiness, improving investor perception and market reach.

Credit Enhancement through Insurance: Certain municipal bonds are insured to guarantee repayment even in the event of default. Such insurance acts as a credit enhancement mechanism, often resulting in higher ratings and increased appeal among conservative investors.

In conclusion, credit ratings and comprehensive risk assessments form the cornerstone of a well-prepared municipal bond issuance strategy. They not only determine the cost and success of fundraising efforts but also instill fiscal discipline within ULBs. However, they must be complemented with robust financial management and due diligence to ensure sustainable and credible market participation.

Challenges in the Issuance of Municipal Debt

Although the issue of Municipal Bond issues had been addressed since the mid-1990s, they have remained relatively few in number and value. Although several ULBs have accessed the capital markets through bond issuance, only a very few have managed to make bond financing a sustainable alternative to meet their requirements. This is due to the four demand-side factors:

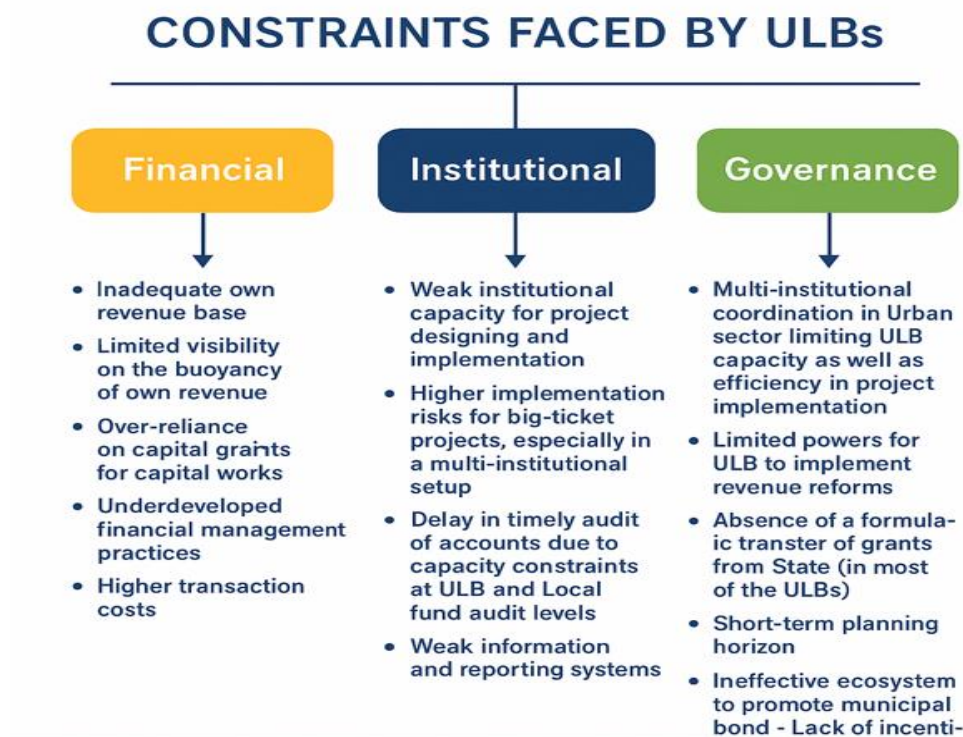
Narrow Revenue Base and Lack of Revenue Certainty and Buoyancy: ULBs are usually associated with a small base of revenue and insufficient revenue certainty and buoyancy. Despite a few ULBs recording sharp improvements in property taxes, user charges, and fees, their own revenue streams are usually poorly exploited due to

administrative capacity constraints and regulatory weaknesses. The vast majority of ULBs lack sufficient surplus revenue to adequately absorb and service debt.

Excessive Dependence on Grants for Capital Investments: Capital investments are likely to be overly reliant on grants. Although the growth in grant support from the Government of India and State Governments has been quite considerable, it has not been capitalised on. * Weak financial management and accounting systems: Although some ULBs have embarked on developing their financial management and accounting systems under urban reforms, the general accounting and financial management processes in most ULBs could use improvement, and some follow-up measures, such as computerisation and integration of MISs, staffing and training, and finalisation of accounts and audit, could be done in time.

Poor Conceptualisation, Implementation and Management of Bankable Projects: With the above limitations, the conceptualisation, implementation and management of bankable projects become impaired severely, and projects end up being funded without proper consideration of sustainable funding of the O&M and delivery.

Table: Constraints Faced by Urban Local Bodies (ULBs) in Municipal Bond Issuance



Such limitations are evident in the credit ratings of ULBs (2006-11) initiated by MOUD, in which less than a third were assigned a rating of A or higher. Building an exciting Municipal Bond market would therefore require greater effort to overcome the above

limitations. Although certain supply-side stimulus and push would certainly be welcome, this paper aims to pay a bit more attention to the creation of demand-side stimulus by allowing ULBs to enhance their credit positions and gain access to capital markets.

Findings And Suggestions

The analysis highlights that strong credit structuring mechanisms are essential to enhance investor confidence and ensure the financial stability of municipal bond issuances. Establishing escrow accounts provides assurance of timely debt repayment by securing and ring-fencing key revenue streams. Devolution or grant intercepts serve as a reliable backup mechanism, leveraging stable transfers from state and central governments to mitigate repayment risk. Furthermore, charges or mortgages on ULB assets act as tangible security, strengthening the credibility of bond issues. Finally, partial credit guarantees from financial institutions further enhance the credit profile of ULB bonds, lowering borrowing costs and improving market access. Overall, a layered credit enhancement structure — combining escrowed revenues, reserves, collateral, and guarantees — is recommended to improve creditworthiness, attract long-term investors, and promote sustainable municipal financing

CONCLUSION

The success of municipal bond financing depends on the financial discipline, transparency, and long-term planning of Urban Local Bodies (ULBs). Strengthening accounting systems, ensuring timely audits, and maintaining high-quality financial disclosures are essential to build investor confidence. Developing well-prepared, ring-fenced projects with clear implementation and funding mechanisms further enhances credibility. Additionally, maintaining a shelf of sustainable projects promotes continuous investor engagement, while appropriately sizing bond issuances ensures cost efficiency and market viability. Lastly, establishing escrowed revenue mechanisms reduces investor risk and enhances creditworthiness, thereby supporting the sustainable growth of the municipal bond market.

Reference

- 1) Ahluwalia, I. J. (2011). Report on Indian urban infrastructure and services. Government of India. <https://icrier.org/pdf/FinalReport-hpec.pdf>
- 2) Banerji, S., et al. (2013). Constraints and prospects of financing via municipal bonds in India: An analysis with case studies (Working Paper No. C-35037-INC-1). International Growth Centre. <https://www.theigc.org/wp-content/uploads/2013/04/Banerji-Et-Al-2013-Working-Paper.pdf>
- 3) Baxi, M. (2018, January 30). Indian cities: An important step towards economic development. Indus Dictum. <https://indusdictum.com/2018/01/30/indian-cities-important-step-towards-economic-development-mihir-baxi>
- 4) Bholey, M. (2016). India's urban challenges and smart cities: A contemporary study. *Scholedge International Journal of Business Policy & Governance*, 3(1), 17.
- 5) Bhojanna, U. (n.d.). A study on sustainable sources of finance for financing the urban infrastructure projects in Karnataka.

- 6) V, V., & Bhojanna, U. (2025, May 26). A study on analysing the financial health and risk bearing capacity of the urban local bodies for sustainable financing. *J Neonatal Surg*, 14(27S), 616–623. <https://www.jneonatalurg.com/index.php/jns/article/view/6490>
- 7) Government of India. (2021). Local government directory. <https://lgdirectory.gov.in>
- 8) Institute of Chartered Accountants of India. (2018). Municipal bonds for financing urban infrastructure in India: An overview. <https://cpfga.icaai.org/wp-content/uploads/2019/06/municipal-bond.pdf>
- 9) Jha, R. (2019, September). Urban local bodies, municipal bodies and due diligence. Observer Research Foundation. <https://www.orfonline.org/expert-speak/urban-local-bodies-municipal-bonds-due-diligence-55073>
- 10) Kapoor, G., & Pati, P. (2017). Discussion paper: Municipal bond market in India (PIF/2017/FERU/DP/06). Pahle India Foundation. <http://pahleindia.org/pdf/publication/Municipal-Bond-Market-in-India.pdf>
- 11) Khan, H. (2013). Financing strategies for urban infrastructure: Trends and challenges. Reserve Bank of India. https://www.rbi.org.in/scripts/BS_SpeechesView.aspx?Id=824
- 12) Ministry of Finance, Capital Markets Division. (2009). Report of the committee on comprehensive regulation for credit rating agencies. https://www.academia.edu/6705501/MINISTRY_OF_FINANCE_CAPITAL_MARKETS_DIVISION_Report_of_the_Committee_on_Comprehensive_Regulation_for_Credit_Rating_Agencies
- 13) Ministry of Finance, Department of Economic Affairs, Government of India. (2017). Guidance on use of municipal bond financing for infrastructure projects. <https://www.pppinindia.gov.in/documents/20181/33749/Guidance+on+use+of+Municipal+Bonds+for+PPP+projects.pdf/037cb143-8305-4c57-8f3c-32e5a329297f>
- 14) Ministry of Urban Development, Government of India. (2006). Pooled finance development scheme. [http://mohua.gov.in/upload/uploadfiles/files/toolkit_pfds\(1\).pdf](http://mohua.gov.in/upload/uploadfiles/files/toolkit_pfds(1).pdf)
- 15) Mumbai Metropolitan Region Development Authority. (2019). MMRDA presents Rs. 16,909-crore budget. <https://mmrda.maharashtra.gov.in/documents/10180/14737491/AUTHORITY%2BBUDGET-RELEASE-28-2-19+%281%29%282%29.pdf/495933ab-8cde-4d57-ae9a-2e7e519ac12a>
- 16) Mukhopadhyay, A. (1994). Politics and bureaucracy in urban governance: The Indian governance. *The Challenge of Urban Governance*, 4, 109.
- 17) Press Trust of India. (2021, April 8). Ghaziabad Municipal Corp lists first green bonds. *The Economic Times*. <https://economictimes.indiatimes.com/markets/stocks/news/ghaziabad-municipal-corp-lists-first-green-bonds/articleshow/81974055.cms>
- 18) PRS Legislative Research. (2020). Report summary: Report of the 15th Finance Commission for FY 2020–21. https://www.prsindia.org/sites/default/files/parliament_or_policy_pdfs/Report%20Summary_15th%20FC_2020-21.pdf
- 19) Reserve Bank of India. (2020). Master directions - Priority sector lending (PSL): Targets and classification (RBI/FIDD/2020-21/72). https://www.rbi.org.in/Scripts/BS_ViewMasDirections.aspx?id=11959#Categories
- 20) Sabnavis, M., & Mehta, G. (2014). Municipal bond market in India: The way ahead. CARE Ratings. <https://studylib.net/doc/12599809/municipal-bond-market-in-india-the-way-ahead>
- 21) Samal, M. (2019). The role of legal and social policies in attaining sustainable urban development in India. *European Journal of Sustainable Development*, 8(4), 140. <https://doi.org/10.14207/ejsd.2019.v8n4p140>

- 22) SBI Mutual Fund. (2018). Municipal bond markets in India – Perspective from investor viewpoint. http://mohua.gov.in/upload/uploadfiles/files/17%20Presentation_on_Muni_Bonds_in_India_Rajeev%20Radhakrishnan.pdf
- 23) Singh, A. (2020). Special purpose vehicle in smart cities. IIPRD. <https://www.iiprd.com/special-purpose-vehicle-in-smart-cities/>
- 24) Vemuri, S. (2020). Rating criteria for municipal and urban local bodies. CRISIL Ratings. <https://www.crisil.com/mnt/winshare/Ratings/SectorMethodology/MethodologyDocs/criteria/Rating%20Criteria%20for%20Municipal%20and%20Urban%20Local%20Bodies.pdf>
- 25) Vinod Kothari Consultants Pvt. Ltd. (2019). Municipal bonds in India: An idea whose time has come. http://vinodkothari.com/wp-content/uploads/2019/11/Municipal-Bonds_Way-Forward.pdf