Linking City Financing Needs with Domestic Capital: Indian Experience

Rajivan Krishnaswamy

Abstract

Increasing demands for infrastructure investment in Indian cities require both public resources and private financing. Since the 1990s, India has implemented municipal finance reforms to facilitate the financing of infrastructure, including reforms to attract private finance. The old financing mechanism before the 74th Constitutional Amendment was unsustainable and inappropriate, and modern financing with half-hearted attempts at promoting sustainable debt coupled with an attachment to PPPs have not improved systemic access for cities to finance.

Keywords: Conventional Financing, Modern Financing, Debt Financing, Own source revenue,Municipal Bonds,Pooled Funds and urbsn Missions.

Introduction

Cities in India as with other cities in the developing world, are facing increasing demand for investments in growth-inducing infrastructure, such as roads, and transport systems, etc., as well as environmental investments, such as in water and sanitation. Further, given the scale of financing required for the needed investments and the limited nature of government grants, the imperative of leveraging these public resources with private finance is well recognised in both countries and indeed the region as a whole.

To attract private finance, cities must have the legal authority to borrow, create, and pay for the use of assets over time and be able to demonstrate clear revenue streams to repay the potential lender. Thus, the effective demand for debt financing would depend on the rationality of the intergovernmental fiscal rules and the stability of own-source revenues (including powers over taxes and charges and the willingness to use them) – the two factors which principally determine municipal revenue streams.

Indeed, since the 1990s, actions that enhance the powers of cities to improve their own revenue sources (OSR), rationalise intergovernmental transfers (IGFT), and provide the regulations for a borrowing framework (BF) that can attract long-term capital – often called the three pillars of municipal finance – have been a part of municipal reforms in most developed and developing countries, including India. This paper aims to describe and identify the challenges and achievements and hopes to contribute to the reform process of municipal finance to facilitate the financing of urban infrastructure. Further, this paper aligns with the major theme of this book, namely to identify the impacts of decentralization reforms and the subsequent policy actions needed to improve local government autonomy

Leverage is typically achieved on a sustainable basis when there is a borrowing framework that provides access to capital for cities of all sizes and an opportunity for repetitive access (as cities need repeated financing), as opposed to one-shot special deals. This institutional agenda of linking city financing needs with domestic capital should crowd in and provide links between city financing needs and domestic private capital, reducing risks, lowering transaction costs, and removing contingent liabilities for national governments. These outcomes would require transparent rules, for example, rules of access to security mechanisms, such as escrow accounts, asset recognition, taxation, and provisioning norms. The identification of key design issues and, hence, policy actions that support leverage is the specific purpose of this paper.

Purpose

Given the importance of finance to promote sustainable cities and contribute to overall efficiencies in public expenditure, this paper:

i. Discusses the significance of the leverage of scarce government grants with domestic private sources of capital;

ii. Identifies systemic policy actions at the national and city levels that facilitate leverage; and

iii. Presents the Indian and n experiences in the context of leverage and derives potential policy implications.

Background

For discussion purposes, we divide the Indian experience into before and after the 74th Constitutional Amendment (CA), as this legislation is often considered as representing the major political and economic structuring of responsibilities and powers, creating new opportunities and challenges for commercial equity and debt financing. Further, national grant programmes, such as the Jawaharlal Nehru National Urban Renewal Mission (JNURM), explicitly require the implementation of the reforms of the 74th CA as their conditions. We then identify the key constraints for both debt and equity in the post-74th CA period, providing a basis for potential policy at the national, state and local government levels.

The main argument is that old methods of financing (such as in the style of the guarantee-backed Housing and Urban Development Corporation (HUDCO)) is inappropriate and unsustainable in the post-74th CA scenario, and modern methods of financing have yet to emerge, resulting in considerable confusion in this interregnum. At the same time, half-hearted attempts in promoting sustainable debt (such as the Pooled Finance Development Fund (PFDF)) coupled with an attachment to equity PPPs have not improved the prospects for sustainable financing.

Traditional Financing: State-guarantee Backed Financing (1950–1991)

During the period 1950–1991, the sources of municipal debt were usually limited to state governments or institutions, such as the Life Insurance Corporation (LIC) or HUDCO, on the basis of guarantees issued by the state. For example, in Tamilnadu up until 2003, municipal debt raised on this basis would constitute roughly 75% of the total or Rp7 billion (US$300 million). Two key institutional features of this kind of financing are, first, the lack of clarity at the municipal level on the size and terms of the loan and the repayments which such borrowings entail; and second, the assets being created by parastatals with no involvement of the municipality and with no parastatal responsibilities other than construction. This ad hoc method of financing has led to several water and sanitation schemes that were used in a suboptimal manner and with periodic write-offs of the debt. For example, HUDCO-backed water supply schemes in Salem led to considerable procurement of pipes and equipment but little water and limited municipal involvement. A similar situation prevailed with respect to sewerage schemes undertaken in Trichy and Tirunelveli. It is not surprising that most of these loans to municipalities of around Rp5 billion were written off subsequently. This guarantee method of financing continues to be the dominant mode in India today, especially in environmental investments.

There are several reasons why this kind of financing is unsustainable. These reasons include the unknown contingent liabilities on the state governments and lack of ownership of the municipality in the construction and maintenance of the asset, etc. From an institutional perspective, the lack of clarity on the assignment of responsibilities over mobilising finance, asset creation, and repayment is best suited to a situation where municipalities are bureaucratically administered as indifferent service providers of the state instead of as proactive creators of infrastructure. The guarantee method of financing has been dysfunctional since the 74th CA, which provides for the elected leadership of municipal governments. However, while the 74^{th} CA has changed the political basis of municipal governance, it has not been accompanied by financial reform.

A quick assessment of the 74^{th} CA from our perspective, namely the rules for mobilising finance, shows that it has not achieved much, nor could it be expected to do so. After all, national constitutions are not expected to write down rules for financing. In the US, the Waste Water Act 1970 specified standards, and pooled financing rules were separate enactments for facilitating investments. In South Africa, while the Intergovernmental Fiscal Relations specify the responsibilities for fiscal transfers, the Municipal Finance Management Act (MFMA) is a separate enactment for municipal financing. So, it is but natural that if municipalities are to be politically empowered and held responsible for investments as specified in schedule 12, there would have to be enabling policy for financing. The 74th CA, in all fairness, did mandate a State Finance Commission to ensure rational and stable fiscal transfers, but there is little tracking of this performance at the national level. As such, there is a policy vacuum on financing that has now been filled by programmes such as the JNURM, which was started in December 2005 but closed in 2014, mandating that municipalities should attempt equity PPPs to qualify for its grants. As our discussion of the conceptual framework in Section 7.2 shows, in the absence of stable demand conditions, equity PPPs are likely to fail – and most have. We now turn to an overview of the Indian debt and equity experiences.

Modern Financing (Post-1990)

While the dominant source of finance for urban infrastructure, especially environmental infrastructure, has been guarantee backed, there have been significant attempts at the micro level to move to a more rational mobilisation strategy at the level of cities and states. Mirroring global trends, in India too, especially since the 1990s, larger cities, such as Ahmedabad, Hyderabad, Nagpur, and Bangalore, have raised debt for municipal infrastructure by accessing capital markets based on credit ratings through issuing debt instruments of varying tenure on a non-guarantee mode. After a long hiatus, Pune, Indore, and Hyderabad have also followed, with total issuance amounting to around Rp8 billion since 2017.

Table 1: Municipal Bond Issuances in India
Taxable Municipal Bonds in India

City	Amount (Rp million)	Guarantee	Annual Interest	Escrow	Purpose	Rating
Bangalore Municipal Corporation (1997)	1,250	State Govt.	13%	State government grants and property tax	City roads/street drains	A- (SO)
Ahmadabad Municipal Corporation (1998)	1,000	No	14%	Octroi from 10 octroi collection points	Water supply and sanitation (WS&S) project	AA- (SO)
Ludhiana Municipal Corporation (1999)	100	No	13.5% to 14%	Water and sewerage taxes and charges	WS&S project	LAA- (SO)
Nasik Municipal Corporation (1999)	1,000	No	14.75%	Octroi from four collection points	WS&S project	AA- (SO)
Indore Municipal Corporation (2000)	100	State Govt.	13.0%	Grants/property tax	Improvement of city roads	A (SO)
Nagpur Municipal	500	No	13%	Property tax and water charges	Water supply project	LAA- (SO)

Corporation (2001)						
Madurai Municipal Corporation (2001)	300	No	12.25%	Toll tax collection	City road project	LA+(SO)
Visakhapatnam Municipal Corporation (2004)	200	No	7.75%	Property tax	Water supply project	AA-(SO)
Pune Municipal Corporation (2017)	2,000	No	7.59%	Property tax and user charges	SMART city	AA+(SO)
Indore Municipal Corporation (2018)	1,400	No	9.25%	Property tax and user charges	AMRUT	AA(SO)
Greater Hyderabad Municipal Corporation (2018)	3,950 across 2 tranches	No	8.90% and 9.38%	Property tax and user charges	Road development	AA

Tax-Free Municipal Bonds in India

Name of Municipal Corporation	Year of Issue	Purpose	Amount (Rp million)
Ahmedabad Municipal Corporation	2002	Water supply and sewerage project	1,000
Nashik Municipal Corporation	2002	Underground sewerage scheme and storm water drainage system	500
Hyderabad Municipal Corporation	2003	Road construction and widening	825

Name of Municipal Corporation	Year of Issue	Purpose	Amount (Rp million)
Hyderabad Metropolitan Water Supply and Sewerage Board	2003	Drinking water project	500
Visakhapatnam Municipal Corporation	2004	Water supply system	500
Chennai Metropolitan Water Supply and Sewerage Board	2003	Chennai water supply augmentation project	420
Ahmedabad Municipal Corporation	2004	Water supply project, storm water drainage project, road project, bridges, and flyovers	580
Chennai Metropolitan Water Supply and Sewerage Board	2005	Chennai water supply project	500
Chennai Municipal Corporation	2005	Roads	458
Ahmedabad Municipal Corporation	2005	Roads and water supply	1,000
Nagpur Municipal Corporation	2007	Nagpur water supply and sewerage project	212
Greater Vishakhapatnam Municipal Corporation	2010	Greater Vishakhapatnam water supply project	300

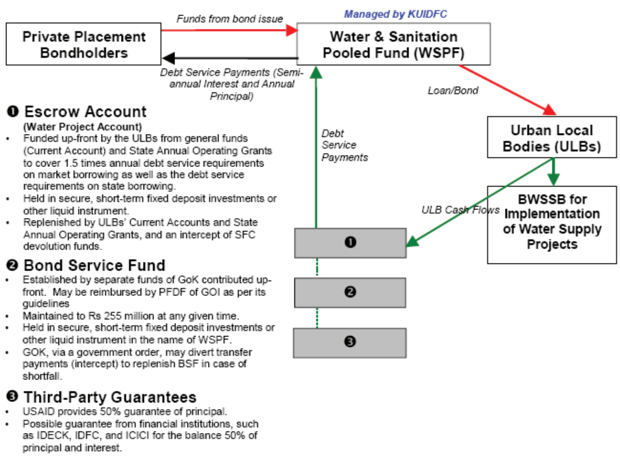
Source: Compiled by Rajivan Krishnaswamy, involving many sources.

Further still, smaller municipalities have used pooled financing structures as a more sustainable method of financing. In states such as Tamilnadu and Karnataka, where demand-side reforms have tended to be better, rational and predictable transfers and improved empowerment for municipal governments have made it easier to raise market finance at low costs on a non-guarantee mode and where the borrower-lender relationship is well defined

Box 1: Bangalore's Water Supply Project Financial Structuring

A project promoted by the Bangalore Water Supply and Sewerage Board, Karnataka Urban Infrastructure Development and Finance Corporation (KUIDFC), and the United States Agency for International Development (USAID) Financial Institutions Reform and Expansion (FIRE) project supported the Board in pooling the demands of local bodies and enabled them to raise resources from the capital market. The fund manager is KUIDFC, a state-level financial intermediary, and the security arrangements consist of an escrow, bond services fund, and guarantee by USAID. The total cost of the project is IRS 3,400 million, and the sources of funds include:

Citizen contributions	35%
Government grants	22%
Municipal bonds	30%
Subordinated loans	13%



In Tamilnadu, based on the recognition of lower costs for environmental projects, especially in small and medium-sized towns, the state government set up the Water and Sanitation Pooled Fund as a trust with limited equity and eliminated dividend expectations. This trust, with little recourse to the capital, relied on credit enhancements of a debt service reserve fund and repayment from borrowers' taxes and fees. The average size of the projects was US$1 million (drinking water connections, pumping stations, etc.), and by aggregating these demands into a pool, raised US$10 million through a bond issue (rated as AA at a spread of about 70 bps over the state government borrowing costs). A study of the bond issue of the Water and Sanitation Pooled Fund shows that domestic private debt can finance environmental infrastructure at low costs if sufficient attention is given to the design of the intermediaries' capital structure and security packages.

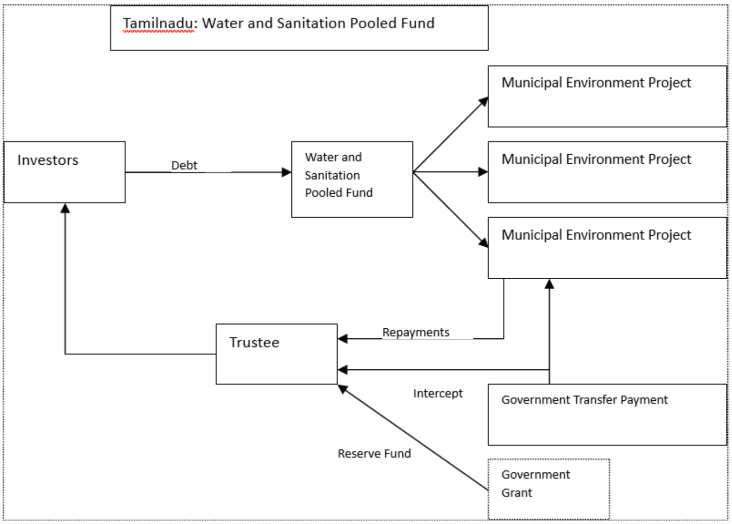


Figure 1: Structure of Tamilnadu Water and Sanitation Pooled Fund

Most independent observers would agree that Tamilnadan's performance in opening up access for environmental infrastructure was on account of three enabling factors. First, the major reforms that allowed local governments to borrow and the rationalisation of revenue transfers; second, the deepening of the Indian debt market, which enabled longer-term finance from insurance and pension companies to invest; and third, the availability of International Bank for Reconstruction and Development credit, which facilitated blending with local finance. Of these, the critical catalyst was the institutional reform since the mid-1990s.

These major urban sector reforms provided for greater powers for local governments to design, finance, and create infrastructure. A major aspect of the reforms was to rationalise fiscal decentralisation, ensuring that the revenue streams of local governments were more stable and predictable. On the supply side, it was recognised that along with enhanced powers and responsibilities, local governments needed a sustainable financing mechanism that could raise resources from domestic markets. A key first step towards this objective was to enable the intermediary to pool these demands so as to enable them to access long-term debt finance

Based on the Tamilnadu and Karnataka experiences, the national government set up a PFDF, an initiative that promised much but delivered little. There are probably several reasons as to why the PFDF has never taken off.

First, it coincided with the JNURM programme, which placed an emphasis on equity PPPs and a set of reforms which do not address the fundamental constraints on the revenue streams of municipalities for improvement. The JNURM's reform agenda – reduction of stamp duties, elimination of rent controls, and an urban land ceiling – are based on the model that rapid growth in housing, which these reforms were expected to generate, would somehow get infrastructure financed. Needless to say, this has not happened – nor is it likely to. Rent control is a fact of life at best in a few cities – in Chennai it covers less than 2% of the housing stock – and the expectation that this elimination would improve the financial status of cities is unrealistic.

Second, the JNURM has definitely improved the flows of grant finance on an unprecedented scale. Prior to the JUNRM, a plethora of GOI schemes were either restricted in geography (Mega Cities Program) or thinly spread, such as the Accelerated Urban Water Supply Scheme (AUWSS), neither of which had much impact. Therefore, the pressure to search for finance was quite intense. The JUNURM has successfully removed the pressure and at the same time eroded the incentives to leverage.

Third and more difficult to document is the policy preference for equity PPPs driven both by national policy as well as the ideological preferences of international financial institutions, which have now given up on these preferences. For example, the World Bank's India water policy of 1996 states clearly that equity PPPs are the preferred option for the water sector. Fortunately, the World Bank itself has moved away from such a position both conceptually and practically. It now finances municipal-owned water supplies in small towns outside Bangalore. National policy could also be expected to follow suit with a time lag.

Main Points

International experience suggests that coordinated action between different levels of government is needed if cities are to be provided access to systemic financing. Given the underlying asymmetry of information between lenders and borrowers, a potential market failure situation leading to moral hazard and adverse selection is likely to, and has most probably, emerged. For a significant debt market, the need for a regulatory framework for municipal debt, specifying transparent rating criteria, removal of fiscal distortions, and deepening of the capital markets by encouraging tradability, are actions to be taken by the central government. At the state level, municipal reforms, by way of specified cost recovery mechanisms and benchmarks for permissions to borrow, are necessary steps in developing a market where private capital flows can finance public infrastructure.

In a country of India's size, with a population of 1,350 million and a federal structure comprising 26 states and nine union territories, there is bound to be variety in the pace of both urbanisation as well as institutional responses. For example, the framework for own-source revenues varies significantly. In some states, there is considerable freedom to vary these at the city level, whereas in others (Shillong), several city properties are outside the jurisdiction of the city government. A similar situation prevails with reference to user charges. In Chennai, some parts of the water charges are collected by the local government, while some are collected by the utility company. Further still, there is considerable variation at the state level on the stability and reliability of fiscal transfers.

These major institutional issues are the most significant determinants of the capacity to attract private capital, debt or equity. Unless private capital can predict future revenue streams with some confidence, the flow of finance will obviously be limited. Policies that strengthen the demand side are clearly needed. It would have been logical for a national programme, such as JNURM, to target major institutional reforms on the demand side with rational transfers and the authority to raise finances and define jurisdictions, rather than being just another central government-sponsored scheme.

The present situation is one of weak demand conditions leading to unstable revenue streams that do not allow private debt or equity supply into the sector. This is coupled with functional and geographic fragmentation, which increases the counterparty risks. The rational policy response is to strengthen the institutional framework through stable intergovernmental fiscal flows and improved definitions of municipal responsibilities and powers and, thereby, reduce functional and geographic fragmentation.

The Indian experience has shown where municipalities are trusted, and the powers given to create, design, finance, and pay for its use over time have shown remarkable abilities for dealing with institutional infirmities. The Alando example in the environment sector and the Madurai Road in the transport sector demonstrate the value of investing in local governments. The setting up of the PFDF by the GOI was a policy movement in this appropriate direction of keeping faith in the local government. However, the PFDF has had very limited success, and the policy direction has been more towards the equity PPPs, especially after the JNURM launch[34]. Equity PPPs are perceived as requiring fewer tough institutional choices – especially as risks are diffused through the system, whereas debt PPPs require strong policies for devolution, which are always more difficult given the strong preference for status quo.

The question as to when policy focus turns to responding to institutional reform would in India depend, as elsewhere, on the relative strengths of the ideas and vested interests in making change possible. Normally, policy in India is based on the assumption that the greater the degree to which financial structures are reshaped to the image of those prevailing in developed countries, the more resilient they will become. The paradox is that urban financial structures in the US and Europe represent a model of private debt financing of publicly owned infrastructure and not equity PPPs.

The recent Smart Cities Program, launched in June 2015, also lacks clarity on both the financial as well as institutional aspects. Under this programme, states and the urban local body (ULB) invest equity in a special purpose vehicle (SPV) that is supposed to attract debt. With no guaranteed revenue stream, it is no surprise that these SPVs have so far been unsuccessful in leveraging private sources of finance. More troubling is the fact that the assets created by the SPV would further fragment city assets, which would reduce the size of the balance sheet and, hence, financing. From an institutional standpoint, transferring city-level assets and responsibilities back to the states implies a reversal of the 74th CA and decentralisation

[34] This programme ended in 2014 and was followed by the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) in June 2015. The aims are to support the development of sewerage networks and water supplies in 500 cities across the country.

principles. Added is the fact the central government is involved in approving the chief executive officers (CEOs) of the SPVs.

The Urban Rejuvenation Mission (Smart City Mission, AMRUT, HRIDAY, and PMAY-U – centrally sponsored schemes for infrastructure, housing, and employment, respectively) is another initiative for empowering urban local bodies. The outlays for Smart Cities Mission and AMRUT are Rp480 billion and Rp500 billion, respectively, over five years of the mission period. GOI funds and the matching contribution by the states/ULB will meet only part of the project costs. Balance funds are expected to be mobilised from other resources, including private investment. Successful implementation of these missions finally rests on ULB's efficacy in resource mobilisation and service delivery.

AMRUT reforms are some of the steps that have been taken by the government towards the financial strengthening of these ULBs. The recent updates, like 94 cities in 14 states of India receiving credit ratings from rating agencies, such as CRISIL, as part of the cities' preparations for issuing municipal bonds; and Pune Municipal Corporation raising Rp2,000 million by issuing 10-year municipal bonds, are welcome steps towards the financial empowerment of ULBs. CARE estimates that of Rp10,000 million, Rp15,000 million per annum over the next five years will be raised by way of municipal bonds – an indication of the expected growth in the market in the years to come (Niti Ayog, 2018).

These constant policy reversals do make the emergence of a sustainable financing system difficult, although it is understandable that the empowerment of local governments is often held back by vested interests favouring the status quo. The empowerment of municipalities and the strengthening of a debt system (such as PFDF) would imply greater autonomy and powers for local governments. This also implies reduced powers for higher levels of government and state-owned entities, such as water parastatals, that do not have sufficient accountability at the local level. This is a situation where those who have powers to make change possible have little incentive, and those who have the incentives have little power. The rate and spread of infrastructure creation could well depend on how this dichotomy is addressed. The present situation is disquieting.

References

1. Amariei, C., W. P. de Groen, and D. Valiante (2017), 'Improving the Investor Base for Local Currency Bond Markets in China, India and'. CEPS. https://www.ceps.eu/ceps-publications/improving-investor-base-local-currency-bond-markets-china-india-and-/
2. Andersson, L. (2014), *Local Government Finance in Europe.* MA Publications.
3. Annes, P. (2006), 'Urban Infrastructure Finance from Private Operators', World Bank Policy Research Working Paper 4045, November 2008. Washington, DC: World Bank.
4. Annes, P., G. Huet, and G. Peterson (2008), *Lessons for the Urban Century.* World Bank.
5. ADB (2017), *Meeting Asia's Infrastructure Needs, Special Report.* Manila: ADB.
6. Cities Alliance (2005), *Annual Reports 2005.* Washington, DC: Cities Alliance.
7. Fitch Ratings (2009), Infrastructure Financing in India: Lessons from the Frontline.
8. FMDV (2015), 'The Potential Catalytically Role of Sub National Pooled Finance Mechanisms', paper Presented at Addis 2015.
9. Garg, S. C. (2007), 'Overview of Urban Infrastructure Finance in India', In G.E. Peterson and P.C. Annez, eds., *Financing Cities: Fiscal Responsibility and Urban Infrastructure in Brazil, China, India, Poland and South Africa*: 108–57. New Delhi and Washington, DC: Sage Publications and the World Bank.
10. Government of India (GOI) (2009), *Report of the Thirteenth Finance Commission (2010–2015).* New Delhi: GOI.
11. GOI (2017), *Value Capture Finance Framework.* New Delhi: Ministry of Urban Development, GOI.
12. GOI, Finance Commission of India (2011), 'High Powered Expert Committee for Estimating the Investment Requirements for Urban Infrastructure Services', *Report on Indian Urban Infrastructure and Services.* New Delhi: GOI.
13. Krishnaswamy, R. (2013), 'Linking Cities with Finance', presentation at Municipal Finance Conference, Rabat.
14. Malathi S. (2007), The Tamilnadan Experience World Urban Forum (2007), published in UCLG Paper on Municipal Reforms 2012.
15. Niti Ayog (2018), *Empowering Municipalities: Way Forward.*
16. Smith, J. and T. Gihring (2006), 'Financing Transit Systems Through Value Capture', *American Journal of Economics and Sociology*, 65, pp.751–86.

17. Streeter, W. (2011), 'The Quest for Sustainable Infrastructure Finance Infrastructure Debt Adviser, Hastings Fund Management', presented to the APEC Finance Minister's Process Workshop, Washington, DC, 22–23 June.
18. USAID (2005), *Introduction to Pooled Financing, USAID, Infrastructure Reform and Finance Project.* USAID.