Finances of Municipal Corporations in Metropolitan Cities of India

A Study Prepared for the Fifteenth Finance Commission

ICRIER TEAM

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Abbreviations

ASICS Annual Survey of India's City-Systems
BBMP Bruhat Bengaluru Mahanagara Palike
CAG Comptroller and Auditor General of India

CFCs Central Finance Commissions
CSS Centrally Sponsored Scheme
FFC Fifteen Finance Commission

FSI Floor Space Index

GDP Gross Domestic product

GIS Geographical Information System
GSDP Gross State Domestic Product
GST General and Services Tax

HPEC High Powered Expert Committee

ICRIER Indian Council for Research on International Economic Relations

IT Information Technology

JNNURM Jawaharlal Nehru National Urban Renewal Mission

MCGM Municipal Corporation of Greater Mumbai

MIS Management Information System
MoUD Ministry of Urban Development
MPCs Metropolitan Planning Committees

OECD Organisation for Economic Co-operation and Development

O&M Operation and Maintenance
PRIs Panchayati Raj Institutions
PPP Public-Private Partnership
RBI Reserve Bank of India

SC/STs Schedule Caste/ Schedule Tribes

SFC State Finance Commission

TDRs Transfers of Development Rights

UA Urban Agglomeration

URDPFI Urban and Regional Development Plan Formulation and

Implementation

Chapter 1 – Towards Defining Metropolitan Economic Regions in India

By: Ayush Khare

Economic development of any country is associated with structural transformation, i.e. a decline in the relative importance of agriculture and an increasing importance of manufacturing and services. Firms and industries concentrate in specific locations to take advantage of lower transportation costs and benefit from agglomeration economies that arise through knowledge spillovers, more efficient supply chains, and specialised labour pooling. People migrate to these locations to reduce job search costs and be close to their workplaces. This process of urbanisation creates densely populated centres of non-agricultural economic activity. The modern global economy is dominated by large metropolitan regions that are centres of economic growth and prosperity. The economic power of metropolitan regions derives from the productive environments they offer firms – lower transportation costs, shared pools of labour and infrastructure, a vibrant knowledge economy, and ease of collaboration.

Global Metro Monitor 2018, a report by Brookings Institution, found that the 300 largest metropolitan cities generated nearly one-half of the world's production while accounting for a little under one-fourth of the world's workforce in the year 2016. Of the 60 best-performing metropolitan cities, 48 came from emerging economies. Hyderabad had the fastest GDP per capita growth rate at 8.7 per cent per annum among the emerging economies of the Asia Pacific.

Economic Census of India reveals that urban agglomerations in India comprising of metropolitan cities, their peripheries and sub-urban villages, are witnessing a phenomenal concentration of population and non-agricultural economic activities. Back in 1911, there were only two Indian cities with population above one million. By 1981, there were 12 such cities accounting for around 27 per cent of the urban population. As of 2011, there were 53 cities with population of one million and above, comprising around 43 per cent of India's total urban population. The seven largest urban agglomerations in terms of population in 2011 are Mumbai (18.4 million), Delhi (16.3 million), Kolkata (14.1 million), Chennai (8.7 million) and Bengaluru (8.5 million), Hyderabad (7.7 million), and Ahmedabad (6.4 million). In this study, we have analysed the finances of Municipal Corporations that govern these cities apart from National Capital Territory of Delhi which is a Union Territory and is not covered by the Central Finance Commission.

1.1 Multiple Definitions and Institutions

Even as the economic importance of metropolitan regions is beginning to be recognised, the administrative structure to govern these regions remains ambiguous, fragmented and

inefficient. The confusion is aggravated by the multiple terms and definitions used for a metropolitan economic region.

Metropolitan areas are defined in the Constitution as having a population of over one million, consisting of two or more Municipalities or Panchayats or other contiguous areas that may span over multiple districts. Even so, areas with these characteristics become metropolitan areas only when notified as such by the state government. More generally, the 74th Amendment Act formally recognized urban local governments in India but it is the state government which has the power to notify when an area is to have a specific form of urban local government.

The term 'metropolitan region' has no strict definition in India and is used by different state governments to delineate urban settlements based on urbanised and urbanisable areas, transport networks, and location of various economic activities. Use of this term started in 1960s during the first attempts to facilitate regional planning in Calcutta, Bombay and Madras.

Census of India does not recognize the term metropolitan area or region and instead uses the term 'Urban Agglomeration' (UA). An urban agglomeration is characterized by contiguity. It is a continuous urban spread constituting a town and its adjoining outgrowths, or multiple contiguous towns with their outgrowths. Kochi Urban Agglomeration, for instance, has one municipal corporation, two outgrowths, 6 municipalities, and 45 census towns. An urban agglomeration must satisfy two basic conditions – first, it must consist of at least one statutory town i.e. a place which has an urban local government such as a corporation, municipality, nagar panchayat, cantonment board, notified town area committee, etc. and second, the entire urban agglomeration must have a population of at least 20,000 as per Census 2001. There are 474 Urban Agglomerations in India according to Census 2011. Census further goes on to classify UAs based on population – ones with population between 100,000 to one million are Class 1 UAs, ones with population above one million are called million-plus UAs, and at the top are Megacities with population above 10 million. There are 53 million-plus UAs in India and three megacities – Delhi, Mumbai and Kolkata.

There exist other classifications too. In 2015, Ministry of Urban Development issued 'Urban and Regional Development Plan Formulation and Implementation (URDPFI) Guidelines'. In its detailed classification (see **Table 1.1**), UAs with population of one million and above were further split into Metropolitan City I (population between one million and five million), Metropolitan City II (population between 5 million and 10 million) and Megapolis (population more than 10 million). The classification, as the Guidelines claim, was based on Census 2011, Master Plans formulated by states, and emerging UAs in India.

Notwithstanding the different terminologies in government documents – metropolitan area in the Constitution, UAs with population above one million in the Census, metropolitan cities of the URDPFI Guidelines, metropolitan regions defined differently by different state governments – in effect, there is an underlying recognition that these rapidly growing urban

centres that proliferate well beyond their legal limits, are in dire need of planned development. Yet these remain mere economic terms with no operational significance. There is no governance structure at the metropolitan region level. Nor are there any funds earmarked collectively for planned development of these large urban settlements. This is a crucial weakness in urban administration in India compared to other countries where urban centres are generally governed as collective units with well-defined tax structures, earmarked funds, and consolidated development plans.

Table 1.1 Classification of Urban Settlements

S.No.	Classification	Sub-category	Population Range	Governing Local Authority	Number of Cities as per Census of India, 2011
1	Small Town*	Small Town I	5,000 - 20,000	Nagar Panchayat	
		Small Town II	20,000- 50,000	Nagar Panchayat/ Municipal Council	7467
2	Medium	Medium Town I	50,000 to 1,00,000	Municipal Council	
	Town	Medium Town II	1 lakh to 5 lakh	Municipal Council	372
3	Large City		5 lakh to 10 lakh	Municipal Corporation	43
4	Metropolitan City	Metropolitan City I	10 lakh to 50 lakh	Municipal Corporation/ Metropolitan Planning Committee	45
		Metropolitan City II	50 lakh to 1 Crore	- Same -	5
5	Megapolis		More than 1 Crore	- Same -	3

Source: URDPFI Guidelines 2015

The governance of metropolitan economic regions in India is fragmented based on territorial jurisdictions of Municipal Corporations, Municipal Councils, Nagar Panchayats, and Gram Panchayats. These elected bodies are the units of local governance and have the constitutional mandate to mobilize/receive funds and deliver public services. The Constitution specifies that Nagar Panchayats are meant for areas which are in transition from rural to urban, Municipal Councils are for smaller urban areas, and Municipal Corporations for larger urban areas. Actually, the practice varies from state to state. State notifications are governed by Municipal Acts of different states. Effectively, state governments notify the establishment of these urban local governments based on population, revenue generated for local administration, employment in non-agricultural activities, etc. Often, multiple urban local governments exist within the same metropolitan region leading to multiple property tax rates, uncoordinated spatial and transport planning, and varying levels of service delivery within the region.

The 74th Amendment Act that recognized urban local governments as the third tier, anticipated the clutter that multiple local governments would create in a metropolitan area. For coordinated development of these metropolitan areas, the Constitution envisaged Metropolitan Planning Committees (MPCs) comprising of elected members from the constituent Municipalities and Panchayats as well as representation from the central and state governments. State governments were responsible for passing laws to create such

committees. The committee would prepare a draft development plan keeping in mind coordinated spatial planning, sharing of water and other natural resources, development of infrastructure and environmental conservation. This draft development plan would then be passed on to the state government for approval.

This neat arrangement, however, has had few takers. Most state governments have failed to put in place legislations to create Metropolitan Planning Committees. The West Bengal government was the first to form a Metropolitan Planning Committee for Kolkata in 2001. In Maharashtra, Metropolitan Planning Committees were created for Mumbai, Pune, and Nagpur in 2008. Bangalore Metropolitan Planning Committee was constituted in 2014 following a directive from the High Court of Karnataka. Haryana government constituted a Metropolitan Planning Committee in Faridabad by passing Rules under the existing Haryana Municipal Corporation Act, 1994. Faridabad MPC even came up with a draft development plan in 2017. Andhra Pradesh and Rajasthan governments passed legislations for setting up Metropolitan Planning Committees in Hyderabad and Jaipur but the Committees never came into being. These miscellaneous examples are all there is to speak of Metropolitan Planning Committees. There are no examples of any MPC carrying through its draft development plan through a state government approval, financing and implementation. Many MPCs were created only to comply with JNNURM (Jawaharlal Nehru National Urban Renewal Mission – the first flagship scheme on urban development) and unlock the associated funds but have remained non-functional since then.

Development planning, the primary function of Metropolitan Planning Committees, has traditionally been carried out by Development Authorities set up by the state government. Development Authorities in Mumbai, Kolkata, Chennai and Bengaluru were set up as far back as 1970s for planning and development of these metropolitan regions as defined by the respective state governments. There has been little coordination between these powerful bureaucrat-led Development Authorities at the state level and elected urban local governments. It has been difficult to accommodate Metropolitan Planning Committees within this fractured framework since their function is the same as that of Development Authorities.

In 2009, Ministry of Urban Development issued an advisory to the state governments suggesting that the Development Authorities already in place should function as the technical arm of Metropolitan Planning Committees. Plans prepared by the Development Authorities, according to the advisory, should need an approval from the MPC. This is difficult to implement politically, given the clout of Development Authorities especially on matters relating to planning and regulating land. As opposed to these well-financed Development Authorities, MPCs lack basic financial resources to carry out their functions.

In this fragmented structure of local governance, parastatals have come to occupy an important position. These are extensions of the state government that were set up for provision of basic services such as water, sanitation and solid waste management e.g. Delhi Jal Board, Hyderabad Metropolitan Water Supply and Sewerage Board. Studies conducted for the 13th Finance Commission pointed out that there were a number of parastatal agencies

that operated in areas earmarked for local bodies under Schedule XII, thus "emasculating them both financially and functionally". More recently, the Smart Cities Mission which aims to develop 100 citizen-friendly and sustainable cities aims to do so by setting up Special Purpose Vehicles that will work in certain selected pockets of the city. This would more likely deepen the administrative mess.

Fragmented governance has meant lack of coordination in financing and expenditure. At the same time, there is a pressing need for upgradation of infrastructure and service delivery in the big cities which require a large amount of funds. Metropolitan regions need a metropolitan investment plan that can be financed cohesively by all tiers of government. Such a plan may be overseen by the state government to ensure coordination among the urban authorities as Metropolitan Planning Committees are defunct in most metropolitan areas. One approach is tax increment financing where future increases in tax revenue can be used as escrow to borrow for redevelopment, infrastructure and other community-improvement projects. Municipal Corporation can contribute from future increases in property tax revenues and land-based financing while central and state governments can contribute from the future increases in Goods and Services Tax.

1.2 An International Perspective

Urban local governance structures vary drastically from country to country. Some countries such as South Africa have built a single-tier unified structure to undertake the provision of services to entire metropolitan areas. Six metropolitan cities of Johannesburg, Durban, Cape Town, Port Elizabeth, Tshwane and Ekurhuleni derive their powers directly from the Constitution and have little interference from the Provincial governments. Decision-making is not encumbered in a complex intergovernmental process which results in excellent service delivery. While a turnaround of Indian cities in the same manner may be far-fetched, metropolitan cities in India must at least strive to establish a uniform local taxation structure and uniform benchmarks for service delivery.

Most municipalities in Canada are governed by their respective provincial legislation but certain large metropolises such as Toronto and Vancouver have been given a special status. They have additional avenues to mobilize finances and are also expected to carry out additional responsibilities. Vancouver, for instance, has the power to levy a business tax on the annual rental value of a property that is occupied or used for business purposes even when it is not currently in use. The remaining municipalities in British Columbia, the province to which Vancouver belongs however, are not permitted to levy a business tax. Similarly, Toronto has the authority to levy additional taxes and also determine the base rates, method of administration, and collection and enforcement mechanisms for such a tax. In borrowing, Toronto is not subject to an annual repayment limit while other municipalities must adhere to this limit. In comparison, it seems incongruous that Mumbai, Hyderabad, Chennai, Bangalore and other megacities with their immense contributions to the national economy are required to take state government's concurrence for adjusting the tax rates or determining the local tax policy or deciding on tax rebate or exemption policy.

Los Angeles in the United States has a fragmented metropolis divided into hundreds of independent municipalities. German cities of Berlin, Hamburg and Bremen are constituted as city-states with responsibilities for education, security, social policy, transportation, housing, and also the power to collect both state and local taxes.

Financial needs of metropolitan regions multiply many-fold as the size of urban areas and their linkages with the globalizing national and international economies increase. The comparative advantages of metropolitan regions that draw investment also draw migrants in search of jobs and housing leading to increased demands for better infrastructure and basic services. Metropolitan regions have to perform their fundamental role as economic powerhouses and unified labour markets – maximizing agglomeration economies while minimizing congestion diseconomies.

1.3 Municipal Corporations in India: Dwindling Finances and Poor Service Delivery

Indian cities have been growing at a rapid pace but the finances of Municipal Corporations have remained stagnant. State governments have transferred several functions listed under the Twelfth Schedule to urban local governments but the necessary finances to carry out these functions have not been mobilized.

In this study, we were able to procure data for 37 Municipal Corporations from the 53 urban agglomerations/cities having population above one million. In these 37 Municipal Corporations, total municipal revenue has declined as per cent of GDP from 0.49 per cent in 2012-13 to 0.45 per cent in 2017-18. The ability of these Municipal Corporations to raise their own sources of revenue has shown signs of worsening. Own revenues as per cent of GDP declined from 0.33 per cent in 2012-13 to 0.23 per cent in 2017-18.

A big blow was dealt to municipal finances with the introduction of the Goods and Services Tax (GST) in 2017. Earlier, the centre, states and the local governments could exercise independent powers of taxation of consumption to raise their own sources of revenue under the relevant laws. However, such independent taxation led to efficiency loss and had adverse implications on interstate trade and commerce. The centre and the states thus worked out the Goods and Services Tax as a dual levy on a common base. Most of the consumption taxes imposed by the centre, state and local governments have been subsumed under GST.

The proceeds from GST are split equally only between the centre and the states and no part is shared with the local governments. This is in contrast with many countries around the world which have provided their urban local governments' access to the Goods and Services Tax base. GST may be a more efficient and buoyant tax but its introduction has taken away critical sources of tax revenue such as octroi, local body tax, entry tax and advertisement tax for urban local governments without providing any compensation.

The long term solution to correct for the structural fiscal "imbalance" following the introduction of GST is for the Constitution to be amended again to provide sharing of the revenues from GST among all three levels of government. However, until that happens, the role of transfers from state government and the central government becomes very important. The Government of India has adopted a general principle whereby states are compensated for the loss of revenues due to GST and/or taxes subsumed under GST. The same principle should be extended to local governments. The 15th Finance Commission will play an important role in addressing the challenge of municipal finance in India in the new GST regime.

After the subsumption of several local taxes (octroi, entry tax, local body tax, advertisements tax) under the Goods and Services Tax (GST), property tax has become the mainstay of Municipal Corporations. Yet property tax collections have not shown any signs of improvement. Property tax revenue as per cent of GDP declined marginally from 0.086 per cent in 2012-13 to 0.084 per cent in 2017-18 for the 37 Municipal Corporations who finances are examined in this report. Dependence on transfers, especially from the state government, has increased in the same period. There has also been a decline in municipal expenditure as per cent of GDP from 0.44 per cent in 2012-13 to 0.37 per cent in 2017-18. The dwindling balance sheets of Municipal Corporations hardly invoke investor confidence for private capital to flow in with public private partnerships. Poor credit worthiness of the Corporations also makes it difficult for the Municipal Corporations to borrow in the capital market. Consequently borrowings constitute a negligible portion of the finances of Municipal Corporations and public-private partnership (PPP) in municipal projects is rare.

The deterioration of revenues in the 37 Municipal Corporations is to a large extent due to the decline in revenues of the 6 largest Municipal Corporations – Mumbai, Bengaluru, Chennai, Hyderabad, Kolkata and Ahmedabad1. To improve their finances, Municipal Corporations must improve their property tax collections. Property tax coverage can be increased by integrating the information from GIS mapping with their cadastral databases and refining it through door-to-door surveys. Municipal Corporations must move to unit area value method or capital value methods of valuation that bring valuations closer to market values. Property revaluations must be conducted more frequently and the large number of exemptions and concessions must be cut down. Simplification of billing and payments along with strict enforcement measures will improve property tax compliance.

Other than property tax, a number of other taxes are still available to Municipal Corporations. Professions tax is one such tax with good potential for generating revenue. While the new GST regime prevents states from collecting an entertainment tax, the same can be levied by a Municipal Corporation. Yet only a few Municipal Corporations are levying this tax. Besides taxes, Municipal Corporations must levy user charge at higher rates such that, at least, the operational and maintenance cost of delivering public services is recovered. One-time fees such as building license fee, road cutting fee, advertisement fee for erecting hoardings, etc. can also contribute to municipal revenue. Unlocking land value through the use of financial

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¹ Data was not collected for the three Municipal Corporations of Delhi.

instruments such as impact fee, betterment levy, premium on relaxation of FSI, Transfers of Development Rights (TDRs), vacant land tax are useful for financing the building of infrastructure in metropolitan cities.

With their deteriorating finances and a clutter of administering institutions, it is not surprising that Indian cities are plagued by poor service delivery. Janaagraha's Annual Survey of India's City-Systems (ASICS) scored the 23 Indian cities it surveyed between 3 and 5.1 on a scale of 10. On the same scale Johannesburg scored 7.6 and New York scored 8.8. The survey also found that the average term of municipal commissioner was only 10 months, while a third of municipal staff positions remain vacant. In the Global Liveability Index 2018 published by the Economist Intelligence Unit, New Delhi and Mumbai ranked 112 and 117 respectively among 140 cities. WHO's Global Air Pollution Database shows that 14 of the world's 15 most polluted cities in terms of PM 2.5 concentrations are in India. A Ministry of Urban Development report estimated that access to piped water supply is available only to about 71 per cent and 64.5 per cent of households in cities with population between one and five million and ones above five million respectively. Central Pollution Control Board reported that only 20-25 per cent of the total municipal waste is processed for resource recovery while the rest is dumped in open dumpsites or designated landfill sites. These statistics highlight the poor state of service delivery in Indian cities. Inadequate finances and the inability of institutions to function cohesively has led to increased congestion, environmental harm and social problems.

1.4 The Metropolitan Challenge is Growing

The seven largest urban agglomerations in India are Mumbai, Delhi, Kolkata, Chennai, Bengaluru, Hyderabad, and Ahmedabad. These are closely followed by Pune and Surat – rapidly growing metropolitan regions in western states of Maharashtra and Gujarat. World Economic Forum's report 'Migration and its impact on cities' finds that migration has rapidly risen in Pune in recent years. Pune's immigrant population increased from approximately 370,000 migrants in 2001 (14% of the population) to 660,000 in 2011 (21% of the population). The high cost of living and overcrowding in Mumbai has drawn migrants to Pune in search of better opportunities in all areas of life. It is now a preferred destination for many citizens in Maharashtra for job opportunities, education, healthcare services, real estate investment and a better quality of life. Similarly, Economic Survey found that Surat has started acting as a counter-magnet to Mumbai and attracts migrants from the neighbouring districts of Maharashtra. Jaipur and Chandigarh have emerged as counter-magnets to Delhi. The influx of immigrants increases pressure on housing, infrastructure and basic services. These emerging metropolitan regions have not made the necessary reforms to improve their administrative structure and finances. In the event of a business-as-usual approach they will suffer from the same congestion diseconomies, environmental harm and social problems as the bigger metropolitan regions have suffered in recent decades. The Finance Commission has an important role, in this regard, to provide finances and necessary incentives to initiate reforms in the established and emerging rapidly growing metropolitan economic regions of the country.

Chapter 2 – Trends in Finances of Municipal Corporations

By: Debarpita Roy and Shreya Mangla

There are 53 urban agglomerations/cities with a population of one million and above in India, each of which has grown around a core city². They are governed by Municipal Corporations. These Municipal Corporations have more funds per capita compared to the smaller Municipal Corporations, Municipal Councils and Nagar Panchayats. Being part of growing agglomerations, the Municipal Corporations have to cater to the demands for public services from a growing population and an economic base demanding better quality services. This chapter analyses the finances of these Municipal Corporations.

Since data could be procured for only 37 Municipal Corporations from the 53 urban agglomerations/cities, the analysis in this study is restricted to the 37 Municipal Corporations. These Municipal Corporations account for about 45 per cent of the municipal revenues and expenditures of India, 26 per cent of India's urban population, and 11 per cent of India's urban land share.

Some highlights from an examination of the finances of the 37 Municipal Corporations are summarised below:

- Their revenues as per cent of GDP declined from 0.49 in 2012-13 to 0.45 in 2017-18. The share of the 37 Municipal Corporations in India's total municipal revenues declined from 46.4 per cent in 2012-13 to 44.7 per cent in 2017-18.
- The decline in own revenues of the 37 Municipal Corporations was sharper. Their own revenues as per cent of GDP declined from 0.33 in 2012-13 to 0.23 in 2017-18. Their own revenues per capita adjusted for inflation declined at the rate of 2.3 per cent per annum.
- The share of property tax revenue in own revenue increased from 26 per cent in 2012-13 to 36 per cent in 2017-18 for the 37 Municipal Corporations. However, property tax revenue as per cent of GDP declined marginally from 0.086 in 2012-13 to 0.084 in 2017-18.
- With the introduction of GST in July 2017, abolition of octroi, local body tax, entry tax, advertisement tax, etc. led to a decline in the share of 'local taxes other than property tax' in municipal revenue from 23 per cent in 2012-13 to 8.5 per cent in 2017-18 for the 37 Municipal Corporations.
- User charges for water supply, sewerage and solid waste management accounted for only 27 per cent of the municipal operations and maintenance (O&M) expenditures in 2017-18, for the 37 Municipal Corporations.

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² There are 53 urban agglomerations/cities with population above one million in India. The core cities of 47 urban agglomerations and the 6 cities (Faridabad, Jaipur, Kota, Ludhiana, Vasai, Visakhapatnam) which have no outgrowths are all governed by Municipal Corporations except Jamshedpur which is governed by a Notified Area Committee. In our analysis, we have excluded National Capital Territory of Delhi since it is not under the purview of the 15th Finance Commission.

- The share of benefit charges (such as betterment charges, impact fees and other instruments of unlocking land value) in municipal revenue declined from 11.7 per cent in 2012-13 to 10.3 per cent in 2017-18 for the 37 Municipal Corporations.
- Transfers from the state governments rose from 0.10 per cent of GDP in 2012-13 to 0.15 per cent of GDP in 2017-18 for the 37 Municipal Corporations. For other urban local governments, state transfers as per cent of GDP declined from 0.23 in 2012-13 to 0.17 in 2017-18.
- Transfers from the central government as per cent of GDP marginally increased from 0.026 in 2012-13 to 0.027 in 2017-18 for the 37 Municipal Corporations.
- Municipal expenditure as per cent of GDP declined from 0.44 in 2012-13 to 0.37 in 2017-18 for the 37 Municipal Corporations. Revenue expenditure as per cent of total expenditure remained constant at 63 per cent.
- The share of borrowings in total municipal revenues increased from 2.5 per cent in 2012-13 to 3 per cent in 2017-18 for the 37 Municipal Corporations.

2.1 Deterioration in total revenues

In an earlier study prepared by ICRIER for the Fifteenth Finance Commission, we saw how India's municipal revenue as per cent of GDP declined from 1.05 per cent in 2012-13 to 1 per cent in 2017-18. So did the revenues of the 37 Municipal Corporations. Their municipal revenue declined from 0.49 per cent of GDP in 2012-13 to 0.45 per cent of GDP in 2017-18. Of the 37 Municipal Corporations, the 6 largest Municipal Corporations are Mumbai, Bengaluru, Hyderabad, Ahmedabad, Chennai and Kolkata³. Delhi is of course among the 7 largest urban agglomerations, but Delhi is not part of our study which is being conducted for the 15th Finance Commission. The performance of the 6 largest Municipal Corporations is compared with the performance of the other 31 Municipal Corporations, other Municipal Corporations (172), Municipal Councils (2171), and Nagar Panchayats (1879). The last three groups together are also referred to as 'other urban local governments'.

The Municipal Corporations (37) have higher per capita municipal revenue than the other urban local governments. This is not surprising because they have larger tax and non-tax bases, as a result of larger population and larger economic activity (**Table 2.1**). What is worrying, is the low rate of growth of their per capita municipal revenue. Per capita municipal revenue for the 37 Municipal Corporations grew by an average of 7 per cent per annum, between 2012-13 and 2017-18. However, adjusting for inflation over the same period, the growth in per capita municipal revenue at constant prices is 3 per cent between 2012-13 and 2017-18. India's per capita GDP at constant prices grew at 6 per cent annually between 2012-13 and 2017-18. The rate of growth of per capita municipal revenue for the 37 Municipal Corporations from 2012-13 to 2017-18 is half that of the rate of growth of India's

³ These 6 Municipal Corporations are arranged in descending order of their population as per Census 2011. The 6 UAs of which these Municipal Corporations are a part of are also the most populous UAs/Cities as per Census 2011.

⁴ Based on GDP deflators calculated from GDP at market prices (2011-12 base) for the year 2012-13 and 2017-18, accessed from https://dbie.rbi.org.in/DBIE/dbie.rbi?site=publications on 6 June 2019

per capita GDP in the same period. Municipal revenue as per cent of GDP declined the most, from 0.32 per cent in 2012-13 to 0.28 per cent in 2017-18 for the '6 largest Municipal Corporations' (**Table 2.2**); it remained unchanged at 0.165 per cent for the 'other 31 Municipal Corporations'.

Municipal revenue as per cent of Gross State Domestic Product (GSDP) declined for 22 of the 37 Municipal Corporations between 2012-13 and 2017-18. The same was true for 4 of the 6 largest Municipal Corporations. Only Bengaluru and Chennai Municipal Corporations' municipal revenue showed an increase as per cent of GSDP between 2012-13 and 2017-18 (**Table 2.3**).

2.2 Worsening own revenues

The deterioration in own revenues for the 37 Municipal Corporations is more marked. Own revenue as per cent of municipal revenues declined from 67.3 per cent in 2012-13 to 51.6 per cent in 2017-18. Per capita own revenue adjusted for inflation declined at the rate of 2.3 per cent over this period. The tax and non-tax revenue as per cent of municipal revenue for the '6 largest Municipal Corporations' and the 'other 31 Municipal Corporations' also declined (Table 2.2 and 2.4). The decline in own tax indicators can be attributed to the onset of GST in 2017 and stagnation in property tax revenues. Decline in own non-tax indicators is because of low recovery of cost of services provided, and the inability to monetise increasing land value on account of infrastructural development through impact fees, development charges and betterment charges. Among these, abolition of octroi and other local taxes with the onset of GST was the most important factor for deterioration in own revenues.

Table 2.1 Components of Municipal Revenue Per capita

(Rs.)

	37 Municipal Corporations		6 Largest Municipal Corporations		31 Other Municipal Corporations		Rest of the Municipal Corporations		Municipal Councils and Nagar Panchayats	
	2012- 13	2017 -18	2012- 13	2017- 18	2012- 13	2017- 18	2012- 13	2017- 18	2012- 13	2017- 18
Municipal Revenue	5649.1	7891.4	7370.5	10147.9	3881.3	5701.3	2469.1	3823.2	2259.8	3244.3
Own Revenue	3801.8	4069.9	5434.0	5892.3	2125.7	2301.2	1265.0	1995.7	567.1	760.2
Property Tax Revenue	998.3	1485.7	1523.8	2290.1	458.6	705.0	348.7	746.2	133.6	194.7
Other Tax Revenue	1278.9	674.5	1647.3	571.4	900.5	774.5	558.2	642.8	166.9	242.2
Non-Tax Revenue	1524.7	1909.7	2262.9	3030.8	766.7	821.7	356.7	605.4	266.7	323.2
Total Transfers	1496.1	3216.9	1522.6	3558.5	1468.8	2885.4	857.0	850.8	1409.2	2122.6
State Transfers	1199.8	2734.1	1195.1	3153.1	1204.5	2327.4	715.9	360.6	1123.5	1488.5
Central Transfers	296.3	482.9	327.5	405.4	264.3	558.1	141.1	490.3	285.8	634.1

Table 2.2 Municipal Finance Indicators

(Per cent in GDP)

	37 Municipal Corporations		6 Largest Municipal Corporations		31 Other Municipal Corporations		Rest of the Municipal Corporations		Municipal Councils and Nagar Panchayats	
	2012-	2017-	2012-	2017	2012-	2017-	2012-	2017-	2012-	2017-
	13	18	13	-18	13	18	13	18	13	18
Municipal Revenue	0.487	0.449	0.322	0.284	0.165	0.165	0.226	0.234	0.337	0.322
Own Revenue	0.328	0.231	0.237	0.165	0.090	0.066	0.116	0.122	0.085	0.075
Tax Revenue	0.196	0.123	0.139	0.080	0.058	0.043	0.083	0.085	0.045	0.043
Property Tax Revenue	0.086	0.084	0.067	0.064	0.020	0.020	0.032	0.046	0.020	0.019
Other Tax Revenue	0.110	0.038	0.072	0.016	0.038	0.022	0.051	0.039	0.025	0.024
Non-Tax Revenue	0.131	0.109	0.099	0.085	0.033	0.024	0.033	0.037	0.040	0.032
User Charges and Fees	NA	NA	0.067	0.063	NA	NA	NA	NA	NA	NA
Benefit charges and fees	0.057	0.046	0.045	0.041	0.012	0.006	NA	NA	NA	NA
Other sources of Non-Tax Revenue	NA	NA	0.032	0.022	NA	NA	NA	NA	NA	NA
State Transfers	0.103	0.155	0.052	0.088	0.051	0.067	0.066	0.022	0.168	0.148
Central Transfers	0.026	0.027	0.014	0.011	0.011	0.016	0.013	0.030	0.043	0.063
Market Borrowings	0.012	0.014	0.009	0.011	0.003	0.004	0.002	0.004	0.008	0.004
Municipal expenditure	0.444	0.367	0.293	0.234	0.152	0.133	0.162	0.171	0.228	0.240

Table 2.3 Municipal Revenue Indicators for 37 Municipal Corporations

(Per cent)

Municipal Corporation	_	Revenue as of GSDP		enue as Per	As Per cent of Municipal Revenue Own Revenue		
	2012-13	2017-18	2012-13	2017-18	2012-13	2017-18	
Mumbai	1.207	0.948	1.178	0.693	97.6	73.1	
Bengaluru	0.490	0.527	0.243	0.232	49.6	44.1	
Hyderabad	0.611	0.607	0.354	0.305	57.9	50.3	
Ahmedabad	0.420	0.398	0.141	0.193	33.5	48.6	
Chennai	0.263	0.295	0.096	0.115	36.6	38.9	
Kolkata	0.551	0.391	0.247	0.136	44.8	34.8	
Surat	0.289	0.279	0.093	0.099	32.1	35.5	
Pune	0.203	0.173	0.187	0.097	92	56.3	
Nagpur	0.073	0.076	0.054	0.018	74.5	23.7	
Indore	0.226	0.189	0.086	0.081	38.2	42.8	
Bhopal	0.117	0.175	0.035	0.075	29.6	42.6	
Patna	0.046	0.309	0.011	0.012	23.5	3.8	
Vadodara	0.177	0.148	0.048	0.042	27	28.4	
Ludhiana	0.184	0.159	0.160	0.131	86.9	82.8	
Nashik	0.066	0.052	0.063	0.049	95.8	93.7	
Faridabad	0.150	0.122	0.017	0.012	11.5	10.1	
Rajkot	0.044	0.045	0.029	0.030	65.7	65	
Vasai-Virar	0.036	0.028	0.032	0.013	89	46.5	
Srinagar	0.176	0.194	0.020	0.017	11.3	8.9	
Aurangabad	0.039	0.022	0.011	0.009	29.4	39.3	
Dhanbad	0.028	0.079	0.002	0.002	7.6	7.9	
Amritsar	0.073	0.066	0.057	0.048	78.3	72.8	
Ranchi	0.081	0.312	0.014	0.029	16.7	9.2	
Jabalpur	0.111	0.066	0.033	0.033	30	51.4	
Gwalior	0.114	0.103	0.063	0.051	55.3	49.5	
Coimbatore	0.071	0.067	0.035	0.029	49	43.3	
Jodhpur	0.029	0.033	0.007	0.007	25.6	31.1	
Madurai	0.033	0.041	0.016	0.013	48.9	32.4	
Raipur	0.114	0.085	0.052	0.048	45.4	55.9	
Kota	0.035	0.034	0.021	0.020	61.1	59.3	
Chandigarh	2.201	1.445	0.679	0.528	30.8	36.6	
Thiruvananthapuram	0.051	0.052	0.019	0.018	38.2	33.7	
Kochi	0.044	0.044	0.023	0.023	53.5	53.2	
Asansol	0.025	0.048	0.003	0.002	11.7	5.2	
Kozhikode	0.043	0.035	0.011	0.007	24.4	20.8	
Kollam	0.023	0.041	0.004	0.004	18.1	8.6	
Thrissur	0.013	0.015	0.007	0.006	57.4	38	

Table 2.4 Key Ratios for Municipal Revenue

(Per cent in Total)

	37 Municipal Corporations		6 Largest Municipal Corporations		31 Other Municipal Corporations		Rest of the Municipal Corporations		Municipal Councils and Nagar Panchayats	
	2012-	2017-	2012- 2017-		2012-	2017-	2012-	2017-	2012-	2017-
D4 -67	13	18	13	18	13	18	13	18	13	18
Per cent of T	otai Mu	nicipai k	kevenue					I		
Revenue	67.3	51.6	73.7	58.1	54.8	40.4	51.2	52.2	25.1	23.4
Tax Revenue	40.3	27.4	43.0	28.2	35.0	26.0	36.8	36.4	13.3	13.5
Property Tax Revenue	17.7	18.8	20.7	22.6	11.8	12.4	14.1	19.5	5.9	6.0
Non-Tax Revenue	27.0	24.2	30.7	29.9	19.8	14.4	14.4	15.8	11.8	10.0
Total Transfers	26.4	40.7	20.7	35.1	37.8	50.6	34.3	21.9	62.4	65.4
Central Transfers	5.2	6.1	4.4	4.0	6.8	9.8	5.7	12.8	12.6	19.5
State Transfers	21.2	34.6	16.2	31.1	31.0	40.8	28.6	9.3	49.7	45.9
Per cent of C)wn Rev	enue								
Property Tax Revenue	26.3	36.5	28.0	38.9	21.6	30.6	27.6	37.4	23.6	25.6
Per cent of N	Iunicipa	l Expend	liture	T	T	T	Γ	1	T	
Total Transfers	29.0	49.9	22.7	42.7	41.2	62.4	49.2	30.9	92.3	87.7

There were also significant differences in own revenue performance within the 37 Municipal Corporations. Own revenue as per cent of GSDP, a proxy for measuring a local government's efficiency in levying and collecting own revenue or efficiency of revenue administration increased only for Ahmedabad, Chennai, Surat, Bhopal and Ranchi Municipal Corporations over this period. In the case of seven Municipal Corporations i.e. Faridabad, Ranchi, Srinagar, Kollam, Dhanbad, Asansol and Patna own revenue contributed 10 per cent or less to the Municipal Corporation's revenue in 2017-18 (**Table 2.3**). Patna Municipal Corporation had the lowest share of own revenue in municipal revenue (3.8%) amongst the 37 Municipal Corporations. Bihar's 5th State Finance Commission notes Patna Municipal Corporation's inferior performance compared to other Municipal Corporations of the state. Poor own revenue performance of the 37 Municipal Corporations compared to the 'other urban local governments' reflects poorly on their ability to collect tax.

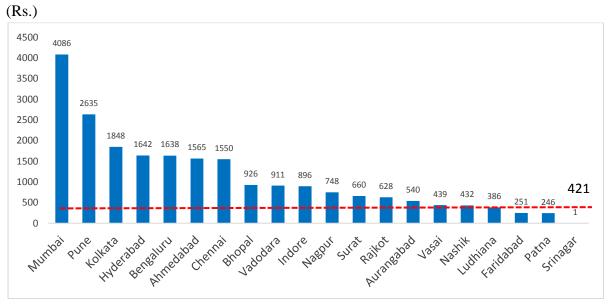
2.3. Stagnation in property tax revenues

Property tax is the most important tax for the 37 Municipal Corporations. For 33 of these Municipal Corporations it is the single largest contributor to own revenue⁵. It is also the single largest contributor to own revenue for each of the 6 largest Municipal Corporations in 2017-18, post abolition of octroi. Being a general benefit tax with a wide tax base, makes it an ideal local tax globally.

Property tax as per cent of GDP declined from 0.086 in 2012-13 to 0.084 in 2017-18 for the 37 Municipal Corporations while it increased for 'rest of the Municipal Corporations' from 0.032 in 2012-13 to 0.046 in 2017-18. Per capita property tax revenue adjusted for inflation grew at the rate of 4.3 per cent for the 37 Municipal Corporations between 2012-13 and 2017-18, whereas it grew at the rate of 12.2 per cent for the 'rest of the Municipal Corporations' over this period. The rate of growth of per capita property tax for the 37 Municipal Corporations is one-third the rate of growth of per capita property for 'rest of the Municipal Corporations'.

Municipal Corporations of metropolitan cities have larger property tax bases, because of higher density and value of properties. 57 per cent of India's property tax revenue was collected in the 37 Municipal Corporations in 2017-18. However, there were wide differences in per capita property tax revenue within this group. Per capita property tax revenue of the Municipal Corporations of Ludhiana, Faridabad, Patna and Srinagar were less than the per capita property tax revenue of all urban local governments in India.

Chart 2.1 Property Tax Revenue Per Capita for Municipal Corporations⁶: 2017-18



Note: Red line is per capita property tax across all urban local governments of India

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⁵ The contribution of property tax to own revenue for Municipal Corporations of Nashik, Srinagar, Amritsar and Kota is less than 10 per cent in 2017-18.

⁶ Top 20 Municipal Corporations in terms of population; same is applicable for chart 2.2 and 2.3

Thus, notwithstanding property tax's importance as the only important source of local tax post GST for the 37 Municipal Corporations; its performance has not been up to the mark. Property tax is a stable source of revenue for the 37 Municipal Corporations with sharp drops in collection volumes being rare compared to other sources of own revenue. Thus property tax reforms for these Municipal Corporations need renewed focus. Earlier property tax reforms of the Bengaluru, Hyderabad and Mumbai Municipal Corporations focused on increasing the tax base by comprehensive mapping of properties using GIS and other techniques, adoption of property valuation techniques such as unit area and capital value method for better representation of the market value, periodic revaluation, introduction of self-assessment schemes, introduction of easier modes of tax payment, and stricter enforcement. Similar reforms have to be carried out on a sustained basis for Municipal Corporations of all metropolitan cities, along-with periodic revisions in tax rates to realise the full potential of property tax as a source of own revenue.

2.4. Insignificant revenue from 'local taxes other than property tax'

In India apart from property tax, other local taxes include (i) octroi or entry tax (subsumed in GST) (ii) entertainment tax (iii) advertisement tax (subsumed in GST) (iv) taxes on non-motorised vehicles (v) taxes on animals (vi) tolls and (vii) profession tax. These taxes are also referred to as 'other taxes' in this chapter. With the advent of GST, octroi and its variants such as local body tax, entry tax etc. and advertisement tax levied by the Municipal Corporations were subsumed in GST. So far, most state governments have been unenthusiastic about empowering urban local governments in levying local taxes, and in sharing the proceeds of these taxes with the urban local governments wherever these taxes are collected by the state governments themselves.

Before the introduction of GST, octroi was the most important tax in terms of revenue for those urban local governments which levied it. Due to pressure from the business interests and transporters and the call given by the Government of India to make India a common market and promote unhindered inter-state trade and commerce it was gradually abolished across all urban local governments, with Mumbai being the last urban local government to abolish it. Abolition of octroi in Mumbai caused a sharp 20 per cent decline in total 'other tax' revenue for all urban local governments across India in 2017-18 compared to 2016-17. Octroi was also the most buoyant source of revenue among the urban local taxes. If we exclude Mumbai from the 37 Municipal Corporations, 'other taxes' have grown at the rate of 0.3 per cent between 2012-13 and 2017-18, for the remaining 36 Municipal Corporations.

With the advent of GST, entertainment tax and profession tax are the most prominent 'other taxes' remaining in the urban local tax basket. However, mostly these too are levied by the state governments, with the proceeds shared partly with the urban local governments.

Profession tax levied by a Municipal Corporation does make a significant contribution to municipal revenue. For example, profession tax is collected by the Municipal Corporations of Tamil Nadu and Kerala. It contributed 7 per cent to Chennai Municipal Corporation's revenue and 11 per cent to Thiruvananthapuram Municipal Corporation's revenue in 2017-

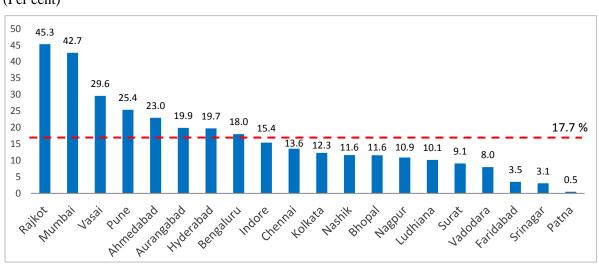
18. It is necessary to designate this tax as a local tax for all Municipal Corporations, with the existing ceiling of the tax imposed by the Constitution of India revised upwards.

In the GST regime, entertainment tax levied by urban local governments has faced certain challenges and remained an insignificant revenue source. States such as Haryana, Gujarat, Madhya Pradesh, Maharashtra, Kerala, Punjab, and Tamil Nadu have levied entertainment tax as an urban local tax over and above the GST levied, on entertainment centres. So far, wherever levied entertainment tax contributes only small amounts to Municipal Corporation revenues. For example, the Municipal Corporations of Kerala, had the highest nominal entertainment tax revenue amongst the 37 Municipal Corporations. However, entertainment tax contributed only about 1 per cent to the municipal revenues of these Corporations.

2.5. Poor revenue collection from non-tax sources

Non-tax revenues include (i) user charges, (ii) fees, (iii) receipts from various other miscellaneous sources such as rental income, sale and hire charges, interest income, etc. and (iv) instruments of unlocking land value, i.e., benefit charges such as betterment levy, development charges, impact fee, etc.⁷. Non-tax revenue for the 37 Municipal Corporations have declined from 0.13 per cent of GDP in 2012-13 to 0.11 per cent of GDP in 2017-18. Non-tax revenue as per cent of GSDP increased for 10 of the 37 Municipal Corporations between 2012-13 and 2017-18. Chart 2.2 presents the share of non-tax revenue as a source of municipal revenue for the Municipal Corporations.

Chart 2.2 Share of Non-Tax Revenue in Municipal Revenue for Municipal Corporations: 2017-18



(Per cent)

Note: Red line is the share of non tax revenue in municipal revenue across all urban local governments of India

⁷ (i) Rental income from municipal properties such as market, shopping complex, stadium, playground and community halls (ii) sale and hire charges such as sale of nursery plants, sale of manure, sale of scrap and hire charges for vehicles (iii) Income from investment interest earned such as interest on fixed deposit, savings bank account and marriage advance and (iv) Other Income such as project appropriation charges, law charges and court case recovery, fire service training income, recovery from employee and encroachment income.

2.5.1 Extremely poor cost recovery of service delivery

Ideally user charges and fees of basic services are expected to cover the O&M cost of service provision, debt servicing and project depreciation costs as well as generate some surplus for the Municipal Corporation, as per HPEC (Ahluwalia 2011). This is far from the actual picture. While information on user charges on water supply, sewerage and solid waste management, for example, are not available, an approximate measure can be had from the fact that across the 37 Municipal Corporations taken together, user charges and fees, etc. amounted to about 27 per cent of their O&M expenditures. Their contribution to a Municipal Corporation's revenue depends on the number of services provided by the Municipal Corporation, rate at which the service is charged and collection rate.

In India user charges and service provision seem to be caught in a vicious circle with poor quality of services leading to a lack of willingness to pay for these and hence poor collection of user charges and fees (Rao and Bird 2012). There are also cases where the willingness to pay may be there, but there is little willingness to charge because of competitive populism. It is very important to break the vicious circle.

2.5.2. Untapped potential of benefit charges and fees

Benefit charges are payments for the indirect benefits received by individuals or groups of individuals on account of public investments. Benefit charges levied by Municipal Corporations include development charges, impact fees, betterment levies and other instruments of unlocking land value. Their share in the municipal revenues of the 29 Municipal Corporations out of the 37, for whom data on benefit charges is available, declined from 11.7 per cent in 2012-13 to 10.3 per cent in 2017-18. This share in the case of the '6 largest Municipal Corporations' was marginally higher at 14 per cent in 2017-18. These charges increased at the rate of 3 per cent when adjusted for inflation between 2012-13 and 2017-18. With the growth of metropolitan cities, benefit charges levied on real estate and infrastructure development projects can be an important source of own revenue for their Municipal Corporations.

Benefit charges by Hyderabad and Bengaluru contributed 27 per cent and 20 per cent to their own revenue in 2017-18. Compared to 2012-13, this share declined from 36 per cent for Hyderabad Municipal Corporation and has remained unchanged for Bengaluru Municipal Corporation. Across the Municipal Corporations of Maharashtra, it contributed between 5 to 15 per cent of the municipal revenue, while in Municipal Corporations of Gujarat, Kerala and Punjab its contribution was less than 5 per cent.

Fees are collected by the Municipal Corporations as payments for the administrative and regulatory functions performed. Business licensing fee or trade license fee is levied as a license fee for business establishments such as shops and other commercial establishments. In the present system, implementation of regulations relating to the trade license fee is poor and thus results in under-realisation of revenue from the same (Rao and Bird 2012). In many

states, trade licensing fees are confined to "dangerous and offensive" trades only, making the base of the fee very constricted. Revenue from trade license fee makes up a meagre 1.6 per cent of non-tax revenue in 2017-18, across the 37 Municipal Corporations. However, as business activities in cities grow so will the potential of trade license fee as an own revenue source for these Municipal Corporations, if all the trades are covered. Fees are also collected for registration of birth and death, obtaining records, mutation, penalties and fines and as advertisement fees levied on advertisements put on outdoor hoardings and local media such as cable television.

2.6. An increasing dependence on state transfers

The 37 Municipal Corporations are more dependent on state transfers compared to the 'other urban local governments'. State transfers as per cent of GDP increased from 0.10 per cent in 2012-13 to 0.15 per cent in 2017-18 for these Municipal Corporations. It declined from 0.07 per cent of GDP in 2012-13 to 0.02 per cent of GDP in 2017-18 for the 'rest of the Municipal Corporations' over this period. Per capita state transfers adjusted for inflation grew at the rate of 14 per cent for the 37 Municipal Corporations between 2012-13 and 2017-18. Per capita state transfers adjusted for inflation grew at the rate of 17 per cent for the '6 largest Municipal Corporations' and at the rate of 10 per cent for the 31 Municipal Corporations over this period. For 'rest of the Municipal Corporations' it declined at the rate of 16 per cent, while it grew at the rate of 2 per cent for Municipalities and Nagar Panchayats over the same period. Each of the '6 largest Municipal Corporations' have per capita state transfers higher than the national average in 2017-18 (Chart 2.3).

Higher dependence of the 37 Municipal Corporations on state transfers could be because they have large capital requirements which cannot be met through their own revenues, and the state government steps in. State transfers as per cent of municipal revenue are more than 50 per cent for 10 of the 37 Municipal Corporations⁸. Patna Municipal Corporation has the highest share of state transfers in municipal revenue at 84 per cent and Ludhiana Municipal Corporation has the lowest at 0.15 per cent in 2017-18. State transfers to Ludhiana Municipal Corporation have been consistently low, it was 2 per cent of municipal revenue in 2012-13. Ludhiana Municipal Corporation receives central transfers for current central government schemes such as AMRUT and Smart City Mission and has also received central transfers for past schemes such as JNNURM. However, state grants either on account of any state government development schemes and SFC devolution have been absent.

Municipal Corporations will continue to be dependent on state transfers until their own revenue situation improves significantly or the central government steps in, in a big way.

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⁸ Patna, Srinagar, Faridabad, Aurangabad, Nagpur, Indore, Kollam, Jodhpur, Bengaluru and Kozhikode

(Rs.) 7000 6498 6000 4890 5000 4502 4454 4153 4000 3528 3394 3290 3119 3000 2263 2255 2204 1999 1660 1622 2000 1029 1000 Karidabad Ludhiana Aurangabad Hyderabac Chennai Stinagar

Chart 2.3 State Transfers Per Capita for Municipal Corporations: 2017-18

Note: Red line is per capita state transfers across all urban local governments of India

2.7. Declining Central Government transfers

Transfers from the central government or central transfers as per cent of GDP increased marginally from 0.026 per cent in 2012-13 to 0.027 per cent in 2017-18 for the 37 Municipal Corporations. It increased from 0.056 per cent of GDP to 0.093 per cent of GDP for 'other urban local governments' over this period (**Table 2.2**). Thus, while increase in state transfers has been higher for the 37 Municipal Corporations compared to 'other urban local governments', the increase in central transfers is more for the latter. Since metropolitan cities play an important role in the economic growth of the state, states are forthcoming to provide funds to fill up the immediate vertical imbalances affecting the Municipal Corporations. Central transfers, on the other hand, seem to play the role of bridging horizontal imbalances across urban local governments with higher transfers to the 'other urban local governments'.

2.8. Deteriorating expenditure with a high proportion spent on establishment and administrative requirements

Municipal expenditure for the 37 Municipal Corporations declined from 0.44 per cent of GDP in 2012-13 to 0.37 per cent of GDP in 2017-18, a sharper drop compared to the drop in their municipal revenue (**Table 2.2**). While per capita revenue expenditure adjusted for inflation declined at a rate of 0.8 per cent, per capita capital expenditure adjusted for inflation declined at a rate of 0.3 per cent over 2012-13 and 2017-18.

The quality of expenditure can be captured through the share of revenue expenditure in total expenditure. A higher share of revenue expenditure in the total expenditure of Municipal Corporations means that a higher share is being spent on the day to day functioning of the Municipal Corporations and on maintenance of their infrastructure assets. Revenue

expenditure is 63 per cent of total expenditure. Within revenue expenditure, expenditure on establishment and administration forms the bulk with a share of 57 per cent across the 37 Municipal Corporations. Revenue expenditure was more than 50 per cent of total expenditure for 25 of the 37 Municipal Corporations. Among the '6 largest Municipal Corporations' it was the highest for Ahmedabad (76%) and Mumbai (75%). Bengaluru was the only Municipal Corporation among the '6 largest Municipal Corporations' with a low revenue expenditure share in total expenditure (27%) (**Table 2.5**).

Table 2.5 Categorization of Municipal Corporations as per Revenue Expenditure to Total Expenditure Ratio (2017-18)

	Municipal Corporations	Top 5
	Ludhiana	Ludhiana (85.02%)
	Kollam	Kollam (82.16%)
	Jodhpur	Jodhpur (80.84%)
	Gwalior	Gwalior (77.99%)
	Ahmedabad	Ahmedabad (76.08%)
	Kozhikode	
	Mumbai	
	Aurangabad	
	Jabalpur	
At or Above Average	Thiruvananthapuram	
At of Above Average	Amritsar	
	Raipur	
	Indore	
	Chennai	
	Nashik	
	Pune	
	Vasai-Virar	
	Vadodara	
	Nagpur	
	Bhopal	
	Kolkata	
	Municipal Corporations	Bottom 5
	Rajkot	Asansol (39.76 %)
	Surat	Kochi (30.04%)
	Hyderabad	Bengaluru (27.18%)
	Coimbatore	Dhanbad (21.53%)
	Madurai	Ranchi (9.42%)
	Patna	
Below Average	Thrissur	
	Kota	
	Srinagar	_
	Asansol	_
	Kochi	
	Bengaluru	
	Dhanbad	
	Ranchi	

There was a decline in capital expenditure for 6 Municipal Corporations (Raipur, Bhopal, Ludhiana, Jabalpur, Gwalior and Jodhpur) between 2012-13 and 2017-18.

2.9. Inability to borrow from market sources

Municipal Corporations require the state governments' permission to borrow from market sources. Their deteriorating own revenues adversely affects their credit worthiness making it difficult for them to borrow from market sources. Eight Municipal Corporations of Chennai, Kolkata, Nagpur, Raipur, Rajkot, Aurangabad, Srinagar and Madurai had their per capita revenue falling short of per capita total expenditure by a sizeable margin (Table A27) in 2017-18⁹. However, out of these 8 Municipal Corporations only Chennai, Kolkata and Nagpur Municipal Corporations borrowed from market sources in a bid to meet this shortfall in 2017-18. Hyderabad, Ahmedabad and Pune Municipal Corporations also borrowed from market sources in 2017-18. However, no noteworthy increase in borrowings from market sources across the 37 Municipal Corporations was noted between 2012-13 and 2017-18, with borrowings continuing to make up about 3 per cent of municipal revenue across the 37 Municipal Corporations.

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⁹ Per capita revenue excludes borrowings

Chapter 3 – Sources of Own Revenue: The Six Largest Municipal Corporations

By: Ayush Khare, Debarpita Roy and Shreya Mangla

The six largest Municipal Corporations of Mumbai, Bengaluru, Chennai, Hyderabad, Kolkata and Ahmedabad (excluding the three Municipal Corporations of National Capital Territory of Delhi) account for more than 60 per cent of total municipal revenue of the 37 Municipal Corporations whose finances are examined in this report. The dip in total municipal revenue as per cent of GDP for the 37 Municipal Corporations in the period 2012-13 to 2017-18 is primarily due to the deterioration of this ratio in the six largest Municipal Corporations. This chapter goes deeper into the sources of own revenue of the six largest Municipal Corporations.

Among the six largest Municipal Corporations, Mumbai has by far the highest municipal revenue per capita (**Table 3.1**). Mumbai Municipal Corporation also has the best performance with respect to own revenue with the highest per capita property tax, user charges and fees, and land-based charges and fees collection. The introduction of Goods and Services Tax in 2017 and subsumption of octroi, previously the biggest source of revenue for the Corporation, led the Maharashtra government to compensate it handsomely in the form of state transfers. Kolkata has the second highest municipal revenue per capita. The Corporation receives by far the highest per capita central transfers. Kolkata and Bengaluru are the two Municipal Corporations whose combined central and state transfers surpass their own sources of revenue. Kolkata is followed by Chennai, Ahmedabad, Bengaluru and Hyderabad in municipal revenue per capita, in that order. Apart from Mumbai, property tax collections per capita are quite similar in the six largest Municipal Corporations. Chennai Municipal Corporation collects much lower user charges and fees and land-based charges and fees per capita compared to the other five Municipal Corporations. Hyderabad receives the lowest state transfers per capita. The following sections discuss more about these sources of revenue.

Table 3.1 Municipal Revenue Per Capita for the 6 largest Municipal Corporations: 2017-18

(In Rupees)

Municipal Corporation	Municipal Revenue	Own Revenue	Property Tax	User Charges and Fees	Land-based Charges and Fees	State Transfers	Central Transfers
Mumbai	18601	13591	4086	5668	3926	4890	120
Kolkata	8976	3128	1848	984	265	2789	2549
Chennai	8705	3389	1550	511	21	1622	472
Ahmedabad	8006	3890	1565	1331	932	3394	198
Bengaluru	6372	2810	1638	983	558	3290	272
Hyderabad	5380	2704	1642	1014	742	1250	NA

3.1 Property Tax

Property tax is the most critical source of own revenue for the six largest Municipal Corporations. The six Corporations account for 40 per cent of all property tax collections in the country. Mumbai, which has the largest Municipal Corporation in terms of population governed, collects almost as much property tax as Bengaluru, Hyderabad, Ahmedabad, Chennai and Kolkata combined. Bengaluru introduced a series of effective property tax reforms in 2000 and 2008 and now has the second highest collections in property tax (**Box 3.1**). It is followed by Hyderabad, Ahmedabad, Kolkata and Chennai¹⁰.

Box 3.1 Bengaluru property tax reforms

In the first phase of reform of Property tax in Bengaluru which was initiated in 2000, Property tax registers were updated by mapping of properties through GIS. This helped in wider coverage and therefore, broadening the tax base. The system moved to a Unit Area Method of valuation and optional Self-Assessment of Property Tax Scheme (SAS). The city was divided into 6 assessment zones based on guidance values from the Registration Department. Tax rates for rented properties were set at lower levels than before and owner-occupied properties were given a concession of 50 per cent. A cap of 2.5 times on the existing liability was imposed, helping in wider acceptability of the reform among taxpayers. During the process of implementation, the Bengaluru Municipal Palika engaged with the taxpayers through the media, resident welfare associations, and also by setting up Payment clinics to help taxpayers in filing returns. Property tax collections increased by 33 per cent in 2001 on account of wider coverage, higher collection rates, lower compliance costs and higher tax rates.

The second phase of property tax reform was initiated in 2008. A Self-Assessment scheme was introduced backed by the amendment of the Karnataka Municipal Corporation Act 1976. Base unit area value was determined on the basis of expected returns from a property instead of expected rents under SAS 2000. The Act provided for revision of property tax rates every 3 years. However, only one revision in property tax rates has taken place since then. As a part of SAS 2008, zoning was revised and several properties were shifted from a lower assessment zone to a higher assessment zone. Online payment of property tax was enabled, and a penalty of 2 per cent per month was levied after two months of the due date for payment. Payment of property tax was made mandatory for illegal properties as well. Property tax paid by all taxpayers was put on the internet, infusing substantial transparency in the system. These measures coupled with the effective use of GIS technology led to an increase in the number of properties covered from 7 lakh in 2007-08 to 12 lakh in 2010-11, and 2.6 times increase in property tax revenue over the same period.

Source: State of Municipal Finances in India (2019)

However, the rate of growth of property tax collections has been slow in the recent past. In Mumbai, Bengaluru, Chennai, and Hyderabad, the property tax collections grew at a tepid rate of 10-12 per cent between 2012-13 and 2017-18. In Kolkata, the rate was much worse at 5 per cent¹¹. Ahmedabad, the smallest of these large Municipal Corporations, was the only exception with a robust growth rate of 33 per cent.

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¹⁰ Pune has higher property tax collections than Kolkata and Chennai but is not part of the 6 largest Municipal Corporations studied in this chapter.

¹¹ Kolkata Municipal Corporation was reorganized in 2012-13. Hence the period considered is 2013-14 to 2017-18.

Collection of property taxes is an enormous administrative exercise. Properties and their owners are identified, data inventory is updated, and the cadastral maps are prepared based on the new information. Mapping technologies such as GIS (Geographic Information System) are often used to improve the coverage of property tax. Extensive data on land and improvements is collected and analysed to update the valuation rolls based on the valuation technique followed by the Municipal Corporation (Annual Rental Value or Unit Area Value or Capital Value). Municipal Corporations then set the tax rates accompanied by some exemptions, such as for senior citizens and property values below a cut-off, and concessions and rebates based on vacancy, age of building, and kind of ownership. Bills are sent to individual property owners and tax collections are organized at citizen facility centres, bank branches and even at doorstep, such as in Pune. The Corporations run public information campaigns and 'Early Bird Schemes' to encourage timely payment of taxes. For tax defaulters, penalties are decided and strict measures are taken to force compliance. Sometimes amnesty schemes are run to encourage defaulters to pay their dues.

The six largest Municipal Corporations have faced challenges in keeping property tax rolls updated and accurate, bringing the valuation of properties closer to market values, conducting regular revaluations, hiking tax rates and getting rid of exemptions that make the tax collection less buoyant.

Continually improving the coverage of tax base is important to increase revenues from property tax. It is also necessary to keep the collection of taxes fair for all taxpayers. Improving coverage is a resource-intensive exercise that involves identification of property and its owner, allotting a unique reference number, recording their information in the data inventory, and preparing cadastral maps based on the new information. In recent years, mapping technologies such as GIS have helped in faster update of the cadastral database. Mumbai is carrying out a LIDAR (Laser Imaging Detection and Ranging) Survey to map existing properties, detect deviations, and capture ones missing from the inventory. Chennai is mapping its properties using drones.

However, there are limits to the resolution of mapping technologies especially in densely populated localities. To leverage the potential of mapping technologies in improving coverage, they must be accompanied by a range of follow-up activities. In Bengaluru, for example, after the initial GIS mapping exercise revenue officials carry out regular field surveys to identify property owners and integrate the information from GIS with their own cadastral database. Residents of the city have been encouraged to participate in self-assessment of their properties and improve coverage through a well-structured education program. In Raipur, GIS mapping is accompanied by door-to-door property survey by revenue officials who use a specially designed mobile application to improve mapping in real-time. The mobile application helps collect property measurements and geotag the properties i.e. tag the GPS coordinates of the property with its data and photographs. The new data is added to or used to clean the existing database. These reforms have led to a 54 per cent increase in number of assessed properties and a 68 per cent increase in property tax demand in a space of two years in Raipur.

In other cities such as Delhi, these follow-up activities were not executed efficiently and this resulted in little impact of GIS mapping on property tax collections. Since the incremental revenue gain from the GIS mapping exercise was not clear, these cities had no incentive to repeat the exercise. In some cases, the first mapping exercise was carried out with central funding from JNNURM but now the Corporations lack funds to carry out the entire exercise by themselves.

Municipal Corporations collect several million bits of information in the data inventory for property taxes. The use of information technology has made the storage of these massive chunks of data more accessible and affordable. Digitization of tax rolls has been carried out by all the six largest Municipal Corporations. To improve collections Municipal Corporations must develop an integrated system to automatically record changes in ownership, property division and consolidation, changes in property use, development of a new road, and additions and alterations to existing property. Such an integrated system, shared across departments of the Municipal Corporation, can create economies and reduce costs.

Three systems of property valuation are practised among the Municipal Corporations in India – Annual Rental Value System (Chennai, Hyderabad), Unit Area Value System (Bengaluru, Ahmedabad, Kolkata), and Capital Value System (Mumbai).

In the annual rental value system, practised in Chennai and Hyderabad, properties are valued based on annual rent which the owner may reasonably expect to get if the premises were letout. This is not the actual rent but rather an expected gross annual rent. This is the most common system of valuation among Municipal Corporations in India although in recent years some have shifted to capital or unit area value systems. In the annual rental value system, there are usually no official sources for determining rental values making valuations difficult. Further, rent control legislations passed by state governments depress the rental values compared to market values.

Ahmedabad, Bengaluru, and Kolkata moved to the unit area value system in 2001, 2008 and 2017 respectively. Under this system, the price per unit value of the area (built-up/carpet) is fixed and is used to determine the tax returns from property. Kolkata introduced the unit area value system recently but has faced several teething problems such as complicated assessment forms and confusion over valuation. The resulting dip in property tax revenues has prompted the Municipal Corporation to allow both annual rental value system and unit area value system to run in parallel, giving house owners the option to either stay on with the former or shift to the latter.

Mumbai shifted to the capital value system in 2010. In this system, market value of the property as estimated by the local government is used to determine the tax return. In Mumbai too, the shift in valuation method has not been smooth. The steep increase in tax levied led to a spurt of litigations against the new system and the Bombay High Court gave an interim order in 2014 to levy tax with half the expected increase. Only recently, in 2019, the Court upheld the capital value system while directing certain changes in the assessment method.

Across developing countries, most metropolitan cities have migrated to the capital value system for determining property taxes as it better captures the current and the development value of a property.

With the passage of time, property values change depending on their location and type. Revaluations are necessary to bring assessed values in line with market realities and improve property tax yields for Municipal Corporations. Property revaluations are beset with two problems. First, like the preparation of tax rolls to increase coverage, the preparation of valuation rolls is also a huge administrative exercise. These are prepared after extensive data collection and analysis of information such as building costs and property transactions. Second, the higher assessed values are usually met with political resistance. The poor frequency of revaluations itself escalates the administrative cost as global experience has shown that metropolitan cities that revalue regularly gain experience in the processes and procedures of the task and are able to shrink costs. To counter the administrative enormity of revaluations, Municipal Corporations may consider segmental revaluation wherein say, in a period of three years, a third of the city undergoes revaluation annually. Municipal Corporations may also consider transitional relief schemes to cushion the impact of any abnormal tax increases on taxpayers.

For most Municipal Corporations the band for property tax rates are set by the state government or by the Corporations with the approval of the state government. However, Municipal Acts only in the states of Karnataka, Kerala and Jharkhand have a provision for regular revision of property tax rates. Tax rate revisions are often met with political resistance. Ahmedabad hiked its property tax rates in 2014 for the first time in ten years only to slash the hike by half after residents protested. Bengaluru which is bound to revise its rates every three years under the Karnataka Municipal Corporations Act has seen only one revision in the last eleven years. Hyderabad has seen no revision in rates since 2002 and Chennai saw its first revision in 20 years in 2018.

Municipal Corporations give several exemptions and concessions to the levy of property tax. Common exemptions include religious institutions, properties serving charitable purposes, public properties (such as playgrounds, parks, or monuments), or properties used for education purpose. Concessions and rebates based on vacancy, age of building, and kind of ownership is also common. In Chhattisgarh, properties owned by political parties enjoy exemptions while in West Bengal holdings classified as sick industries are extended benefits compared to non-sick industries. These exemptions impose a substantial administrative burden on the Municipal Corporations and raise the cost of administering the tax. The complex system of exemptions has loopholes that are exploited to avoid the tax. The large number of exemptions also increase the burden on other taxpayers.

Under Article 285 of the Constitution, central government properties are exempted from all taxes imposed by a Municipal Corporation. The 13th Finance Commission had urged central and state governments to issue executive instructions that all their respective departments pay appropriate service charges to the local governments for the municipal services they use or

benefit from. However, among the six largest Municipal Corporations only Kolkata levies such a service charge on central government properties.

Simpler billing and collection helps reduce compliance cost and increases collection efficiency. All the six largest Municipal Corporations have introduced self-assessment of property tax. Online and mobile based payments, payment facilities at specific bank branches and citizen facility centres, e-mailing tax bills, online tax calculators and electronic display of tax bills are simple measures that improve compliance and encourage transparency. 'Early Bird Schemes' in which discounts are available on timely payment of property tax bills have been utilised by some of these Municipal Corporations to improve collection rates. Effective public information campaigns help widen tax base and are also especially necessary during revision in rates or switch to a new valuation system. Kolkata's move to the unit area value system was marred by complicated assessment methodology and ambiguous assessment forms. Publishing a draft valuation roll with likely tax rates, such as that issued by Johannesburg when it shifted to the capital value system helps residents understand a new system better. The six largest Municipal Corporations can learn from the reforms introduced by Pune Municipal Corporation in billing and collection of property taxes (Box 3.2).

Strict enforcement measures are necessary to improve collections. Bengaluru has initiated a Total Station Survey i.e. a survey using total station machines, to identify the top hundred commercial and residential enclaves in every zone and impose stringent measures on those declaring lower tax. It has also set up a Revenue Vigilance Cell and a High Value Properties Tax Recovery Cell to improve tax revenues. Ahmedabad sealed over 5473 properties including some public sector units in 2019 for defaulting on their property tax payments. This led to an uptick in property tax revenues for the fiscal year 2018-19.

Property tax collections are also affected by several external factors. The Municipal Commissioner of Mumbai pointed to the slowdown in real estate for decrease in assessment of new properties leading to a dip in property tax collections in 2018-19. Property tax collections often dip during election years as municipal revenue staff is engaged in election activities and because several exemptions and concessions are offered during election campaigns. Demonetisation of high value currency notes in November 2016 led to a sharp rise in property tax collections in that month as the Municipal Corporations were accepting the old currency notes for property tax payment. However, there was no visible impact of the shock in the six largest Municipal Corporations except Hyderabad which achieved a 16 per cent increase in property tax collections in the year 2016-17 as compared to the usual 4-6 per cent increase. Part of the increase, however, may also be attributed to the 'Early Bird Scheme', 'Lucky Draw Scheme', and increase in the number of surveyed properties in that year.

Box 3.2 Improvement in billing and collection of property tax in Pune

Pune Municipal Corporation has seen a steady increase in property tax collections from Rs 245 crore in 2010-11 to Rs 1158 crore in 2016-17 growing at nearly 30 per cent annually. The move to capital value based system has led to valuation of properties closer to market values and GIS-based mapping has helped create a digital property database and led to an increase in the number of assessed properties. To capitalize on these improvements in assessment, the Corporation has introduced a series of reforms to simplify billing and collection in the city –

- **Door-to-door collection** Doorstep collection of taxes has been introduced at a small charge. The tax collectors carry PoS machines to help owners make on-the-spot digital payments. Special mobile recovery vans used for doorstep collection collected Rs 4.08 crore in 2017–18.
- Collection centres The Corporation has increased the number of collection centres and outsourced the collection process to private parties. The Corporation has partnered with several banks to improve collections at bank branches.
- **Digital payment platforms** A wide range of digital payment platforms such as Credit and Debit Cards, Mobile Wallets, Bharat QR Code, Net Banking, UPI, Google Pay are available for property tax payment. No transaction charge is levied on digital payments. More than half the property tax collections of the Corporation are from these modes of online payment.
- **Digital facilitators** E-bills are sent to property owners and multiple reminders are sent through e-mails and SMS. An online Property Tax Collection Dashboard has been set up to improve transparency and accountability.
- **Amnesty Scheme** The Corporation has used amnesty schemes to improve collection from defaulters. In 2016-17, the amnesty scheme led to 2.55 lakh defaulters paying INR 698.4 crore to the Corporation.

Lok Adalat has been instrumental in quick resolution of property tax disputes in the city. Coordination with the Registration and Stamps Department has helped get unassessed properties into the tax base.

The six largest Municipal Corporations have initiated several steps in the right direction to realise the potential that property tax provides as a major source of municipal revenue. The move to valuation that is closer to market values, use of technology to improve mapping, digitization of property tax rolls, and simplified payment systems will lead to increase in collections if implemented properly. The major challenge for these Municipal Corporations is the poor frequency and political resistance to revaluations. There should be a clear provision in all Municipal Acts on the periodicity with which this is undertaken or alternatively an indexation formula that can be used for regular revaluation. Increasing collection by widening the tax base and tracking land use will also be critical to the buoyancy of the tax.

3.2 Other Taxes

The introduction of Goods and Services Tax in 2017 struck a major blow to the finances of Municipal Corporations. Critical sources of tax revenue for urban local governments such as octroi, local body tax, entry tax and advertisement tax were subsumed under the new system but no part of GST proceeds were shared with them. Considering the contribution of cities to national growth and the large expenditure needs to provide basic local services, a small portion of GST revenues must accrue to all urban local governments.

Since the other five large Municipal Corporations had abolished octroi and other entry taxes well before the introduction of GST, Municipal Corporation of Greater Mumbai (MCGM) was the only corporation whose finances were at the risk of a major shortfall in 2017. Octroi, despite its distortionary effect on trade flows much like an import duty, was a lifeline for Mumbai – a lucrative and liquid tax contributing nearly a fifth of the Municipal Corporation's total revenue. Anticipating the consequences of its abolition, the Maharashtra state government passed a law to compensate Mumbai for the loss of revenues accruing from octroi. With 2016-17 as the base fiscal year, the compensation has been allocated in monthly instalments with a compounded annual growth rate of 8 per cent. Other Municipal Corporations have felt the pinch of subsumption of smaller taxes. The Mayor of Kolkata expressed the Corporation's inability to meet revenue targets from the advertisements sector while Hyderabad suffered a loss of Rs 70 crores in 2017-18 after entertainment tax was subsumed in the state.

Under the present circumstances, the Municipal Corporations must increase their tax revenues from the sources still left in their kitty. Entertainment tax has been subsumed under GST only where it was levied by the state government while allowing urban local governments to levy a local entertainment tax. Among the six largest Municipal Corporations, only Chennai and Ahmedabad have started levying this tax. Chennai has taken several measures to increase its revenues from events, matches, concerts and fairs organised in the city. A single cricket match of the Indian Premier League helped the Municipal Corporation earn Rs 1.25 crore as entertainment tax.

Professions tax is an underexploited source of municipal revenue. The constitutional limit of Rs 2500 for professions tax must be hiked significantly and increased annually at a suitable rate thereafter. Municipal Corporations must widen the professions tax base to include all professionals like advocates, doctors, contractors, and brokers in the tax net. Among the six largest Municipal Corporations, Mumbai and Bengaluru still do not enjoy the benefits of professions tax. Chennai and Ahmedabad, on the other hand, do well in professions tax collections generating 28 per cent and 12 per cent of their tax revenues respectively from the levy in 2017-18.

3.3 User Charges and Fees

User charges are an appropriate source of revenue for Municipal Corporations. Since these are levied by the Municipal Corporations for the services they provide there should be greater autonomy in setting the rates. However, in most cases, the rates set require state government approval. The rates can be set based on the cost of provision of the service. For example, in areas where water is scarce and the cost of supply is high, a high water charge will signal the citizens to use water more judiciously. The collections from such a charge will also help a Municipal Corporation assess the demand for water. User charges also subscribe to the benefit principle of taxation i.e. those who use or benefit from the service pay for its costs. Services such as water supply, sewerage, waste management, and parking should be financed

through user charges. A user fees may be levied for issuing a trade license, driving permits, building permits, setting up advertisement hoardings etc.

Increase in the rates of user charges, however, also suffers from similar political opposition as revaluations in property tax. This has prevented several Municipal Corporations to charge for supply of water and collection of garbage. Imposing prices on services that were previously provided for free or increasing prices on heavily subsidized services inevitably arouses public opposition. At present, the metropolitan cities seem trapped in a vicious circle in which the low quality of services makes it difficult to collect user charges, with the result being further deterioration in the service levels. It is critical that the Municipal Corporations break this vicious circle to both boost revenues and improve services.

Among the six largest Municipal Corporations, recovery of operational and maintenance cost of services is poor. The ratio of user charge and fee collection to the total revenue expenditure is only 8 per cent for Chennai. For Kolkata this ratio is 17 per cent. Among the six, Bengaluru is the only Municipal Corporations with a substantial ratio of 82 per cent. One reason for Chennai's poor performance is that it draws nil from water supply and sewerage services as the function has been delegated to Chennai Metro Water Supply and Sewerage Board (CMWSSB), a parastatal. Additionally, 10 per cent of the devolution made by Tamil Nadu State Finance Commission for Chennai goes to the CMWSSB. Recently, the 5th State Finance Commission has recommended that this share be raised to 15 per cent. The 13th Central Finance Commission, in its report, observed the debilitating impact of parastatal agencies on the finances and functioning of urban local governments. **Table 3.2** captures the parallel functioning of Municipal Corporations and parastatals in the six largest Municipal Corporations.

Mumbai, where water supply and sewerage services are provided by the Municipal Corporation, sets a better example. Water supply charges in the city are piggybacked on the property tax and the sewerage charge is 70 per cent of the total water charges. For a decade before 2012 there was no hike in the charges. In 2012, the Corporation passed a resolution to increase the rate annually while keeping the hike below 8 per cent. Between 2012-13 and 2016-17, water supply and sewerage charge collection have increased from 6.7 per cent to 8.8 per cent of the total revenue income of the Corporation.

Bengaluru makes a sizeable chunk of its revenue from fees such as road cutting fee, building license fee, ground rent etc. The Corporation has been actively pursuing telecom operators to pay the road cutting fees for laying optical fibre cables underground and penalties for the ones that are dangling above the ground. In 2018-19 the Corporation expected to collect Rs 200 crore from road cutting fees alone. The Corporation has been levying a solid waste management cess on property tax since 2011 but is now contemplating a waiver for bulk waste generators who compost their wet waste, thus using the cess to incentivise environmentally sustainable practices.

Table 3.2 Distribution of important local government functions between Municipal Corporations and Parastatals

	Urban Planning			11 3		Solid Waste Management		Fire Services	
	Municipal	Parastatal	Municipal	Parastatal	Municipal	Parastatal	Municipal	Parastatal	
	Corporation	/State	Corporation	/State	Corporation	/State	Corporation	/State	
		Government		Government		Government		Government	
Bengaluru	✓	✓		✓	✓			✓	
Chennai	✓	✓		✓	✓			✓	
Ahmedabad	✓	✓	✓		✓		✓		
Mumbai	✓		✓		✓		✓		
Hyderabad	✓	✓		✓	✓		✓	✓	
Kolkata	✓	✓	✓		✓		✓	✓	

Note: Functions of land use and preparation of development plans are handled by the Metropolitan Development Authorities/Urban Development Authorities in each city. Only in case of Mumbai, it is done by the Municipal Corporation itself under Chief Engineer (Development Plan). Urban planning function of all 6 Municipal Corporations relate to sanctioning building plan permits.

In Hyderabad, Town planning Department provides for Occupancy Fire No Objection Certificate for buildings under and above 15 meters of height on payment of fees. Rest of the fire service is the prerogative of state.

Kolkata MC provides water supply for fire-fighting and maintains water pumping station for the same. Rest of the fire services are performed by the state.

The Municipal Corporations must utilize parking fees to generate revenues as well as decongest traffic. Chennai has conducted trials of a dynamic pricing model from which the Corporation expects to better manage road traffic and collect revenues to the tune of Rs 350 crore over the next five years.

3.4 Unlocking land value

With growing urbanisation Municipal Corporations have to develop more and better infrastructure to cater to the rising demands of citizens for better public service delivery. Building infrastructure increases the value of the land on which it is built. Municipal Corporations can unlock land value by realising a part of this increase in land value to fund further infrastructure development. Tapping land value for infrastructure development has special merit because funds are mobilized upfront thereby adding flexibility to infrastructure financing decisions. The price signals that emanate from land-based taxation also increase the efficiency of urban land markets. The fees and charges levied help in better town planning. Land value can be monetized using an array of instruments – impact fees, betterment levy, premium on relaxation of Floor Space Index (FSI), Transfers of Development Rights (TDR), vacant land tax etc.

In Hyderabad, the construction of an eight-lane expressway Outer Ring Road has been used to mobilize an impact fee for any new development that takes place along the expressway. Impact fee is a one-time charge levied at the time of granting building permission and is designed to recover the cost of infrastructure development. The levy of this fee curbs

haphazard development along the expressway. The proceeds of the impact fee are kept separate from the administrative expenses and are used for decongestion plans such as flyovers, road widening, slip roads, traffic signals etc.

Mumbai collects substantial revenues from the premium on relaxation of FSI i.e. charges to increase built-up area on the same plot of land. FSI limit was increased in the Mumbai Development Plan 2034 passed by the state government in 2018. In town area, the limit has been raised from 1.33 for both residential and commercial real estate to 3 for residential real estate and 5 for commercial real estate. In suburbs, the limit has been raised from 2 to 2.5 for residential real estate and from 2.5 to 5 for commercial real estate. However, the power to increase FSI rests with the state government leaving the Municipal Corporation handicapped.

Transferable Development Rights (TDRs) are essentially transferable FSI that, in exchange of land, allow the developers to build over and above the permissible FSI at another location. Mumbai Municipal Corporation was the first to introduce TDRs in 1991 and has used the instrument extensively for infrastructure development and slum redevelopment. Bengaluru Metro Rail Corporation has used TDRs to secure land for metro rail alignment in lieu of compensation for acquisition of land.

Hyderabad imposes a Vacant Land Tax of 0.5 per cent of the registration value of land on landowners who have not yet initiated construction on their lands. The tax promotes housing since the tax rate on built-up land is lower than that on vacant premises. It also helps finance trunk infrastructure which, in turn, enhances the value of the vacant land. The development of Sabarmati Riverfront in Ahmedabad and Bandra Kurla Complex in Mumbai are other projects where land value was tapped to mobilize finances. In recent times, Bengaluru has been using a betterment fee to regularise properties that were brought under its ambit after the territorial jurisdiction of the Municipal Corporation was enhanced in 2007. The Corporation expects to earn significant returns in the process.

3.5 Conclusions

The rapidly growing metropolitan cities of India are the engines of economic growth for the country. In the coming years, these cities will expand geographically and attract more migrants in search of employment opportunities. Municipal Corporations are responsible for the infrastructure and public service delivery in these cities; they need better governance as well as stronger finances to handle the demands of the rising population. This chapter focuses on the finances of the six largest Municipal Corporations.

Both the revenues and expenditures of the 37 Municipal Corporations examined in this report grew slower than GDP in the period 2012-13 to 2017-18. The introduction of Goods and Services Tax (GST) in 2017 has subsumed local taxes such as octroi, entry tax, local body tax, advertisements tax without providing Municipal Corporations a share of GST collections. Among the sources of own revenue, property tax collections have not picked up, user charges levied do not even recover the operational and maintenance cost of providing the services,

and instruments for unlocking land value are well below their revenue potential. With the advent of GST and consequently a shrunken tax kitty, property tax will be the mainstay of Municipal Corporations and reforms in coverage, valuation, revaluations, and billing of the tax will be indispensable.

The poor financial situation of Municipal Corporations and their poor governance adversely impacts their credit-worthiness and prevents financing of capital investments through borrowings. The absence of a revenue model also discourages private partners from stepping forth in public private partnership (PPP) in municipal projects. Given the rising expenditure needs of Municipal Corporations, transfers from the state and central government must step up.

State governments must increase transfers to Municipal Corporations to address the problem of no longer having access to octroi, entry tax, advertisement tax, local body tax and other consumption related taxes in the GST regime. They must set up State Finance Commissions regularly and with members of eminence and competence. The State Finance Commissions must scientifically assess the needs of Municipal Corporations and consider sharing a higher percentage of state's own revenues. A good example has been set by the Fourth State Finance Commission of Karnataka which has recommended 4.5 per cent of the divisible pool for Bengaluru Municipal Corporation for the period 2018-19 to 2021-22. State Governments must also assign entertainment tax to Municipal Corporations and share a portion of revenues from Motor Vehicles Tax and Stamp Duty with them.

Central government, in its part, must substantially increase grants-in-aid for all urban local governments. The 15th Finance Commission while making its recommendations to the central government must consider the impact of GST on municipal finances and the growing needs of the Municipal Corporations in metropolitan regions. The Commission must refer the matter of sharing of GST revenues with all urban local governments to the GST Council. It must recommend a substantially higher percentage of the central divisible pool as grants-in-aid for all urban local governments. The horizontal distribution of these grants must ensure that Municipal Corporations in metropolitan regions receive adequate funds giving due consideration to economic importance of these rapidly growing regions.

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Table A1. Population and Area of 37 Municipal Corporations

Municipal Corporation	Population (million)	Area (sq.km)	Share in State Urban Population (%)
Mumbai	12.442373	603.00	24.48
Bengaluru	8.443675	709.96	35.81
Hyderabad	6.731790	715.10	49.50
Ahmedabad	5.577940	468.92	21.69
Chennai	4.646732	175.00	13.30
Kolkata	4.496694	185.00	15.43
Surat	4.467797	335.82	17.38
Pune	3.124458	249.29	6.15
Nagpur	2.405665	217.56	4.73
Indore	1.964086	130.17	9.79
Bhopal	1.798218	285.88	8.96
Patna	1.684222	107.62	14.36
Vadodara	1.670806	166.23	6.50
Ludhiana	1.618879	159.37	15.58
Nashik	1.486053	259.13	2.92
Faridabad	1.414050	204.00	16.03
Rajkot	1.286678	110.84	5.00
Vasai-Virar	1.222390	319.39	2.40
Srinagar	1.180570	278.10	34.58
Aurangabad	1.175116	138.50	2.31
Dhanbad	1.162472	207.00	14.66
Amritsar	1.132383	136.00	10.90
Ranchi	1.073427	175.12	13.54
Jabalpur	1.055525	129.20	5.26
Gwalior	1.054420	173.68	5.26
Coimbatore	1.050721	105.60	3.01
Jodhpur	1.033756	75.50	6.05
Madurai	1.017865	51.96	2.91
Raipur	1.010433	147.50	17.02
Kota	1.001694	527.03	5.86
Chandigarh*	0.961587	103.17	93.68**
Thiruvananthapuram	0.743691	141.74	4.68
Kochi	0.602046	94.88	3.79
Asansol	0.563917	125.23	1.94
Kozhikode	0.431560	84.29	2.71
Kollam	0.348657	57.28	2.19
Thrissur	0.315957	101.42	1.99
Total (37 Municipal Corporations)	83.398303	8255.48	23.28***

Source: Census 2011

Note: According to Census 2011, Municipal Corporations of Ludhiana, Faridabad, Vasai Virar and Kota are not a part of any urban agglomeration. Others are a part of larger urban agglomeration.

^{*} Chandigarh Municipal Corporation falls under a Union Territory
** Share in Chandigarh Union Territory population

^{***}Share in India's Urban Population 2011

Table A2. Municipal Revenue

Municipal Corporation	2012-13	2016-17	2017-18
Mumbai	17615.9	22741.2	23678.1
Bengaluru	3407.2	6036.2	6913.9
Hyderabad	2532.5	3114.8	3720.1
Ahmedabad	2977.3	4164.8	3910.0
Chennai	2245.8	3836.3	4212.0
Kolkata	3110.8	3382.4	3612.9
Surat	2094.3	3238.4	3663.8
Pune	2962.1	3728.5	4306.6
Nagpur	1061.2	1823.1	1894.6
Indore	860.8	1347.8	1384.4
Bhopal	445.5	988.3	1280.7
Patna	130.9	399.3	1506.0
Vadodara	1279.5	1939.1	1946.7
Ludhiana	547.5	934.1	767.3
Nashik	956.6	1080.4	1297.4
Faridabad	522.3	806.9	757.3
Rajkot	320.8	543.6	597.5
Vasai-Virar	519.6	669.4	698.9
Srinagar	153.8	223.2	277.5
Aurangabad	562.4	629.7	542.0
Dhanbad	49.7	194.0	200.4
Amritsar	216.4	321.2	318.3
Ranchi	142.1	502.1	796.6
Jabalpur	424.1	517.6	428.8
Gwalior	433.7	613.9	756.7
Coimbatore	604.9	1057.7	957.2
Jodhpur	142.5	245.6	275.5
Madurai	278.0	403.8	584.4
Raipur	201.9	226.3	249.0
Kota	171.7	277.4	283.9
Chandigarh	476.0	576.9	507.6
Thiruvananthapuram	210.6	364.3	365.3
Kochi	180.7	180.3	306.2
Asansol	149.7	464.0	489.8
Kozhikode	177.6	246.4	246.5
Kollam	93.9	160.1	286.6
Thrissur	52.1	97.5	105.3
Total (37 Municipal Corporations)	48447.9	68981.9	76719.1

Source: Data received from States and Municipal Corporations, and Municipal Corporation Budgets

Note: The above source is applicable for all the following tables unless mentioned otherwise.

Table A3. Own Revenue

Municipal Corporation	2012-13	2016-17	2017-18
Mumbai	17197.9	22348.9	17299.8
Bengaluru	1691.1	2836.6	3048.7
Hyderabad	1420.2	2252.9	2293.7
Ahmedabad	1020.1	2303.1	2539.6
Chennai	822.2	1218.1	1640.0
Kolkata	1459.7	1256.4	1392.3
Surat	672.8	1379.3	1300.8
Pune	2723.8	2629.0	2426.2
Nagpur	790.7	523.2	448.1
Indore	328.8	508.2	592.0
Bhopal	132.0	320.2	545.8
Patna	30.8	55.6	56.7
Vadodara	346.0	562.7	553.6
Ludhiana	475.5	617.1	635.1
Nashik	916.6	985.5	1216.0
Faridabad	60.3	130.4	76.2
Rajkot	210.9	360.1	388.3
Vasai-Virar	462.5	293.0	325.3
Srinagar	17.5	17.4	24.8
Aurangabad	165.5	240.0	212.9
Dhanbad	3.8	22.1	15.8
Amritsar	169.5	206.0	231.6
Ranchi	23.7	70.6	73.4
Jabalpur	127.0	155.6	247.8
Gwalior	240.0	354.2	374.8
Coimbatore	296.3	374.0	414.1
Jodhpur	36.5	74.1	85.8
Madurai	136.0	207.1	189.4
Raipur	91.5	126.6	139.3
Kota	104.9	167.3	168.2
Chandigarh	146.6	157.6	184.1
Thiruvananthapuram	80.4	128.3	123.2
Kochi	96.7	145.9	162.9
Asansol	17.4	27.8	25.4
Kozhikode	43.3	57.9	51.2
Kollam	16.9	32.0	24.6
Thrissur	29.9	48.3	40.0
Total (37 Municipal Corporations)	32605.5	43193.3	39567.4

Table A4. Tax Revenue

Municipal Corporation	2012-13	2016-17	(Rs. crore)
Mumbai	9916.5	12013.9	7195.3
Bengaluru	1102.4	1753.0	1804.3
Hyderabad	776.2	1311.1	1392.7
Ahmedabad	520.2	1158.0	1392.7
Chennai			
	616.4	937.3	1068.5
Kolkata	847.1	818.1	901.7
Surat	477.5	889.5	968.0
Pune	1592.9	1716.1	1334.2
Nagpur	638.1	323.6	241.4
Indore	206.3	313.3	378.8
Bhopal	68.7	185.3	397.3
Patna	24.2	45.6	49.1
Vadodara	188.7	389.4	398.4
Ludhiana	423.0	549.5	557.3
Nashik	808.5	862.4	1065.1
Faridabad	31.8	94.7	49.6
Rajkot	83.4	133.7	117.6
Vasai-Virar	223.6	139.4	118.5
Srinagar	11.9	11.0	16.3
Aurangabad	99.6	124.0	105.0
Dhanbad	3.0	12.0	8.1
Amritsar	135.0	176.9	196.8
Ranchi	6.3	54.7	42.3
Jabalpur	65.7	91.9	194.1
Gwalior	50.3	67.7	74.0
Coimbatore	117.4	222.5	251.8
Jodhpur	28.7	28.7	23.5
Madurai	72.7	108.6	106.1
Raipur	54.6	79.5	87.5
Kota	94.6	146.5	153.3
Chandigarh	18.1	20.6	38.3
Thiruvananthapuram	68.7	100.0	97.7
Kochi	82.4	116.2	126.4
Asansol	6.7	10.9	10.9
Kozhikode	33.1	43.4	39.6
Kollam	12.9	21.9	19.5
Thrissur	21.9	34.2	33.1
Total (37 Municipal Corporations)	19529.2	25104.9	21001.1

Table A5. Property Tax

Municipal Corporation	2012-13	2016-17	2017-18
Mumbai	3272.4	4823.1	5200.8
Bengaluru	1085.0	1724.5	1777.4
Hyderabad	776.2	1311.1	1392.7
Ahmedabad	247.6	881.1	1022.1
Chennai	411.1	673.4	750.0
Kolkata	828.7	792.3	822.7
Surat	194.4	318.4	393.4
Pune	444.1	1087.1	994.0
Nagpur	167.3	185.7	202.4
Indore	124.6	165.0	215.7
Bhopal	58.3	157.7	194.3
Patna	24.1	43.5	48.0
Vadodara	111.1	168.2	174.5
Ludhiana	89.9	66.1	70.4
Nashik	63.5	65.2	76.5
Faridabad	20.2	72.3	39.2
Rajkot	70.1	112.1	97.2
Vasai-Virar	52.1	65.6	66.8
Srinagar	0.1	0.1	0.2
Aurangabad	77.2	75.6	80.7
Dhanbad	3.0	12.0	8.1
Amritsar	18.3	17.0	17.9
Ranchi	6.3	42.0	39.4
Jabalpur	51.2	73.6	77.7
Gwalior	16.9	30.5	51.8
Coimbatore	105.7	198.7	227.0
Jodhpur	5.4	25.1	19.9
Madurai	62.7	93.8	92.5
Raipur	25.9	45.9	50.5
Kota	1.5	10.2	3.4
Chandigarh	18.1	20.6	38.3
Thiruvananthapuram	34.5	51.1	54.1
Kochi	52.7	74.0	79.5
Asansol	6.1	9.9	9.5
Kozhikode	17.0	21.4	22.4
Kollam	6.2	11.9	11.9
Thrissur	11.8	20.0	20.9
Total (37 Municipal Corporations)	8561.3	13546.1	14443.7

Table A6. Other Tax

Municipal Corporation	2012-13	2016-17	2017-18
Mumbai	6644.0	7190.8	1994.6
Bengaluru	17.4	28.5	26.9
Hyderabad	0.004	0.004	NA
Ahmedabad	272.6	276.9	317.1
Chennai	205.4	263.9	318.5
Kolkata	18.5	25.8	79.0
Surat	283.2	571.1	574.6
Pune	1148.8	628.9	340.1
Nagpur	470.8	138.0	39.0
Indore	81.8	148.2	163.1
Bhopal	10.5	27.5	203.1
Patna	0.1	2.0	1.1
Vadodara	77.6	221.2	223.9
Ludhiana	333.1	483.4	486.8
Nashik	745.0	797.2	988.6
Faridabad	11.6	22.4	10.4
Rajkot	13.4	21.6	20.3
Vasai-Virar	171.5	73.8	51.7
Srinagar	11.8	10.9	16.1
Aurangabad	22.4	48.4	24.3
Dhanbad	NA	NA	NA
Amritsar	116.7	159.9	178.9
Ranchi	NA	12.7	2.9
Jabalpur	14.4	18.4	116.4
Gwalior	33.4	37.2	22.2
Coimbatore	11.7	23.8	24.8
Jodhpur	23.4	3.7	3.6
Madurai	10.0	14.7	13.6
Raipur	28.7	33.6	37.0
Kota	93.1	136.3	149.9
Chandigarh	NA	NA	NA
Thiruvananthapuram	34.2	48.8	43.6
Kochi	29.7	42.2	47.0
Asansol	0.6	1.0	1.4
Kozhikode	16.0	22.0	17.1
Kollam	6.7	9.9	7.6
Thrissur	10.2	14.2	12.2
Total (37 Municipal Corporations)	10967.9	11558.8	6557.4

Table A7. Non-Tax Revenue

Municipal Comparation	2012 12	2017 17	(Rs. crore)
Municipal Corporation	2012-13	2016-17	2017-18
Mumbai	7281.5	10335.1	10104.5
Bengaluru	588.7	1083.6	1244.4
Hyderabad	644.0	941.9	901.0
Ahmedabad	499.8	1145.2	1200.4
Chennai	205.7	280.8	571.5
Kolkata	612.6	438.3	490.6
Surat	195.3	489.8	332.8
Pune	1130.9	912.9	1092.0
Nagpur	152.6	199.6	206.7
Indore	122.5	195.0	213.3
Bhopal	63.3	135.0	148.5
Patna	6.6	10.0	7.6
Vadodara	157.3	173.3	155.3
Ludhiana	52.5	67.7	77.9
Nashik	108.1	123.1	150.9
Faridabad	28.6	35.7	26.6
Rajkot	127.4	226.3	270.7
Vasai-Virar	238.9	153.6	206.8
Srinagar	5.5	6.4	8.5
Aurangabad	65.9	116.0	107.9
Dhanbad	0.8	10.1	7.7
Amritsar	34.5	29.1	34.8
Ranchi	17.4	16.0	31.1
Jabalpur	61.4	63.6	53.7
Gwalior	189.7	286.5	300.8
Coimbatore	178.8	151.6	162.2
Jodhpur	7.8	45.4	62.3
Madurai	63.3	98.5	83.3
Raipur	37.0	47.1	51.8
Kota	10.3	20.8	14.9
Chandigarh	128.5	137.0	145.8
Thiruvananthapuram	11.7	28.3	25.4
Kochi	14.3	29.7	36.5
Asansol	10.7	16.9	14.6
Kozhikode	10.3	14.5	11.6
Kollam	4.0	10.1	5.1
Thrissur	8.0	14.1	6.9
Total (37 Municipal Corporations)	13076.4	18088.4	18566.3

Table A8. Combined Central Transfers and State Transfers

Municipal Corporation	2012-13	2016-17	2017-18
Mumbai	418.0	392.3	6378.3
Bengaluru	1146.6	3199.6	3865.2
Hyderabad	502.3	461.0	1060.4
Ahmedabad	1831.0	2125.9	2345.4
Chennai	1000.3	1274.3	1013.5
Kolkata	1717.8	2326.0	2376.3
Surat	1195.8	1405.8	1367.0
Pune	238.3	1099.5	1680.4
Nagpur	179.7	1142.3	1263.1
Indore	495.0	833.2	791.3
Bhopal	277.1	516.7	568.4
Patna	95.8	338.4	1427.5
Vadodara	697.6	757.7	928.0
Ludhiana	37.7	104.3	112.4
Nashik	6.7	7.9	4.7
Faridabad	321.7	647.5	594.5
Rajkot	109.9	183.5	209.2
Vasai-Virar	57.1	376.4	373.6
Srinagar	136.3	205.8	252.7
Aurangabad	204.7	389.7	329.1
Dhanbad	45.9	166.6	182.0
Amritsar	37.1	60.9	86.1
Ranchi	115.9	412.3	714.7
Jabalpur	289.2	362.0	234.6
Gwalior	193.7	259.7	381.9
Coimbatore	214.6	678.2	305.5
Jodhpur	91.8	171.4	181.5
Madurai	142.0	196.7	395.0
Raipur	110.3	99.7	109.7
Kota	27.2	73.0	76.9
Chandigarh	329.1	419.3	319.3
Thiruvananthapuram	130.2	236.0	242.2
Kochi	84.0	34.4	143.3
Asansol	131.6	435.1	463.9
Kozhikode	134.3	188.5	195.3
Kollam	62.1	98.5	236.9
Thrissur	22.2	49.2	65.3
Total (37 Municipal Corporations)	12830.7	21729.1	31274.7

Table A9. Central Transfers

Municipal Corporation	2012-13	2016-17	(Rs. crore)
Mumbai	118.1	4.8	153.0
Bengaluru	149.3	373.0	295.4
Hyderabad	59.4	0.3	NA
Ahmedabad	127.7	166.4	129.5
Chennai	175.5	223.0	228.5
Kolkata	793.0	976.4	1134.6
Surat	136.8	236.1	174.9
Pune	NA	NA	NA
	121.1	95.7	139.6
Nagpur Indore			40.7
	20.6	95.4	
Bhopal	23.5	86.6	95.2
Patna	NA	NA	157.2
Vadodara	44.9	60.5	66.0
Ludhiana	27.1	82.9	111.2
Nashik	0.9	NA	NA
Faridabad	118.1	43.5	44.0
Rajkot	NA	2.3	1.2
Vasai-Virar	17.6	37.8	28.9
Srinagar	4.5	NA	24.5
Aurangabad	NA	73.1	NA
Dhanbad	NA	115.8	129.8
Amritsar	33.3	42.4	57.1
Ranchi	NA	164.2	483.3
Jabalpur	21.3	53.6	53.6
Gwalior	21.7	58.5	25.0
Coimbatore	15.0	63.9	28.5
Jodhpur	16.2	52.9	35.0
Madurai	15.1	56.8	132.4
Raipur	10.7	0.7	0.8
Kota	NA	NA	NA
Chandigarh	329.1	419.3	319.3
Thiruvananthapuram	27.1	58.2	68.9
Kochi	16.8	6.9	28.7
Asansol	64.1	347.0	333.1
Kozhikode	13.7	26.8	68.1
Kollam	11.9	21.1	80.4
Thrissur	7.3	28.9	26.1
Total (37 Municipal Corporations)	2541.3	4074.7	4694.4

Table A10. Central Transfers: CFC Grants

Municipal Corporation	2012-13	2016-17	2017-18
Mumbai	0.9	NA	NA
Bengaluru	114.6	310.5	265.3
Hyderabad	NA	NA	NA
Ahmedabad	NA	99.7	129.5
Chennai	91.9	220.0	190.0
Kolkata	44.1	144.6	278.5
Surat	11.4	79.2	7.0
Pune	NA	NA	NA
Nagpur	NA	NA	NA
Indore	20.6	95.4	40.7
Bhopal	23.5	86.6	95.2
Patna	NA	NA	157.2
Vadodara	0.6	30.2	35.0
Ludhiana	15.7	20.8	40.1
Nashik	0.9	NA	NA
Faridabad	9.9	43.5	44.0
Rajkot	NA	NA	NA
Vasai-Virar	2.7	NA	NA
Srinagar	4.5	NA	24.5
Aurangabad	NA	NA	NA
Dhanbad	NA	52.0	88.5
Amritsar	22.5	18.9	32.6
Ranchi	NA	61.3	56.0
Jabalpur	21.3	53.6	53.6
Gwalior	21.7	58.5	25.0
Coimbatore	15.0	63.9	28.5
Jodhpur	14.7	25.7	29.8
Madurai	13.6	56.6	25.2
Raipur	10.7	0.7	0.8
Kota	NA	NA	NA
Chandigarh	NA	NA	NA
Thiruvananthapuram	26.4	58.2	62.1
Kochi	16.8	6.9	28.7
Asansol	5.8	42.7	89.9
Kozhikode	12.5	17.8	44.8
Kollam	11.0	16.9	31.1
Thrissur	7.3	28.9	26.1
Total (37 Municipal Corporations)	869.6	2112.1	2249.0

Table A11. Central Transfers: Other Central Transfers

Municipal Corporation	2012-13	2016-17	2017-18
Mumbai	117.2	4.8	153.0
Bengaluru	34.7	62.5	30.2
Hyderabad	59.4	0.3	NA
Ahmedabad	127.7	66.8	NA
Chennai	83.6	3.1	38.5
Kolkata	748.9	831.9	856.1
Surat	125.4	156.9	167.9
Pune	NA	NA	NA
Nagpur	121.1	95.7	139.6
Indore	NA	NA	NA
Bhopal	NA	NA	NA
Patna	NA	NA	NA
Vadodara	44.4	30.3	31.0
Ludhiana	11.4	62.0	71.1
Nashik	NA	NA	NA
Faridabad	108.1	NA	NA
Rajkot	0.0	2.3	1.2
Vasai-Virar	14.9	37.8	28.9
Srinagar	NA	NA	NA
Aurangabad	NA	73.1	NA
Dhanbad	NA	63.8	41.4
Amritsar	10.8	23.5	24.5
Ranchi	NA	103.0	427.2
Jabalpur	NA	NA	NA
Gwalior	NA	NA	NA
Coimbatore	NA	NA	NA
Jodhpur	1.5	27.2	5.2
Madurai	1.5	0.2	107.2
Raipur	NA	NA	NA
Kota	NA	NA	NA
Chandigarh	329.1	419.3	319.3
Thiruvananthapuram	0.7	0.03	6.8
Kochi	NA	NA	NA
Asansol	58.4	304.3	243.2
Kozhikode	1.2	9.0	23.3
Kollam	0.9	4.1	49.3
Thrissur	NA	NA	NA
Total (37 Municipal Corporations)	1671.7	1962.6	2445.4

Table A12. State Transfers

Municipal Corporation	2012-13	2016-17	2017-18
Mumbai	299.9	387.5	6225.2
Bengaluru	997.3	2826.6	3569.8
Hyderabad	442.9	460.8	1060.4
Ahmedabad	1703.3	1959.5	2215.9
Chennai	824.8	1051.2	785.0
Kolkata	924.7	1349.5	1241.7
Surat	1059.0	1169.7	1192.1
Pune	238.3	1099.5	1680.4
Nagpur	58.7	1046.6	1123.5
Indore	474.4	737.8	750.6
Bhopal	253.6	430.1	473.1
Patna	95.8	338.4	1270.3
Vadodara	652.7	697.3	862.0
Ludhiana	10.6	21.4	1.2
Nashik	5.8	7.9	4.7
Faridabad	203.6	604.1	550.5
Rajkot	109.9	181.2	208.0
Vasai-Virar	39.5	338.6	344.7
Srinagar	131.8	205.8	228.2
Aurangabad	204.7	316.6	329.1
Dhanbad	45.9	50.8	52.2
Amritsar	3.8	18.5	29.0
Ranchi	115.9	248.1	231.4
Jabalpur	267.9	308.4	181.0
Gwalior	172.1	201.2	356.9
Coimbatore	199.7	614.3	277.0
Jodhpur	75.6	118.5	146.5
Madurai	126.9	140.0	262.7
Raipur	99.6	99.0	108.9
Kota	27.2	73.0	76.9
Chandigarh	NA	NA	NA
Thiruvananthapuram	103.1	177.8	173.3
Kochi	67.2	27.5	114.6
Asansol	67.5	88.1	130.8
Kozhikode	120.6	161.7	127.2
Kollam	50.1	77.5	156.5
Thrissur	14.9	20.3	39.3
Total (37 Municipal Corporations)	10289.4	17654.4	26580.3

Table A13. Borrowings

Municipal Corporation	2012-13	2016-17	2017-18
Mumbai	NA	NA	NA
Bengaluru	539.4	NA	NA
Hyderabad	NA	NA	297.5
Ahmedabad	193.8	355.8	342.6
Chennai	34.8	807.9	950.9
Kolkata	82.5	119.1	227.2
Surat	NA	NA	NA
Pune	NA	NA	200.0
Nagpur	35.0	100.0	100.0
Indore	26.6	2.5	NA
Bhopal	NA	75.8	83.4
Patna	NA	NA	NA
Vadodara	50.1	217.9	189.9
Ludhiana	10.0	32.0	15.0
Nashik	NA	20.0	10.0
Faridabad	NA	NA	NA
Rajkot	NA	NA	NA
Vasai-Virar	NA	NA	NA
Srinagar	NA	NA	NA
Aurangabad	192.2	NA	NA
Dhanbad	NA	NA	2.2
Amritsar	5.0	7.5	0.0
Ranchi	2.4	6.3	6.2
Jabalpur	7.9	NA	NA
Gwalior	NA	NA	NA
Coimbatore	NA	NA	NA
Jodhpur	14.2	NA	8.2
Madurai	NA	NA	NA
Raipur	NA	NA	NA
Kota	NA	NA	NA
Chandigarh	NA	NA	NA
Thiruvananthapuram	NA	NA	NA
Kochi	NA	NA	NA
Asansol	NA	NA	NA
Kozhikode	NA	NA	NA
Kollam	2.0	NA	NA
Thrissur	NA	NA	NA
Total (37 Municipal Corporations)	1195.9	1744.8	2433.0

Table A14. Other Sources of Finance

Municipal Corporation	2012-13	2016-17	2017-18
Mumbai	NA	NA	NA
Bengaluru	30.0	NA	NA
Hyderabad	529.3	367.3	911.9
Ahmedabad	NA	NA	NA
Chennai	388.5	536.0	607.6
Kolkata	NA	NA	NA
Surat	225.7	453.3	996.0
Pune	NA	NA	NA
Nagpur	55.7	57.7	83.5
Indore	10.4	3.8	1.0
Bhopal	36.4	75.6	83.2
Patna	4.4	5.4	21.8
Vadodara	185.8	400.7	275.2
Ludhiana	24.3	180.7	4.8
Nashik	33.2	67.0	66.7
Faridabad	140.3	29.0	86.7
Rajkot	NA	NA	NA
Vasai-Virar	NA	NA	NA
Srinagar	NA	NA	NA
Aurangabad	NA	NA	NA
Dhanbad	NA	5.3	0.5
Amritsar	4.8	46.8	0.7
Ranchi	NA	12.9	2.4
Jabalpur	NA	NA	NA
Gwalior	NA	NA	NA
Coimbatore	94.0	5.4	237.7
Jodhpur	NA	NA	NA
Madurai	NA	NA	NA
Raipur	NA	NA	NA
Kota	39.6	37.1	38.8
Chandigarh	NA	NA	NA
Thiruvananthapuram	NA	NA	NA
Kochi	NA	NA	NA
Asansol	0.6	1.1	0.6
Kozhikode	NA	NA	NA
Kollam	12.8	29.6	25.1
Thrissur	NA	NA	NA
Total (37 Municipal Corporations)	1815.8	2314.7	3444.0

Table A15. Municipal Expenditure

Municipal Corporation	2012-13	2016-17	2017-18
Mumbai	15735.1	19905.7	20036.6
Bengaluru	4358.1	4515.3	4857.8
Hyderabad	1879.3	2811.7	3533.7
Ahmedabad	1888.0	2765.4	3158.9
Chennai	2146.5	4556.8	4569.8
Kolkata	3100.6	3434.9	3769.7
Surat	2254.8	3233.4	3652.4
Pune	2826.7	4089.3	3902.8
Nagpur	948.8	1609.1	1844.0
Indore	755.6	1027.6	1150.2
Bhopal	622.1	725.6	759.1
Patna	108.3	293.5	542.9
Vadodara	1076.8	1469.9	1533.1
Ludhiana	544.0	923.2	750.1
Nashik	968.6	1080.9	1143.9
Faridabad	NA	NA	NA
Rajkot	539.3	954.2	1019.7
Vasai-Virar	356.3	672.0	641.8
Srinagar	132.6	162.8	295.3
Aurangabad	353.1	515.1	604.3
Dhanbad	14.1	135.8	90.1
Amritsar	212.1	317.8	311.9
Ranchi	79.9	237.4	682.6
Jabalpur	362.1	370.5	214.6
Gwalior	296.2	295.9	318.3
Coimbatore	545.4	693.5	951.5
Jodhpur	176.5	170.5	199.1
Madurai	278.7	416.8	594.0
Raipur	365.3	296.1	325.8
Kota	134.8	185.5	200.4
Chandigarh	472.1	410.3	125.8
Thiruvananthapuram	148.5	255.9	282.3
Kochi	143.0	145.6	121.2
Asansol	115.8	185.1	115.8
Kozhikode	127.9	248.0	243.5
Kollam	81.2	137.4	243.7
Thrissur	42.5	54.9	72.8
Total (37 Municipal Corporations)	44190.3	59303.3	62733.8

Table A16. Revenue Expenditure

Municipal Corporation	2012-13	2016-17	2017-18
Mumbai	11175.5	16055.2	15058.2
Bengaluru	1894.7	1299.3	1320.2
Hyderabad	1315.9	2042.4	1939.2
Ahmedabad	1427.1	2055.7	2403.4
Chennai	1413.8	2523.0	2953.8
Kolkata	2292.8	2584.2	2579.8
Surat	1040.8	1643.9	2037.4
Pune	1573.6	2566.9	2387.7
Nagpur	607.6	933.5	1087.5
Indore	416.8	696.7	769.7
Bhopal	213.8	420.5	446.4
Patna	104.0	213.9	253.2
Vadodara	577.9	797.3	919.4
Ludhiana	427.8	610.0	637.7
Nashik	561.0	682.3	713.1
Faridabad	NA	NA	NA
Rajkot	310.6	480.4	585.9
Vasai-Virar	202.7	390.9	386.6
Srinagar	89.9	116.3	128.8
Aurangabad	278.5	378.3	441.2
Dhanbad	3.8	40.8	19.4
Amritsar	179.0	228.6	215.8
Ranchi	26.7	64.0	64.3
Jabalpur	178.5	214.4	155.5
Gwalior	196.8	227.9	248.2
Coimbatore	361.8	404.5	492.0
Jodhpur	113.8	131.3	161.0
Madurai	190.9	296.6	291.5
Raipur	163.7	199.4	219.3
Kota	85.7	103.0	90.0
Chandigarh	294.0	284.5	NA
Thiruvananthapuram	138.2	203.8	197.0
Kochi	101.0	71.5	36.4
Asansol	47.5	91.9	46.0
Kozhikode	98.5	193.2	183.8
Kollam	66.6	130.1	200.2
Thrissur	27.4	33.0	33.6
Total (37 Municipal Corporations)	28198.5	39409.4	39703.4

Table A17. Capital Expenditure

Municipal Corporation	2012-13	2016-17	2017-18
Mumbai	4559.5	3850.5	4978.5
Bengaluru	2463.4	3216.0	3537.6
Hyderabad	563.3	769.3	1594.6
Ahmedabad	460.9	709.8	755.5
Chennai	732.7	2033.8	1616.0
Kolkata	807.8	850.7	1190.0
Surat	1214.0	1589.5	1615.0
Pune	1253.1	1522.4	1515.1
Nagpur	341.2	675.6	756.5
Indore	338.8	330.9	380.6
Bhopal	408.3	305.1	312.7
Patna	4.3	79.7	289.7
Vadodara	498.9	672.6	613.7
Ludhiana	116.2	313.2	112.3
Nashik	407.6	398.6	430.8
Faridabad	NA	NA	NA
Rajkot	228.7	473.9	433.8
Vasai-Virar	153.6	281.1	255.3
Srinagar	42.7	46.5	166.4
Aurangabad	74.6	136.8	163.1
Dhanbad	10.3	95.0	70.7
Amritsar	33.2	89.1	96.1
Ranchi	53.2	173.5	618.3
Jabalpur	183.7	156.0	59.0
Gwalior	99.3	68.0	70.1
Coimbatore	183.6	289.0	459.4
Jodhpur	62.7	39.2	38.2
Madurai	87.8	120.2	302.5
Raipur	201.7	96.8	106.5
Kota	49.1	82.5	110.4
Chandigarh	178.1	125.8	NA
Thiruvananthapuram	10.3	52.1	85.3
Kochi	41.9	74.1	84.8
Asansol	68.3	93.1	69.7
Kozhikode	29.4	54.8	59.7
Kollam	14.6	7.2	43.5
Thrissur	15.1	21.9	39.3
Total (37 Municipal Corporations)	15991.8	19893.9	23030.4

Table A18. Municipal Revenue as Per cent of GDP

Municipal Corporation	2012-13	2016-17	2017-18
Mumbai	0.177	0.148	0.139
Bengaluru	0.034	0.039	0.040
Hyderabad	0.025	0.020	0.027
Ahmedabad	0.031	0.031	0.031
Chennai	0.023	0.025	0.025
Kolkata	0.033	0.024	0.023
Surat	0.021	0.021	0.021
Pune	0.030	0.024	0.025
Nagpur	0.011	0.012	0.011
Indore	0.009	0.009	0.008
Bhopal	0.004	0.006	0.007
Patna	0.001	0.003	0.009
Vadodara	0.013	0.013	0.011
Ludhiana	0.006	0.006	0.004
Nashik	0.010	0.007	0.008
Faridabad	0.005	0.005	0.004
Rajkot	0.003	0.004	0.003
Vasai-Virar	0.005	0.004	0.004
Srinagar	0.002	0.001	0.002
Aurangabad	0.006	0.004	0.003
Dhanbad	0.001	0.001	0.001
Amritsar	0.002	0.002	0.002
Ranchi	0.001	0.003	0.005
Jabalpur	0.004	0.003	0.003
Gwalior	0.004	0.004	0.004
Coimbatore	0.006	0.007	0.006
Jodhpur	0.001	0.002	0.002
Madurai	0.003	0.003	0.003
Raipur	0.002	0.001	0.001
Kota	0.002	0.002	0.002
Chandigarh	0.005	0.004	0.003
Thiruvananthapuram	0.002	0.002	0.002
Kochi	0.002	0.001	0.002
Asansol	0.002	0.003	0.003
Kozhikode	0.002	0.002	0.001
Kollam	0.001	0.001	0.002
Thrissur	0.001	0.001	0.001
Total (37 Municipal Corporations)	0.487	0.449	0.449

Source: Data received from States, Municipal Corporations, Municipal Corporation Budgets and ICRIER analysis

Note: The above source is applicable for all the following tables unless mentioned otherwise.

Table A19. Own Revenue as Per cent of Municipal Revenue

Mumbai 97.63 98.28 73.06 Bengaluru 49.63 46.99 44.09 Hyderabad 57.92 73.12 50.26 Ahmedabad 33.50 48.13 48.58 Chennai 36.61 31.75 38.94 Kolkata 44.78 33.94 34.84 Surat 32.13 42.59 35.50 Pune 91.95 70.51 56.34 Nagpur 74.51 28.70 23.65 Indore 38.20 37.71 42.77 Bhopal 29.64 32.40 42.62 Patna 23.49 13.91 3.76 Vadodara 27.04 29.02 28.44 Ludhiana 86.85 66.07 82.77 Nashik 95.83 91.22 93.73 Faridabad 11.55 16.16 10.06 Rajkot 65.73 66.24 64.98 Vasai-Virar 89.01 43.78 46.55	Municipal Corporation	2012-13	2016-17	2017-18
Bengaluru 49.63 46.99 44.09 Hyderabad 57.92 73.12 50.26 Ahmedabad 33.50 48.13 48.58 Chennai 36.61 31.75 38.94 Kolkata 44.78 33.94 34.84 Surat 32.13 42.59 35.50 Pune 91.95 70.51 56.34 Nagpur 74.51 28.70 23.65 Indore 38.20 37.71 42.77 Bhopal 29.64 32.40 42.62 Patna 23.49 13.91 3.76 Vadodara 27.04 29.02 28.44 Ludhiana 86.85 66.07 82.77 Nashik 95.83 91.22 93.73 Faridabad 11.55 16.16 10.06 Rajkot 65.73 66.24 64.98 Vasai-Virar 89.01 43.78 46.55 Srinagar 11.35 7.79 8.95				
Hyderabad 57.92 73.12 50.26 Ahmedabad 33.50 48.13 48.58 Chennai 36.61 31.75 38.94 Kolkata 44.78 33.94 34.84 Surat 32.13 42.59 35.50 Pune 91.95 70.51 56.34 Nagpur 74.51 28.70 23.65 Indore 38.20 37.71 42.77 Bhopal 29.64 32.40 42.62 Patna 23.49 13.91 3.76 Vadodara 27.04 29.02 28.44 Ludhiana 86.85 66.07 82.77 Nashik 95.83 91.22 93.73 Faridabad 11.55 16.16 10.06 Rajkot 65.73 66.24 64.98 Vasai-Virar 89.01 43.78 46.55 Srinagar 11.35 7.79 8.95 Aurangabad 29.43 38.11 39.28	Bengaluru	49.63		
Ahmedabad 33.50 48.13 48.58 Chennai 36.61 31.75 38.94 Kolkata 44.78 33.94 34.84 Surat 32.13 42.59 35.50 Pune 91.95 70.51 56.34 Nagpur 74.51 28.70 23.65 Indore 38.20 37.71 42.77 Bhopal 29.64 32.40 42.62 Patna 23.49 13.91 3.76 Vadodara 27.04 29.02 28.44 Ludhiana 86.85 66.07 82.77 Nashik 95.83 91.22 93.73 Faridabad 11.55 16.16 10.06 Rajkot 65.73 66.24 64.98 Vasai-Virar 89.01 43.78 46.55 Srinagar 11.35 7.79 8.95 Aurangabad 29.43 38.11 39.28 Dhanbad 7.62 11.40 7.86		57.92	73.12	50.26
Kolkata 44.78 33.94 34.84 Surat 32.13 42.59 35.50 Pune 91.95 70.51 56.34 Nagpur 74.51 28.70 23.65 Indore 38.20 37.71 42.77 Bhopal 29.64 32.40 42.62 Patna 23.49 13.91 3.76 Vadodara 27.04 29.02 28.44 Ludhiana 86.85 66.07 82.77 Nashik 95.83 91.22 93.73 Faridabad 11.55 16.16 10.06 Rajkot 65.73 66.24 64.98 Vasai-Virar 89.01 43.78 46.55 Srinagar 11.35 7.79 8.95 Aurangabad 29.43 38.11 39.28 Dhanbad 7.62 11.40 7.86 Amritsar 78.33 64.13 72.75 Ranchi 16.70 14.07 9.21			48.13	
Kolkata 44.78 33.94 34.84 Surat 32.13 42.59 35.50 Pune 91.95 70.51 56.34 Nagpur 74.51 28.70 23.65 Indore 38.20 37.71 42.77 Bhopal 29.64 32.40 42.62 Patna 23.49 13.91 3.76 Vadodara 27.04 29.02 28.44 Ludhiana 86.85 66.07 82.77 Nashik 95.83 91.22 93.73 Faridabad 11.55 16.16 10.06 Rajkot 65.73 66.24 64.98 Vasai-Virar 89.01 43.78 46.55 Srinagar 11.35 7.79 8.95 Aurangabad 29.43 38.11 39.28 Dhanbad 7.62 11.40 7.86 Amritsar 78.33 64.13 72.75 Rachi 16.70 14.07 9.21	Chennai	36.61	31.75	38.94
Pune 91.95 70.51 56.34 Nagpur 74.51 28.70 23.65 Indore 38.20 37.71 42.77 Bhopal 29.64 32.40 42.62 Patna 23.49 13.91 3.76 Vadodara 27.04 29.02 28.44 Ludhiana 86.85 66.07 82.77 Nashik 95.83 91.22 93.73 Faridabad 11.55 16.16 10.06 Rajkot 65.73 66.24 64.98 Vasai-Virar 89.01 43.78 46.55 Srinagar 11.35 7.79 8.95 Aurangabad 29.43 38.11 39.28 Dhanbad 7.62 11.40 7.86 Amritsar 78.33 64.13 72.75 Ranchi 16.70 14.07 9.21 Jabalpur 29.96 30.06 51.37 Gwalior 55.33 57.69 49.53	Kolkata			
Nagpur 74.51 28.70 23.65 Indore 38.20 37.71 42.77 Bhopal 29.64 32.40 42.62 Patna 23.49 13.91 3.76 Vadodara 27.04 29.02 28.44 Ludhiana 86.85 66.07 82.77 Nashik 95.83 91.22 93.73 Faridabad 11.55 16.16 10.06 Rajkot 65.73 66.24 64.98 Vasai-Virar 89.01 43.78 46.55 Srinagar 11.35 7.79 8.95 Aurangabad 29.43 38.11 39.28 Dhanbad 7.62 11.40 7.86 Amritsar 78.33 64.13 72.75 Ranchi 16.70 14.07 9.21 Jabalpur 29.96 30.06 51.37 Gwalior 55.33 57.69 49.53 Coimbatore 48.98 35.36 43.25 <tr< td=""><td>Surat</td><td>32.13</td><td>42.59</td><td>35.50</td></tr<>	Surat	32.13	42.59	35.50
Indore 38.20 37.71 42.77 Bhopal 29.64 32.40 42.62 Patna 23.49 13.91 3.76 Vadodara 27.04 29.02 28.44 Ludhiana 86.85 66.07 82.77 Nashik 95.83 91.22 93.73 Faridabad 11.55 16.16 10.06 Rajkot 65.73 66.24 64.98 Vasai-Virar 89.01 43.78 46.55 Srinagar 11.35 7.79 8.95 Aurangabad 29.43 38.11 39.28 Dhanbad 7.62 11.40 7.86 Amritsar 78.33 64.13 72.75 Ranchi 16.70 14.07 9.21 Jabalpur 29.96 30.06 51.37 Gwalior 55.33 57.69 49.53 Coimbatore 48.98 35.36 43.25 Jodhpur 25.62 30.19 31.14 <t< td=""><td>Pune</td><td>91.95</td><td>70.51</td><td>56.34</td></t<>	Pune	91.95	70.51	56.34
Indore 38.20 37.71 42.77 Bhopal 29.64 32.40 42.62 Patna 23.49 13.91 3.76 Vadodara 27.04 29.02 28.44 Ludhiana 86.85 66.07 82.77 Nashik 95.83 91.22 93.73 Faridabad 11.55 16.16 10.06 Rajkot 65.73 66.24 64.98 Vasai-Virar 89.01 43.78 46.55 Srinagar 11.35 7.79 8.95 Aurangabad 29.43 38.11 39.28 Dhanbad 7.62 11.40 7.86 Amritsar 78.33 64.13 72.75 Ranchi 16.70 14.07 9.21 Jabalpur 29.96 30.06 51.37 Gwalior 55.33 57.69 49.53 Coimbatore 48.98 35.36 43.25 Jodhpur 25.62 30.19 31.14 <t< td=""><td>Nagpur</td><td>74.51</td><td>28.70</td><td>23.65</td></t<>	Nagpur	74.51	28.70	23.65
Patna 23.49 13.91 3.76 Vadodara 27.04 29.02 28.44 Ludhiana 86.85 66.07 82.77 Nashik 95.83 91.22 93.73 Faridabad 11.55 16.16 10.06 Rajkot 65.73 66.24 64.98 Vasai-Virar 89.01 43.78 46.55 Srinagar 11.35 7.79 8.95 Aurangabad 29.43 38.11 39.28 Dhanbad 7.62 11.40 7.86 Amritsar 78.33 64.13 72.75 Ranchi 16.70 14.07 9.21 Jabalpur 29.96 30.06 51.37 Gwalior 55.33 57.69 49.53 Coimbatore 48.98 35.36 43.25 Jodhpur 25.62 30.19 31.14 Madurai 48.93 51.28 32.40 Raipur 45.35 55.93 55.93 <		38.20	37.71	42.77
Patna 23.49 13.91 3.76 Vadodara 27.04 29.02 28.44 Ludhiana 86.85 66.07 82.77 Nashik 95.83 91.22 93.73 Faridabad 11.55 16.16 10.06 Rajkot 65.73 66.24 64.98 Vasai-Virar 89.01 43.78 46.55 Srinagar 11.35 7.79 8.95 Aurangabad 29.43 38.11 39.28 Dhanbad 7.62 11.40 7.86 Amritsar 78.33 64.13 72.75 Ranchi 16.70 14.07 9.21 Jabalpur 29.96 30.06 51.37 Gwalior 55.33 57.69 49.53 Coimbatore 48.98 35.36 43.25 Jodhpur 25.62 30.19 31.14 Madurai 48.93 51.28 32.40 Raipur 45.35 55.93 55.93 <	Bhopal	29.64	32.40	42.62
Ludhiana 86.85 66.07 82.77 Nashik 95.83 91.22 93.73 Faridabad 11.55 16.16 10.06 Rajkot 65.73 66.24 64.98 Vasai-Virar 89.01 43.78 46.55 Srinagar 11.35 7.79 8.95 Aurangabad 29.43 38.11 39.28 Dhanbad 7.62 11.40 7.86 Amritsar 78.33 64.13 72.75 Ranchi 16.70 14.07 9.21 Jabalpur 29.96 30.06 51.37 Gwalior 55.33 57.69 49.53 Coimbatore 48.98 35.36 43.25 Jodhpur 25.62 30.19 31.14 Madurai 48.93 51.28 32.40 Raipur 45.35 55.93 55.93 Kota 61.11 60.30 59.26 Chandigarh 30.83 27.32 36.58		23.49	13.91	3.76
Nashik 95.83 91.22 93.73 Faridabad 11.55 16.16 10.06 Rajkot 65.73 66.24 64.98 Vasai-Virar 89.01 43.78 46.55 Srinagar 11.35 7.79 8.95 Aurangabad 29.43 38.11 39.28 Dhanbad 7.62 11.40 7.86 Amritsar 78.33 64.13 72.75 Ranchi 16.70 14.07 9.21 Jabalpur 29.96 30.06 51.37 Gwalior 55.33 57.69 49.53 Coimbatore 48.98 35.36 43.25 Jodhpur 25.62 30.19 31.14 Madurai 48.93 51.28 32.40 Raipur 45.35 55.93 55.93 Kota 61.11 60.30 59.26 Chandigarh 30.83 27.32 36.58 Thiruvananthapuram 38.16 35.22 33.72	Vadodara	27.04	29.02	28.44
Faridabad 11.55 16.16 10.06 Rajkot 65.73 66.24 64.98 Vasai-Virar 89.01 43.78 46.55 Srinagar 11.35 7.79 8.95 Aurangabad 29.43 38.11 39.28 Dhanbad 7.62 11.40 7.86 Amritsar 78.33 64.13 72.75 Ranchi 16.70 14.07 9.21 Jabalpur 29.96 30.06 51.37 Gwalior 55.33 57.69 49.53 Coimbatore 48.98 35.36 43.25 Jodhpur 25.62 30.19 31.14 Madurai 48.93 51.28 32.40 Raipur 45.35 55.93 55.93 Kota 61.11 60.30 59.26 Chandigarh 30.83 27.32 36.58 Thiruvananthapuram 38.16 35.22 33.72 Kochi 53.52 80.93 53.20	Ludhiana	86.85	66.07	82.77
Rajkot 65.73 66.24 64.98 Vasai-Virar 89.01 43.78 46.55 Srinagar 11.35 7.79 8.95 Aurangabad 29.43 38.11 39.28 Dhanbad 7.62 11.40 7.86 Amritsar 78.33 64.13 72.75 Ranchi 16.70 14.07 9.21 Jabalpur 29.96 30.06 51.37 Gwalior 55.33 57.69 49.53 Coimbatore 48.98 35.36 43.25 Jodhpur 25.62 30.19 31.14 Madurai 48.93 51.28 32.40 Raipur 45.35 55.93 55.93 Kota 61.11 60.30 59.26 Chandigarh 30.83 27.32 36.58 Thiruvananthapuram 38.16 35.22 33.72 Kochi 53.52 80.93 53.20 Asansol 11.66 5.98 5.19 <td>Nashik</td> <td>95.83</td> <td>91.22</td> <td>93.73</td>	Nashik	95.83	91.22	93.73
Vasai-Virar 89.01 43.78 46.55 Srinagar 11.35 7.79 8.95 Aurangabad 29.43 38.11 39.28 Dhanbad 7.62 11.40 7.86 Amritsar 78.33 64.13 72.75 Ranchi 16.70 14.07 9.21 Jabalpur 29.96 30.06 51.37 Gwalior 55.33 57.69 49.53 Coimbatore 48.98 35.36 43.25 Jodhpur 25.62 30.19 31.14 Madurai 48.93 51.28 32.40 Raipur 45.35 55.93 55.93 Kota 61.11 60.30 59.26 Chandigarh 30.83 27.32 36.58 Thiruvananthapuram 38.16 35.22 33.72 Kochi 53.52 80.93 53.20 Asansol 11.66 5.98 5.19 Kozhikode 24.39 23.52 20.76 <	Faridabad	11.55	16.16	10.06
Srinagar 11.35 7.79 8.95 Aurangabad 29.43 38.11 39.28 Dhanbad 7.62 11.40 7.86 Amritsar 78.33 64.13 72.75 Ranchi 16.70 14.07 9.21 Jabalpur 29.96 30.06 51.37 Gwalior 55.33 57.69 49.53 Coimbatore 48.98 35.36 43.25 Jodhpur 25.62 30.19 31.14 Madurai 48.93 51.28 32.40 Raipur 45.35 55.93 55.93 Kota 61.11 60.30 59.26 Chandigarh 30.83 27.32 36.58 Thiruvananthapuram 38.16 35.22 33.72 Kochi 53.52 80.93 53.20 Asansol 11.66 5.98 5.19 Kozhikode 24.39 23.52 20.76 Kollam 18.05 19.97 8.59	Rajkot	65.73	66.24	64.98
Aurangabad 29.43 38.11 39.28 Dhanbad 7.62 11.40 7.86 Amritsar 78.33 64.13 72.75 Ranchi 16.70 14.07 9.21 Jabalpur 29.96 30.06 51.37 Gwalior 55.33 57.69 49.53 Coimbatore 48.98 35.36 43.25 Jodhpur 25.62 30.19 31.14 Madurai 48.93 51.28 32.40 Raipur 45.35 55.93 55.93 Kota 61.11 60.30 59.26 Chandigarh 30.83 27.32 36.58 Thiruvananthapuram 38.16 35.22 33.72 Kochi 53.52 80.93 53.20 Asansol 11.66 5.98 5.19 Kozhikode 24.39 23.52 20.76 Kollam 18.05 19.97 8.59 Thrissur 57.38 49.55 37.98	Vasai-Virar	89.01	43.78	46.55
Dhanbad 7.62 11.40 7.86 Amritsar 78.33 64.13 72.75 Ranchi 16.70 14.07 9.21 Jabalpur 29.96 30.06 51.37 Gwalior 55.33 57.69 49.53 Coimbatore 48.98 35.36 43.25 Jodhpur 25.62 30.19 31.14 Madurai 48.93 51.28 32.40 Raipur 45.35 55.93 55.93 Kota 61.11 60.30 59.26 Chandigarh 30.83 27.32 36.58 Thiruvananthapuram 38.16 35.22 33.72 Kochi 53.52 80.93 53.20 Asansol 11.66 5.98 5.19 Kozhikode 24.39 23.52 20.76 Kollam 18.05 19.97 8.59 Thrissur 57.38 49.55 37.98	Srinagar	11.35	7.79	8.95
Amritsar 78.33 64.13 72.75 Ranchi 16.70 14.07 9.21 Jabalpur 29.96 30.06 51.37 Gwalior 55.33 57.69 49.53 Coimbatore 48.98 35.36 43.25 Jodhpur 25.62 30.19 31.14 Madurai 48.93 51.28 32.40 Raipur 45.35 55.93 55.93 Kota 61.11 60.30 59.26 Chandigarh 30.83 27.32 36.58 Thiruvananthapuram 38.16 35.22 33.72 Kochi 53.52 80.93 53.20 Asansol 11.66 5.98 5.19 Kozhikode 24.39 23.52 20.76 Kollam 18.05 19.97 8.59 Thrissur 57.38 49.55 37.98	Aurangabad	29.43	38.11	39.28
Ranchi 16.70 14.07 9.21 Jabalpur 29.96 30.06 51.37 Gwalior 55.33 57.69 49.53 Coimbatore 48.98 35.36 43.25 Jodhpur 25.62 30.19 31.14 Madurai 48.93 51.28 32.40 Raipur 45.35 55.93 55.93 Kota 61.11 60.30 59.26 Chandigarh 30.83 27.32 36.58 Thiruvananthapuram 38.16 35.22 33.72 Kochi 53.52 80.93 53.20 Asansol 11.66 5.98 5.19 Kozhikode 24.39 23.52 20.76 Kollam 18.05 19.97 8.59 Thrissur 57.38 49.55 37.98	Dhanbad	7.62	11.40	7.86
Jabalpur 29.96 30.06 51.37 Gwalior 55.33 57.69 49.53 Coimbatore 48.98 35.36 43.25 Jodhpur 25.62 30.19 31.14 Madurai 48.93 51.28 32.40 Raipur 45.35 55.93 55.93 Kota 61.11 60.30 59.26 Chandigarh 30.83 27.32 36.58 Thiruvananthapuram 38.16 35.22 33.72 Kochi 53.52 80.93 53.20 Asansol 11.66 5.98 5.19 Kozhikode 24.39 23.52 20.76 Kollam 18.05 19.97 8.59 Thrissur 57.38 49.55 37.98	Amritsar	78.33	64.13	72.75
Gwalior 55.33 57.69 49.53 Coimbatore 48.98 35.36 43.25 Jodhpur 25.62 30.19 31.14 Madurai 48.93 51.28 32.40 Raipur 45.35 55.93 55.93 Kota 61.11 60.30 59.26 Chandigarh 30.83 27.32 36.58 Thiruvananthapuram 38.16 35.22 33.72 Kochi 53.52 80.93 53.20 Asansol 11.66 5.98 5.19 Kozhikode 24.39 23.52 20.76 Kollam 18.05 19.97 8.59 Thrissur 57.38 49.55 37.98	Ranchi	16.70	14.07	9.21
Coimbatore 48.98 35.36 43.25 Jodhpur 25.62 30.19 31.14 Madurai 48.93 51.28 32.40 Raipur 45.35 55.93 55.93 Kota 61.11 60.30 59.26 Chandigarh 30.83 27.32 36.58 Thiruvananthapuram 38.16 35.22 33.72 Kochi 53.52 80.93 53.20 Asansol 11.66 5.98 5.19 Kozhikode 24.39 23.52 20.76 Kollam 18.05 19.97 8.59 Thrissur 57.38 49.55 37.98	Jabalpur	29.96	30.06	51.37
Jodhpur 25.62 30.19 31.14 Madurai 48.93 51.28 32.40 Raipur 45.35 55.93 55.93 Kota 61.11 60.30 59.26 Chandigarh 30.83 27.32 36.58 Thiruvananthapuram 38.16 35.22 33.72 Kochi 53.52 80.93 53.20 Asansol 11.66 5.98 5.19 Kozhikode 24.39 23.52 20.76 Kollam 18.05 19.97 8.59 Thrissur 57.38 49.55 37.98	Gwalior	55.33	57.69	49.53
Madurai 48.93 51.28 32.40 Raipur 45.35 55.93 55.93 Kota 61.11 60.30 59.26 Chandigarh 30.83 27.32 36.58 Thiruvananthapuram 38.16 35.22 33.72 Kochi 53.52 80.93 53.20 Asansol 11.66 5.98 5.19 Kozhikode 24.39 23.52 20.76 Kollam 18.05 19.97 8.59 Thrissur 57.38 49.55 37.98	Coimbatore	48.98	35.36	43.25
Raipur 45.35 55.93 55.93 Kota 61.11 60.30 59.26 Chandigarh 30.83 27.32 36.58 Thiruvananthapuram 38.16 35.22 33.72 Kochi 53.52 80.93 53.20 Asansol 11.66 5.98 5.19 Kozhikode 24.39 23.52 20.76 Kollam 18.05 19.97 8.59 Thrissur 57.38 49.55 37.98	Jodhpur	25.62	30.19	31.14
Kota 61.11 60.30 59.26 Chandigarh 30.83 27.32 36.58 Thiruvananthapuram 38.16 35.22 33.72 Kochi 53.52 80.93 53.20 Asansol 11.66 5.98 5.19 Kozhikode 24.39 23.52 20.76 Kollam 18.05 19.97 8.59 Thrissur 57.38 49.55 37.98	Madurai	48.93	51.28	32.40
Chandigarh 30.83 27.32 36.58 Thiruvananthapuram 38.16 35.22 33.72 Kochi 53.52 80.93 53.20 Asansol 11.66 5.98 5.19 Kozhikode 24.39 23.52 20.76 Kollam 18.05 19.97 8.59 Thrissur 57.38 49.55 37.98	Raipur	45.35	55.93	55.93
Thiruvananthapuram 38.16 35.22 33.72 Kochi 53.52 80.93 53.20 Asansol 11.66 5.98 5.19 Kozhikode 24.39 23.52 20.76 Kollam 18.05 19.97 8.59 Thrissur 57.38 49.55 37.98	Kota	61.11	60.30	59.26
Kochi 53.52 80.93 53.20 Asansol 11.66 5.98 5.19 Kozhikode 24.39 23.52 20.76 Kollam 18.05 19.97 8.59 Thrissur 57.38 49.55 37.98	Chandigarh	30.83	27.32	36.58
Asansol 11.66 5.98 5.19 Kozhikode 24.39 23.52 20.76 Kollam 18.05 19.97 8.59 Thrissur 57.38 49.55 37.98	Thiruvananthapuram	38.16	35.22	33.72
Kozhikode 24.39 23.52 20.76 Kollam 18.05 19.97 8.59 Thrissur 57.38 49.55 37.98	Kochi	53.52	80.93	53.20
Kollam 18.05 19.97 8.59 Thrissur 57.38 49.55 37.98	Asansol	11.66	5.98	5.19
Thrissur 57.38 49.55 37.98	Kozhikode	24.39	23.52	20.76
	Kollam	18.05	19.97	8.59
Total (37 Municipal Corporations) 67.30 62.62 51.57	Thrissur	57.38	49.55	37.98
	Total (37 Municipal Corporations)	67.30	62.62	51.57

Table A20. Tax Revenue as Per cent of Municipal Revenue

Municipal Corporation	2012-13	2016-17	2017-18
Mumbai	56.29	52.83	30.39
Bengaluru	32.36	29.04	26.10
Hyderabad	31.66	42.55	30.52
Ahmedabad	17.09	24.20	25.62
Chennai	27.45	24.43	25.37
Kolkata	25.99	22.10	22.57
Surat	22.80	27.47	26.42
Pune	53.77	46.03	30.98
Nagpur	60.13	17.75	12.74
Indore	23.97	23.24	27.36
Bhopal	15.43	18.74	31.02
Patna	18.48	11.41	3.26
Vadodara	14.75	20.08	20.46
Ludhiana	77.27	58.82	72.62
Nashik	84.52	79.83	82.10
Faridabad	6.08	11.73	6.55
Rajkot	26.00	24.60	19.68
Vasai-Virar	43.04	20.83	16.96
Srinagar	7.75	4.92	5.88
Aurangabad	17.70	19.69	19.37
Dhanbad	6.11	6.21	4.03
Amritsar	62.38	55.07	61.82
Ranchi	4.43	10.88	5.31
Jabalpur	15.48	17.76	40.24
Gwalior	11.59	11.02	9.77
Coimbatore	19.41	21.03	26.31
Jodhpur	20.17	11.70	8.52
Madurai	26.15	26.88	18.15
Raipur	27.03	35.13	35.14
Kota	55.11	52.80	54.00
Chandigarh	3.81	3.57	7.61
Thiruvananthapuram	32.63	27.44	26.76
Kochi	45.59	64.45	41.28
Asansol	4.48	2.35	2.22
Kozhikode	18.62	17.63	16.05
Kollam	13.74	13.66	6.82
Thrissur	42.03	35.05	31.46
Total (37 Municipal Corporations)	40.31	36.39	27.37

Table A21. Property Tax Revenue as Per cent of Municipal Revenue

Municipal Corporation	2012-13	2016-17	2017-18
Mumbai	18.58	21.21	21.96
Bengaluru	31.85	28.57	25.71
Hyderabad	31.66	42.55	30.52
Ahmedabad	8.13	18.41	19.55
Chennai	18.30	17.55	17.81
Kolkata	25.42	21.41	20.59
Surat	9.28	9.83	10.74
Pune	14.99	29.16	23.08
Nagpur	15.77	10.18	10.68
Indore	14.47	12.24	15.58
Bhopal	13.08	15.96	15.17
Patna	18.43	10.90	3.19
Vadodara	8.68	8.68	8.96
Ludhiana	16.43	7.07	9.18
Nashik	6.64	6.04	5.89
Faridabad	3.87	8.96	5.18
Rajkot	21.84	20.62	16.27
Vasai-Virar	10.04	9.81	9.56
Srinagar	0.06	0.06	0.07
Aurangabad	13.72	12.01	14.88
Dhanbad	6.11	6.21	4.03
Amritsar	8.44	5.30	5.61
Ranchi	4.43	8.36	4.95
Jabalpur	12.08	14.21	16.11
Gwalior	3.89	4.96	6.84
Coimbatore	17.48	18.79	23.72
Jodhpur	3.76	10.21	7.23
Madurai	22.55	23.24	15.83
Raipur	12.82	20.28	20.29
Kota	0.89	3.66	1.20
Chandigarh	3.81	3.57	7.61
Thiruvananthapuram	16.37	14.04	14.81
Kochi	29.16	41.05	25.95
Asansol	4.06	2.14	1.94
Kozhikode	9.59	8.69	9.09
Kollam	6.65	7.46	4.17
Thrissur	22.55	20.51	19.88
Total (37 Municipal Corporations)	17.67	19.64	18.83

Table A22. Property Tax Revenue as Per cent of Own Revenue

Municipal Corporation	2012-13	2016-17	2017-18
Mumbai	19.03	21.58	30.06
Bengaluru	64.16	60.80	58.30
Hyderabad	54.65	58.19	60.72
Ahmedabad	24.28	38.26	40.25
Chennai	50.00	55.28	45.73
Kolkata	56.77	63.07	59.09
Surat	28.89	23.08	30.24
Pune	16.31	41.35	40.97
Nagpur	21.16	35.49	45.17
Indore	37.88	32.47	36.43
Bhopal	44.14	49.26	35.59
Patna	78.47	78.38	84.70
Vadodara	32.11	29.89	31.51
Ludhiana	18.91	10.70	11.09
Nashik	6.93	6.62	6.29
Faridabad	33.48	55.45	51.48
Rajkot	33.22	31.13	25.04
Vasai-Virar	11.27	22.40	20.54
Srinagar	0.52	0.75	0.77
Aurangabad	46.63	31.51	37.89
Dhanbad	80.21	54.45	51.28
Amritsar	10.77	8.26	7.71
Ranchi	26.55	59.40	53.69
Jabalpur	40.33	47.28	31.36
Gwalior	7.02	8.60	13.82
Coimbatore	35.69	53.13	54.83
Jodhpur	14.67	33.83	23.22
Madurai	46.09	45.31	48.85
Raipur	28.27	36.26	36.27
Kota	1.45	6.08	2.02
Chandigarh	12.36	13.07	20.80
Thiruvananthapuram	42.89	39.87	43.94
Kochi	54.48	50.73	48.77
Asansol	34.81	35.73	37.38
Kozhikode	39.34	36.96	43.80
Kollam	36.86	37.35	48.52
Thrissur	39.30	41.38	52.35
Total (37 Municipal Corporations)	26.26	31.36	36.50

Table A23. Non-Tax Revenue as Per cent of Municipal Revenue

Municipal Corporation	2012-13	2016-17	2017-18
Mumbai	41.33	45.45	42.67
Bengaluru	17.28	17.95	18.00
Hyderabad	26.27	30.57	19.74
Ahmedabad	16.42	23.93	22.96
Chennai	9.16	7.32	13.57
Kolkata	18.79	11.84	12.28
Surat	9.32	15.12	9.08
Pune	38.18	24.49	25.36
Nagpur	14.38	10.95	10.91
Indore	14.23	14.47	15.41
Bhopal	14.21	13.66	11.59
Patna	5.01	2.50	0.50
Vadodara	12.30	8.94	7.98
Ludhiana	9.59	7.24	10.15
Nashik	11.30	11.40	11.63
Faridabad	5.47	4.43	3.51
Rajkot	39.73	41.64	45.31
Vasai-Virar	45.98	22.95	29.59
Srinagar	3.60	2.86	3.07
Aurangabad	11.72	18.42	19.91
Dhanbad	1.51	5.19	3.83
Amritsar	15.95	9.06	10.93
Ranchi	12.27	3.18	3.91
Jabalpur	14.48	12.29	11.12
Gwalior	43.75	46.67	39.75
Coimbatore	29.56	14.33	16.95
Jodhpur	5.45	18.49	22.62
Madurai	22.78	24.40	14.25
Raipur	18.32	20.80	20.80
Kota	5.99	7.50	5.26
Chandigarh	27.02	23.75	28.97
Thiruvananthapuram	5.53	7.77	6.96
Kochi	7.93	16.48	11.92
Asansol	7.18	3.63	2.97
Kozhikode	5.77	5.89	4.72
Kollam	4.31	6.31	1.77
Thrissur	15.35	14.50	6.51
Total (37 Municipal Corporations)	26.99	26.22	24.20

 Table A24. State Transfers as Per cent of Municipal Revenue

Municipal Corporation	2012-13	2016-17	2017-18
Mumbai	1.70	1.70	26.29
Bengaluru	29.27	46.83	51.63
Hyderabad	18.06	14.95	23.24
Ahmedabad	55.94	40.95	42.39
Chennai	36.73	27.40	18.64
Kolkata	28.37	36.46	31.08
Surat	50.57	36.12	32.54
Pune	8.05	29.49	39.02
Nagpur	5.53	57.41	59.30
Indore	55.11	54.74	54.22
Bhopal	56.94	43.52	36.94
Patna	73.16	84.73	84.35
Vadodara	51.01	35.96	44.28
Ludhiana	1.94	2.29	0.15
Nashik	0.61	0.73	0.36
Faridabad	38.98	74.86	72.69
Rajkot	34.27	33.33	34.82
Vasai-Virar	7.60	50.58	49.32
Srinagar	85.74	92.21	82.22
Aurangabad	36.40	50.28	60.72
Dhanbad	92.38	26.19	26.02
Amritsar	1.77	5.76	9.11
Ranchi	81.59	49.40	29.05
Jabalpur	63.16	59.59	37.52
Gwalior	39.67	32.78	47.17
Coimbatore	33.01	58.08	28.93
Jodhpur	53.05	48.26	53.18
Madurai	45.63	34.66	44.95
Raipur	49.36	43.75	43.75
Kota	15.83	26.31	27.09
Chandigarh	NA	NA	NA
Thiruvananthapuram	48.97	48.80	47.42
Kochi	37.18	15.26	37.44
Asansol	45.08	19.00	26.70
Kozhikode	67.88	65.62	51.61
Kollam	53.42	48.40	54.60
Thrissur	28.65	20.80	37.28
Total (37 Municipal Corporations)	21.24	25.59	34.65

Table A25. Central Transfers as Per cent of Municipal Revenue

Municipal Corporation	2012-13	2016-17	2017-18
Mumbai	0.67	0.02	0.65
Bengaluru	4.38	6.18	4.27
Hyderabad	2.42	0.01	NA
Ahmedabad	4.19	3.48	2.48
Chennai	7.82	5.81	5.42
Kolkata	24.33	26.38	28.39
Surat	6.53	7.29	4.77
Pune	NA	NA	NA
Nagpur	11.41	5.25	7.37
Indore	2.40	7.08	2.94
Bhopal	5.27	8.76	7.43
Patna	NA	NA	10.44
Vadodara	3.51	3.12	3.39
Ludhiana	4.95	8.87	14.49
Nashik	0.09	NA	NA
Faridabad	22.60	5.39	5.81
Rajkot	NA	0.43	0.20
Vasai-Virar	3.38	5.65	4.13
Srinagar	2.91	NA	8.83
Aurangabad	NA	11.61	NA
Dhanbad	NA	59.70	64.77
Amritsar	15.37	13.19	17.93
Ranchi	NA	32.70	60.66
Jabalpur	5.03	10.36	11.11
Gwalior	5.00	9.53	3.31
Coimbatore	2.47	6.05	2.98
Jodhpur	11.38	21.55	12.70
Madurai	5.44	14.06	22.65
Raipur	5.29	0.31	0.31
Kota	NA	NA	NA
Chandigarh	69.17	72.68	63.42
Thiruvananthapuram	12.87	15.98	18.86
Kochi	9.30	3.81	9.36
Asansol	42.86	74.78	68.00
Kozhikode	7.73	10.87	27.63
Kollam	12.70	13.17	28.06
Thrissur	13.96	29.66	24.75
Total (37 Municipal Corporations)	5.25	5.91	6.12

Table A26. Revenue Expenditure as Per cent of Municipal Expenditure

Municipal Corporation	2012-13	2016-17	2017-18
Mumbai	71.02	80.66	75.15
Bengaluru	43.48	28.78	27.18
Hyderabad	70.02	72.64	54.88
Ahmedabad	75.59	74.33	76.08
Chennai	65.86	55.37	64.64
Kolkata	73.95	75.23	68.43
Surat	46.16	50.84	55.78
Pune	55.67	62.77	61.18
Nagpur	64.04	58.02	58.98
Indore	55.16	67.80	66.91
Bhopal	34.36	57.95	58.81
Patna	96.00	72.86	46.63
Vadodara	53.66	54.24	59.97
Ludhiana	78.63	66.08	85.02
Nashik	57.92	63.12	62.34
Faridabad	NA	NA	NA
Rajkot	57.59	50.34	57.45
Vasai-Virar	56.90	58.17	60.23
Srinagar	67.78	71.43	43.64
Aurangabad	78.87	73.45	73.02
Dhanbad	27.11	30.02	21.56
Amritsar	84.36	71.95	69.20
Ranchi	33.42	26.94	9.43
Jabalpur	49.28	57.88	72.49
Gwalior	66.46	77.03	77.99
Coimbatore	66.33	58.33	51.71
Jodhpur	64.48	77.00	80.84
Madurai	68.50	71.16	49.08
Raipur	44.79	67.32	67.32
Kota	63.61	55.55	44.90
Chandigarh	62.28	69.34	0.00
Thiruvananthapuram	93.08	79.65	69.78
Kochi	70.66	49.13	30.04
Asansol	41.00	49.68	39.76
Kozhikode	77.03	77.91	75.48
Kollam	82.07	94.73	82.16
Thrissur	64.52	60.10	46.08
Total (37 Municipal Corporations)	63.81	66.45	63.16

Table A27. Revenue and Fiscal Balance

Municipal	Per capita Revenu	Per capita Revenue surplus/deficit		pita Fiscal lus/deficit
Corporation	2012-13	2017-18	2012-13	2017-18
Mumbai	5176.2	6771.7	1511.7	2860.7
Bengaluru	1152.4	5154.8	-1765.0	1894.8
Hyderabad	1687.4	2743.0	850.5	863.2
Ahmedabad	2552.9	3800.7	1726.7	2643.5
Chennai	1715.5	635.0	138.7	-2704.8
Kolkata	1967.3	2670.7	171.0	-2.4
Surat	2358.1	2726.7	-359.2	19.1
Pune	4443.9	4556.3	433.3	540.1
Nagpur	1739.9	2613.7	321.8	-182.4
Indore	2125.2	2554.4	400.3	973.0
Bhopal	1288.6	3579.3	-982.1	2088.7
Patna	160.0	6408.7	134.3	4926.8
Vadodara	3899.9	4373.6	913.7	1168.3
Ludhiana	677.6	627.6	-40.3	12.3
Nashik	2661.8	3241.5	-80.8	809.8
Faridabad	3693.5	4854.1	3693.5	4854.1
Rajkot	79.4	74.9	-1698.1	-2726.6
Vasai- Virar	2592.0	2050.5	1335.8	374.3
Srinagar	541.3	1081.3	179.4	-129.2
Aurangabad	780.3	674.8	145.3	-417.3
Dhanbad	394.9	1349.6	306.6	815.9
Amritsar	286.3	859.2	-6.7	54.1
Ranchi	1052.2	5817.3	556.4	863.8
Jabalpur	2252.6	2813.6	512.7	2305.5
Gwalior	2246.7	4127.8	1304.6	3559.0
Coimbatore	2314.0	4628.7	566.3	57.5
Jodhpur	140.2	881.7	-466.2	565.5
Madurai	856.2	2482.5	-6.3	-81.7
Raipur	378.1	220.1	-1618.0	-569.8
Kota	857.9	1580.3	368.1	680.7
Chandigarh	1889.6	4536.6	37.7	3403.0
Thiruvananthapuram	973.6	1693.1	835.4	835.2
Kochi	1323.1	3495.9	626.4	2396.9
Asansol	1811.8	7024.4	599.8	5920.6
Kozhikode	1833.4	994.6	1152.7	48.2
Kollam	723.1	1413.2	305.6	701.6
Thrissur	782.0	1311.9	304.9	594.2
Total (37 MCs)	2284.6	3557.2	367.1	1175.3

Note: Per Capita Revenue Balance (Surplus/Deficit) = Per capita Municipal Revenue Receipts* – Per Capita Revenue Expenditure; Per Capita Fiscal Balance (Surplus/Deficit) = Per Capita Municipal Revenue Receipts* – Per Capita Total Expenditure.

^{*}Per capita Municipal Revenue Receipt excludes borrowings.

Table A28. Annual Growth rate of Total Municipal Revenue and Own Revenue

Municipal Corporation	Municipal Revenue	Own Revenue
Mumbai	6.09	0.12
Bengaluru	15.20	12.51
Hyderabad	13.23	10.06
Ahmedabad	11.42	20.01
Chennai	13.40	14.81
Kolkata	4.15	-0.94
Surat	11.84	14.09
Pune	7.77	-2.29
Nagpur	12.29	-10.74
Indore	9.97	12.48
Bhopal	23.52	32.83
Patna	62.99	13.01
Vadodara	8.75	9.85
Ludhiana	6.99	5.96
Nashik	6.29	5.82
Faridabad	7.72	4.78
Rajkot	13.24	12.99
Vasai-Virar	6.11	-6.80
Srinagar	12.53	7.31
Aurangabad	-0.74	5.17
Dhanbad	32.15	32.98
Amritsar	8.03	6.44
Ranchi	41.17	25.34
Jabalpur	2.61	14.30
Gwalior	11.77	9.32
Coimbatore	9.61	6.92
Jodhpur	14.10	18.65
Madurai	16.02	6.84
Raipur	4.29	8.75
Kota	10.59	9.91
Chandigarh	1.14	4.66
Thiruvananthapuram	11.64	8.91
Kochi	11.13	11.00
Asansol	26.76	7.82
Kozhikode	6.77	3.39
Kollam	25.01	7.74
Thrissur	15.11	5.99
Total (37 Municipal Corporations)	9.63	3.95

Note: Annual growth rate between 2012-13 and 2017-18 is the Compound Annual Growth Rate over these years.

Table A29. Annual Growth rate of Tax and Non-Tax Revenue

Municipal Corporation	Tax Revenue	Non-Tax Revenue
Mumbai	-6.21	6.77
Bengaluru	10.35	16.15
Hyderabad	12.40	6.95
Ahmedabad	20.82	19.15
Chennai	11.63	22.67
Kolkata	1.26	-4.34
Surat	15.18	11.25
Pune	-3.48	-0.70
Nagpur	-17.67	6.25
Indore	12.92	11.73
Bhopal	42.04	18.59
Patna	15.21	2.91
Vadodara	16.12	-0.26
Ludhiana	5.67	8.21
Nashik	5.67	6.90
Faridabad	9.31	-1.40
Rajkot	7.10	16.26
Vasai-Virar	-11.93	-2.84
Srinagar	6.49	8.99
Aurangabad	1.07	10.35
Dhanbad	21.59	59.23
Amritsar	7.83	0.17
Ranchi	46.35	12.28
Jabalpur	24.21	-2.66
Gwalior	8.03	9.66
Coimbatore	16.48	-1.93
Jodhpur	-3.96	51.66
Madurai	7.84	5.63
Raipur	9.90	6.96
Kota	10.14	7.71
Chandigarh	16.15	2.56
Thiruvananthapuram	7.30	16.88
Kochi	8.94	20.56
Asansol	10.15	6.26
Kozhikode	3.65	2.55
Kollam	8.65	4.62
Thrissur	8.63	-3.03
Total (37 Municipal Corporations)	1.46	7.26

Table A30. Annual Growth rate of Property Tax and Other Taxes

Municipal Corporation	Property Tax	Other tax
Mumbai	9.71	-21.39
Bengaluru	10.37	9.08
Hyderabad	12.40	NA
Ahmedabad	32.78	3.07
Chennai	12.78	9.18
Kolkata	-0.15	33.75
Surat	15.15	15.20
Pune	17.48	-21.61
Nagpur	3.88	-39.24
Indore	11.61	14.81
Bhopal	27.23	80.98
Patna	14.75	78.92
Vadodara	9.44	23.61
Ludhiana	-4.77	7.89
Nashik	3.77	5.82
Faridabad	14.20	-2.19
Rajkot	6.78	8.75
Vasai-Virar	5.08	-21.32
Srinagar	16.11	6.40
Aurangabad	0.89	1.68
Dhanbad	21.59	NA
Amritsar	-0.45	8.92
Ranchi	44.30	NA
Jabalpur	8.69	51.87
Gwalior	25.16	-7.88
Coimbatore	16.51	16.18
Jodhpur	30.07	-31.40
Madurai	8.09	6.27
Raipur	14.31	5.21
Kota	17.44	10.00
Chandigarh	16.15	NA
Thiruvananthapuram	9.44	4.96
Kochi	8.56	9.60
Asansol	9.37	16.80
Kozhikode	5.64	1.35
Kollam	13.83	2.69
Thrissur	12.24	3.74
Total (37 Municipal Corporations)	11.03	-9.78

Table A31. Annual Growth rate of Central and State Transfers

W	Central Transfers	State Transfers
Municipal Corporation —	2012-13 to 2017-18	2012-13 to 2017-18
Mumbai	5.31	83.42
Bengaluru	14.63	29.05
Hyderabad	NA	19.08
Ahmedabad	0.29	5.40
Chennai	5.42	-0.98
Kolkata	7.43	6.07
Surat	5.04	2.40
Pune	NA	47.79
Nagpur	2.90	80.47
Indore	14.57	9.61
Bhopal	32.32	13.28
Patna	NA	67.70
Vadodara	8.00	5.72
Ludhiana	32.64	-35.92
Nashik	NA	-4.32
Faridabad	-17.90	22.01
Rajkot	NA	13.60
Vasai-Virar	10.44	54.22
Srinagar	40.54	11.59
Aurangabad	NA	9.96
Dhanbad	NA	2.57
Amritsar	11.40	49.97
Ranchi	NA	14.83
Jabalpur	20.22	-7.54
Gwalior	2.92	15.71
Coimbatore	13.75	6.76
Jodhpur	16.64	14.16
Madurai	54.33	15.67
Raipur	-40.74	1.80
Kota	NA	23.13
Chandigarh	-0.60	NA
Thiruvananthapuram	20.52	10.93
Kochi	11.28	11.28
Asansol	39.02	14.16
Kozhikode	37.74	1.08
Kollam	46.49	25.55
Thrissur	29.06	21.33
Total (37 Municipal Corporations)	13.06	20.90

 Table A32. Annual Growth rate of Revenue and Capital Expenditure

Municipal Corporation	Revenue Expenditure	Capital Expenditure
Mumbai	6.15	1.77
Bengaluru	-6.97	7.51
Hyderabad	8.06	23.13
Ahmedabad	10.99	10.39
Chennai	15.88	17.14
Kolkata	2.39	8.06
Surat	14.38	5.87
Pune	8.70	3.87
Nagpur	12.35	17.26
Indore	13.05	2.35
Bhopal	15.87	-5.20
Patna	19.48	131.79
Vadodara	9.73	4.23
Ludhiana	8.31	-0.68
Nashik	4.91	1.12
Faridabad	NA	NA
Rajkot	13.53	13.66
Vasai-Virar	13.78	10.70
Srinagar	7.47	31.25
Aurangabad	9.64	16.92
Dhanbad	38.46	47.09
Amritsar	3.82	23.69
Ranchi	19.22	63.31
Jabalpur	-2.71	-20.31
Gwalior	4.75	-6.75
Coimbatore	6.34	20.13
Jodhpur	7.18	-9.45
Madurai	8.84	28.07
Raipur	6.03	-12.00
Kota	0.97	17.62
Chandigarh	NA	NA
Thiruvananthapuram	7.34	52.69
Kochi	-18.46	15.12
Asansol	-0.62	0.40
Kozhikode	13.28	15.23
Kollam	24.61	24.46
Thrissur	4.13	21.11
Total (37 Municipal Corporations)	7.08	7.68

Table A33. Municipal Revenue and Expenditure Per Capita

Municipal Companytion	Municipal	Revenue	Municipal Expenditure		
Municipal Corporation	2012-13	2017-18	2012-13	2017-18	
Mumbai	14104.3	18601.2	12598.4	15740.6	
Bengaluru	3870.0	6371.5	4950.0	4476.7	
Hyderabad	3375.7	5379.7	2587.4	4165.8	
Ahmedabad	5317.4	8006.5	3297.0	4838.2	
Chennai	4800.5	8704.9	4588.3	9444.5	
Kolkata	7261.8	8976.1	6906.8	8468.2	
Surat	4467.2	6142.5	4809.5	6123.4	
Pune	9187.2	11415.7	8767.3	10345.5	
Nagpur	4325.7	7003.1	3867.5	6815.9	
Indore	4236.6	5752.5	3718.8	4779.6	
Bhopal	2414.5	6104.7	3371.7	3618.5	
Patna	758.2	7703.8	627.2	2776.9	
Vadodara	7486.3	10167.4	6300.1	8007.4	
Ludhiana	3314.6	4202.4	3293.5	4108.0	
Nashik	6250.9	7322.6	6329.4	6456.4	
Faridabad	3633.5	4854.1	NA	NA	
Rajkot	2417.3	3858.2	4063.8	6584.8	
Vasai-Virar	4097.6	4588.8	2809.9	4214.5	
Srinagar	1269.8	2018.5	1094.9	2147.7	
Aurangabad	4599.1	3630.3	2887.5	4047.6	
Dhanbad	418.6	1513.2	118.6	680.5	
Amritsar	1894.3	2668.1	1857.2	2614.0	
Ranchi	1290.8	6382.0	726.1	5469.0	
Jabalpur	3954.2	4152.4	3376.2	1847.0	
Gwalior	4008.3	6143.1	2737.1	2584.0	
Coimbatore	5799.8	9524.2	5229.3	9466.6	
Jodhpur	1343.1	2283.3	1663.9	1650.0	
Madurai	2665.1	4953.7	2671.2	5035.4	
Raipur	1904.0	1847.1	3446.1	2416.9	
Kota	1656.8	2313.3	1300.9	1632.5	
Chandigarh	4830.3	4536.6	4793.4	NA	
Thiruvananthapuram	2698.2	3673.9	1902.3	2838.7	
Kochi	2879.3	3967.8	2278.2	1570.9	
Asansol	2604.3	7753.1	2015.8	1832.6	
Kozhikode	3863.7	3908.4	2781.6	3860.2	
Kollam	2452.3	4689.6	2120.6	3988.0	
Thrissur	1505.4	1925.2	1227.2	1331.0	
Total (37 Municipal Corporations)	5649.1	7891.4	5152.6	6452.8	

Table A34. Own Revenue and Property Tax Per Capita

M 10	Own Re	venue	Property Tax	
Municipal Corporation	2012-13	2017-18	2012-13	2017-18
Mumbai	13769.6	13590.5	2620.1	4085.7
Bengaluru	1920.8	2809.5	1232.4	1638.0
Hyderabad	1955.4	2704.0	1068.7	1641.8
Ahmedabad	1781.4	3889.6	432.5	1565.4
Chennai	1757.4	3389.4	878.7	1550.0
Kolkata	3251.6	3127.7	1845.9	1848.0
Surat	1435.1	2180.9	414.6	659.6
Pune	8448.1	6431.3	1377.5	2634.9
Nagpur	3223.1	1656.2	682.0	748.2
Indore	1618.3	2460.1	613.1	896.3
Bhopal	715.5	2601.7	315.8	926.0
Patna	178.1	289.9	139.8	245.6
Vadodara	2024.6	2891.5	650.1	911.2
Ludhiana	2878.8	3478.5	544.4	385.6
Nashik	5990.1	6863.4	415.2	431.6
Faridabad	419.6	488.2	140.5	251.3
Rajkot	1589.0	2507.2	527.9	627.9
Vasai-Virar	3647.4	2135.9	411.2	438.6
Srinagar	144.1	180.6	0.7	1.4
Aurangabad	1353.3	1426.0	631.0	540.3
Dhanbad	31.9	119.0	25.6	61.0
Amritsar	1483.9	1941.1	159.9	149.6
Ranchi	215.6	588.0	57.2	315.7
Jabalpur	1184.5	2132.9	477.7	668.9
Gwalior	2218.0	3042.5	155.8	420.4
Coimbatore	2840.5	4119.6	1013.8	2259.0
Jodhpur	344.1	711.1	50.5	165.1
Madurai	1304.0	1605.1	600.9	784.0
Raipur	863.5	1033.2	244.1	374.7
Kota	1012.4	1370.7	14.7	27.7
Chandigarh	1489.0	1659.5	184.0	345.2
Thiruvananthapuram	1029.7	1238.7	441.6	544.3
Kochi	1541.1	2111.0	839.6	1029.5
Asansol	303.6	402.5	105.7	150.4
Kozhikode	942.3	811.5	370.7	355.4
Kollam	442.7	402.7	163.2	195.4
Thrissur	863.9	731.1	339.5	382.8
Total (37 Municipal				
Corporations)	3801.8	4069.9	998.3	1485.7

Table A35. Tax Revenue and Non- Tax Revenue Per Capita

Municipal Corporation	Tax Revenue		Non-Tax Revenue	
	2012-13	2017-18	2012-13	2017-18
Mumbai	7939.7	5652.6	5830.0	7937.9
Bengaluru	1252.2	1662.7	668.7	1146.8
Hyderabad	1068.7	1641.8	886.7	1062.2
Ahmedabad	908.5	2051.1	872.9	1838.5
Chennai	1317.6	2208.3	439.8	1181.1
Kolkata	1887.1	2025.5	1364.5	1102.2
Surat	1018.6	1622.9	416.6	557.9
Pune	4940.4	3536.6	3507.6	2894.8
Nagpur	2601.0	892.3	622.1	764.0
Indore	1015.5	1573.9	602.8	886.2
Bhopal	372.5	1894.0	343.0	707.7
Patna	140.1	251.2	38.0	38.7
Vadodara	1104.1	2080.6	920.5	811.0
Ludhiana	2561.0	3052.0	317.8	426.5
Nashik	5283.5	6011.6	706.6	851.9
Faridabad	221.0	317.7	198.6	170.5
Rajkot	628.6	759.2	960.4	1748.0
Vasai-Virar	1763.5	778.1	1883.9	1357.8
Srinagar	98.4	118.7	45.7	61.9
Aurangabad	814.2	703.3	539.1	722.7
Dhanbad	25.6	61.0	6.3	58.0
Amritsar	1181.7	1649.4	302.2	291.7
Ranchi	57.2	338.8	158.3	249.2
Jabalpur	612.1	1671.0	572.4	461.9
Gwalior	464.6	600.3	1753.4	2442.1
Coimbatore	1126.0	2505.4	1714.5	1614.2
Jodhpur	270.9	194.6	73.2	516.5
Madurai	697.0	899.1	607.0	705.9
Raipur	514.6	649.0	348.8	384.2
Kota	913.1	1249.2	99.3	121.6
Chandigarh	184.0	345.2	1305.0	1314.3
Thiruvananthapuram	880.3	983.0	149.3	255.7
Kochi	1312.7	1638.0	228.4	473.0
Asansol	116.6	172.1	187.0	230.4
Kozhikode	719.3	627.1	223.0	184.4
Kollam	337.0	319.8	105.7	83.0
Thrissur	632.7	605.7	231.1	125.4
Total (37 Municipal				
Corporations)	2277.1	2160.2	1524.7	1909.7

Table A36. State Transfers and Central Transfers Per Capita

Municipal Corporation	State Transfers		Central Transfers	
	2012-13	2017-18	2012-13	2017-18
Mumbai	240.1	4890.5	94.6	120.2
Bengaluru	1132.8	3289.7	169.6	272.3
Hyderabad	609.8	1250.0	81.8	NA
Ahmedabad	2974.5	3393.8	223.0	198.4
Chennai	1763.1	1622.4	375.2	472.2
Kolkata	2059.9	2789.3	1766.5	2548.8
Surat	2258.9	1998.6	291.8	293.2
Pune	739.2	4454.2	NA	NA
Nagpur	239.2	4152.6	493.4	516.1
Indore	2334.8	3119.0	101.5	169.2
Bhopal	1374.7	2255.3	127.2	453.8
Patna	554.7	6498.0	NA	804.2
Vadodara	3818.6	4502.2	262.8	344.7
Ludhiana	64.4	6.3	164.0	609.0
Nashik	38.0	26.3	5.9	NA
Faridabad	1416.4	3528.3	821.3	282.2
Rajkot	828.4	1343.3	NA	7.7
Vasai-Virar	311.6	2263.2	138.6	189.6
Srinagar	1088.8	1659.7	36.9	178.2
Aurangabad	1673.9	2204.3	NA	NA
Dhanbad	386.7	393.8	NA	980.0
Amritsar	33.5	243.1	291.1	478.3
Ranchi	1053.2	1854.0	NA	3871.5
Jabalpur	2497.4	1558.2	199.0	461.4
Gwalior	1590.1	2897.4	200.3	203.2
Coimbatore	1914.5	2755.6	143.4	283.5
Jodhpur	712.6	1214.3	152.9	290.1
Madurai	1216.2	2226.6	144.9	1122.1
Raipur	939.9	808.2	100.6	5.8
Kota	262.2	626.5	NA	NA
Chandigarh	NA	NA	3341.2	2877.2
Thiruvananthapuram	1321.3	1742.3	347.2	692.9
Kochi	1070.5	1485.5	267.6	371.4
Asansol	1173.9	2070.0	1116.2	5271.8
Kozhikode	2622.6	2017.0	298.8	1079.9
Kollam	1309.9	2560.4	311.4	1316.1
Thrissur	431.3	717.7	210.2	476.4
Total (37 Municipal				
Corporations)	1199.8	2734.1	296.3	482.9

 Table A37. Revenue Expenditure and Capital Expenditure Per Capita

Revenue Ex	penditure	Capital Expenditure	
2012-13	2017-18	2012-13	2017-18
8947.8	11829.5	3650.6	3911.0
2152.0	1216.7	2798.0	3260.0
1811.8	2286.0	775.6	1879.8
2492.2	3681.1	804.8	1157.1
3022.1	6104.7	1566.3	3339.8
5107.4	5795.1	1799.3	2673.1
2220.0	3415.8	2589.5	2707.6
4880.7	6329.3	3886.6	4016.2
2476.8	4019.8	1390.6	2796.1
2051.3	3198.2	1667.5	1581.4
1158.6	2127.9	2213.1	1490.5
602.1	1295.0	25.1	1481.9
3380.9	4802.2	2919.1	3205.3
2589.8	3492.7	703.7	615.3
3666.0	4024.7	2663.4	2431.7
NA	NA	NA	NA
2340.3	3783.2	1723.5	2801.5
1598.9	2538.3	1211.0	1676.2
742.1	937.2	352.8	1210.5
2277.4	2955.5	610.1	1092.1
32.2	146.7	86.4	533.8
1566.7	1808.9	290.5	805.1
242.7	515.5	483.5	4953.5
1663.9	1338.8	1712.3	508.1
1819.1	2015.3	918.0	568.8
3468.6	4895.5	1760.7	4571.1
1072.9	1333.8	591.0	316.2
1829.6	2471.2	841.5	2564.2
1543.7	1627.1	1902.5	789.8
827.5	733.0	473.4	899.5
2985.2	NA	1808.2	NA
1770.6	1980.8	131.7	857.8
1609.8	471.9	668.5	1099.0
826.5	728.7	1189.3	1103.9
2142.6	2913.8	639.0	946.4
1740.4	3276.4	380.3	711.6
791.8	613.3	435.3	717.7
3288 D	4083 Q	1864.7	2368.9
	2012-13 8947.8 2152.0 1811.8 2492.2 3022.1 5107.4 2220.0 4880.7 2476.8 2051.3 1158.6 602.1 3380.9 2589.8 3666.0 NA 2340.3 1598.9 742.1 2277.4 32.2 1566.7 242.7 1663.9 1819.1 3468.6 1072.9 1829.6 1543.7 827.5 2985.2 1770.6 1609.8 826.5 2142.6 1740.4	2012-13 2017-18 8947.8 11829.5 2152.0 1216.7 1811.8 2286.0 2492.2 3681.1 3022.1 6104.7 5107.4 5795.1 2220.0 3415.8 4880.7 6329.3 2476.8 4019.8 2051.3 3198.2 1158.6 2127.9 602.1 1295.0 3380.9 4802.2 2589.8 3492.7 3666.0 4024.7 NA NA 2340.3 3783.2 1598.9 2538.3 742.1 937.2 2277.4 2955.5 32.2 146.7 1566.7 1808.9 242.7 515.5 1663.9 1338.8 1819.1 2015.3 3468.6 4895.5 1072.9 1333.8 1829.6 2471.2 1543.7 1627.1 827.5 733	2012-13 2017-18 2012-13 8947.8 11829.5 3650.6 2152.0 1216.7 2798.0 1811.8 2286.0 775.6 2492.2 3681.1 804.8 3022.1 6104.7 1566.3 5107.4 5795.1 1799.3 2220.0 3415.8 2589.5 4880.7 6329.3 3886.6 2476.8 4019.8 1390.6 2051.3 3198.2 1667.5 1158.6 2127.9 2213.1 602.1 1295.0 25.1 3380.9 4802.2 2919.1 2589.8 3492.7 703.7 3666.0 4024.7 2663.4 NA NA NA 2340.3 3783.2 1723.5 1598.9 2538.3 1211.0 742.1 937.2 352.8 2277.4 2955.5 610.1 32.2 146.7 86.4 1566.7 1808.9

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