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Andrew Young School of Policy Studies

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Property Tax Reforms in India: A Comparison of Delhi and Bangalore*

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Abstract

The present paper attempts at a comparative evaluation of two Indian cities, Delhi and Bangalore, in the performance of implementing property tax reforms through unit area method of valuation and self-assessment schemes. Delhi is a city where the results of implementation of these reforms were not up to the mark whereas Bangalore could achieve considerable success. The main objective of the paper is to explain the differences in the extent of the success in achieving the desired outcomes in the two cities. There has been a decrease in number of assessed properties in Delhi and an increase in number of assessed properties in Bangalore. The property tax to GSDP ratio declined in case of Delhi and increased in case of Bangalore. The main findings suggest that it is a combination of policy and administrative factors which are responsible to create differences in performances of the two cities. Optimal progressivity in tax rates, better coverage and collection ratios, better service delivery, better living conditions and a more stable property market are the major factors contributing to a better performance in property tax collection in Bangalore.
Introduction

Property tax is the most important tax levied by urban local governments worldwide. It is generally considered to be a good tax for local governments because it is a visible tax financing visible services in the jurisdiction of a city. It is difficult to evade and can promote accountability (Bird 2001). If exclusive authority over the property tax is ensured to the local governments, it promotes local autonomy (Oates 2010).

The main qualifications of property tax include its revenue generating potential because of a large and growing base (property values). It can be made progressive if the rate is structured in a way so that its burden is borne by owners of higher value structures and land. It can act as a benefit charge so that land values can respond to the level and quality of local services provided. The most important disadvantages include high cost of accurate valuation and political difficulty in enforcement.

Property tax has not worked well in most developing countries. There are many reasons contributing to this failure. Slow growth of decentralization is a major reason for underutilization of the property tax base and lesser reliance on property taxes. Alternative revenue sources available to the local governments can cause underutilization of the property tax base. Most importantly, local governments’ inability to fix the difficult administrative challenges of valuation and implementation is also responsible for the low performance in property tax.

The most important administrative challenge in developing countries is determining the market values for land and structures. If the tax base is not estimated properly, it is difficult to build up tax payers’ confidence as a result of which compliance rates would be low which results in lower revenue collections. Lower revenues lead to poorer services which in turn results in resistance to pay taxes. Absence of accurate sales data on property transactions is at the root of all these problems. The sales data available in developing countries suffers from under-reporting problems. Higher transfer duties, lack of monitoring efficiencies of the transfer tax department to check the authenticity of the sales value declarations and illegal practices in the property markets are the most important explanations.
Enforcement problems play a major role in under-collection of property taxes. Most developing countries fail to collect the entire amount due. Literature has pointed out the need for public information campaigns to encourage voluntary compliance. These campaigns should communicate to taxpayers that there are net benefits received by paying these taxes, the tax is fair and are to be paid for improved services.

Based on revenue performance we find that the countries have failed to use the advantages tax of a property system. Property tax revenue collections are generally low as a result of which the property tax to GDP ratio in a country generally does not exceed 3 per cent. For developing countries, the average property tax to GDP ratio is around 0.7 per cent. Reliable information on the collection of revenues from property tax in India is not available, but property tax revenue collection is estimated at about 0.2 per cent of GDP.

Augmentation of property tax revenues depends on the methodology for valuation of properties, coverage of properties under tax net, collection efficiency and regularity in periodic revision of rates. Jawaharlal Nehru National Urban Renewal Mission (JnNURM), a flagship reform program of the Government of India to support urban development, placed a lot of emphasis on reforming the property tax regimes of state governments. The main focus was on improved methods of property tax assessment, accompanied by appropriate administrative reforms. Property surveys and usage of GIS technology was encouraged within an integrated framework to ensure better coverage of the properties. Computerization of property taxes, regular revision of rates, more user friendly tax system and making tax enforcement a priority were emphasized with a target of raising collection ratio to 90 per cent and coverage ratio to 85 per cent.

The comprehensive reform process requires an active role of the state and the state is fully empowered to create a committee/ expert group for assistance. However, certain short term issues require a greater involvement of the urban local bodies like maintaining of databases of properties, reducing the subjectivities in the assessment method, reducing exemptions etc. The guidelines also suggest that apart from the state and the ULBs, other stakeholders should also participate in the reform process. This
includes frequent exchange of thoughts and ideas between the authorities and the general public regarding the property tax reform process, having a transparent property tax system where the tax payers have all the information and details of the taxes filed by him and also having a grievance redressal system. Finally, the JnNURM guidelines also provides for measuring the effectiveness of the property tax reforms on the basis of the parameters like coverage, tax mapping, demand, collection, enforcement etc.

These reforms, if undertaken, are expected to provide greater revenues to the urban local bodies while the general people would have a simpler method for assessing their property tax returns. Other benefits from the reforms are likely to be lesser cases of litigations regarding property taxes, better tax administration, and most importantly, a good database for properties. The results, however, have been far short of expectation.

A Brief Literature Review: Theory and Practice

Property tax is considered to be an appropriate source of raising local revenues as there is a direct connection between the services financed by the tax and the benefit to property values (Fischel 2001). If property taxes are used to fund local services, it establishes a link between the benefits and costs of local services to the residents. This enables citizens to make efficient fiscal decisions (Oates 2010). Another way of looking at property tax would be a tax on capital that distorts the housing market and local fiscal decisions (Zodrow 2001). Property tax based on market value of land and improvements can discourage constructions and can result in underutilization of land. However, in a developing country like India in the absence of an organized property market and very low property tax collections, and constraints on data related to variables in property market, local finances and local service delivery, it is difficult to assess empirically the validity of these theories.

In practice property tax is underutilized in general. Theory has cited four major reasons for underutilization of property tax (Slack 2011). First, property tax is a very unpopular tax even in OECD countries (Brunori 2003). High visibility and volatility with market prices are two of the important reasons for being unpopular. Second, property tax can prove to be inelastic, unless revision of rates and revaluation of bases are done
at regular intervals, as the base does not automatically increase over time due to slower
response of property values with economic activity. Third, there is an erosion of property
tax base due to exemptions granted through policy decisions. In every country, some
properties are excluded from taxation (Bird and Slack 2004). Fourth, poor administration
is often responsible for underutilization of property tax base resulting in lower collections.
Assessment method and frequency of reassessment of properties play an important
role (Bahl and Martinez-Vazquez 2008).

Property taxation has a lot of potential for mobilizing revenues and ensuring
equity, particularly in the developing and transitional countries. Policy and administrative
factors interact to influence the efficiency and equity of property tax mobilization (Linn
deal with the structure of the tax base and tax rates determining the legal tax capacity.
The administrative factors enable the realization of the tax capacity through improved
tax base coverage, valuation and collection ratios. The administrative factors can be
categorized as those related to tax base administration (coverage and valuation) and
those related to the treasury functions (billing, collection and enforcement).

As far as the definition of property tax base is concerned, the real challenge is to
define what will not be included in the tax base (ie exemptions) rather than what will be
included in the tax base. Rationalizing exemptions is very important as they are implicit
subsidies which should be targeted to properties for which these exemptions are
justified on efficiency and equity grounds (Kelly 2013, Norregaard 2013, Rao 2013). As
far as the rates are concerned the structures vary between uniform to differential rates,
with differing degrees of progressivity.

‘Tax Administration is Tax Policy’ is an accepted argument pointing out the
importance of tax administration in achieving tax policy goals (Casanegera de Jantscher,
1990). Tax policy is an important aspect but implementing these policies are more
challenging particularly in developing countries with weak administrative capacity (Kelly
2013). Effective implementation of property tax requires proactive tax base identification,
tax base valuation, tax liability assessment, tax billing and collection, tax enforcement
and taxpayer services and dispute resolution (Mikesell 2007). It is to be noted that all
the administrative functions contribute in defining the tax potential but the collection function is crucial in realizing this potential. Thus any reform agenda for property tax should place a lot of emphasis on the role of collection (Kelly 2013).

The initial step in property tax administration is to collate and update information on properties once the taxable properties are identified. In developing countries the coverage ratio for property tax may range between 40 to 80 per cent (Bird and Slack 2004, UNHABITAT 2011). To perform this in a cost effective manner, the local governments are following a partnership approach where the task of collection, updation and maintenance of information on properties and taxpayers is outsourced to an agency.

Valuation of properties is an important issue. Valuation can be done based on the capital value, rentals or area of the properties. While capital values are subject to market fluctuations, rent controlled properties create distortions in the rental value based methods. Valuation based on unit area characteristics are safer options with lesser fluctuations. Many developing countries have opted for unit area based valuations (Mathur 2009, NIUA 2010).

Mobilising revenues through property tax in an equitable and efficient manner is the ultimate goal of a local government. Once the legal tax base is identified and values of the properties are estimated, tax rolls can be created by applying the tax rates which gives the potential tax revenues. Once they are collected the potential can be actually realized.

Collection ratios vary across countries. In most OECD countries they are close to 100 per cent while in non OECD countries they can vary between 30 to 60 per cent (Bird and Slack 2004, NIUA 2010). Low collection ratios are caused by administrative, cultural and political factors.

To enhance collection ratios voluntary compliance has to be ensured. Incentivising the tax payments is important. Providing discounts for timely payments is one option. However, the most important option is to establish a strong link between property tax payments and public service delivery.
Strategic reforms have to be undertaken in order to realize the property tax potential. These should be a combination of policy and administrative reforms dealing with tax base coverage, property valuations, collections, enforcement and taxpayer services (Kelly 2013). Tax policy reforms focus around modifications in methods for assessing tax bases and tax rate structures. Tax administration reforms focus on improvement of coverage, valuation, collection and taxpayer services.

The Indian Experience

Valuation of properties is one of the biggest challenges for the ULBs of India. The main constraints are inappropriate methods, lack of transparency and incomplete records of properties.

The cities in India are in different stages of implementation of reforms in valuation of properties ranging between purely Annual Rental Value and Value based on unit area characteristics. A number of studies can be cited which have dealt with this issue. Mohanty et al (2007) and various reform agendas prescribe changing over to valuation based on unit area characteristics. A review of property tax reforms (NIUA, 2010) on the basis of 10 selected cities viz. Ahmedabad, Bangalore, Bhubaneswar, Chennai, Hyderabad, Indore, Kolkata, Ludhiana, Patna and Pune shows that cities like Patna, Indore, Chennai, Hyderabad, Bangalore and Ahmedabad have already moved to the “unit area assessment system” while Kolkata and Bhubaneswar are yet to implement the unit area system (although the municipal laws have been amended). Patna and Ludhiana have continued with the system of Annual Ratable Value (ARV). Bangalore has experienced a sharp rise in the property tax revenues after moving to the unit area based approach, while Ahmedabad has benefitted through technical advancements like usage of the GIS system which led to the highest number of assessed properties per 1,000 population.

Legal framework plays a prominent role in realizing the gains from a transformation in the valuation methods. Gnaneshwar (2009) in his study based on municipal corporations from Andhra Pradesh, Tamil Nadu and Karnataka established that the gains in Karnataka from moving to a self assessment property tax system has
been the maximum because of the fact that in Karnataka, the reform has been executed with a revision in the legal framework whereas in the other two states the existing legal provisions were used. There also have been substantive efforts on the part of the Government of India to bind the states for introducing the reforms by taking e-governance initiative. However, there are many other factors which are responsible for implementing reforms successfully.

The administrative aspects to implement reforms in property tax are very important to get desired results. On the basis of a study on Andhra Pradesh, Mohanty (2003) finds that although tax reforms and strategy depends on the “pre conditions” certain factors like close involvement of the tax paper, tax-service linkage, incentives for filing of tax returns, disincentives for non-filing, tax education are very important. The study claims that although it is useful to have uniform slab rates for homogeneous properties, it can be regressive in case of heterogeneous properties. “Correction of inequities” in the tax system could be very useful and could enhance revenues. A greater focus on “compliance” brought in a lot of revenues in Hyderabad. Ahluwalia (2011) elaborates on the initiatives taken in different stages of reforms systematically in Bangalore that made property tax a success story in the city yielding higher revenues, greater coverage and better collection ratios.

The fiscal implications of the existing and the possible future assessment reforms in property tax are worth exploring in the context of Indian cities. Lall and Deichmann (2006) throws some light on the issue for two states Karnataka and Maharashtra, with Bangalore and Pune as the study sample. The authors find that the reforms that quantifies the property tax base closer to the market value have significant and positive implications for revenue generation. However, although these reforms are good as a first step intended towards greater efficiency of the property taxes, issues like improved valuation and increasing the buoyancy of the taxes still need to be looked at. Unless these issues are resolved, improvements in the administration would only do little to make the property tax a useful revenue option. The paper finds that in Pune and Bangalore where the tax assessments gets linked to the “market rental or capital values”, have a very high prospect of augmenting the revenues from property taxes.
As far as revenue from property tax is concerned, there are large variations in Indian Cities. In a study of 36 large corporations, Mathur et al (2009) finds that there are large inter-city variations in per capita revenue from property tax. However, the study does claim that population size has a strong impact on property tax collection (with a correlation of 0.82). The total tax demand over the study period has shown some signs of stagnation reflecting limited inclusion of new properties and revision of rates. However, variables like growth of state’s GDP or the ratio of state’s tax to GDP have little impact on property taxes. Another study (Mathur et al 2011) based on a survey of 31 municipalities in six states-Andhra Pradesh, Kerala, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh finds that property tax constitutes 25 per cent of total revenues in Maharashtra, 30 to 40 per cent for those in Kerala and Andhra Pradesh, less than 20 per cent of those in Madhya Pradesh and 20 to 40 per cent of those in Uttar Pradesh.

Mathur et al (2009) also provides some estimates of property tax potential in India on the basis of data collected on property tax collections for 36 large municipal corporations for the year 2006. Estimates of property tax potential for the country were given by making three alternative methodologies. The first one is based on the assumption that the average per capita collections in the remaining 5,125 small municipalities apart from the 36 corporations for which data were collected would be equal to the average per capita collections of four municipalities with the smallest populations in the city sample used for the study. The second methodology was based on the assumption that average per capita collection in these 5,125 municipalities would be equal to those showing the lowest collection among the 36 largest cities. The third methodology is based on the assumption that the lowest per capita collection in each state among 36 large cities in the sample can be taken as a proxy for per capita property tax collections in all the municipalities in the respective state. The most optimistic estimate made on the basis of the above assumptions shows that in 2006-07, on an average, per capita property tax collections was Rs. 486 (about USD.10.6) and total collections ranged from 0.16 per cent to 0.24 per cent of GDP. These methodologies have problems as they consider the lowest levels of property tax collections in the sample cities to act as proxies for other municipalities outside the
sample. This leads to underestimation of the property tax potential in India (Rao 2013). Since this is the most important study done in this area and in the absence of any other reliable estimates related to property tax potential in India, these estimates are used at different levels.

Collection ratio of property tax is low in Indian cities which is one of the reasons for low collections of property taxes (Mohanty et al 2007, Bandyopadhyay and Rao 2009, Rao and Bird 2011). Mathur et al (2009) finds that the average collection rate was only 37 per cent with relatively higher collection rates in Karnataka, Tamil Nadu, Kerala, and Andhra Pradesh. Bihar and Madhya Pradesh have very low collection efficiencies as was the case with Delhi. Corporations of Gujarat and Maharashtra though had higher per capita collections have lower collection ratios.

**Research Questions**

The above discussion gives an idea about how different issues related to property taxation have been addressed in theory and practice and also in the context of Indian cities. We find that there have been studies giving general assessments and evaluations of reforms in property tax in India. The present paper is an attempt for a comparative evaluation of two cities, Delhi and Bangalore, in the performance of implementing property tax reforms through unit area method of valuation and self assessment schemes. Delhi is a city where the results of implementation of these reforms were not up to the mark whereas Bangalore could achieve considerable success in raising revenues through property tax after the implementation of reforms. The main objective of the study is to explain the differences in the extent of success in achieving the desired outcomes in the two cities. We bring together evidence and data from different secondary sources to substantiate our arguments and relating them with the public finance literature.
Impact of Property Tax Reforms in Delhi and Bangalore: Some Observations

Prior to 2003\(^1\) properties in MCD were taxed on the basis of annual rent at which properties were expected to be let out. The unit based system was notified in August 2003 and was implemented from April 2004. In this method, a unit area value is fixed for eight categories of zones (A to H) of the city per square metre covered space for calculation of property tax. The zones are classified according to the guidelines given in Delhi Municipal Corporation Act. This categorisation is based on parameters like settlement pattern, access to infrastructure, land prices and purpose for which the land or building is being used. The tax for a particular property is calculated based on the annual value of the property by multiplying the unit area value assigned to the particular colony or locality in which the property is located by the covered area and some multiplicative factors for occupancy, age, structure and use. The norms for the determinants of the assessed value of properties were set by the Municipal Valuation Committee in 2003.

The property taxes are levied on the annual value of the building. The annual value is determined by the formula:

\[
\text{Annual Value} = \text{Covered Area} \times \text{Base Unit Area Value} \times \text{Multiplicative Factors (Occupancy Factor, Age Factor, Structure Factor, Use Factor)}.
\]

a) Covered Area: Originally the definition of the “covered area” was the floor area covered including the thickness of the walls and the varandahs, chajjas, lobbies etc.

b) The “base unit area value” had been set using the following norm for different categories of properties A, B, C, D, E, F, G, H at Rs 630, 500, 400, 320, 270, 230, 200, 100 per sq metres area respectively.

c) The Structure Factor (SF) was set as 1 for pucca and semi pucca and 0.5 for kuchcha categories.

d) The factors for age (AF) were set according to the year of completion of the property. If the property was completed before 1960, the factor is 0.5, if it was completed

\(^1\) Delhi Municipal Corporation (Amendment) Act 2003
during 1960 and 1969 the factor is 0.6, if it was completed during 1970 and 1979 the factor is 0.7, if it was completed between 1980 and 1989, the factor is 0.8; if it was completed during 1990 and 1999, the factor is 0.9 and all properties completed after 2000 has been assigned a factor of 1

e) The Occupancy Factor (OF) is “1” if it is a residential “self occupied unit” and “2” if it is a residential “rented” unit.

f) The Use Factor (UF) is determined as a five category classification of non residential properties according to their usage: Public Purpose with factor 1, Public Utility with factor 2, Industry, Recreation, Clubs with factor 3, Business, Restaurants, Hotels upto two star with factor 4 and Hotels, Towers, Hoardings with 3 star ratings and above with a factor 10.

The annual value has to be multiplied by the tax rates for the respective localities and rebates or concessions have to be deducted to calculate the payable amount of property taxes. The rates specified were 10 per cent for residential properties for categories A to E and 6 per cent for categories F to H. For non residential properties, the rate was 15 per cent upto two star rated properties and 20 per cent for three star and above rated properties.

In Delhi, property taxes declined drastically after 2004. We find that property tax collections dropped by 16 per cent in 2004-05 if compared with that in 2003-04. The details of the yearwise property tax collections are given in Figures 1 and 2. There are many factors responsible for this decline. Downward revisions in the definitions for covered area, and some of the initially prescribed norms for multiplicative factors for assessment of properties resulted in lower collection of property taxes than expected in spite of the change in the assessment method and technique of valuation of properties.
According to Mathur et al (2009), in Delhi, the property tax revenues have declined as a result of putting in place a system of self-assessing the tax liability without having an inventory of properties. Delhi offers an example where the total number of properties is stated to be 25.3 lakh, but only 9.6 lakh properties are on the municipal tax register. Low collection rates are also a dominant feature of Delhi.

According to Third Delhi State Finance Commission Report, based on data collected by Municipal Valuation Committee for a sample of 33,717 properties out of 9 lakh (approximately) properties under the tax net in 2002, 58 per cent were expected to pay less tax, while 42 per cent properties were expected to pay more after the unit area method was applied. Majority of the properties that were expected to pay more tax
came from ‘A’, ‘B’ and ‘C’ categories with higher unit area values, while most of the properties that were expected to pay less tax came from ‘D’ to ‘H’ categories with lower unit area values. Hence, an increase in property tax collection was envisaged after the introduction of the new method of valuation. However, this analysis considered the valuation of properties without considering the multiplicative factors mentioned above which determines the assessed value of properties. For example, if the distribution of properties in a particular category is such that the proportion of old properties is higher, the total assessed value of properties would be lower if the multiplicative factor on age is taken into consideration for valuation of properties than total assessed value of properties without taking into consideration the age factor.

There are various reasons for which property tax collection after the introduction of the new assessment method declined in Delhi. First and foremost, there was a decline in the number of assessed properties after the implementation of unit area based system in 2004. We have analysed the data on number of assessed properties in Delhi since 1990 and found that there is an increase over the years excepting after the implementation of the unit area based method of valuation of properties (Figure 3). Discussions with MCD officials reveal that this decline in number of assessed properties was partly caused by faulty GIS mapping of properties. A decline in the number of assessed properties resulted in a decline in the property tax collections, both in absolute and per capita terms (Figures 1 and 2).
Other reasons behind the failure of the unit area method in Delhi were the lack of awareness regarding the unit area method among the public, lack of proper database to check for the non-payers, inadequate training of the staff regarding the new method of assessment etc. The Hardship and Anomaly Committee was also set up to address the grievances of the people and find solutions to them. Discussions with MCD officials reveal that presently, there is little scope for greater revenues from greater coverage. Almost 80 per cent areas have been covered. The remaining areas are the slums, unauthorized colonies etc. MCD has plans to conduct door-to-door surveys for better coverage of properties. Also, data from the GIS project of the Delhi state government is being used.

Among the properties assessed, the original norms that had been set were all revised in a way so that the annual value would reduce. This applies to the aspects like covered area, and some of the multiplicative factors, which determine the assessed value of properties.

The definition of covered area was changed. The newly defined covered area was the area that is covered by four walls. So the varandahs, lobbies etc were eliminated reducing the area considered under covered area before the revisions.

The definition of the semi pucca was also changed. Earlier it was defined as “non-load bearing temporary roof”. This was changed to “normal load bearing roof like tukri (red agra stone)”. The properties in the “semi pucca” category according to the original definition are categorized as ‘kuchcha’ according to the revised definition. The structure factor was also modified which resulted in lower valuations for semi-pucca properties as the structure factor for the same has been reduced to 0.7 from 0.8.

Also, there have been changes in the classification of colonies. In the original assessment there were 45 colonies in the “A” category which was reduced to 28 after the downward adjustments. The assessed values of properties were underestimated due to mis-classification of properties according to categories specified. If a property
that is to be rated as “A” actually gets rated as “C”, the annual value reduces by 230 multiplied by the area\(^2\).

As far as rates are concerned, there was a downward revision of rates for non-residential properties to a flat rate of 10 per cent which resulted in lesser collections than expected in the initial year. However, there have been upward revisions in 2007-08 and 2012-13. Table A1 in the Appendix gives the details of the rate structures in 2007-08 and 2012-13.

The transition to unit area based self assessment was successful in Bangalore. The jurisdiction of Bruhat Bangalore Mahanagar Palike (BBMP) has been classified into 6 value zones (A, B, C, D, E and F) based on the published guidance values from the Department of Stamps and Registration\(^3\).

The unit area values were fixed for the properties located in each zone keeping in view ownership of the building (i.e whether the building is self-occupied or tenanted) and also certain characteristics of the building regarding the roof and the floor. For example, if a unit is located in “A” zone and has RCC or Madras terrace, then it will have a unit area value of 5 if it is tenanted and 2.5 if it is owned. If that same unit in “A” zone has RCC or Madras terrace and where the flooring of the entire house is either cement or red oxide, the unit area value would be 4 if the unit is tenanted and 2 if the unit is owned. Again, if that same unit in “A” zone has roof made up of tiles or sheets, then it will have a unit area value of 3 if tenanted and 1.5 if owned. Similarly, there are unit area values for units in other zones based on similar assessment criteria\(^4\).

The unit area value is multiplied with the “total-built-up area” of the building which is the total area covered by the building (including balcony, basement etc.). This gives the “Monthly Unit Area Value” (MUAV) of the property. The MUAV is then multiplied by

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\(^2\) The factors responsible for the failure to realize the property tax potential cannot be quantified in terms of loss in property tax revenues due to data constraints. But it is clear that there are sources of underestimation of the property tax measurement in MCD.

\(^3\) www.bmponline.org

\(^4\) The detailed matrix for the unit area values for residential properties is given in Tables A2 in the Appendix.
10 months to arrive at the Taxable Annual Value (TAV). Two months are not considered for valuation of the building as an allowance for maintenance of the building. On the TAV, depreciation\(^5\) is allowed on the basis of the age of the building. After depreciation is deducted, 20 per cent on the remaining TAV is taken as the property tax for residential properties. On this remaining amount, further 24 per cent is added on account of cess of which 15 per cent is on account of health cess, 6 per cent is on account of library cess and 3 per cent is on account of beggary cess and this is applicable for residential properties of all sizes.

Steps for calculating Property tax for residential property

1. Built up area \(\times\) Unit Area Value \(\times\) 10 months = T1
2. T1 - Applicable Depreciation = T2 (Taxable Annual Value)
3. T2 x 20 per cent = T3 (Property tax)
4. T3 x 24 per cent = T4 (Cess)
5. T3 + T4 = T5 (Gross Property Tax payable)
6. T5 x 5 per cent = T6 (Rebate for early payment).
7. T5-T6 = Net property tax payable

For the non residential properties, the procedure for property tax calculation remains same. The unit area value classification changes and instead of the criteria regarding the building characteristics, for non residential properties the units get classified on the basis of whether they have central air conditioning, whether they have escalators, different star categories of properties etc. Also, instead of 20 per cent, the property tax for non residential units is 25 per cent of the Taxable Annual Value (after depreciation).

Steps for calculating Property tax for non-residential use of property

1. Built up area \(\times\) MUAV \(\times\) 10 months = T1
2. T1 – applicable depreciation = T2 (TAV)
3. T2 x 25 per cent(Tax) = PT = T3
4. T3x 24per cent (cess) = T4

\(^5\) Details of depreciations applicable in BBMP are given in Table A3 in the Appendix.
5. \( T3+T4 = \text{tax payable} \)

In Bangalore, the reforms were undertaken in two phases. The first phase started in 2000 with Bangalore City Corporation\(^6\) initiating the reforms. The results were phenomenal as there was an increase in property tax collections by 33 per cent compared to the previous financial year. After BBMP was formed, the process was revamped and the second phase was initiated. If we compare the property tax collection of BBMP in 2008 with 2007, we find a phenomenal increase of 74 per cent. The details of the property tax collections across years are given in Figure 1 and Figure 2.

It is interesting to note that in both the phases of reforms, there has been an increase in the number of assessed properties in Bangalore as a result of implementation of the unit area method of valuation. In 2000 there was an increase of 4 per cent in the number of assessed properties compared to 1999. In 2008, there was an increase of 5 per cent in the number of properties assessed compared to 2007. Year wise details of the number of properties assessed in BBMP are given in Figure 4. Also, in the second phase revenues in BBMP could increase because of revised zoning as

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\(^6\) Bangalore City Corporation (BCC) was established in the year 1949 by merging two municipalities, ‘The City Area’ and ‘The Cantonment Area’. From 87 wards prior to 1991 the number of wards increased to 100 with the addition of new areas and it came to be called Bangalore Mahanagara Palike (BMP). The jurisdiction of Bangalore was further increased in the year 2007, with the merger of neighboring 7 City Municipal Councils (CMC), one Town Municipal Council and 110 villages around Bangalore. The Bangalore Mahanagara Palike came to be called Bruhat Bangalore Mahanagara Palike (BBMP) from 16-01-2007.
several properties shifted from a lower zone to a higher zone. Properties in more than 10,000 localities moved from a lower zone to one zone higher resulting in at least 10 to 15 per cent increase in property tax collections.

The sharp contrast in the performance of Delhi and Bangalore is also reflected in the property tax to GSDP ratios and their behavior with time in the two cities. There is a 16 per cent increase in the GSDP of the state of Delhi in 2004 compared to 2003. We find that the property tax to GSDP ratio has shown a decline from 0.89 per cent in 2003 to 0.64 per cent 2004. Whereas in Bangalore property tax to GSDP (for the state of Karnataka) ratio has been more or less steadily increasing over the years and records an increase immediately after the implementation of the unit area method in both the phases i.e. between 1999 and 2000 and 2006 and 2007. Year wise details of the property tax to GSDP ratios for Delhi and Bangalore are given in Figure 5.

![Figure 5 Property Tax to GSDP Ratio: Delhi and Bangalore](image)

**Impact of Property Tax Reforms in Delhi and Bangalore: Some Explanations**

If we closely follow the process along with available data and information, we find that the principles and method by which the valuations of properties were done in unit area based characteristics were similar in the two cities. The rates were progressive in case of Delhi whereas in Bangalore, the rates were uniform. Another difference is in designing depreciations which are much more elaborate in Bangalore than those in Delhi.
The difference in performance in achieving the desired outcomes can be explained in terms of the extent of success in implementation of the reforms. In Bangalore, the entire process was undertaken with great care by the municipal government with sustained efforts in sensitizing the people about the gains from the transition. The city administrators were successful in building up a framework in which there were visible incentives for compliance and visible dis-incentives of non-compliance to the tax payers. The tax payers were convinced about the reduction in compliance costs through the new system. It also involved a better use of GIS in property mapping by updating registers with GIS and proper facilitation measures (like involving a number of banks through which payments can be made, training through web based interface about the process, etc.) for citizens so that they can actively participate in the process. A well structured education program through several help centres for the citizens facilitated the process.

The performance, in terms of higher revenue growth, was also kept a close watch and a second phase of revamping started with the amendment of the Act to make the process more acceptable. The follow up done in 2007 was very important and an exemplary move as we find that in most Indian cities which initiated the reforms around 2000 could not sustain the results due to some inefficiencies related to transitional hiccups. Bangalore is the only Indian city which could resolve this problem and came up with a revamped system with necessary modifications and revaluation to sustain the process and buoyancy of the tax. The marketing strategies of the local government also contributed to the success of the entire exercise. Media was involved to cover people’s reactions and people’s participation in the new system to capture the mass opinion and their responses to a transition in policy. Transparency was ensured by putting tax profiles in the internet so that the information on how much tax one is paying is not the only information the taxpayer has access to but also how much his neighbors are paying is available to everyone. It was clear that better administration and systematic planning can contribute to the success in a big way in implementing property tax reforms in India as envisaged in the theory of local public finance.
Exemptions were rationalized under the new law which prescribed that all the properties exempted from property tax under the Act so far were obliged to pay service charges at 25 per cent of the rates fixed for such properties. Also, revenue collections from non-residential properties during 2008-11, were much higher than that from residential properties (38 to 40 per cent of property tax collections) in Bangalore (Rao 2013). However, the new law made it mandatory for all illegal properties to file their returns and pay property tax. This was also a source for increase in property tax revenues.

Coverage ratio and collection ratios are the two yardsticks which measures the efficacy of tax administration and whether it gets translated to actual collections. Due to severe constraints of data we cannot analyse the differences in performance in the two cities in detail according to the values recorded for collection and coverage ratios. We can touch upon this issue with limited and scattered data between 1990 and 2010 by saying that collection ratios have always been much higher in Bangalore than in Delhi (Table 1). As far as the coverage ratio is concerned for 2010 Bangalore recorded a coverage ratio of 91 per cent whereas for Delhi it was only 60 per cent.

### Table 1 Collection ratios of property Tax: Delhi and Bangalore

<table>
<thead>
<tr>
<th>Year</th>
<th>Collection Efficiency-BBMP (per cent)</th>
<th>Collection Efficiency MCSD(per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>NA</td>
<td>9.1</td>
</tr>
<tr>
<td>1991</td>
<td>NA</td>
<td>8.4</td>
</tr>
<tr>
<td>1992</td>
<td>NA</td>
<td>7.4</td>
</tr>
<tr>
<td>1993</td>
<td>NA</td>
<td>9.8</td>
</tr>
<tr>
<td>1994</td>
<td>NA</td>
<td>10.1</td>
</tr>
<tr>
<td>1995</td>
<td>46.2</td>
<td>10.6</td>
</tr>
<tr>
<td>1996</td>
<td>53.1</td>
<td>12.3</td>
</tr>
<tr>
<td>1997</td>
<td>52.8</td>
<td>14.8</td>
</tr>
<tr>
<td>1998</td>
<td>55.7</td>
<td>16.9</td>
</tr>
<tr>
<td>1999</td>
<td>63.8</td>
<td>18.8</td>
</tr>
<tr>
<td>2000</td>
<td>95.2</td>
<td>20.9</td>
</tr>
<tr>
<td>2001</td>
<td>90.6</td>
<td>NA</td>
</tr>
<tr>
<td>2002</td>
<td>83.5</td>
<td>NA</td>
</tr>
<tr>
<td>2003</td>
<td>84.8</td>
<td>NA</td>
</tr>
<tr>
<td>2004</td>
<td>77.3</td>
<td>NA</td>
</tr>
<tr>
<td>2005</td>
<td>80.6</td>
<td>NA</td>
</tr>
<tr>
<td>2006</td>
<td>86.8</td>
<td>NA</td>
</tr>
<tr>
<td>2007</td>
<td>76.1</td>
<td>NA</td>
</tr>
<tr>
<td>2010</td>
<td>78.0</td>
<td>NA</td>
</tr>
</tbody>
</table>
Apart from the factors related to tax policy and tax administration resulting in the efficacy of implementation of reforms, the quality of basic services provided could well be a deciding factor behind the success of any tax reform at the local level. A good range of services could incentivise a tax payer to pay his dues on time. Although it is difficult to establish a direct relation between the qualitative and quantitative aspects of service delivery and better performance in property tax collections in the absence of adequate data and information, we look at the quality of services provided in Delhi and Bangalore and try to assess their possible impact on the property tax reforms.

First, we analyse the scenario of the water supply. In Delhi, the problem is more acute with the quality of water. Industrial pollutants have deteriorated the quality of water. On the other hand, in Bangalore, periodic examinations have confirmed that the piped water quality meets the standards set by WHO and the Central Public Health and Environmental Engineering Organisation (CPHEEO). Also, survey results quoted in the CDP of Bangalore show that majority of the people are satisfied with the adequacy and timings of the water supply. However, in Delhi, water released is inadequate although per capita availability of water is higher.

A second factor where Bangalore has performed better in service delivery is the solid waste management. To begin with, Bangalore solid waste management is based on a very efficient model of “door-to-door” collection of wastes while in Delhi the system mostly involves setting up bins in areas. Further, waste is transported in open vehicles in Delhi while in Bangalore it gets transported in closed vans. Processing of wastes is also more scientific and better in Bangalore compared to Delhi.

Also, considering the overall living conditions, Bangalore ranks higher than Delhi. This is confirmed from the survey conducted by Mercer. The survey, which is aimed at assessing the quality of life in cities all over the world, takes into account infrastructural factors (like water availability, telephone and mail services, public and private transportation, pollution) and other factors pertaining to safety like crime rates etc. In 2012, Bangalore was ranked higher than Delhi and also the other metropolitan cities in India.
Another very important determinant for better performance of the city in property tax collections is the relative stability of property markets in the two cities. Despite the weak macro economic conditions prevailing in the country, property market in Bangalore has registered a healthy rate of growth. On the other hand, property market has remained weak in Delhi (and Mumbai).

The property market in Bangalore has been more stable than in other places like Delhi (Figure 6). While property sales in Delhi fell by 57 per cent in the April-June quarter in 2012 (compared to the figures for the same quarter in 2011), it rose by 8 per cent for Bangalore. This rise persisted in the following quarter and property sales in Delhi fell by about 40 per cent in 2012. The strength of the property market in Bangalore is also observed when we consider Bangalore’s high share in the home loans. (In 2011-12 the southern states which include Bangalore contributed to about 40 per cent of the total home loans disbursed in India). While some improvement in the job market scenario in Bangalore (due to recent recovery of the IT sector) has resulted into the property market remaining strong, certain other factors have also been responsible. Firstly, a lot of the home owners in Bangalore are end users which is not the case in
Delhi. Secondly, the property prices in Delhi have increased rapidly which has not been the case in Bangalore (making home buying affordable).

**Conclusions**

In the present context we evaluate the impact of property tax reforms with a transition to area based system for Indian cities. We take Bangalore as a benchmark in performance and attempt a comparative assessment of performance with Delhi.

The main advantages of the unit area based property taxation are objectivity, transparency, fairness and lower compliance cost which benefit both the taxpayers and the government. An immediate consequence would be higher tax collections. However, a transition to an area based system cannot ensure these qualifications automatically. Sustained efforts on the part of the local government to build up an efficient tax administration are required for effective implementation of property tax reforms which can ensure that these advantages would add to the net benefit in the system. Theories of taxation also have emphasized on the role of tax administration to augment revenues.

If we judge by the above criteria for a successful tax regime we can say that Bangalore was successful in ensuring these criteria better which resulted in higher number of assessed properties and higher property tax collections after a transition to unit area based system. As far as Delhi is concerned, the method of valuation of properties and assessment were based on similar principles as those in Bangalore. But the implementation suffered as none of the above criterion could be ensured in the process.

This is reflected sharply in the property tax collection figures before and after the introduction of new mode of assessment and valuation of properties in the two cities. Both in absolute and per capita terms, property tax collected declined in Delhi after the introduction of new assessment and valuation mode, whereas there were phenomenal increases in both the phases of implementation of reforms in Bangalore. This is caused by a decrease in number of assessed properties in Delhi and an increase in number of assessed properties in Bangalore. The property tax to GSDP ratio declined in case of Delhi and increased in case of Bangalore if we compare the immediate consequence of
introduction of reforms in the two cities. The explanations offered in the previous sections for a better performance in case of Bangalore shows that an efficient management and administrative capabilities are very important in ensuring the success in implementing reforms. We also find that other factors like better coverage and collection ratios, better service delivery, better living conditions and a more stable property markets can be responsible for a better performance in property tax collection in Bangalore.
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## Appendix

### Table A1 Property Tax Rates in Delhi

<table>
<thead>
<tr>
<th>Type of Property</th>
<th>2007-08</th>
<th>2012-13</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Residential Properties</strong></td>
<td>10per cent of the annual value of the vacant land or part thereof or covered space of the building for A, B, C, D, E categories</td>
<td>12 per cent of the annual value of the vacant land or part thereof or covered space of the building for A and B categories</td>
</tr>
<tr>
<td></td>
<td>6per cent of the annual value of the vacant land or part thereof or covered space of the building for F, G, H categories</td>
<td>11 per cent of the annual value of the vacant land or part thereof or covered space of the building C, D, E categories</td>
</tr>
<tr>
<td><strong>Non-residential properties including hoarding and towers</strong></td>
<td>10per cent of annual value of vacant land or part thereof or covered space of the building.</td>
<td>a) Non-residential properties including hoarding and towers but not including hotels of 3 star category and above, malls, air condition gyms, clubs with swimming pools, guest houses, lodges, banquet halls and coaching centers with more than 50 students. 15per cent of the annual value of the vacant land or part thereof or covered space of the building those under A and B categories, 12per cent on C,D,E categories and 10per cent on F,G and H categories.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Non residential properties not included in (a) and including hotels of 3 start category, malls, air conditioned gyms clubs with swimming pools, guest houses, lodges, banquet halls, coaching centers with more than 50 students, multiplexes, PVRs, shops having covered area of 150 sq. meters, petrol pumps, CNG stations, hotels and restaurants having bar facilities (including warehouses where goods are sold). 20per cent of the annual value of the vacant land or part thereof or covered space of the building those under A, B, C, D E, F, G and H categories.</td>
</tr>
<tr>
<td><strong>Govt. Company and Statutory Corporation Properties</strong></td>
<td>1) For residential properties tax should be 10per cent of annual value of vacant land or part thereof or covered space of the building (self occupied) under A,B, C, D and E categories</td>
<td>1) For residential properties tax should be 15per cent of annual value of vacant land or part thereof or covered space of the building (self occupied) under A,B, C, D and E categories</td>
</tr>
<tr>
<td></td>
<td>2) For residential properties tax should be 6per cent of annual value of vacant land or part thereof or covered space of the building (self occupied) under F,G and H categories</td>
<td>2) For residential properties tax should be 11per cent of annual value of vacant land or part thereof or covered space of the building (self occupied) under F,G and H categories</td>
</tr>
<tr>
<td></td>
<td>3) For non-residential properties tax should be 10per cent of annual value of vacant land or part thereof or covered space of the building (self occupied) under A to H category.</td>
<td>3) For non-residential properties tax should be 15per cent of annual value of vacant land or part thereof or covered space of the building (self occupied) under A to H category.</td>
</tr>
<tr>
<td></td>
<td>4) Property of Airport Authority of India should be charged at 20per cent of annual value of vacant land or part thereof or covered space of the building.</td>
<td></td>
</tr>
<tr>
<td><strong>Farm Houses</strong></td>
<td>All farm houses whether in village abadi area or outside village abadi area is being used for residential and commercial purposes shall be taxable at 10per cent for covered portion and 6per cent for vacant land for residential use 10per cent for commercial use.</td>
<td>1) All farm houses whether in village abadi area or outside village abadi area, being used for residential purpose shall be taxable at 15per cent of annual value.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2) All farm houses whether in village abadi area or outside village abadi area, being used for non-residential purpose shall be taxable at 25per cent of annual value.</td>
</tr>
</tbody>
</table>
### Table A2 Unit Area Value for Assessment of Residential Properties: Bangalore

<table>
<thead>
<tr>
<th>Description of the Property</th>
<th>Ownership Status</th>
<th>Zonal unit area factor (Rs. Per square feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>RCC or Madras Terrace Buildings</td>
<td>Tenanted</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Owner-occupied</td>
<td>2.5</td>
</tr>
<tr>
<td>RCC or Madras Terrace and where the flooring of the entire house is cement or red stone</td>
<td>Tenanted</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Owner-occupied</td>
<td>2</td>
</tr>
<tr>
<td>Tiled/Sheet of all kinds</td>
<td>Tenanted</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Owner-occupied</td>
<td>1.5</td>
</tr>
<tr>
<td>All hutments, house built/ allotted for the poor by the govt. under any scheme or houses declared as slum by KSCB* or by the commissioner of BBMP having a build up area of less than 300 sq. Ft.</td>
<td>Tenanted</td>
<td>Annual Composite tax of Rs.160</td>
</tr>
<tr>
<td></td>
<td>Owner-occupied</td>
<td>Annual Composite tax of Rs.80</td>
</tr>
<tr>
<td>Special Category</td>
<td>Annual composite tax for 110 villages at the following rates (for owner occupied units)**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For area less than 300 sq. Ft</td>
<td>Lump sum tax of Rs. 100+ cess</td>
</tr>
<tr>
<td></td>
<td>For area more than 301 sq. Ft but less than 500 sq ft.</td>
<td>Lump sum tax of Rs.250+ cess</td>
</tr>
<tr>
<td></td>
<td>For area more than 501 sq. Ft but less than 1000 sq. Ft</td>
<td>Lump sum tax of Rs.500+cess</td>
</tr>
<tr>
<td></td>
<td>For area more than 1001 sq ft. But less than 1500 sq ft.</td>
<td>Lump sum tax of Rs.750+cess</td>
</tr>
<tr>
<td></td>
<td>For area more than 1501 sq. Ft.</td>
<td>Lump sum tax of Rs.1000+cess</td>
</tr>
</tbody>
</table>

* KSCB stands for Karnataka Slum Clearance Board

** For tenanted properties the rates are twice as these with the addition of cess
Table A3 Depreciation Rates on Residential Properties: Bangalore

<table>
<thead>
<tr>
<th>Age of the building</th>
<th>Depreciation rate (per cent) on taxable annual value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does not exceed 3 years</td>
<td>3</td>
</tr>
<tr>
<td>Exceeds 3 years but does not exceed 6 years</td>
<td>6</td>
</tr>
<tr>
<td>Exceeds 6 years but does not exceed 9 years</td>
<td>9</td>
</tr>
<tr>
<td>Exceeds 9 years but does not exceed 12 years</td>
<td>12</td>
</tr>
<tr>
<td>Exceeds 12 years but does not exceed 15 years</td>
<td>15</td>
</tr>
<tr>
<td>Exceeds 15 years but does not exceed 18 years</td>
<td>18</td>
</tr>
<tr>
<td>Exceeds 18 years but does not exceed 21 years</td>
<td>21</td>
</tr>
<tr>
<td>Exceeds 21 years but does not exceed 24 years</td>
<td>24</td>
</tr>
<tr>
<td>Exceeds 24 years but does not exceed 27 years</td>
<td>27</td>
</tr>
<tr>
<td>Exceeds 27 years but does not exceed 30 years</td>
<td>30</td>
</tr>
<tr>
<td>Exceeds 30 years but does not exceed 33 years</td>
<td>33</td>
</tr>
<tr>
<td>Exceeds 33 years but does not exceed 36 years</td>
<td>36</td>
</tr>
<tr>
<td>Exceeds 36 years but does not exceed 39 years</td>
<td>39</td>
</tr>
<tr>
<td>Exceeds 39 years but does not exceed 42 years</td>
<td>42</td>
</tr>
<tr>
<td>Exceeds 42 years but does not exceed 45 years</td>
<td>45</td>
</tr>
<tr>
<td>Exceeds 45 years but does not exceed 48 years</td>
<td>48</td>
</tr>
<tr>
<td>Exceeds 48 years but does not exceed 51 years</td>
<td>51</td>
</tr>
<tr>
<td>Exceeds 51 years but does not exceed 54 years</td>
<td>54</td>
</tr>
<tr>
<td>Exceeds 54 years but does not exceed 57 years</td>
<td>57</td>
</tr>
<tr>
<td>Exceeds 57 years but does not exceed 60 years</td>
<td>60</td>
</tr>
<tr>
<td>Exceeds 60 years</td>
<td>70</td>
</tr>
</tbody>
</table>