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Fiscal and Distributional Implications for Property Tax Reforms in Indian Cities

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Fiscal and Distributional Implications of Property Tax Reforms in Indian Cities

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and
Uwe Deichmann[**]

Abstract

The property tax is an important local revenue source in many countries, but it is often underused as a source for financing local expenditures. In India, many local governments have initiated administrative and valuation reforms to increase the yield from property taxes. In this paper, we examine the fiscal and distributional implication of the ongoing and potential assessment reforms in two Indian cities – Bangalore and Pune. While our findings are specific to these two cases,

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the reform efforts and underlying problems are representative of most urban local governments. Our main finding is that reform efforts that bring assessment of the property tax base closer to market values have significant positive impacts on revenue generation, and do not have adverse consequences in terms of the tax burden faced by the poor. Further, regulations such as rent control significantly impinge on the growth of revenues from the property tax and in fact do not serve the interests of the poor. While current assessment reforms are a good first step towards increasing the performance of the property tax, structural issues such as improved valuation, increasing buoyancy of the tax, and building taxpayer confidence need to be addressed to make these reforms sustainable.

Fiscal and Distributional Implications of Property Tax Reforms in Indian Cities

Introduction

In India, as in many countries, the property tax is a major fiscal instrument available to urban local bodies (ULBs) or municipal governments for raising their own revenues. While being a key revenue source, the property tax is relatively underused and has limited buoyancy relative to the overall growth in economic activity. The ability to finance growing local government expenditures *via* property taxes is severely constrained by administrative, regulatory, and technical shortfalls. In particular, weak administration and strong political interests limit the extent to which local government can tap on an expanding tax base and enforce compliance with taxes. For example, in a recent study of property taxes, Rao and Ravindra (2002) find low rates of tax collections across a sample of municipal corporations — 55 percent of taxable properties in Bangalore, 50 percent in Kolkata and 57 percent in Mumbai (data pertain to 1998-99)[1]. Problems with weak tax administration are exacerbated by regulatory and legal constraints that link tax bases to rental values of properties which are stagnant with rent control laws, and distortionary land use and zoning regulations that adversely influence land prices.

With institutional and regulatory reforms emanating from the *74th Constitutional Amendment Act* (CAA 1992), additional administrative and fiscal functions have been devolved to local authorities. Cities are now responsible for designing strategies to maintain and improve public services, and finding instruments to finance these activities in a sustainable manner. In response to growing revenue needs for financing infrastructure, public services, and other local amenities, many ULBs have initiated reforms to improve the performance of their local fiscal handles — in particular, the property tax. The property tax is a prime candidate as the major local government revenue source. *Octroi*, a

locally assessed customs charge (for domestic trade) which has traditionally provided a significant revenue stream to local governments, has already been abolished in many states. Furthermore, states seem to capture sales taxes that fund local expenditure elsewhere. Consequently, there are few other choices for mainstay of local government finances apart from taxes related to real estate.

These reforms have typically focused on improving the administration of the tax, and in some cases accompanied by changes in valuation of the tax base. Administrative reforms include strengthening enforcement of property tax collections, expanding the tax base by updating property tax rolls *via* 'discovery' of new properties, computerising billing and collection, and introducing self assessment schemes where residents could declare their property tax dues on a standardised form and avoid frequent interaction with rent seeking tax collectors. These reforms appear to have positive impacts on local revenues. For example, the city of Mirzapur implemented a Geographic Information System (GIS) to identify unassessed properties and computerised its municipal tax records. The ULB commissioned a complete inventory of properties in its jurisdiction, which was made possible with the availability of high-resolution satellite images coupled with local surveys and integration of existing land records. Following these innovations, there has been a tenfold increase in property assessments and tax collection has almost tripled in 4 years. In Bangalore, there has been a 33 percent increase in revenues between 1999 and 2001 due to increases in collection rates and the number of assessed properties, coupled with valuation improvements to increase average tax payments per property.

While property tax administration reforms have quite taken off and attained popularity in policy debates in terms of increasing local fiscal capacity, associated reform efforts focused on assessment and valuation are less evident. In most ULBs, notional property rental values are used as the base for assessing property taxes. Using rental values however presents a major challenge as rent control laws in many cities have limited the scope for the notional rent to increase with changes in local demand and incomes, or keep up with costs of living increases. As a consequence, the tax base is stagnant, and an upward adjustment of tax rates is the only way to increase revenues from the property tax. In the few cases where cities have moved away from rental values towards a capital value based assessment, it is unlikely that the potential gains

have been fully realised. Reasons include absence of a well functioning real estate market that provides accurate information on property values, the existence of various land use and zoning regulations, and high transaction costs that adversely affect land prices.

In this paper we do not intend to provide a detailed review of property tax reforms or assess the implementation of administrative and valuation reforms. There is considerable published literature on this topic (Rao and Ravindra 2002; World Bank 2003). Other useful papers include Bagchi (1997), Jha (2002), and Karnik and Pethe (2003). Our aim is to complement this work by focusing on two questions: (a) what is the consequence of property tax reforms on revenue generation? and (b) what are the distributional effects of these reforms? In doing so, we wish to highlight the costs imposed by rent control laws and one particular transaction tax – stamp duties, on revenue expansion. Further, as equity is an important guiding principle of a well functioning tax system, it would be would be worth assessing whether reform efforts have adverse distributional effects.

Our discussion is based on analysis of property tax regimes in two Indian cities, Pune and Bangalore, where we utilise household survey data along with city level tax assessment records. While our empirical analysis and findings are specific to these two cities, the general issues and lessons are broadly applicable to Indian cities as many ULBs are planning reforms of their property tax systems to expand fiscal capacity in a decentralised setting.[2]

The rest of the paper is organised as follows. In section 2, we assess the relative revenue implications of alternate valuation systems. Distributional effects are discussed in section 3. Section 4 concludes.

II. Revenue Implications of Alternate Assessment Systems

Indian cities are currently experimenting with various approaches on how they should tax property. Bahl and Linn (1992) identify three basic forms of property taxation in use around the world. Property taxes are based on (a) annual rental value (ARV) of the property, (b) capital

value (CV) of the land and improvements, and/or (c) site value of the land. Most Indian cities use the rental value of property as the base for the property tax.[3] While a few cities have adopted a capital value base (such as municipalities in Karnataka), implementation of the capital value system is still in its infancy.

In terms of tax administration, several ULBs use an area or zone-based system as a standardised way of assessing the tax base. This system can be used with rental values or capital values as the base for valuation. With the capital value system, values per unit of land (usually per square foot) are estimated, and the tax base is the product of this unit value and land area, plus the value of the structure. The latter is determined in an analogous way: a basic value per square foot is determined, weighted by construction quality and multiplied by area.

While the rental value system and capital value systems are similar in theory as the discounted stream of net rent payments is equivalent to the capital value of the property, this does not hold true in practice as the relationship between annual values and market rents, as well as capital valuation and market prices are quite ambiguous. For residential properties, the divergence between market rents and assessed annual values may be due to either legally allowable reduction in annual values or distortions by rent control laws.

In this section, we discuss the revenue implications of alternate property tax systems for residential real estate using recently collected survey data from Bangalore and Pune.[4] Details on the survey data and sampling frame are provided in Appendix 1. The city of Bangalore has recently adopted innovations in its property tax assessment as well as collection procedures, moving from a rental value to a capital value system. The city of Pune uses a rental value system to assess property taxes, where a notional rent fetching capacity is used to classify properties in the city into three broad zones.[5]

The case studies for Bangalore and Pune focus on the following questions:

- What are the revenue implications of alternate assessment systems?
- What is the incidence of property taxes across these systems?

Survey data for individual households are used to simulate tax liability for different property tax bases. Simulations show that considerable revenue benefits can be gained from moving to market-based (either market rental or market capital value) assessment systems. Distribution effects are examined in the following section.

2.1 Bangalore

The Bangalore City Corporation (BMP)[6] and the state of Karnataka have made several innovations to increase revenues from property taxes. The BMP has moved away from a rental value system of property tax assessment to a quasi-capital value based assessment. For assessment purposes, the city is divided into six land value zones. A "zone" is not necessarily a contiguous area. As shown below in table 1, the property tax administration classifies buildings in each zone according to five residential and 11 non-residential categories (based on construction type, age of structure, and current use). Each category is assigned a value per square foot. From discussions with BMP officials, we learnt that the values assigned to each category should in principle be capital values, but in practice reflect 'stamp values' or 'guidance values', and are not based on any real transactions data. The sum of the land and the building value is the taxable value. There is a preferential treatment to owner-occupiers in the form of a 50 percent reduction in rental value for certain types of properties.

The state of Karnataka has also amended its rent control acts to de-link the tax base from the effects of rent control. Legislations have also been approved to introduce a capital value system (CVS) for property tax assessment.[7] Although the legislation has come into effect from April 2002 in all city corporations in the state including Bangalore, the CVS is yet to be fully implemented. Under the CVS, property tax will be levied on the total cost of the property. The cost of land and the cost of construction less depreciation will be the total cost of the property. The rate of tax under this system ranges between 0.3 percent to 0.6 percent.

Analysis of Alternate Property Tax Systems

The analysis of alternate property tax systems is presented in three parts. In the first part, we estimate property taxes for residential properties using the recently initiated zone-based system. The second part provides property tax estimates using the rental value system. Before implementing the zone-based system, the BMP assessed properties based on their annual rental values (ARV). The ARV of a property was defined as the "gross annual rent at which the building or land may reasonably be expected to let from month to month or year to year." This assessment process was problematic as there were no firm guidelines on what constituted reasonable rental value and brought in considerable discretion in the assessment process. As the corporation did not issue any guidelines to revenue officers on fair and objective assessment, this often led to informal agreements between assessors and homeowners, leading to a revenue loss for the city corporation. Irrespective of the size of the property or its market value, the rent was the factor for arriving at the assessed value. If a property was subject to the *Rent Control Act*, then the rent fixed by the rent controller was the basis for arriving at the assessed value (Rao and Ravindra, 2002).

In the third part of the analysis, we provide estimates of property taxes using 'market rents' and capital value of the property. These estimates are provided to examine the potential increase in revenues from moving to a more buoyant base for assessment purposes. In these estimates, we only examine the potential impact of different assessment options in terms of increasing revenues. There are likely to be additional gains from administrative reforms, changing land use and zoning ordinances, and other initiatives, which will further enhance revenues from property taxes. These are, however, not analysed here.

We analyse recently collected household survey data from Bangalore to develop these estimates. The Bangalore household survey was conducted during the period July through September 2001, and was designed to be representative of the BMP area. The corporation area is divided into 100 wards. All households, except for residents of military cantonments and institutional populations, are part of the sampling universe. The sample size is 2905. The sample fractions in each ward were chosen in proportion to the number of households of that ward, according to the preliminary estimates of the census (March 2001).[8]

Households in the sample survey were geo-coded, so it is possible to examine the exact location of each sample point. Using the street address and zone information provided by the BMP, sample households were assigned to zones following the city's classification system. The rateable value for each property was then computed using the same formula as employed by the BMP. Data on construction type, use and age of the house are available from the survey. Because housing information is available for all households (owners and renters), estimates for the entire city are generated with this methodology.[9] Taxes ere then computed based on the corporation's tax rates and surcharges.

A randomly selected sample of 105 properties was drawn to assess the accuracy of the survey data. Our survey estimates were compared to actual tax payments registered in BMP's records, and the difference between the two sources was found to be Rs. 60 per property, which is a small deviation between predicted and actual tax payments. Thus, we believe that the survey data are reliable for the analysis.

Zone-based System

First, estimated property tax liabilities are compared to what households reported they paid. Data for this exercise are only available for owner-occupied units, who answered questions on property tax payments. Using the zone-based method (with BMP guidelines), the average property tax per household for all sample properties (owner and renter occupied) is estimated at Rs. 2,937. Data on actual property tax payments under the zone-based system are available for 990 homeowners. The average property tax reported to have been paid is Rs. 2,550, whereas the estimated property tax for this subset of homeowners in the sample is Rs. 2,377. The difference between the two estimates is only Rs. 173, suggesting either measurement error or a very small degree of misreporting. Across housing categories, considerably larger differences are found for properties in revenue sites (about Rs. 300 per property) and high-end private developments (about Rs. 775 per property).These housing categories are described in detail in appendix 2.

Rental Value System

Property tax liability was also estimated for the previously used rental value system. For owner-occupied housing units, residents were asked "How much did you pay in property taxes before the last revision?"

This value was used as the property tax estimate prior to implementation of the unit value system in April 2000. For renter-occupied housing units, residents were asked “How much do you pay in rent each month?” Using reported rents as the rateable values, the property tax was estimated for each property using the tax rates and other factors specified by the BMP. After property taxes were estimated for owners and renters, they were compared to estimates from the unit value system.

The average property tax under the previous rental value system is Rs. 1,820, which is about 65 percent lower than the estimate using the zone-based system. The distribution of this increase across various housing categories is shown in table 2. What is very interesting is that the largest revenue increases are for dwelling units in the formal housing production system, i.e., those developed by public sector agencies and cooperative housing societies. Property taxes using rental values are 70 percent less compared to the revised zone value system. These comparisons show that the unit value system leads to increases in property taxes for all classes of property.

Table 2: Distribution of Property Tax Changes by Moving from Rental Values to the Area-based Rental Value System (BMP)

Housing category	Property taxes (in rupees) using		Rental value taxes as a share of unit value taxes (percent)
	Rental values	Unit value system	
Non-notified squatter settlement	126	295	43
Notified squatter settlement	496	939	53
Resettlement	198	503	39
Unauthorised revenue site	1877	2714	69
Vatara	1180	4369	27
BDA/KHB/BMP/EWS plots	2699	3658	74
BDA/KHB/BMP/EWS flats	1115	1553	72
Cooperative housing	2355	3039	77
Employer housing	1568	3139	50
Private builders	2594	4338	60
City improvement trust board	1785	3128	57
Average	1820	2795	65

Market Rents and Capital Value

The next simulation attempts to estimate the revenue impacts of moving to a market-based rental value assessment. Survey respondents were asked to value the monthly rental cost for a similar unit in the neighborhood. This estimate of the market rental cost of a dwelling unit is likely to be an underestimate. Although rent control legislations were repealed recently, residual effects of this system will still affect perceptions of market rents. The price data may also be *biased* downwards due to limited publicly available information on recent transactions. Further, both rents and prices will be somewhat distorted due to Floor Space Index (FSI) restrictions and inefficient zoning regulations. Thus, these values are likely to be higher once the residual effects of rent controls dissipate, and other development restrictions are corrected.

All survey respondents were asked to estimate the monthly rental value for a similar unit in the neighborhood. Using the same procedure as for current rents (for the sample of renters), property taxes are estimated with 'market rents' for each household in the entire sample. The average property tax using 'market rents' is Rs. 3,910 per household, which is 33.1 percent higher than the present system and 115.1 percent higher than estimates under the previous rental value system (*see,* table 3). On average, for owner-occupied households, the tax liability is Rs. 3,357, and for renter occupied, the liability is Rs. 4,750.

Table 3: Estimated Property Taxes under Alternate Assessment Systems (BMP)

Property tax assessment system	Estimated average property taxes (Rs.)	Percent change from rental value system	Percent change from area based system
Rental values	1818		
Area-based system	2938	62	
Market rents	3911	115	33
Market values	3890	114	32

The Government of Karnataka has amended section 109 of the *Karnataka Municipal Corporation Act, 1976* permitting a move from the ARV system to a CV system for property tax assessment. According to the CV system, property taxes will be levied on the total property cost,

which is defined as the cost of land and construction minus depreciation. As noted above, the tax rate under this system ranges from 0.3 to 0.6 percent.

Survey respondents were asked to estimate market values of their properties. The question was phrased similar to the question on market rents where respondents were asked the price of a similar house (as theirs) in their neighborhood. Using these values as the perceived market prices, property taxes were computed, based on the methodology provided in the revised *Karnataka Municipal Corporations (Amendment) Act, 2000*. The average property tax using this method is Rs. 3,890, which is about the same as the market rental value base, and about one-third more than the present system of assessing unit values. It produces more than double the revenues vs. the previous rental value system (*see,* table 3). In general, owners pay less than renters. The average property tax for occupied housing is Rs. 3,119 compared to Rs. 5,224 for renters.

The analysis across assessment systems suggests that there are considerable potential revenue gains from moving to a system that reflects market values. The unit-value system is a step in the right direction. In comparison to the rental value system, revenues increase by 62 percent in the zone-based system. Further potential gains arise from a capital or market-based assessment system. Interestingly, predicted revenues from market rental values and capital values are about the same, confirming theoretical priors of equivalence in relatively free markets. If the Corporation moved to capital value assessments, there is considerable scope for enhanced revenues.

2.2 Pune

Property taxes are an important revenue source for the Pune Municipal Corporation (PMC). There are 3,20,000 registered properties in the PMC jurisdiction and another 90,000 in fringe villages, which have recently been incorporated into the PMC jurisdiction. For the year 1999-2000, revenues from property tax collection were Rs. 381.5 million (Karnik and Pethe, 2003), which is about 9.3 percent of own-source revenues.

Property rental values are used for valuation of the tax base. A unit or area-based method is currently being used to assess rental

values. The city is classified into three zones for setting tax rates, and the rateable values are based on a notional rent fetching capacity of the property.[10] These values range from Rs. 1-1.3 per square foot for residential properties. The assessment rate is twice this amount for commercial properties. A 40 percent rebate on the rateable value is offered to owner-occupied properties, and another 15 percent rebate is offered for maintenance expenditures.[11] Once the rateable values are established, a general tax rate ranging from 14 to 38 percent is applied to determine tax liability.[12] The tax rate is set according to the rateable value and is listed in table 4.

Table 4: Tax Rates Based on Annual Rental Values in Pune

Annual rental value (Rs.)	General tax rate (percent)
1-2000	14
2001-5000	21
5001-20000	30
20001 +	38

Source: *Pune Municipal Corporation*

In addition to this general tax rate, additional surcharges or cesses are included for water supply, conservancy, and fire services. These cesses are approximately 15 percent of the rateable value. Discussions with PMC officials indicate that the total rateable value is estimated at Rs. 150 crore, with collection rates around 80 percent. Residents in slums are not liable for property taxes. In notified slums however, flat charges of Rs. 192 for services such as toilets and street maintenance, and Rs. 375 for individual water connections are levied annually. The PMC has 25 tax inspectors and five supervisors to monitor property tax collections. Tax payments can be made in one of the 14 ward offices. While the property tax bill is sent once a year, payments can be made every six months.

Analysis of Alternate Property Tax Systems

We use household survey data for Pune to estimate the implications of various property tax systems and valuation procedures. The survey in Pune was conducted during August-September 2002, and was designed to be representative of the Pune Municipal Corporation area. The city area is divided into 48 wards. All households of the city are part of the sampling universe with the exception of residents of military cantonments and institutional populations (e.g., prisons). The target

sample size was 2900 households, and the final sample size is 2850. To ensure that all parts of the city are covered by the sample, sample fractions in each ward were chosen in proportion to the number of households of that ward according to the preliminary estimates of the census of March, 2001.

Property tax yields for this sample of properties were estimated under various scenarios. Our principal concern is how the shift to a system that taxes market values would impact revenues and the distribution of tax burdens, by comparison with the present system. The first step is to calculate a baseline, i.e., the revenue yields and tax burden distribution under the present system as estimated, using this survey. We follow PMC guidelines to estimate tax liability for all properties.[13] This analysis was possible because the survey included detailed information on the characteristics of each of the dwelling units. The basic comparison in this analysis is property tax liability under the present system versus property taxes under a market value system. These survey data are also used to estimate the revenue cost of rent control, and to estimate the under valuation of property by the stamp office.

Evaluating the Present Rental Value System

Using the broad guidelines provided by the PMC, property taxes are estimated for survey properties using the unit or area-based method. The average property tax liability is estimated to be Rs. 3,815. The data in table 5 (columns 1 and 2) show how estimated property taxes vary across housing categories, for all housing units and for owner occupiers, respectively. Note the very large differences among property types, and particularly the high estimates for *wadas* and *chawls* vs. other housing in the core city area. '*Wadas*' represent the old part of the city where housing quality has been deteriorating over many years. '*Chawls*' are group housing units initially developed for industrial workers.

While these are estimates of property tax liability, it is useful to evaluate the extent to which these are related to actual property taxes paid to the PMC. For the sample of owner-occupied dwelling units, survey respondents were asked about their property tax payments to PMC in the previous year (i.e. 2001). The data in table 5 provide a comparison of estimated and reported property tax payments.

Table 5: Differences between Estimated and Reported Property Taxes

Housing category	For all housing units	For owner occupied housing units		
	Estimated property taxes	Estimated property taxes	Reported property taxes	Difference between estimated and reported property taxes (%)
Unauthorised colony	2864	2353	2057	14
Wadas	11850	6201	1864	332
Cooperative housing	9483	9627	2560	376
Private builders / colonies	3963	3311	2775	19
Core city area	5131	5091	3064	66
Chawls	6693	3773	2212	71
Urban village	2190	2029	1782	14
Overall	3816	2049	1606	28

Average property tax liability is estimated at Rs. 2049 for owner-occupied dwelling units.[14] In comparison, reported average property taxes for the same units are Rs. 1606. The reported tax estimates are about 28 percent less than the estimated tax liability. There is, of course, considerable variation in these estimates across housing categories. We find that taxes paid are consistently lower than the estimated property tax liability. Across categories, residents of *wadas* and cooperative housing are currently paying almost 4 times lower than their estimated tax liabilities.

The question arises, why the average difference between computed liability and reported payments should be as large as 28 percent. Assuming that our survey provides an accurate estimate of tax liability, we can speculate that the difference is due to either under-assessment or application of an incorrect tax rate. Either way, a shortfall of 28 percent in true tax liability is a significant revenue cost, even if it applied only to owner occupied properties.

Next, for all properties, tax liability is estimated based on the 'true market rental value" of the property. The estimates of market rents

are provided by the respondents. The question asked was “what is the true monthly rental value for a similar unit in this neighborhood”. This is used as an approximation of the market rental value of a dwelling unit. The data in table 6 show that the average level of property tax liability would be higher by Rs. 1,883 using market rents, which is 55 percent greater than the estimates using the present area-based system.

Table 6: Difference in Property Tax Estimates Using Area-based and Rental Value Systems

Housing category	Area-based system	Rental value system (market rents)	Change in property tax
Resettlement	2,427	3,994	64.5
Unauthorised colony	2,864	5,486	91.6
Wadas	11,510	10,999	-4.4
MHADA plots	2,013	3,303	64.1
MHADA flats	904	7,229	700.0
Cooperative housing	9,698	18,596	91.8
Employer housing	5,704	11,357	99.1
Private builders/colonies	3,970	12,466	214.0
Core city area	5,176	12,860	148.4
Chawls	6,957	5,021	-27.8
Urban village	2,211	5,387	143.7
Total	3,444	5,327	54.7

A market rent base for property taxation would lead to lower tax liabilities for housing types with the poorest amenities. Services and amenities in *wadas* and *chawls* are quite poor due to infrequent maintenance and structural upgrades. Further, with the exception of households in the slums, the welfare status of residents in these housing categories is the lowest. In summary, moving from a unit value system to a market rental value system increases aggregate tax revenue potential by 55 percent and plays a redistributive role by reducing the burden in areas with poor services and amenities, which are homes to the poorer residents of the city.

The Impact of Rent Control

Many local governments limit the level of rateable value to the level of controlled rents, and this seriously compromises efforts to use the property tax as a principal source of financing local services. This has been pointed out by various researchers examining the Indian property tax system over years. Two questions continue to arise: who really benefits from rent control, and what is the property tax loss on account of rent control?

Rent control regulations in India were designed over 50 years ago to protect the interests of lower and middle-income groups. However, there is evidence that this regulation affects all income groups. Survey data from Pune (reported below in table 7) show that the benefits from rent controls accrue to *all* welfare categories. For households reporting no increases in rents over their stay in the current place of residence, 35 percent belong to the two *highest* welfare categories. Similarly, approximately 40 percent of households with annual increases in rents of less than 1 percent are in the two highest welfare quintiles. Thus, the benefits of rent control do *not* disproportionately accrue to poor and middle-income households.

Table 7: Distribution of Rent Increase Across Welfare Groups[15]

Welfare category	Annual increase in rent (%)		
Quintile	0	1	2.5
1	20.6	20.1	18.4
2	18.9	17.7	20.2
3	24.6	22.5	24.1
4	20.6	23.0	22.7
5	15.4	16.8	14.5

We estimate the revenue cost of rent control in the following way. The household survey questions the sample of renters “How much was the monthly rent when the dwelling unit was first rented?” With rent controls, the rateable value would be fixed using the rental value at the time of initial letting. Using the initial rent as the rateable base and the rates prescribed by the PMC, property taxes were estimated for this sample of properties. Average property tax per household is estimated to be Rs. 1,714. This estimate only includes data for renters and excludes

residents in slums (both notified and non notified). In comparison, average property taxes using the unit value system (for the same sample) are estimated to be Rs. 9,355, which is 445 percent higher than estimates using initial rents (*see,* table 8). Further, using market rents, average property taxes are estimated to be Rs. 10,186, which is an increase of approximately 500 percent.[16]

Even accounting for potential measurement and estimation errors, the magnitude of the cost of rent control on the city's finances appears to be substantial. A four to five fold increase in property tax revenue potential is possible by de-linking property taxes from the rental value system in cases where property tax assessments are limited by stringent rent control regulations.

Table 8: Estimated Increase of Property Tax in Comparison to Rent Control Scenario

Property tax system	Estimated property tax (Rs.)	Increase in comparison to rental values using initial rent(percent)
Rental values (Initial rent)	1714	
Unit value system (PMC)	9355	445
Rental values (market rent)	10186	494

Note: Data are only for renter occupied housing units

Capital Value Estimates

A final simulation estimates the revenue impact of moving to a capital value (CV) system of property assessment. Many cities and states, such as, Maharashtra and Karnataka are altering their property tax assessment legislations to experiment with various forms of CV assessment. In principle, the CV should reflect the market value of the property, or the price the property would fetch in the market. Due to thin markets, incomplete information of property sales, and limited enforcement capacity, most Indian cities that are planning a shift to CV intend to use the registered or 'stamp value' of the property as the base for capital value assessments.

The Town and Country Planning Department (TCPD) in Maharashtra conducts property valuation based on a quasi-hedonic model approach. Discussions with TCPD officials suggests that valuers

use information on recent sales, future developments, infrastructure quality and local amenities/ disamenities to estimate market values for properties in various zones within the city. Due to the location of heterogeneous properties within zones, limited trained staff to conduct appraisals, and considerable informality in the valuation process, it is possible that in practice, this valuation system may not produce accurate estimates of property values. Further, high stamp duty on property transactions may produce incentives for underreporting the true value of property transactions.

As we do not have specific information on the tax rate and other specifications needed to compute a capital based tax, we compare reported market values of properties with stamp value data collected for a small subset of properties in our sample.[17] To estimate the market values of properties, respondents in the sample survey were asked, "What would be the estimated present market price for a similar unit in this neighborhood?" These values are compared to estimated stamp values of the properties. Stamp values are computed by multiplying the per square foot values estimated by TCPD by the area of the property. Properties in non-notified or notified slums are not included. The final sample has data on 126 properties. By this estimate, the average stamp values (or approximation of the Ready Reckoner value) are Rs. 6,12,000, compared to the average market value of Rs. 7,25,000. This suggests that perceived market values are about 18.5 percent higher than the stamp values.

The distribution of the difference between these two estimates of property value is provided in table 9. Market values are considerably higher than stamp values for properties in cooperative-housing societies, unauthorised colonies, housing units developed by private developers (which are usually high value properties), and in the core city area. On the other hand, market values are about the same for properties in "*wadas*", *chawls* and on the urban fringe which have recently been annexed into the city's jurisdiction. These results are consistent with 'market-based' signals which reflect housing quality and amenities, which may not be picked up using large area-based classification of property rates, as in the stamp value system. The housing categories with significant increases in values are those that would fetch higher premiums due to relatively better housing stock and higher levels of services and amenities. In the final analysis, the market values not only are higher in aggregate than the stamp values, but in fact also serve a

redistribution function by realigning prices with housing quality and availability of public services and amenities.

Table 9: Difference between Market and Stamp Value Estimates

Housing category	Average change in property values (percent)
Cooperative housing	107
Unauthorised colony	62
Private builders/colonies	54
Core city area	28
Wadas	7
Urban village	0
Chawl	-4

Note: Sample size – 126 properties
Data Source: The World Bank (2002) – Pune household survey

III. Distributive Effects

A good tax system is one that produces adequate public revenue in an equitable and efficient manner. In addition to its capacity in terms of revenue generation, the property tax system can also be evaluated according to various other criteria. These include equity or fairness to the taxpayers, ease and simplicity of administration, neutrality with regard to resource allocation, harmony with the rest of the tax system, compliance and legitimacy, and accountability of tax officials. In this section, we complement the analysis of revenue generation by focusing on equity issues.

Equity in property taxation is typically examined by horizontal or vertical measures. Vertical equity refers to the belief that taxpayers with greater ability to pay should face higher tax burdens than those with lesser ability. Vertical equity assumes that a tax should be progressive (based on income or wealth) to be fair. Horizontal equity refers to the belief that taxpayers with equal ability to pay ought to have similar tax burdens. For example, residents living in identical properties would pay the same tax.

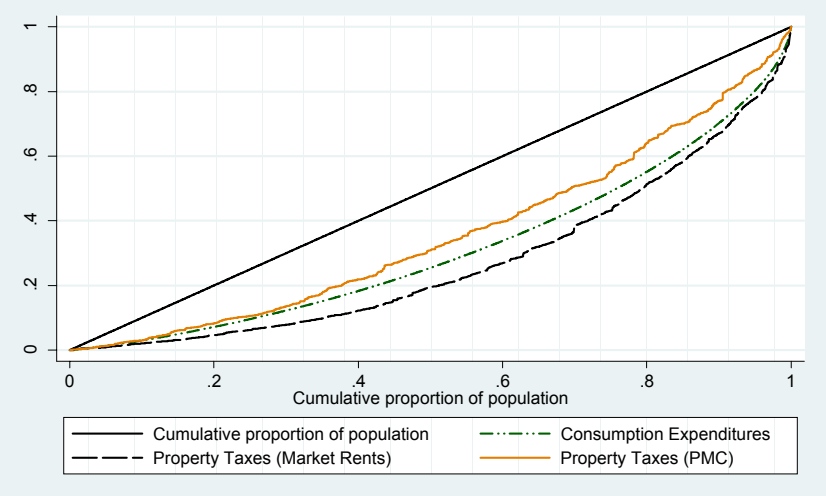
Vertical Equity

We first focus on vertical equity—i.e., the distribution of the effective tax rate on families at different welfare levels—and especially in how much of the property tax burden is borne by the poorest families. Estimating the incidence of the property tax requires detailed information on the share of properties that are owned *versus* rented ones, and on the welfare distribution of renters, home-owners, and property owners. Additionally, it requires a number of assumptions, the most important of which is the extent to which landlords can shift the property tax to renters. Because of significant distortions in the land and property markets in most municipal corporations, our analysis assumes that property owners are able to shift the burden of the property tax forward to renters, rather than bear it themselves in the form of lower capital income from their properties. This assumption also implies that the tax on land as well as that on structures is shifted forward, another unlikely outcome. In this circumstance, we believe that these estimates will understate the progressivity (overstate the regressivity) of the property tax system. However, there is no reason to believe that the estimated change in the distribution of burdens, occasioned by a change in the assessment base, will be *biased* by this assumption about shifting.

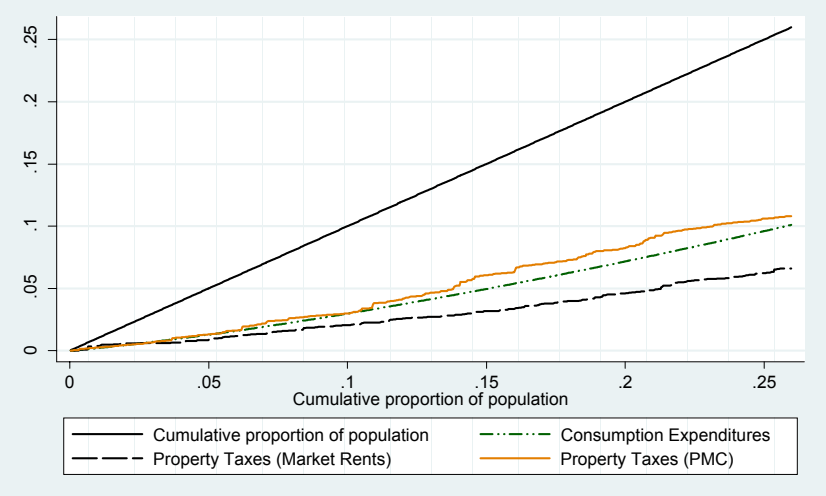
Pune

We computed the distribution of property tax burdens in the PMC area under two scenarios: the unit-based system as currently in existence, and a simulated market rental system. Concentration curves are shown below in figure 1a and 1b. A concentration curve is a cumulative distribution based on the distribution of income, or, in this case, of consumption expenditures. The dashed line shows the distribution of consumption (per capita), the gray line represents property taxes with unit or area-based system, and the line with breaks shows estimated tax using 'market rents'. Figure 1b shows the same distributions for the poorest 25 percent of the population. The greater the area between a curve and the 45 degree diagonal, the more unequal the distribution.

Figure 1: Pune -- Distribution of the Tax Burden Under Area-based and 'Market Rent' Systems



(a) entire sample



(b) poorest 25%

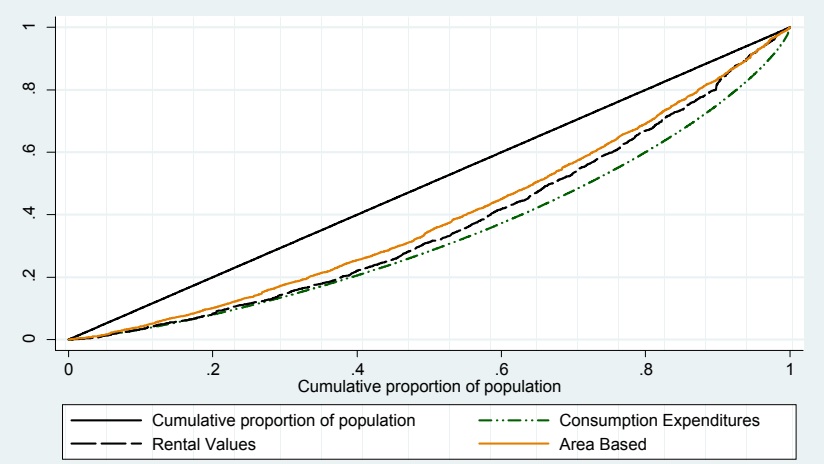
Our prior expectation is that the market-based system would be less regressive than the unit-based system. The results are described in figure 1a. This concentration curve clearly shows that there are significant distributional improvements from moving from an area-based to a 'market rental' approach. In comparison to the area-based system, the tax burden using the market rents is less regressive with respect to welfare status. For example, under the market-based system, the poorest 40 percent of the population pay about 10 percent of the city's property tax. So while there have been considerable revenue gains by moving from the previous rental value system to the area-based system, further revenue as well as distributional gains could be achieved by moving to a more 'market' based system that reflects the true value of housing services.

Figure 1b shows that the poorest 25 percent of the population account for about 10 percent of the overall consumption expenditures and pays about 8 percent of the total property taxes with the area-based system. In comparison, they would pay 5 percent of the overall property taxes if taxes were assessed with 'market rents.' In summary, property taxes in Pune are currently progressive with respect to welfare status. The PMC is likely to increase revenues as well as reduce the tax incidence on the poor with experiments to use market values and rents as the basis of assessment.

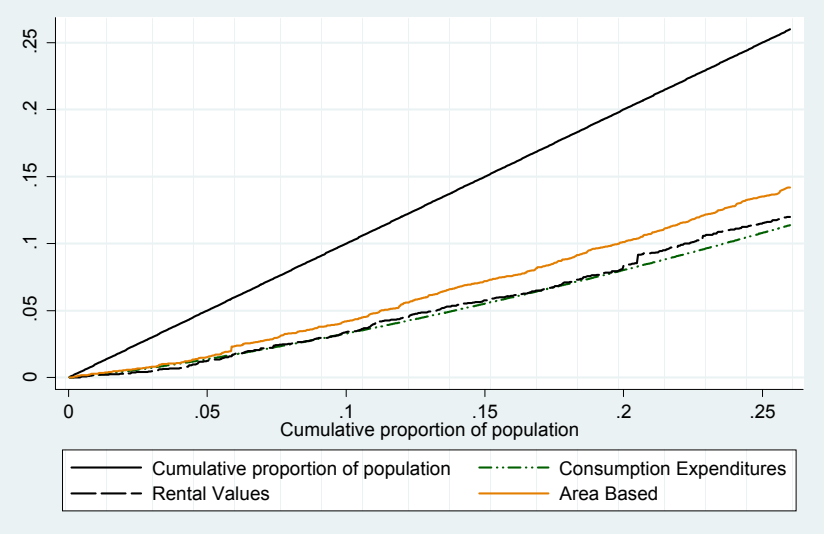
Bangalore

Concentration curves of property taxes in the BMP are computed with data from the previous rental values and the present zone-based (unit value) system is shown in figure 2. The dashed line shows the distribution of consumption (per capita), the gray curve represents property taxes with zone-or-unit based system, and the curve with breaks shows estimates of tax liabilities using the previous rental value system. It is difficult to distinguish if there are significant differences between the two tax assessment systems.

Figure 2: Bangalore -Distribution of the Tax Burden under Rental Value and Area-based Systems



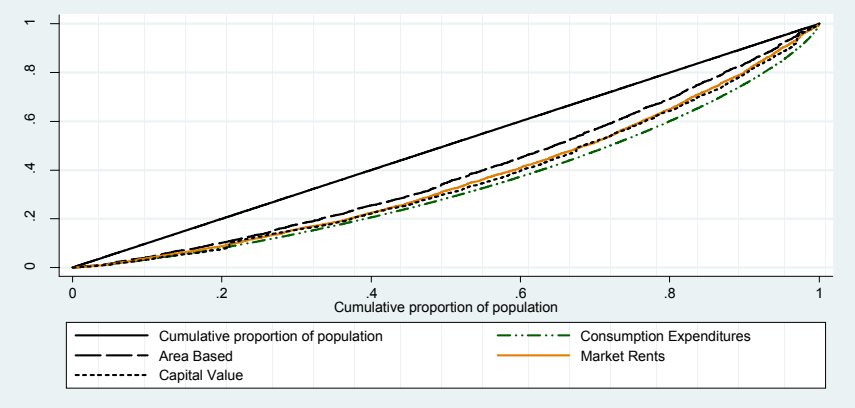
(a) entire sample



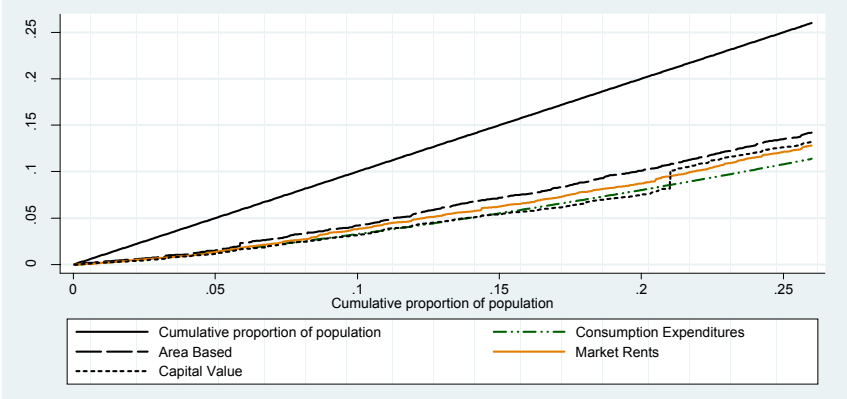
(b) poorest 25%

The figure on the right shows the distribution for the poorest 25 percent. This figure shows that the poorest 25 percent account for about 11 percent of the overall consumption, and pay about 11 to 14 percent of the total property taxes. The poor in general are shown to pay around the same proportion of property taxes as they have of consumption expenditures.

Figure 3: Bangalore -Distribution of the Tax Burden Under "Market Rents" and "Market Values"



(a) entire sample



(b) poorest 25%

Figure 3a shows the distribution of property taxes using `market rents' and 'market values'. The black dashed curve shows property tax distribution with the area-based system, the gray line shows taxes with 'market rents' and the dotted line shows the same with 'market values'. Neither figure shows significant differences in the distributional impact of alternate assessment systems.

In summary, property taxes under various assessment systems are marginally regressive with respect to welfare status, but there are no significant differences in the distribution of the burden among these estimates.

Horizontal Equity

There are significant horizontal inequities in the design and administration of the property tax in Bangalore and Pune.[18] These horizontal inequities arise from preferential rates of tax that are levied against residential *versus* non-residential properties, against owner occupied *versus* rented properties, and for older structures. In Bangalore's zone-base system for example, the valuation of property relies on 16 classifications of land and buildings, and there is considerable subjectivity in this. Certain properties receive partial or total exemption from taxation. A better approach would be to allow the level of assessed value of the property to be the sole guide in determining the taxation of a property. Structural change could also improve the horizontal equity of the property tax, whereby equals are treated equally under the tax, and the tax does not interfere with market decisions in inappropriate ways.

Rent control is another major problem, and as discussed in the previous section, similar properties that are or are not subject to rent control might face considerably different tax burdens. All property tax systems introduce some degree of horizontal inequities. In many cases, these can be justified on grounds of the government's goals for its property tax. However, when properties are taxed differently, there is an incentive for land use to change because of the tax treatment. One might question whether this is a desirable reason for land use choices, especially in a country where urban land markets are dynamically developing. Another issue is that when there are horizontal inequities, the tax burden on one class of property rises relative to other classes. ULBs must question whether such re-arrangements in tax burden are

consistent with their policies. All of this points to the need for regular equalisation studies to monitor the relationship between taxable assessed value and true market value.

IV. Conclusion

The property tax is an important source of local government revenues, but it has been relatively underutilised in Indian cities. There is considerable need to enhance its performance, particularly in the context of the directions laid down by the 74th CAA on decentralised governance and finance. Many ULBs have started reforming the property tax, focusing on fundamental issues of updating property tax rolls, computerising billing and collection systems, and strengthening enforcement. These have provided significant benefits in terms of increasing revenues from the property tax.

These reform efforts however mask significant underlying structural problems that limit elasticity and buoyancy of the property tax. These structural problems include the failure to resolve the conflict between assessing the true market value of rents and property values, and rent control ordinances. In addition, local governments often do not have the capacity or the will to issue new valuation rolls, in some cases for many years. Most reforms have been one off interventions or stop gap measures, but comprehensive correction of the property tax system has been lacking. Thus, growth in property tax revenues has been slow, and unless structural issues are resolved, improved administration will do little to make the property tax a viable revenue source for local governments.

Our analysis of alternate assessment systems in Bangalore and Pune highlights that structural reforms that link tax assessments to market rental or capital values have the potential to significantly increase aggregate tax revenues. In Pune, we find in fact that use of market values also plays a redistributive role by reducing the tax burden in areas with poor services and amenities — supporting the theoretical arguments of the property tax being a benefit tax. Increasing property tax yields can be accomplished by regular valuation of property at market levels, either through maintaining a rental value system, or by moving to a capital

value system. Bangalore's experience shows that a one time move from the previously used rental value-based assessment to an area-based system increased revenues by around 62 percent. Adoption of market rental values would increase revenue yields in Pune by an estimated 55 percent and in Bangalore by another 34 percent. For those places whose valuations are still tied to controlled rents, the potential increases are even greater.

While moving to a market value system is likely to be productive, we need to consider some issues with the valuation process itself. If the tax base does not reflect current market values, the tax cannot be productive, its revenues cannot grow, and it will not be fair in its burden distribution. As such, valuation is a difficult administrative task. If an area-based system or a capital value system is chosen, then the basic data currently comes from the stamp duty office. What scant evidence we have from these case studies is that stamp estimates understate market value by about 20 percent. With stamp and transfer taxes as high as 15 percent of the transaction value in some states, there is considerable incentive to understate this value. A thorough examination of the efficacy of using the stamp data as the basic unit for valuing property is a high priority task.

Discussions with the valuation department in Maharashtra indicated that the Town and Country Planning Department conducts property valuation based on a quasi-hedonic model approach. Valuers apparently use information on sales, future developments, infrastructure quality and local amenities/dis-amenities to estimate market values for various zones in the city. Owing to the location of heterogeneous properties within zones, limited trained staff conducting appraisals, and considerable informality in the valuation process, it is of concern that the valuation system may not accurately reflect property values.

If an area-based system is adopted, as existent in some of the larger ULBs, then a method of updating the guidance values on a regular basis is necessary. This will require not only reliable values from the stamp office, and from the state ministries of construction, but also a set of procedures for updating these values. It will also require trained staff, capable of valuing real property, and perhaps a central valuation unit in each state should be considered. There is much to be done to implement such a system. Most local governments do not have a cadre of trained assessors to evaluate property values and update them on a regular

basis. A capital value system is even more difficult, because valuation of individual units will be required. While introducing a true capital value assessment system should be a longer term objective, local governments must understand that the system will be difficult and costly to implement. However, once carefully implemented, a capital value based assessment system would lead to sustained revenue growth.

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Endnotes

[1] Similarly, Ravindra and Rao (2002) show that 70 percent of developed properties in Bangalore's periphery were not on the tax rolls for six years.
[2] An encouraging development is that property tax reforms underway are being discussed in various ULBs, which have shown that, with appropriate changes, revenues can be enhanced significantly.
[3]Technically, the base is the amount for which a property could be let out by a willing landlord to a willing renter in a market free of encumbrances.
[4] The analysis focuses on residential properties as the household survey data only provides information on this category.
[5] Our discussions with officials of the Pune Municipal Corporation (PMC) suggest that it is difficult to identify properties in each of these zones, and the zone differentiations are not regularly implemented.
[6] The city corporation is also called the *Bangalore Mahanagar Palike* (BMP).
[7] The Government of Karnataka has amended section 109 of the *Karnataka Municipal Corporation Act*, *1976* permitting a move from the annual rental value system to a capital value system for the purpose of property tax assessment.
[8] A detailed description of the survey design and implementation is provided in Deichmann *et. al* (2003).
[9] Age of the rental unit is computed as being equal to that of the nearest neighbour. This is a good approximation if housing units were built in stages. The age of the dwelling unit is an important criterion in determining the tax. It determines the rebate in the tax base from depreciation. Rate of depreciation ranges from 10 percent for properties constructed during the last 5 years to 70 percent for properties older than 55 years. The basic property tax is determined on the basis of size, location, age, use, and occupancy status of the dwelling unit. To this, a surcharge for social development activities is added. Of the total property tax paid, 74.6 percent is for the basic property tax rate, which includes all adjustments on the tax base, and 25.3 percent for social development *cesses* (surcharges).
[10] The description of the assessment process is based on discussions with PMC officials.
[11] The maintenance rebates are offered regardless of whether the resident or the landlord has incurred these expenditures.
[12] The term "rateable value" is synonymous with the term "taxable value", "taxable turnover" or "taxable income" under other tax regimes. The word "rate" used in the municipal acts across the country, in the context of property tax, comes from U.K. (Ravindra and Rao, 2003).
[13] The 40 percent homeowner rebate was applied to owner occupied housing.
[14] The tax estimates for owner occupied housing are lower than the general estimates reported in table 8 (Rs. 2,048 versus Rs. 3,815) in part due to the 40 percent rebate offered to these properties.

[15] Throughout this analysis, household welfare status is measured as total household consumption expenditures following standard household survey conventions (e.g., Deaton and Zaidi, 2000). While most tax studies in developed countries use income as the main welfare measure in incidence analysis, income is difficult to measure since people are reluctant to reveal this information even in anonymous household surveys. Income also ignores welfare benefits from goods that are not purchased regularly. For instance, a person who has inherited a high quality dwelling unit realises significant welfare benefits from it, even if he has a very low income. Another advantage of consumption expenditures is that they include imputed values of in-kind transfers and own production.

[16] The market rental values probably are still *biased* downwards as people's perception of rent are influenced by rent controls in various segments of the market. It will take several years after repealing rent control regulations for market rents to start approximating true market values.

[17] We would like to thank TCPD officials for providing us with stamp duty values (called "Ready Reckoner" values) for a sample of properties.

[18] Many of these issues are common to other Indian cities.