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Urban Property Taxation in Less Developed Countries: Fiscal and Growth Management Dimensions

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Principles and Practice

Edited by

George F. Break

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Urban Property Taxation in Less Developed Countries: Fiscal and Growth Management Dimensions

Introduction

Taxes on property are the single most important source of locally raised revenue for urban governments in less developed countries and play a major role in guiding and financing urban expansion. Moreover, since central governments have generally preempted the sales and income tax bases, and since urban government expenditure needs and urban expansion requirements continue to press, it seems likely that the role of urban property taxes will become even more important. This increased use of property taxation will result mostly from discretionary actions by local governments, and therefore will lead to further modifications in the property tax structure, which will in turn affect the elasticity, equity, and allocative features of the tax. The presumption of this essay is that such modifications are, at best, made on a basis of a priori reasoning and with little knowledge of the experience other cities have had with such changes. I hope to take a step toward filling this gap by descriptively comparing the property tax structure and performance of a selected group of large city governments in less developed countries.

Generally, the focus here is on the comparability of the revenue-growth, distributional, and urban development-management features of taxes on urban property in less developed countries. The specific concerns in this essay are a comparison of alternative systems of general urban property taxation, a description of the use of taxes on property to

guide urban expansion and to affect urban renewal, and a general statement of the considerations necessary to evaluate the equity, elasticity, and allocative effects of alternative systems.

The first of these issues is descriptive, its object being to provide a cross-section of the property tax structures presently in use. Existing surveys of urban property taxation in less developed countries tend to focus on country practices (for good examples of country surveys, see Yoingco, 1971; and Lent, 1974), thereby ignoring wide variations among cities within a country in the specifics of the tax. For example, the systems in Bogotá and Cartagena, Colombia, are markedly different, and each possesses unique and possibly transferable features. A general description of property tax practices in Colombia would miss these features. Particularly for policy purposes, it is important to identify the full range of possibilities so as to suggest what alternative structural reforms in present systems are feasible.

Yet another reason for detailed description is the need to develop a set of norms against which to evaluate the performance of any given system, that is, to develop a basis for estimating "average" effective rates, levels of assessed value, property tax revenue growth rates, tax burdens, and so on. Country surveys, while providing useful general description, do not enable the development of such norms. The usefulness of comparative norms for tax policy purposes has been debated in the literature, but the comparative experience continues to be used in tax reform analyses.¹ In theory, desired levels of assessed value, for example, should be determined normatively for any given city in the context of what the property tax is intended to accomplish, but in practice comparative "norms" are more likely to be persuasive evidence. This is a result of the absence of a useful model (and/or data) to estimate the equity and allocative effects of the property tax and of the fact that policy makers tend to view the feasibility of any particular discretionary action in terms of what is done elsewhere. In short, comparative description will fill an important gap in knowledge about the structure and performance of urban property taxation in less developed countries.

The second aim of this essay is to explore the implications of these various property tax structures for urban renewal—particularly for the maintenance/reinvestment decision of homeowners and for the holding of vacant land from the market. The hypothesis here is that cities have adopted a wide variety of approaches to using taxes on property to induce renewal but have contradictory, offsetting features elsewhere in

1. One such area is the comparison of tax effort to establish "average" levels of taxation. See, for example, Bahl (1971), Chelliah (1971), and Manvel (1971).

the tax structure. The third concern of this analysis is with the manner in which property taxes have been used to guide and finance urban expansion. The focus here is on innovative uses of the property tax and on the compatibility of the revenue-raising goals of the tax with its intended allocative and distributional effects. The fourth goal of this study is to make some rough evaluation of the elasticity, equity, and allocative effects of various property tax forms.

Comparative analysis, such as that proposed here, requires detailed description and annotated data which can only be assembled by means of detailed case study. The case study cities were chosen on a basis of geographic and cultural diversity and population size. Detailed studies have been carried out for Cartagena and Bogotá, Colombia; Manila City, Philippines; Lusaka, Zambia; Jakarta, Indonesia; Bombay and Ahmedabad, India; Seoul, Korea; and Tunis. Additional data have been gathered for Calcutta, Singapore, and Hong Kong, and these are presented on a selected basis at certain points in the analysis.²

To give some perspective to the claim of the importance of urban property taxes in less developed countries, it would seem to be worth examining the relative dependence of these local governments on property tax financing. From national statistics, the property tax would appear to be of little revenue importance in less developed countries. Chelliah (1971) reported the average ratio of property tax revenues to income among fifty-two developing countries to be less than one percent.

This implied unimportance is misleading for at least two reasons. First, most property taxes are collected by local governments and may not be fully included and/or classified as property taxes in the national accounts. For example, various forms of land development taxes are not typically classified by the central government—or even by the local government—as taxes on property. Second, and perhaps even more important, while the property tax may not be a major source of revenue for central governments, it is clearly a major source of revenue for local governments. Even when land development taxes are excluded, annual taxes on the assessed value of property account for a significant proportion of total local government financing (see table 7.1). The proportion of total expenditures (current plus capital) financed with the property tax is between 10 and 20 percent for most of the cities studied here, implying that major variations in the property tax could have measurable distribution and service level effects.

2. These case study results are drawn from a larger research project on Urban Public Finances in developing countries for the Urban and Regional Economics division of the World Bank. The studies are listed in the sources to table 7.1 and are not repeated below.

Table 7.1. The Importance of Property Tax Revenues in Local Government Finances

Cities	Property tax revenues as a percentage of total expenditures	Population ^a	Per capita income (in \$)
Cartagena (1972)	12%	357,668 (5.0)	\$ 254
Bogotá (1971)	6	2,849,400 (5.3)	518
Manila (1972)	41	1,330,000 (N.A.)	422
Lusaka (1972)	17	347,900 (13.7)	148
Jakarta (1973)	12	4,200,000 (6.7)	160
Bombay (1971)	19	5,971,000 (3.7)	256
Ahmedabad (1972)	18	1,588,379 (2.8)	80
Seoul (1971)	6	5,850,925 (9.1)	434
Singapore (1968)	12	1,990,000 (2.2)	697
Hong Kong (1973)	N.A.	4,266,000 (2.0)	1,177
Tunis (1971)	58	538,000 (4.0)	222
New York City (1972)	29	11,575,740 ^c	5,900
Chicago ^b (1972)	55	6,978,733 ^c	5,191

Sources: *Cartagena*: Johannes Linn, "Urban Public Finances in Cartagena," Urban Public Finance Project, mimeographed (Washington, D.C.: Urban and Regional Economics Division, IBRD, 1974); *Bogotá*: Johannes Linn, "Urban Public Finances in Bogotá, Colombia," Urban Public Finance Project; *Manila*: Roy W. Bahl, "Metropolitan Financial Administration and Structure," Manila Urban Survey Mission Report, mimeographed (Washington, D.C.: Urban and Regional Economics Division, IBRD, 1974); Pamela Brigg, "Local Government Structure and Finance," Manila Urban Survey Mission Report, mimeographed (Washington, D.C.: Urban and Regional Economics Division, IBRD, 1973); *Lusaka*: Robert J. Saunders, "A Survey of the Public Finances of Lusaka, Zambia with Special Reference to a Proposed Sites and Services and Squatter Upgrading Projects," mimeographed (Washington, D.C.: IBRD, 1973); *Jakarta*: Johannes Linn, "Urban Public Finances in Jakarta," Urban Public Finance Project; Dietrich Lerche, "The Revenue Potential of the Land Tax for Urban Finance in Indonesia" (paper presented at a conference on land use and land taxation in Asia, Singapore, 1974); *Bombay*: Francine Bougeoun, "Urban Public Finances in Bombay, India," Urban Public Finance Project; Roy W. Bahl, "Urban Public Finance and the Efficiency of Urban Development in Bombay," Bombay Urban Survey, mimeographed (Washington, D.C.: Urban Projects Department, IBRD, 1971); *Ahmedabad*: Roy W. Bahl, "Urban Public Finances in Ahmedabad," Urban Public Finance Project; *Seoul*: Roy W. Bahl and Michael J. Wasylenko, "Urban Public Finances in Seoul, Korea," Urban Public Finance Project; *Hong Kong*: *Annual Departmental Report by the Commissioner of Rating and Valuation for 1972-1973* (Hong Kong, 1973); *Tunis*: Remy Prudhomme, "Urban Public Service in Tunis," Urban Public Finance Project; *New York and Chicago*: U.S. Bureau of the Census, *City Government Finances in 1972*, series GF75, no. 4 (Washington, D.C.: U.S. Government Printing Office, 1976).

^a Figures in parentheses are average annual growth rates of population, over a period which varies from five to eight years.

^b Composed of overlapping local governments in the metropolitan area.

^c 1970 statistics.

Pressures on urban governments will probably lead to an increasing reliance on property taxation in large cities in developing countries.³ Moreover, the United States example would suggest an increasing local government reliance on the property tax as development and urbanization proceed. Compare, for example, the level of reliance on property taxation in the urban areas of less developed countries with that in New York and Chicago (see table 7.1). Many of the same factors which drove American urban governments to increased use of property taxation are present in the less developed country case: higher levels of government preempting the sales and income tax bases and leaving local governments with major expenditure responsibilities; a heavy population migration to urban areas, leading to increased public service financing requirements; and increasing concentrations of the poor, who typically have less taxpaying ability than public expenditure needs.

Comparison of Property Tax Systems

In theory the property tax base may be seen as either annual rental value or capital value, with the latter including land or improvements or both. In practice, however, the number of different tax structure possibilities is considerably greater because of wide variations in assessment practices. These variations are illustrated in the following discussion of assessment practices and rate structures. Attention is then turned to the development of comparative norms for property tax systems.

Tax Base and Assessment Practices

The property tax base for residential property in the case of countries using an annual value system is "expected" or notional rents. The English courts have described the narrowness of this rent concept (see Paddington, 1965, p. 993; and Copes, 1970, p. 65):

The rent prescribed by the statute is a hypothetical rent, as hypothetical as the tenant. It is the rent which an imaginary tenant might be reasonably expected to pay to an imaginary landlord for the tenancy of this dwelling in this locality, on the hypothesis that both are reasonable people, the landlord not being extortionate, the tenant not being under pressure, the dwelling being vacant and to let, not subject to any control, the landlord agreeing to do the repairs, and pay the insurance, the tenant agreeing to pay the rates, the period not too short nor yet too long, simply from year to year. I do not suppose that throughout the length and breadth of Paddington you could find a rent corresponding to this imaginary rent.

3. For a discussion of urban fiscal problems in developing countries, see Smith (1974) and Smith and Smith (1971).

Among countries using the annual value basis, there are wide differences in assessment techniques. In Singapore an average rent is estimated for an area—block or neighborhood—and a given type of structure, and this average is taken as the assessment of annual value for all similar properties in the area. If actual rents paid vary about this mean, the residuals are ignored on the grounds that the proper assessment is on reasonably expected annual rent and that an arithmetic average best approximates the norm. A similar approach to valuing residential property is taken in the Indian cities of Bombay and Ahmedabad. In Ahmedabad, however, owner-occupied residential properties are assessed on yet a different basis—a formula basis which determines rental value per square meter and, it is argued, results in a preferential assessment of owner-occupied properties. Among the important considerations in the formula assessment of owner-occupied dwellings are the location of the property within the city, the specific amenities of the property, construction material, ventilation, and carpet area. While there are graduated assessment rates depending on these considerations, the judgment of the assessor plays a major role. In Bombay, while there is no differentiation between owner-occupied and rented properties, properties included under a 1948 rent control ordinance are assessed at the controlled rent amount (Mohan, 1974). Finally, it should be noted that only Bombay among these three cities permits a reduction (10 percent) in assessed value to compensate for the cost of repairs and insurance.

There are similar variations in residential property assessment practices among the cities in this sample which use a capital value basis for assessment. The extremes are Jakarta and Cartagena, which use a formula basis for assessment, and Seoul, which uses a great deal of judgmental valuation evidence. In Jakarta, properties are classified according to land use (actual and zoned), zone location, and condition of adjacent roads and streets. An assessed value per square meter of land for each of these cross-classifications is read from a table which serves as a kind of tabular assessment manual. The land values included in this table are not derived from any current land value information nor is the assessment table updated. Hence, the growth in assessed value is almost exclusively from additions of new properties to the tax rolls.

A formula assessment method is also used in Cartagena, but differs from the Jakarta system in that it employs current property value data and in that both land and improvements are assessed. In this approach a "key" value is identified via comparative sales analysis (by examination of sales records *and* realtor opinions) in each of some six hundred "neighborhood" areas. These key values are then linked with a set of isovalue lines and assessed values for all remaining properties are inter-

polated. This assessment method is centrally administered through the Augustin Codazzi Institute in Bogotá.

In the cases of Seoul and Manila, land and improvements are assessed separately. In Seoul, land values are assessed by using realtor estimates for each of seventy land "classes" in some three hundred neighborhood areas. Improvements are valued by formula: first, properties are grouped into eight classes according to roof and wall materials and second, a current construction cost is estimated for each. In Manila, land values are assessed as a residual. Property values are first estimated on a basis of comparative sales, and improvement value on the basis of a construction cost formula.

These approaches to valuation are sufficiently different that one would not expect them to result in comparable levels of assessed value even if applied to the same tax base. Hence, one might argue that there are as many property tax systems as there are cities and that explanation of intercity variations in the equity, elasticity, and allocative performance of

Table 7.2. Statutory Rate Structures in Selected Cities Using Annual Value Systems

Annual value (\$)	Rate	Comments
<i>Ahmedabad</i>		
0-67	.175	
68-133	.235	
134-400	.325	
401-667	.395	
over 667	.425	
<i>Bangkok</i>	.1259-.13	Improvements are taxed only if structure is rented or used for commercial purposes.
<i>Bombay</i>		
0-75	.352	Includes both the city rate and the state education cess; this rate is for central area, lower rates are in effect in outer suburbs.
75-299	.402	
over 299	.415	
<i>Calcutta</i>		
0-133	.155	Rate reduced to 0.083 percent in unserved areas and 0.065 percent if water supply not provided.
134-400	.185	
401-1,600	.225	
1,601-2,000	.275	
over 2,000	.335	
<i>Karachi (1971)</i>		
0-385	.125	Includes municipal and provincial rates.
386-3,850	.150	
over 3,850	.200	
<i>Singapore</i>	.36	General rate in the central area; rates vary by location and are as low as 0.12 percent in some areas.

Sources: See Table 7.1.

Table 7.3. Statutory Rate Structures for Selected Capital Value Systems

City	Assessed value class (\$)	Land	Improvements	Total tax rate	Comments
Bogotá				.1520	Includes general rate, CAR rate, and refuse collection rate.
Cartagena	25			.0084	Selected levels of assessed value.
	152			.0175	
	381			.0140	
	1,776			.0135	
	4,568			.0127	
	8,121			.0130	
	25,380			.0125	
	45,685			.0126	
	76,142			.0124	
91,370			.0121		
Jakarta		.003			Improvements taxed only for industrial and commercial properties.
Kingston	0-167			.045	Kingston Parish only.
	168-333			.049	
	334-500			.053	
	501-833			.053	
	834-1,667			.060	
	1,668-4,167			.084	
	4,168-8,333			.103	
	8,334-16,667			.107	
over 16,668			.113		
Lusaka		.03	.0085		
Manila City				.03	
Nairobi		.0375	0		By 1975 the rate had been increased to 5.75 percent.
Seoul		.02	.04		There is also a surcharge on the property tax on improvements which varies from 20 to 80 percent depending on value class.

Sources: See table 7.1.

various systems may have to rest, at least partially, on variations in assessment practices.

Tax Rates

Urban governments in LDCs have chosen broad differences in rate structure and therefore have effected differences in the level of revenues, the elasticity of the system, the distribution of tax burdens, and the incentives to own, maintain, and locate housing. There are five basic patterns for statutory rate schedules: a single proportional rate applied to all properties, a rate which is graduated by assessed value class of the base, a rate which is different for land versus improvements, a rate which differs by location in the city, and a rate which differentiates between renters and owner-occupiers. Most cities have developed tax structures which combine two or more of these features.

As may be seen from the data in tables 7.2 and 7.3 there are wide variations in the type of rate structure applied. Bombay, Singapore, and

Hong Kong follow a practice of differentiating among areas within the city by charging a lower property tax rate in the areas where public services are thought to be the poorest, for example, the outermost suburbs or rural areas. It would appear that such a practice results in double counting in that lower service levels should already be reflected in lower rental values and hence lower assessments. To the extent the property tax is large enough to have a measurable effect on location decisions, such a practice will induce a decentralization of the pattern of urban residential settlements.

In the subcontinent cities and in Cartagena and Kingston, the rate structures are graduated by assessed value class in order to build a greater degree of tax burden equity (in an ability-to-pay sense) into the property tax system. But these piecemeal practices may do less to improve system equity than it would appear. For example, in the case of Ahmedabad higher income owner-occupiers are given a preferential assessment which effectively increases the overall regressivity of the system and then are subjected to a differentially higher property tax rate which reduces the overall regressivity of the system. Overall, it is not clear how the goal of equity is served under such a system. There is evidence in the other cities as well of assessment bias which favors higher income homeowners.

Lusaka, Seoul, and Manila tax land and improvements at different rates, but Seoul and Manila tax some improvements more heavily, while Lusaka taxes land more heavily. This, in theory, suggests that the pattern in Seoul and Manila is one of discouraging the optimal allocation of land use.

It would appear that local governments attempt to make rate structure adjustments for both equity and allocative effects, but it does not appear that these adjustments are made so as to conform with assessment practices. Because of this, the total distributional effects of the property tax cannot be properly evaluated by separate reference to rate or assessment adjustments. The kinds of partial analysis inferences drawn here must be viewed in terms of this limitation.

Property Tax Norms

It would be difficult to identify an "average" or "normal" level of performance of the property tax for urban governments in LDCs—there is no single comparable compilation of these data. On a basis of the data gathered in these case studies, however, some very crude comparisons might be made. The level of the property tax base, assessed value adjusted for income level, varies substantially among the cities which use a capital value basis of assessment. From these limited data a normal assessed value would appear to be roughly an amount equivalent to two

times the level of per capita income (see table 7.4). On this basis the Colombian cities show a relatively low level of assessed value, while Manila and Lusaka have relatively high levels of assessed property values. These differences in the assessed value—income ratio (V/Y)—are translated into a rough measure of property tax effort, that is, the product of property taxes as a percentage of income (T/Y) and the effective tax rate (T/V). Since the pattern of effective tax rates are similar—Manila and Lusaka are highest—the differences in tax effort

Table 7.4. Comparative Levels of Property Tax Effort

City	Per capita total property taxes	Per capita assessed value	Assessed value as a percentage of income	Taxes as a percentage of assessed value	Property taxes as a percentage of income
Cartagena (1972)	\$ 2.76	\$ 518	204.0%	0.5%	1.0%
Manila City (1972)	14.20	1,276	246.3	1.1	3.4
Lusaka (1972)	9.60	845	570.9	1.1	6.4
Bogotá (1971)	3.49	653	126.0	.5	.7
Seoul (1971)	2.20	840	193.5	.3	.5
Bombay (1971)	4.80	18	6.8	27.4	1.9
Singapore (1968)	14.30	32	4.6	44.4	2.1
Hong Kong (1973)	15.20	131	11.1	11.6	1.3
Tunis (1971)	10.00	143	64.4	6.9	4.5
Calcutta (1971)	5.73	14	8.0	40.9	3.3
Ahmedabad (1972)	3.75	15	18.7	24.9	4.7

Sources: See Table 7.1.

Table 7.5. Comparisons of Assessed Value—Income Ratios among Annual Value and Capital Value Systems

	If the percentage of rental value to capital value was 5.0, the percentage of capital assessed value to income would be	If the percentage of rental value to capital value was 2.0, the percentage of capital assessed value to income would be	Rental to capital value percentage necessary for percentage of capital assessed value to income to be 200
Bombay	136%	340%	3.4%
Singapore	92	230	2.3
Hong Kong	222	555	5.5
Tunis	1288	3220	32.2
Calcutta	159	398	3.9
Ahmedabad	374	935	9.3
Cartagena	204		
Manila	246		
Lusaka	571		
Bogotá	126		
Seoul	194		

Sources: See Table 7.1.

are proportionately greater than that in the assessment income ratio. This particular result suggests a negative relationship between city personal income levels and city property tax effort.

As among the cities using a comparable rental value system the assessment level in Ahmedabad appears relatively high, though with the variation observed a norm is difficult to identify. A similar pattern of variation is observed for the distribution of effective rates; hence it is difficult to develop any notion of "normal" tax effort.

From the data in table 7.4 it is not possible to compare the relative assessment levels between cities using capital and annual value systems. In order to make such a comparison we have assumed, alternatively, annual value/capital value ratios of 5 and 2 percent. The result from using this assumption (see table 7.5) shows that the annual value system assessment levels are roughly comparable to the capital value systems at a rate of 5 percent. A comparison of the eleven cities observed here on this basis does not show any systematic relationship between assessed value and income. An alternative comparison involves solving for that annual/capital value percentage which just equates any city's annual value/income percentage with two hundred, the approximate average of the capital value cities. These results suggest relatively low levels of assessment in Bombay, Calcutta, and Singapore.

The growth in the property tax base and in property tax revenues has varied markedly among these cities, and a "normal" rate is difficult to identify (see table 7.6). These data indicate, however, that both total property tax revenues and assessed values grew at a higher rate in

Table 7.6. Growth in Property Tax Revenues and Property Tax Base

	Annual rates of increase ^a			Population Elasticity ^b			
	Property tax revenues	Assessed value	Prices	Property tax revenues		Assessed value	
				Actual	Real	Actual	Real
Cartagena	16.5	22.5	9.0	3.3	1.4	4.4	2.5
Lusaka	16.3	14.8	6.8	1.2	.6	1.1	.5
Bogotá	13.2	19.4	9.0	2.5	.7	3.7	1.8
Seoul	38.0	31.0	12.0 ^c	4.2	2.5	3.4	1.9
Bombay	8.0	7.2	7.1	2.2	.2	1.9	.02
Singapore	10.8	9.1	1.0	4.9	4.4	4.1	3.6
Hong Kong	6.9	18.7	1.8	3.4	2.5	9.4	8.3
Tunis	4.8	6.8	3.6	1.2	.3	1.7	.8
Calcutta	4.5	4.0	7.1	6.4	-3.4	5.7	-4.1
Ahmedabad	5.6	6.7	5.5 ^c	2.0	.04	2.4	.4

^a The number is the annual increase in prices for the country in which the city is located from 1964 to 1970. See *International Financial Statistics* 24, no. 6 (June 1971).

^b Percentage increase in property tax revenues per one percent increase in population.

^c Actual rate of inflation in the city.

countries using the capital value system than in countries using the annual value system. Only in about half the cities was there an increase in the intensity of property taxation, that is, in the effective rate. When these data are adjusted for population and price levels changes, the pattern of increase becomes less clear. The population elasticity of real property tax revenue growth exceeds unity only in Cartagena, Seoul, Singapore, and Hong Kong. Since there were increases in real per capita income in all of these countries, and since the revenue increases presented here include discretionary changes, it would appear that the income elasticity of the property tax in these cities is generally below unity.

Urban Renewal and Urban Sprawl

Features have been built into the system of property taxation in these cities which affect the renewal and maintenance decisions of private owners and developers. With scarce public sector resources to be devoted to the renewal problem, there is a premium on using tax policy to induce private sector housing investment. Urban governments in less developed countries have approached this issue of how to encourage (or at least not discourage) investment in housing with property taxation in two ways: (1) by employing marginal adjustments in the property tax rate structure and/or assessment practices, and (2) by the institution of specific property tax coercive measures.

Marginal Rate or Base Changes

Several cities have instituted rate or base adjustments either to stimulate private investment in construction/maintenance/repair of buildings or to improve the overall use of land by penalizing the speculation in idle land. Various forms of preferential tax rates or preferential assessments for lower valued homes (Ahmedabad), or for owner-occupiers (Singapore), are used, and Bombay permits a 10 percent reduction in gross rateable value for repairs and insurance. Such forms of property tax relief, while they may encourage homeownership and thus, housing investment, do not provide any direct incentives for housing renovation but rather have only an income effect on the property tax payee. On the other hand, Singapore assesses certain vacated plots and plots containing vacated structures at 5 percent of capital value—over twice the rate ordinarily applied. This higher rate is in some cases applied to occupied properties of unusually low land intensities; if a factory, for example, occupies more land than seems warranted (by the assessor), the “excess” land may be considered vacant and assessed at 5 percent of capital value.

Finally, there are the perverse systems wherein improvements are assessed at a higher rate than land, and therefore optimal uses of land are discouraged. Examples of this are Seoul's property tax rate structure and the assessment of certain vacant properties at lower rates in Bombay. In such cases, housing investment—if accompanied by reassessment—is discouraged.

Effective methods of managing and controlling urban expansion with tax policy require an effect on relative prices, that is, they require a reduction in the relative cost of housing versus other investments or an increase in the relative cost of land speculation. Most property tax adjustments designed to affect urban renewal or land speculation have not generally recognized this need.

Bombay Repairs Board

A novel and potentially successful approach to stimulating investment in housing renovation is a special authority for housing repair which has been set up by the state of Maharashtra for the city of Bombay. State government involvement in urban redevelopment had in the past been limited to the slum clearance program of the Housing Board and a relatively small grant to the Bombay Municipal Corporation for slum clearance. This was expanded in 1969 to encompass rehabilitation of selected core city housing. The State Building Repairs and Reconstruction Board was created to provide for the repair or reconstruction of dangerous buildings and to provide for the rehousing of their occupiers. The board, which operates only in the city area of greater Bombay, has the responsibility and authority to carry out structural repairs and receive no compensation, to move the state government to acquire properties beyond repair for purposes of reconstruction, and to take action for the demolition of dangerous or delapidated buildings.

For these purposes the board is authorized to levy a property tax, with the Bombay Municipal Corporation acting as collecting agent. All residential properties in the city area are subject to the cess, with the exception of those owned by government, those rented on a leave and

Table 7.7. Repairs and Reconstruction Board Property Tax Rates

Class of property	Date constructed	Normal rate	Rate if structurally repaired	Rateable value (in millions of dollars)	Property tax assessed (in millions of dollars)
A	Before 1940	25	40	1.74	.33
B	1940-50	20	30	.34	.05
C	After 1950	15	20	2.92	.48

Source: Data are for 1970 and were supplied by Maharashtra state government officials.

license basis, and certain newer properties. For purposes of assessing the tax liability, buildings are classified according to date of construction, with rates higher for older buildings and for buildings which have undergone repair under the act (see table 7.7). In each case the owners' share of the tax is 10 percent of rateable value, with the remainder being paid by the tenant in the form of a higher controlled rent. It may also be seen in table 7.7 that the greatest portion of the cess is collected from the oldest class of property and that total collections are equivalent in amount to approximately 10 percent of total property tax collections of the Bombay Municipal Corporation.

Urban Fringe Development Schemes

The problem of urban growth management in developing countries is qualitatively different from that in developed countries. First, population growth rates are considerably greater than those in developed countries, hence there is greater pressure for physical expansion of the urban area. This pressure is heightened by the already overcrowded situation which typically exists in the core city and the always large housing deficit. Second, since urban infrastructure is already grossly inadequate in urban areas of LDCs, there are substantial claims on public resources, and physical extensions of the urban area may be a relatively low priority use of general tax resources. Third, central governments have generally preempted the major tax bases and therefore have limited the revenue-raising ability of local governments. Moreover, local government tax administrations are not yet well developed and tend to be grossly understaffed. Finally, the private sector has little interest in financing and developing physical extensions of the city, particularly if the aim of such extension is settlement of low income families. Consequently, while in the United States taxation designed to manage urban growth is generally restrictive, the problem in LDCs is to use the public sector to guide urban expansion but at the same time to generate resources adequate to finance the expansion.

In fact, urban governments in some developed countries have responded to this problem by implementing innovative approaches to expanding and financing expansions of the urbanized area. Where these approaches have been successful (as in Seoul), there has been a markedly favorable effect on the fiscal position of the local government. In cases where land development schemes have not been effectively used (Jakarta, Manila), both the fiscal position of the city government and the expansion schemes for the physical urban area have lagged. To illustrate the response of urban governments to the need for self-financing land

development schemes two prominent examples are reviewed in the following sections: Seoul's land adjustment scheme and Bogotá and Cartagena's valorization program.⁴

Seoul: Land Adjustment

Seoul Special City (SSC) has a land adjustment scheme under which certain areas of the city are designated for improvement. The improvement consists of rearranging the shape of plots, land grading, laying out and constructing roads, and provision of other basic infrastructure. The objectives of the program are to facilitate the development of areas, usually on the city's urban fringe and usually difficult to develop because of their physical characteristics (plot shape, size, or topography), and to recover public sector costs from such development. Fiscal transactions under this scheme are made through a land adjustment special account and administered by the Land Adjustment Bureau of the SSC government. The Land Adjustment Bureau has no maintenance responsibilities after the development takes place.

The city administration has a five-year plan with respect to areas designated for land adjustment. The decisions on which lands are to be adjusted are made by the mayor and the city administration. Technically, it is required that a majority of landowners agree to the program.

The finances of the land adjustment program are entirely in the special account, with the fiscal resources for the program derived primarily from borrowing, with repayment made from proceeds from the resale of land. The landholders must surrender some of their land to the government as payment in lieu of the improvements they receive on their land. More specifically, the landowner whose land will be improved donates to the government an amount of the land adequate to meet the costs of the improvement plus an amount for general uses such as parks, roads, and open spaces. The government then resells the land to recoup the improvement cost. As of October 1972 thirty-eight land adjustment schemes had been undertaken, twenty-seven of which were complete, and the expenditure for the adjustment of land amounted to about 40 billion won (\$100 million) in Seoul city. This amount is equivalent to 49.8 percent of the SSC budget.

Land adjustments can be initiated either by decree of the minister of construction or by those who are connected with the lands which are being adjusted, for example the city government, the housing corporation, or any land-owner association which is formed for that purpose. In the latter case the land adjuster must submit an application

4. Other programs are described in Grimes (1974).

to and obtain formal permission from the Ministry of Construction. The land adjuster first designates a certain area as the area for land adjustment. Next, the land adjustment scheme is announced to the public and remains open to those concerned for public reference for a period of fourteen days. The proposed scheme, the method of covering costs, and other matters must be approved by at least two-thirds of the landowners. If the landowners approve, the land adjuster then submits the land adjustment scheme to the Ministry of Construction and procures a permit.

Technically all the costs of land adjustment are borne by the landowners in the adjusted area, but the land adjuster, usually the Seoul city government, undertakes the planning and execution of the scheme. These costs are allocated among landowners by formula, generally based on the difficulty of improving the land and on the location of the adjusted plot.

In addition to the "cost equivalent" amount of land some common rate of land is surrendered by all landowners to allow land for public parks, public squares, open spaces, and other public uses such as markets and schools. A proportion of 25-35 percent was mentioned by Seoul authorities as being commonly required for institutional use. Finally, there is an additional amount of land which must be surrendered for roads, with the amount surrendered differing according to whether the road is in the front or beside the property.

If there is a discrepancy between the actual cost of the adjustment project and the revenue from sales of cost equivalent land then the difference will either be returned to the landowners or invested in further improvement of the area. It is rare, however, that the price of the land after improvement is overestimated.

Bogotá and Cartagena: Valorization⁵

The Colombian valorization scheme is similar to Korean land adjustment in that the intent is to cover project costs through special assessments on benefiting landowners. Projects executed under the system of valorization up to now have included primarily construction of roads, streets, public squares, and sewage works. In the case of road construction the valorization department has been responsible almost exclusively for all the construction in the city of Bogotá, while the district secretary of public works is in charge of only marginal investment programs in areas where the valorization system cannot be used to recoup project

5. A more complete description of this program may be found in Linn (1974). The summary here is drawn from these case studies.

costs. To date, the valorization approach has not been taken in the opening and complete development of new land on the urban fringe.

If the cost of the project is taken as the total burden to be distributed among landowners, the following factors must be considered in computing total project cost: (1) land purchases; (2) all construction costs, including those of complementary works (for example, sidewalks, drainage canals, and so on); (3) all compensation paid on account of the project; and (4) up to 20 percent of the sum of 1-3 for administrative overhead. The statutes also provide for a benefit measurement of the total value of the project, which is the increase in overall land values which results because of the investment. In fact, only in a few cases has a serious effort been made to determine expected land value increments, and the general practice has been to rely on estimated project costs as the amount to be redistributed.

During the process of determining the total benefit/cost of the project the geographic area which is likely to benefit from the project is limited. The "zone of influence" is defined as the area over which the benefits of the project are presumed to affect land values, and this area may be separated into two subzones: the zone of direct influence and that of indirect influence. The former would typically consist of all the properties directly bordering on the project works; the latter would be the properties not directly bordering on the project. In practice, in Bogotá a pragmatic approach appears to have been followed in the determination of the boundaries of the zone of influence. In the case of small projects in homogeneous neighborhoods, a parallel zone of influence method is frequently employed, while in the case of larger, more complex projects affecting nonhomogeneous neighborhoods (nonhomogeneous in terms of topography, socioeconomic characteristics, and capacity to pay) boundaries of varying width on either side of the project are defined.

Once the zone of influence is determined and the survey of properties in the zone is concluded, the distribution of the valorization payment proceeds by one of two alternative methods: Under the first, a series of equidistant parallel lines are drawn parallel to the project. Each zone which is thus formed between the parallel lines is assigned a coefficient which declines continuously from the zone that is closest to the project to the zone that is farthest away. Then the area and the frontage of each property are multiplied separately by the factor of the zone in which it is situated, thus determining what is called "adjusted area" and "adjusted frontage." Then a choice is made as to how much of the total tax burden is to be distributed according to area and what part according to frontage; the former amount is divided by the sum of the adjusted areas, the latter by the sum of the adjusted frontages, which results in a "conver-

sion coefficient" for area and a "conversion coefficient" for frontage, which in turn are multiplied respectively by the adjusted area and the adjusted frontage of each property; finally, by summing the resulting amounts for each property (the taxes on area and frontage, respectively), the total tax burden placed on the property is obtained.

Alternatively, a detailed study is made for each property of the circumstances which may determine the degree to which it benefits from the project that is undertaken. In this the following factors are to be given special attention: the area of the property; the relationship between frontage and area; the distance of the property from the project, as a measurement of the degree of accessibility; the economic aspects of the street to be constructed or improved, taking into consideration such factors as transport demand, accessibility, and so on; the form of the property; the topography of the land; the natural conditions of the property, such as streams and flood land; the proximity of the property to poor neighborhoods; the voluntary contributions which the property owner has made to facilitate the execution of the project; and the change which the project occasions in the potential for economic utilization of the property. Each of these factors is expressed in the form of a coefficient or weight, each ranging between two limits chosen to reflect the relative maximum and minimum benefit that may be derived from the work. These coefficients are determined by local officials and reviewed after having obtained the opinions of the owners' representatives. Each of the coefficients is then multiplied by the area of the respective property to obtain the adjusted area. As in the previous method the total amount to be distributed is divided by the sum of adjusted areas of all properties, and the resulting quotient is multiplied with each adjusted area to obtain the final value of the valorization tax per property.⁶

Conclusion

Little is known about the structure and performance of urban property taxes in developing countries. Since comparative quantitative analysis of property tax yield and the property tax base do not exist, it is not possible to identify "average" performance levels. It follows that there

6. Linn (1974) formulates this operation algebraically as follows:

$$A_i \pi_j K_i^j = A_i^a, \quad \frac{C}{\sum A_i^a} = f, \quad \text{and} \quad A_i^a f = C_i,$$

where A_i is the area of property i ; A_i^a , the adjusted area of property i ; C , the total cost of the project; C_i , the valorization tax burden as property i ; K_i^j , the coefficient concerning factor j for property i ; π_j , the product operator; and f , the conversion coefficient.

are no accepted standards against which the performance of any particular system might be measured. The analysis here, based on a number of intensive case studies and some supplementary data, demonstrates the feasibility of such empirical comparison and is suggestive of the level of variation in property tax effective rate and base levels.

These data suggest, indirectly, a relatively low income elasticity of property tax revenues. In some cities, property taxes have grown at a rate which is considerably less than the increase in the price level. This relatively low growth in property tax revenues is due in large part to the inability to reassess property so that actual property value growth is matched by growth in the assessed value base. Among the cities in the sample here, there would appear to be little relationship between the growth in the tax base and either income level or the form of the property tax. This low elasticity, coupled with increasing fiscal pressures on city governments and the general absence of other major tax bases, implies an increasing long-term reliance on the property tax.

No attempt is made here to estimate empirically the distributional effects of the property tax. Even if the problem of the incidence of the tax were solved, there is a paucity of data on housing consumption expenditures and/or the distribution of property incomes by income class. Moreover, in terms of vertical equity, there are no studies of biases in assessment practices among properties of different values. There are features of the property tax systems studied here which, if viewed partially, would seem to suggest discretionary attempts to effect a more equitable distribution of tax burden. Other features of the tax system, however, preferential treatment of owner-occupiers, for example, may tend to offset intended progressivity adjustments.

The property tax practices observed in these case study cities suggest a host of allocative effects. Simply in terms of the partial effects of certain features of property tax systems, it would appear that discretionary policy has been designed to encourage homeownership and decentralization of population within the urban area and to discourage speculation in idle land. Moreover, the generally differentially higher rate on land than on improvements is designed to bring about an improved allocation of land use.

A basic difference between developed and developing countries in urban property taxation is the aggressive use in LDCs of taxes on property to guide and finance development as well as to renew the already built-up areas of the city. Whereas urban property tax policy in the United States is restrictive and probably of secondary importance in managing urban growth, in developing countries it is designed to induce particular forms of development and to finance this development.

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