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REPORT ON BOMBAY

ANNEX IV:

PUBLIC FINANCE AND THE EFFICIENCY OF URBAN DEVELOPMENT

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ANNEX IV - PUBLIC FINANCE AND THE EFFICIENCY

OF URBAN DEVELOPMENT

INTRODUCTION

1.   The dual objectives of this report are to describe the processes
and problems of government finances in metropolitan Bombay, and to suggest
and evaluate alternative remedial strategies. Accordingly, the material
which follows is divided into two parts. The first necessarily involves
considerable description of the tax-expenditure process and of existing
arrangements for the distribution of functional and financial responsibility
among governmental units. It concludes with a discussion of possibilities
for bringing about a better balance between fiscal resources and service
requirements, where the adjustments suggested are strictly within the public
finance domain, i.e., tax reform and rearrangements of the government divi-
sion of the expenditure-taxation decision. The subject matter of the sec-
ond part of this paper turns from the more conventional public finance
reform issues to a brief analysis of the joint effects of broader policy
adjustments, i.e., th. real costs and benefits of a program which includes
not only fiscal measures such as property tax reform and user charge rev-
isions, but also nonfiscal measures such as rent decontrol and selective
planning and zoning ordinance changes.

2.   Throughout this paper, there is cognizance of the possibility
that government fiscal actions have allocation consequences for urban dev-
elopment which may well be more important than more traditional public
finance considerations such as revenue raising potential. There is an
important implication of this point of view for the material presented
below, i.e., it is not a tax study with major emphasis on the search for
methods of marshalling more resources for public use.

I. THE PROCESSES AND PROBLEMS OF FINANCING DEVELOPMENT IN METROPOLITAN BOMBAY

3.   Because there is fragmented government service responsibility within the Bombay metropolitan area, the traditional public sector operations are described separately for the city and state governments in the two following sections. Particular attention is paid to the discussion of revenue structure. The nature and implications of fragmented responsibilities for public services are dealt with separately, and finally a set of recommendations are offered.

The Finances of the Bombay Municipal Corporation

a. Governmental form

4.   The Bombay Government is a Municipal Corporation, constituted under an individual legislative enactment. As such, it is subject to much less direct state government control over its budgetary operations, including borrowing, than are Indian municipalities in general. However, all local governments in India, including municipal corporations, are limited by the Federal Constitution in their taxing powers. The Constitution divides public revenues into those which are available to the Union Government and those which are available to State Governments, and permits the state authorities to allot any resources, at their discretion, to local bodies. There is no provision in the Constitution making it obligatory for the states to hand over any particular source of income to local bodies. The Bombay Municipal Corporation Act gives authority for four taxes--property tax, a tax on vehicles and animals, a theatre tax, and octroi. Alternatively, it specifies as expenditure responsibilities of the Corporation: drains and drainage works including sewage disposal, water supply, construction, maintenance, and improvements of certain public streets, fire protection, sanitation, primary education, a host of regulatory functions, and via the relationship with the Bombay Electric Supply and Transport undertaking, certain electricity and transport services.

5.   In addition to the general public services described, the Bombay Municipal Corporation operates three major trading undertakings. The Bombay Electric Supply and Transport undertaking has in the past operated as a self-sufficient entity with its own financial and accounting organization. It is, however, under the control of the Bombay Municipal Corporation and requires the security of the Municipal Corporation for its borrowing activities. Moreover, since BEST has moved away from a surplus position in recent years, 1/ it could well require an operating subsidy in the future. The Water and Market undertakings of the Bombay Municipal Corporation are not operated as separate entities, and therefore are treated here as part of the General Municipal Services account.

1/   The contribution to the Municipal Account fell from Rs 29 lakhs in 1965 to no contribution in 1968 and 1969 but rose again to Rs 21 lakhs in 1970 (see Table 1).

Table 1. Bombay: Revenues of the Bombay Municipal Corporation[1]/

(In lakhs of rupees)

	1965	1966	1967	1968	1969	1970
Property tax	13,01	14,27	15,90	16,77	19,93	21,76
Municipal services	12,13	13,29	14,87	15,83	18,51	20,25
Education cess	88	98	1,03	94	1,42	1,51
Octroi[2]/	1,54	6,73	10,65	9,76	10,04	12,40
Wheel tax	91	90	88	94	1,08	1,04
Theatre tax	10	10	10	10	10	12
Total taxes	15,56	22,00	27,53	27,57	31,15	35,32
Licenses	63	81	76	80	98	1,03
Other fees and charges[3]/	7,12	6,94	7,86	8,11	9,63	11,50
Interest on surplus funds	74	77	87	1,00	86	1,21
Net revenue from undertakings	1,44	1,74	1,29	1,45	40	-74
Water	1,12	1,35	95	1,21	5	-97
Market	32	39	34	24	35	23
Contribution from BEST	29	5	--	--	--	21
Total nontax revenue	10,22	10,30	10,78	11,36	11,87	12,98
Total revenue	25,78	32,30	38,31	38,93	43,02	48,30

1/ Including Education and Improvement Trust Funds.
2/ Less refunds.
3/ Including municipal rents.

Sources: Administration Report(s) of the Municipal Commissioner for
Greater Bombay, for the year(s) 1964-65 to 1968-69.

Annual Accounts, Bombay Municipal Corporation (City, Suburbs,
Extended Suburbs, and Education Fund), for the same years.

6.   Revenues are classified in the traditional tax and nontax way, and expenditures as current and capital—the Bombay Municipal Corporation does not utilize development, nondevelopment or plan, nonplan classifications. There is, however, a separate budget for each of the three major subdivisions of Greater Bombay, i.e., city, suburbs, and extended suburbs. The budget of the Municipal Corporation is divided into three parts: a General Services Fund, an Improvement Fund concerned with slum clearance, and an Education Fund. Because the concern of this paper is less with budgetary procedures than with over-all resource allocation, and because the interrelation among these three funds is simply a system of transfers, the analyses below will (unless otherwise stated) center on the consolidated Municipal Accounts.

b.   Revenue structure and growth

7.   Tax revenues presently constitute over 70 percent of total receipts of the Bombay Municipal Corporation, and have been rising as a percentage of total revenues in recent years. This increase has been due to substantial octroi rate increases and to the natural growth in property tax revenues (see Table 2).

Table 2. Bombay Municipal orporation: Percentage
Distribution of Revenues

(Including Education and Improvement Trust Fund)

	1965	1966	1967	1968	1969	1970
Percen: of total revenue						
Taxation	60.36	68.09	71.86	70.82	72.41	73.13
Nontax sources	39.64	31.91	18.14	29.18	27.59	26.87
Percent of total taxes						
Property tax	83.61	64.86	57.76	60.83	63.98	61.61
Octroi	9.90	30.59	38.69	35.40	32.23	35.11
Wheel tax	5.85	4.09	3.20	3.41	3.47	2.94
Theatre tax	.64	.45	.36	.36	.32	.34

The growth in total revenues over the six-year period in question is approximately 9 percent, and yields a trend of increase in per capita revenues (see column (1) of Table 3). 1/ However, while these data reflect a considerable per capita monetary increase, the improvement in real terms may have been much less. When per capita total revenues are adjusted to a constant

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1/   Population estimates for greater Bombay are available for 1961 and
      1967. The intervening years are estimated here assuming a compound
      growth rate.

(1962) base using the retail price index estimates for urban Maharashtra,1/
the annual rate of increase falls from over 9 percent to 4.4 percent. Though
the index used may well be inappropriate for these purposes, it does serve
to indicate the possible discrepancy between real and monetary increases
in Bombay Municipal Corporation's activity. This adjustment of the Bombay
Municipal Corporation's figures to "real" terms will be used throughout
this paper without further caution as to the appropriateness of the prices
series employed. To generate a very crude estimate of the time behavior of
"revenue effort" by the Bombay Municipal Corporation, total revenues collect-
ed per rupee of income earned is also shown in Table 3.2/ If this calculation
is accepted as reasonable, these data show that after an increase in this
ratio between 1965 and 1967 (because of the introduction of higher octroi
rate schedules), there has been a decline in the percentage of income taken
by the Bombay Municipal Corporation's tax and nontax charges. The decline
may be explained by a combination of the absence of discretionary fiscal
action and a growth in the property tax base which is restrained by a rent
control program. In any case, it shows that the Bombay Municipal Corpora-
tion revenue share of total income generated in Greater Bombay is declining.

Table 3.   Bombay Municipal Corporation: Selected Revenue
Yield and Base Trends

Year	Revenues		Total Taxes		Ratable Value		Property Tax Revenue	
	Per Capita (In rupees)	As a Percent of income	Per Capita (In rupees)	As a Percent of income	Per Capita (In rupees)	As a Percent of income	Per Capita (In rupees)	As a Percent of income
1965	53	3.73	32	2.24	107	7.48	26	1.88
1966	64	4.15	44	2.82	109	7.01	28	1.83
1967	73	4.36	53	3.13	113	6.69	30	1.81
1968	72	3.92	51	2.77	118	6.40	31	1.69
1969	76	3.84	55	2.77	121	6.07	35	1.78
1970	82	3.82	61	2.78	119	5.50	37	1.72

Source: Same as Table 1

1/   Such estimates are made by the Maharashtra State Bureau of Economics
and Statistics. See Maharashtra: An Economic Review (Bureau of
Economics and Statistics, Government of Maharashtra, Bombay), Chapter 6.

2/   Estimates of total Bombay income are available for 1961 and 1965, and
the remaining years are estimated with a compound growth rate. (See
the general economic description in the main report.)

c.   Property taxation

   (1)   Tax base-assessment practices

8.   The major component of the property tax base is residential property, which is assessed in Greater Bombay on a basis of annual rental value, i.e., that rent which may reasonably be expected, less a 10 percent allowance for repair. Ordinarily, this would imply residential assessment on a basis of market rents, and in the case of Bombay would suggest a property tax base which is responsive to the over-all income growth of the region. Moreover, a tax on true rents would exact from renter-consumers a charge based in part on the location or site benefits of a property and therefore would result in an efficient allocation of such land resources. However, with few exceptions, residential properties in Bombay are subject to rent control, therefore, ratable value is taken as the legally controlled rent. The property tax implications of this practice are both a severe restraint on the natural growth in the property tax base and a deterrent to the use of property taxation for effecting an efficient allocation of resources.

9.   The Rent Control Ordinance, in fact, reduces considerably the complexity of the assessment process. In amount, this assessment may vary from the market rent of 1948 (the year in which controls were established) to a calculated standard rent for any residential unit constructed since 1948. The Ordinance prohibits the raising of rents to reflect market factors. Permission to increase rent may be obtained if improvements to a property warrant such an increase, however, such improvement requires prior consent of the tenants. This is often a formidable impediment.

10.   Two types of residential properties are outside the Rent Control Ordinance. Government-owned residential properties are assessed on the basis of the lease negotiated between the landlord (e.g., BEST, Port Authority) and the tenants. Where rents are subsidized, as in the case of Maharashtra Housing Board, "economically weak" and industrial housing programs, the amount of the direct subsidy is included in the computation of standard rent.

11.   In the case of nonresidential commercial property, "standard" rent is computed as a sum equal to approximately 6 percent of land cost and 10 percent of construction cost. Since the Rent Control Ordinance is also applicable to nonresidential uses, there is little built-in growth in this component of the property tax base. Standard rent for industrial properties is estimated by first segmenting the property into three components: that which is vacant, that which is used for processing, and that which is not used for processing. The vacant portion is assessed at 3.5 percent to 5 percent of capital value. The portion used for processing is assessed at 6 to 7 rupees per 100 square feet depending on the nature and location of the activity, and the nonprocessing sections at about 1 rupee less than the processing sections. The latter two components are reassessed approximately every five years. Vacant land, in general, is assessed at 3.5 percent to 5 percent of capital value, the latter being derived on a basis of comparative sales.

12.   Properties which are legally exempt from the property tax
include churches and other places of worship, central and state government
properties, and properties of the port trust, the railways, and BEST. How-
ever, all but places of worship and churches make a payment in lieu of
property taxes which is negotiated on a basis of some fraction of annual
value. Vacant lands owned by the government are not assessed until they
are beneficially occupied.

   (2) Tax base--composition and growth

13.   As noted above, one effect of the Rent Control Ordinance is
to reduce the responsiveness of the property tax base to changes in in-
come. As may be seen from column (5) of Table 4, the average annual rate
of growth in total ratable value is approximately 10 percent. Shown for
the 1965-70 period (see Table 3), this rise represents some increase in per
capita ratable value. but it is doubtful if there has been any improvement
in real terms. In fact, if these data are adjusted with the Maharashtra
urban retail price index, the trend in ratable value is one of decline--by
an average annual rate of 1.5 percent. Morever, as a percentage of total
income, ratable value has declined consistently over the past five years.

14.   A crude estimate of the income elasticity of the property tax
base for the 1961-70 period shows a coefficient of about 0.5 percent, i.e.,
on the average, each 1 percent increase in income was associated with a
0.5 percent increase in ratable value. 1/ This inelastic response is
underlined by the Bombay Municipal Corporation's authorities estimate that
no more than 10 percent of the annual increase in ratable value is due to
new construction.

15.   Table 4 also depicts intraregional disparities in the growth
rates of ratable value which are predictable in light of rent controls,
the shortage of central city building sites, and the considerably higher
rate of population growth in the suburban areas. Ratable value in the

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1/ This elasticity was assumed constant with respect to income, and
    estimated by least squares from

        lnR = 1.2650 + 0.5322 lnY

    where R = ratable value
          Y = income

suburban and extended suburban areas grew at a greater rate than did ratable value in Bombay city. Examination of the data in Table 5 gives some indication of the nature of relative changes in the composition of the base in city and suburban areas. The city area's percentage of total assessed properties has declined, while its proportion of exempted properties has risen to a current level of over 50 percent 1/ The number of newly assessed properties in Greater Bombay has remained approximately constant since 1965 as has the city area's annual share of newly assessed properties, at about 30 percent.

1/ Much of the increase in the city's share of exempt properties came between 1967 and 1968 when the number rose from 1,864 to 3,537, while the number in the suburban areas remained approximately constant. Not available here is either an explanation for this increase or an estimate of the total ratable value of the exempted properties.

Table 4. Bombay Municipal Corporation: Aggregate
Ratable Value of Properties

(In lakhs of rupees)

Year (1)	"City" (2)	Suburbs (3)	Extended Suburbs (4)	Municipality Total (5)
1945	16,01			
1946	16,72			
1947	17,14			
1948	17,79			
1949	19,48			
1950	20,17			
1951	20,35	1,67		
1952	21,01	2,91		
1953	21,99	3,05		
1954	23,44	3,49		
1955	24,98	4,53		
1956	25,21	4,97		
1957	25,74	4,85		
1958	26,64	5,24	1,53	33,41
1959	27,78	5,88	1,74	35,41
1960	28,93	6,50	1,99	37,42
1961	30,61	7,53	2,30	40,44
1962	31,63	8,18	,47	42,28
1963	32,78	9,12	2,72	44,62
1964	34,20	10,31	3,08	47,58
1965	35,90	12,11	3,78	51,79
1966	37,03	13,37	4,22	54,62
1967	38,86	15,10	4,85	58,81
1968	41,32	16,73	5,46	63,51
1969	43,14	17,58	7,27	67,99
1970	46,20	18,65	4,75	69,61
Compound growth rate[1/]	4.20	11.90	--	--
Compound growth rate for 1958-70 period[1/]	10.45	11.18	11.27	10.65

[1/] Computed from least squares estimates of

$$\ln R = \alpha + \beta t + \varepsilon$$

where R = ratable value
t = time

Sources: Administration Report(s) of the Municipal Commissioner for
Greater Bombay, for the year(s) 1964-65 to 1968-69.

Annual Accounts, Bombay Municipal Corporation (City, Suburbs,
Extended Suburbs, and Education Fund), for the same years.

Information supplied by Bombay Municipal Corporation authorities.

Table 5. Bombay: Taxable Properties: Selected Characteristics

Year	Total Properties				Exempted				Newly Assessed				Enlarged				Demolished			
	City	Suburbs	Extended Suburbs	Total Number	City	Suburbs	Extended Suburbs	Total Number	City	Suburbs	Extended Suburbs	Total Number	City	Suburbs	Extended Suburbs	Total Number	City	Suburbs	Extended Suburbs	N
	(Per cent distribution)				(Per cent Distribution)				(Per cent Distribution)				(Per cent Distribution)				(Per cent Distribution)			
1968-69	41.94	37.73	20.33	1,92,080	52.58	32.72	14.70	6,740	28.00	41.16	30.84	7,974	23.32	45.37	31.03	3,859	47.98	28.96	23.05	
1967-68	42.33	40.04	17.63	1,85,824	51.08	34.99	13.92	6,924	25.95	56.97	17.08	7,629	17.58	59.96	22.46	4,973	56.00	31.23	12.77	1
1966-67	43.28	39.14	17.58	1,78,993	35.81	45.92	18.27	5,205	26.92	52.44	20.64	7,479	6.52	66.17	27.31	5,306	64.85	16.95	18.20	1
1965-66	43.54	38.77	17.69	1,64,530	33.38	47.49	19.13	4,788	38.72	42.14	19.14	8,213	11.13	63.74	25.14	5,438	71.27	19.36	9.38	1

Sources: Administration Report(s) of the Municipal Commissioner for Greater Bombay, for the year(s) 1964-65 to 1968-69.

Annual Accounts, Bombay Municipal Corporation (City, Suburbs, Extended Suburbs, and Education Fund), for the same years.

The number of properties enlarged has declined over this period, and the share of enlargements in the city area has increased, though of all properties enlarged, less than 25 percent are in the city area. Finally, of all properties demolished in Greater Bombay, over half have generally been in the city area, though this proportion has been declining.

16.   These data describe in terms of number of properties, a general picture of greater suburban than central city growth in the property tax base. In terms of ratable value per property assessed, Table 6 shows that the city area increased by a greater absolute amount than the suburbs, a lesser absolute amount than the extended suburbs, and by a smaller relative amount than either suburban area. These data also show a markedly greater per unit ratable value in the city area than in either suburban area.

Table 6.   Bombay: Ratable Value Per Property Assessed

Year	City	Suburbs	Extended Suburbs
1969-70	5,494	2,476	1,971
1968-69	5,356	2,341	1,861
1967-68	5,254	2,248	1,667
1966-67	5,016	2,155	1,541
1965-66	5,168	2,225	1,407

17.   Finally, the components of city and suburban property tax base growth may be analyzed by examining time changes in the number of properties located in different ratable value brackets. Such a breakdown is presented for the years 1965 and 1969 in Table 7. Between the two years, the city area shows the largest increase in the number of properties in the lowest ratable value class (below Rs 200) and also relatively larger increases ir the higher ratable value classes. In the middle range of ratable values, the city area is characterized by relatively low percentage increases, and in some cases even declines. Thus, the growth in the property tax base of the city area is very much attributable to the extreme ratable value classes. In the case of the suburbs, the source of increase in the property tax base is more evenly distributed among properties with differing ratable values.

18.   In summary, this description of the composition and growth of the property tax base indicates that: (a) the growth in ratable value is income inelastic, (b) this inelasticity is rooted in the restraining effects of rent controls on both central city rental levels and central city redevelopment, (c) though the level of ratable value in the suburban areas is

Table 7. Bombay: Classification of Properties According to Ratable Value

(Number of properties)

Ratable Value	1965			1969			Absolute Increase			Per Cent Increase		
	City	Suburbs	Total	City	Suburbs	Total	City	Suburbs	Total	City	Suburbs	Total
Below 200	18910	25293	44203	28393	30133	58526	9483	4840	14323	50.15	19.14	32.40
201-300	2828	10955	13 3	2708	13463	16171	-120	2508	2388	-4.24	22.89	17.33
301-400	2734	9188	11 2	2743	11703	14446	9	2515	2524	0.33	27.37	21.17
401-500	2402	6860	9262	2554	8699	11253	152	1839	1991	6.33	26.81	21.50
501-750	3772	8300	12072	3916	9228	13144	144	928	1072	3.82	11.18	8.88
751-1000	3047	6376	9423	3319	7910	11229	272	1534	1806	8.93	24.06	19.17
1001-1500	4223	6598	10821	4262	7953	12215	39	1355	1394	0.92	20.54	12.88
1501-2000	3537	5098	8635	3472	6595	10067	65	1497	1432	1.84	29.36	16.58
2001-5000	9762	6715	16477	9915	6718	16633	153	3	156	1.57	0.05	0.95
5001-10000	6503	2370	8873	6833	4142	10975	330	1772	2103	5.07	74.77	23.69
10001-20000	3693	905	4598	3955	2882	6837	-811	1977	2239	-21.96	218.45	48.70
20001-30000	1111	256	1367	1307	1070	2377	-41	814	1010	-3.69	317.97	73.88
30001-40000	524	118	642	652	409	1061	128	291	419	24.43	246.61	65.26
40001-50000	364	78	442	503	258	761	139	180	319	38.19	230.77	72.17
50001-1,00,000	472	83	555	696	219	915	224	136	360	47.46	163.86	64.86
1,00,001-1,50,000	189	37	226	302	88	390	113	51	164	59.79	137.84	72.57
1,50,001-2,00,000	100	6	106	139	46	185	39	40	79	39.00	666.67	74.53
2,00,001-2,50,000	62	...	62	88	6	94	26	6	32	41.94	...	51.61
2,50,001-3,00,000	38	2	40	65	2	67	27	--	27	71.05	--	67.50
3,00,001-3,50,000	22	1	23	43	2	45	21	1	22	95.45	100.00	95.65
3,50,001 and up	44	3	47	83	3	86	39	--	39	88.64	--	82.98
	64337	89242	153579	75948	111529	187477	11611	22287	33898	18.05	24.97	22.07

Sources: Administration Report(s) of the Municipal Commissioner for Greater Bombay, for the year(s) 1964-65 to 1968-69.

Annual Accounts, Bombay Municipal Corporation (City, Suburbs, Extended Suburbs, and Education Fund), for the same years.

apparently more responsive to economic growth than is that of the city, the relative magnitude of ratable value in the city area swamps that of the suburbs, and (d) while the sources of ratable value growth in the suburbs is fairly evenly distributed among properties of different values, that in the city is concentrated in the very low ratable value and very high ratable value classes.

(3) Tax rates

19. Depending on the location, condition, and ratable value of a property, as many as six separate taxes are applied to the ratable value base described above. The first is a general purpose rate and is levied on all rated properties at 24.75 percent. In addition, there is a water rate on nonmetered properties (4.5 percent) and a halalkhor tax of 3.5 percent. 1/ A primary education cess is levied by the Bombay Municipal Corporation on a graduated scale: 2 percent for ratable values between Rs 75 and Rs 299; 2.5 percent for ratable values greater than Rs 300; and no tax for properties with ratable values below Rs 75. Government properties are exempt from the education cess. Over and above the Bombay Municipal Corporation's levy is an education cess of the Maharashtra State Government with a rate of 2 percent on ratable values between Rs 75 and Rs 300 and 2.5 percent on ratable values above Rs 300. Again, properties with ratable values below Rs 75, and government properties are exempt. Then, the total nominal rate varies with ratable values from 32.75 percent to 37.75 percent (see Table 8). In addition, there is a state government special assessment which is levied on city area properties for rehabilitation purposes. The rate is differential according to the age of the property. This cess, levied by the Building Repairs and Reconstruction Board, is discussed below.

20. The rates described above are not applicable to vacant, unutilized land or to government properties. Privately owned vacant land is subject only to the general purpose rate of 24.75 percent, and two-thirds of this is rebated on grounds that no current annual rent receipts are accruing to the owner, leaving a nominal rate of 8.25 percent. Government-owned vacant lands are exempt. Other government properties are technically exempt from the property tax, but negotiate with the Bombay Municipal Corporation, a payment in lieu of some fraction of the general purpose rate. On this basis, the central and state governments, and and railways are to pay 80 percent of r.e general rate on ratable value, while the port trust is to pay 90 percent. However, examination of actual payments in lieu as a percentage of total tax assessed, shows that the railways remit an amount far less than 80 percent (see Table 9). There are at least two consequences of this

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1/ Halalkhor service is directed to the collection, removal, and disposal of all increments and polluted matters from privies, cesspools, etc., and the maintenance of drains. Certain properties, which provide their own service, are exempt from this levy.

Table 8. Greater Bombay: Statutory Property Tax Rates

Type of Levy	Ratable Value		
	Under 75	75-299	Over 299
	----------In rupees---------		
General purpose	24.75	24.75	24.75
Water	4.50	4.50	4.50
Halalkhor	3.50	3.50	3.50
Bombay Municipal Corporation education cess	--	2.00	2.50
Total BMC rate	32.75	34.75	35.25
State education cess	--	2.00	2.50
Total rate	32.75	36.75	37.75

Source: Information supplied by the Bombay Municipal Corporation authorities.

Table 9.   Bombay Municipal Corporation: Taxes Assessed and Taxes Collected
in Respect of Government, Railways, and Bombay Port Trust Properties.

	Property tax Assessed	Property tax Collected	Per Cent Collected
1964-65			
Government	54,13,101.09	39,40,323.96	72.8
Railways	23,56,081.95	11,21,801.15	47.6
B.P.T.	60,85,926.98	55,49,851.02	91.2
	1,38,55,110.02	1,06,11,976.13	76.6
1965-66			
Government	49,63,382.19	40,93,433.46	82.5
Railways	23,24,926.12	11,11,220.48	47.8
B.P.T.	64,05,571.82	59,12,811.41	92.3
	1,36,93,880.13	1,11,17,465.35	81.2
1966-67			
Government	48,39,991.16	30,59,808.54	63.2
Railways	21,66,600.51	9,67,034.30	44.6
B.P.T.	68,35,313.93	64,23,398.87	94.0
	1,38,41,905.60	1,04,50,241.71	75.5
1967-68			
Government	49,78,018.85	41,9',914.62	84.3
Railways	21,58,607.08	12,49,073.35	57.9
B.P.T.	63,80,877.99	57,86,218.91	90.7
	1,35,17,503.92	1,1?,32,206.89	83.1
1968-69			
Government	57,06,530.90	50,47,4?3.65	88.5
Railways	28,60,842.65	16,27,4'4.22	56.9
B.P.T.	59,44,406.68	58,23,127.52	98.0
	1,45,11,780.23	1,24,93,075.39	86.1
1969-70			
Government	65,73,047.38	45,93,322.31	69.9
Railways	22,24,231.90	7,45,779.53	33.5
B.P.T.	61,88,822.82	59,94,055.94	96.9
	1,49,86,102.10	1,13,33,157.78	75.6

Source: Bombay Municipal Corporation, **Office of the Assessor and Collector**.

practice of making a payment in lieu which is less than actual assessment. One is the reduced level of property tax revenues and the ensuing opportunity cost of some amount of public services foregone. The second is that the existence of a difference between the assessed and negotiated tax is in effect a reduction in the cost of utilizing a particular property. In such a case, full taxation would work in the direction of increasing the relative attractiveness of suburban vs. city area property. Good examples of the real costs of this "tax incentive" to government may well be the incremental public service costs generated by rail yards and government office buildings located in the core city area.

(4) Property tax revenues--growth

21.   On a per capita basis, property tax revenues have increased, on the average, by about 2 lakhs per year (see Table 3). Hence, there has been little real increase. 1/ As a percentage of income, property tax revenues have declined over the period since 1965. The income elasticity of property tax revenues during this six-year period is about 0.8 percent, i.e., each 1 percent increase in income is associated with, on the average, a 0.85 percent increase in property tax revenues. 2/ This inelasticity may be traced to the inelastic response of the ratable value base (see section) (2) above).

22.   Since the base elasticity is 0.5 percent and the over-all elasticity is 0.8 percent, it follows that the rate elasticity must be greater than unity, i.e., a 1 percent increase in ratable value brings about a greater than 1 percent increase in property tax collections. One possibility for examining the rate component is to construct a time series of the effective tax rate, i.e., of the ratio of property tax collections to ratable value. As may be noted from Table 10, the effective rate of property taxation has been rising since 1965. There are at least three possible explanations of such increases: (a) increases in administrative efficiency and enforcement procedures, (b) elimination or reduction of incentives, preferential assessments or exemptions, and (c) an increase in the total ratable value of properties subject to higher property tax rates. Each of the three contributed to the rising effective rate in this case.

23.   Note, however, that while the statutory rate structure described in Table 8 suggests that property tax revenues will be somewhere between 32.75 percent and 35.25 percent of total ratable value, the effective property tax rates shown in Table 10 reveal a much lower figure. The

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1/   Adjustment of 1965-69 property tax revenues by the Maharashtra urban price index, shows an average annual increment of 3.6 percent per year.

2/   Estimated from

   lnR = 2.39 + 0.85 lnY
where   R = property tax revenues
        Y = income

difference between the computed effective rate and the nominal rate may be
attributed to factors such as those described above, and the revenues fore-
gone may be viewed as the opportunity cost of such concessions. The appli-
cation of an effective rate of 35 percent in 1969-70 would have increased
property tax revenues by 10 percent. However, the major significance of
the difference between nominal and effective rates in this case is that it
is not that large, and the experience of the recent past suggests that the
two rates will converge even more. Hence the elasticity attributable to
"rate" will be reduced in the future, and the over-all income elasticity of
property tax revenues will approach the income elasticity of ratable value.
The implication is that the Bombay Municipal Corporation will face a set of
expenditure demands which are rising at least in proportion to income, with
a major source of revenue which is not.

Table 10. Bombay Municipal Corporation: Growth in
Property Tax Revenues with Respect to Ratable Value

Year	Total Property Tax Revenues	Total Ratable Value	Effective Tax Rate (In Percent)
1965	13.01	51.79	25.12
1966	14.27	54.62	26.13
1967	15.90	58.81	27.04
1968	16.77	63.51	26.41
1969	19.93	67.99	29.31
1970	21.76	69.61	31.26

24.   Finally, some intercity comparisons of the intensity of use of
the property tax could be inferred from the levels of effective rates if
comparable statistics were available. Because of the paucity of research
on the subject of interurban financing patterns, there are not sufficient
data for such a comparison. But, for example, statistics on Singapore's
tax structure show a ratio of property tax collections (excluding contribu-
tions in lieu) to annual value which averages 35.3 percent for the 1967-68
period. This is substantially higher than the Bombay Municipal Corporation's
effective rate during that period.

d.   Octroi

25.   Second in importance to the property tax as a revenue producer
for the Bombay Municipal Corporation is the octroi. The octroi is collected
on goods entering Bombay for final consumption, and is levied as ad valorem
or on a basis of weight. Raw materials, to be used in the production of

exports, are exempt. It is collected from trucks at one of three posts
situated on roads leading into the city, and at the railway depot, sea docks,
and airport. It is also collected, on a specific basis, on oil entering
Bombay via the pipeline.

The rate schedule is extremely complicated with separate rates specified
for each of over 60 classes of goods. As may be seen from Table 11, the
octroi has grown substantially since 1965-66 both in absolute terms and
as a percentage of total revenue. It is however not possible to make any
judgments about the income elasticity of octroi, partly because of recent
discretionary rate adjustments.

26.   There is widespread criticism of the octroi on both efficiency
and equity grounds. Most of the dissatisfaction stems from the method of
assessment, which is particularly cumbersome for road transport. The
vehicle must stop at a checkpost on the outskirts of Bombay where the
driver declares the value and composition of the shipment. If the clerk
is satisfied, assessment is made on a basis of that declaration, and the
tax is collected from the driver. Where the contents of the truck are of
the same type and consigned to one person, the assessment process may be
simple and quick. Alternatively, if there are several consignees or if
the shipment contains different kinds of goods, the detention time is
longer. This time is compounded in larger cities by the generally heavier
flow of traffic. The real cost of such time delays is the higher price of
goods which consumers may ultimately pay. Evaluation of octroi does not
require matching this cost against collections, but rather determining
whether another form of tax would impose less social cost.

27.   There are also more traditional public finance objections to
octroi. The rate structure, in including necessities, is regressive, at
least by comparison with the state sales tax. The very nature of the
assessment process suggests that collection costs must be high. Moreover,
possibilities for evasion and corruption may be relatively greater with
Octroi than with some other form of sales tax. 1/ The over-all revenue
increase since 1966 (see Table 11) is due primarily to the steady growth
in receipts from road traffic and to collections on oil minerals.

e.   Wheel and theatre tax

28.   The remainder of Bombay Municipal Corporation's tax revenues is
accounted for by two minor levies--the wheel tax and the theatre tax. The
Bombay Municipal Corporation is authorized to impose a tax on vehicles at

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1/   Disillusionment with Octroi is not new. It has been the subject of
criticism in the reports of The Indian Taxation Enquiry Committee, 1924-25;
Motor Vehicle Taxation Enquiry Committee, 1950; Taxation Enquiry Committee,
1953-54; State Transport Reorganization Committee, 1959; Committee of
Ministers on Augmentation of Financial Resources of Urban Local Bodies,
1965; Committee on Transport Policy and Coordination, 1966; and The Rural-
Urban Relationship Committee, 1966.

Table 11. Octroi Collections by Bombay Municipal
Corporation: Through Docks,[1] Railways,[2] Roads,[3]
Head Office, and From Oil Companies

(In lakhs of rupees)

Route	1965-66	1967	1968	1969	1970
Gross total	7,37	11,91	11,10	1.,63	14,25
Less refunds	64	1,26	1,34	1,58	1,84
Net total	6,73	10,65	9,76	10,04	12,40

Percentage Distribution of Gross Total

Docks	.24	.11	.21	.14	.13
Railways	.29	.20	.23	.22	.21
Roads	.46	.34	.39	.45	.51
Mineral oils[4]	...	.33	.15	.18	.14
Head office	.01	.02	.02	.01	.01

[1] Including BDRS.
[2] Central, Western, and BPT
[3] Mulund and Dahesar stations.
[4] Represents collection of mineral oils for 1965-66 and 1966-67.

Source: Bombay Municipal Corporation, Office of the Assessor and
Collector.

levels ranging from Rs 140 to Rs 340 per year, depending on the empty weight of the vehicle. The owner of the vehicle is liable for payment of the tax. As may be seen from Table 12, the growth in wheel tax revenues, and the bulk of collections, are centered in the city area. It may also be noted from Table 12 that enforcement of the wheel tax apparently is lax, with collections lagging well belc 40 percent of total assessment. Relatively, the collection deficiency is most severe in the surburban areas. The collection problem with the wheel tax stems primarily from problems associated with keeping current records on vehicle ownership and with the absence of a scheme to adequately detect delinquent taxpayers on the roads. The relatively low elasticity of the wheel tax also reflects this laxity in enforcement as evidenced by a 10 percent revenue increase compared with a 50 percent increase in the number of vehicles over the 1965-70 period.

29.   The Bombay Municipal Corporation also levies a tax on theater admissions at a rate of Rx 10 for first-run theaters and Rs 7 for most others. The yield from this revenue source is minor, i.e., less than one half of 1 percent of total tax receipts.

f.   Nontax revenues

30.   Nontax revenues account for less than 30 percent of total receipts of the BMC, and have been declining in recent years (see Table 1). By far the largest share of nontax income is attributable to rents received from Improvement Scheme properties. Of the remainder, a substantial amount is due to interest earnings of surplus funds and revenues from licenses—the latter primarily from permits, for dangerous and offensive trades and for street hawkers. Note that though market rents and tolls are levied at rates that more than cover the expenses of the market undertaking, the water and BEST undertakings are moving away from making a positive contribution to the BMC budget (see Table 1 and the appropriate discussions in the main report).

g.   Expenditure structure and growth

    (1) Current expenditures

31.   The trend and structure of current expenditures by the Bombay Municipal Corporation (excludir; expenditure of funds raised directly for education)1/ are shown in Tables 13 and 14. On a per capita basis, current spending by the Bombay Municipal Corporation has increased markedly over the 1961-69 period (see Table 13),2/ but as a percentage of income has remained approximately constant.

1/   Education expenditures, other than those financed from the general fund transfer, are not shown because of the absence of adequate time series data. These education expenditures are presented for a shorter time period in Table 15.

2/   When adjusted for the Maharashtra urban price index, as above, there is almost no increase at all.

Table 12. Bombay Municipal Corporation: Comparative Figures of Assessment and Collection of the Wheel Tax of City, Suburbs, and Extended Suburbs

Item	1965-66	1966-67	1967-68	1968-69	1969-70
Number of vehicles	65,943	73,146	75,930	87,969	95,900
Net demand					
City	1,89,15,858	2,02,90,856	2,07,55,228	2,18,67,036	2,34,42,064
Suburbs	46,32,011	52,31,939	57,92,297	57,62,636	64,57,211
Extended suburbs	7,73,866	8,16,913	9,56,814	11,22,686	12,66,160
Total	2,43,21,735	2,63,39,708	2,75,04,339	2,87,52,358	3,11,65,435
Collection					
City	76,22,798	74,93,443	79,58,746	86,12,105	84,77,823
Suburbs	11,80,192	11,08,505	11,87,655	17,70,565	15,48,503
Extended suburbs	2,32,926	2,22,009	2,36,305	3,81,807	3,52,123
Total	90,35,916	88,23,957	93,82,706	1,07,64,477	1,03,78,449
Percentage of collection to net demand					
City	40.30	36.96	38.34	39.38	36.17
Suburbs	24.32	21.19	20.51	30.72	24.00
Extended suburbs	31.03	27.18	24.70	36.95	27.81
Average percentage	37.07	33.50	34.01	36.90	33.25

Source: Bombay Municipal Corporation, Office of the Assessor and Collector.

Table 13. Bombay Municipal Corporation:
Selected Expenditure Trends

Year	TOTAL Current Expenditures		TOTAL Capital Expenditures		TOTAL Expenditures	
	Per capita	As a percent of income	Per capita	As a percent of income	Per capita	As a percent of income
1965	52	3.67	15	1.08	68	4.76
1966	61	3.96	20	1.32	81	5.28
1967	66	3.92	25	1.51	91	5.43
1968	74	4.02	31	1.72	105	5.75
1969	74	3.74	19	1.01	93	4.75
1970	82	3.83	16	1.26	98	4.58

Sources: Administration Report(s) of the Municipal Commissioner for
Greater Bombay, for the year(s) 1964-65 to 1968-69.

Annual Accounts, Bombay Municipal Corporation (City, Suburbs,
Extended Suburbs, and Education Fund), for the same years.

Table 14. Bombay Municipal Corporation: Current Expenditures[1]

(In lakhs of rupees)

Year	Water Maintenance	Water Debt Charges	Primary Education[2]	Medical Relief	Other City Services	Debt Charges Excluding Water Works	Total
1961	1,41	2,33	1,51	2,00	7,05	1,51	15,84
1962	1,53	3,41	2,13	1.97	7,85	1,75	18,66
1963	2,04	3,36	2,33	2,10	8,34	2,62	20,81
1964	2,14	3,78	2,63	2,45	9,42	3,03	23,47
1965	2,06	3,29	2,88	2,76	9,70	3,09	23,79
1966	2,35	3,70	3,27	3,68	12,78	3,38	29,18
1967	2,63	3,69	4,60	4,11	14,65	3,06	32,76
1968	3,16	3,41	5,90	5,06	16,50	4,07	38,13
1969	3,13	4,70	5,99	5,19	16,80	3,96	39,80
1970	3,95	5,40	6,04	6,34	20,12	4,37	46,24

Percentage Distribution

Year	Water		Primary Education[2]	Medical Relief	Other City Services	Debt Charges Excluding Water Works	Total
1961	------23.70-----		9.54	12.68	44.51	9.55	
1962	------26.52-----		11.41	10.57	42 09	9.38	
1963	------26.01-----		11.19	10.11	40.10	12.57	
1964	------25.27-----		11.21	10.44	40.13	12.92	
1965	------22.51-----		12.08	11.60	40.80	12.99	
1966	------20.74-----		11.20	12.63	43.81	11.59	
1967	------19.32-----		14.05	12.55	44.73	9 34	
1968	------17.26-----		15.47	13.28	43.29	10.67	
1969	------19.69-----		15.06	13.05	42.22	9.95	
1970	------19.67-----		13.06	13.71	43.51	9.45	

1/ Excluding improvement and education funds.
2/ Includes only Bombay Municipal Corporation's contribution to education fund.

Sources: Administration Report(s) of the Municipal Commissioner for
Greater Bombay, for the year(s) 1964-65 to 1968-69.
Annual Accounts, Bombay Municipal Corporation (City, Suburbs,
Extended Suburbs, and Education Fund), for the same years.

32.   Over the nine-year period, beginning 1961, primary education
has increased substantially as a percentage of total current expenditures,
and as a percentage of total claims on the general revenues of the BMC.
With respect to the latter, contributions by the Bombay Municipal Corpora-
tion to the education fund constituted only 9.54 percent of current expend-
itures in 1961, but by 1969 had risen to 15.06 percent. As may be seen
from Table 15, the greater requirement for general municipal funds was
occasioned by the relative inelasticity of the Bombay Municipal Corporatio.
education fund surcharge on ratable value and by the failure of state gov-
ernment assistance to grow in proportion to education expenditure needs.
Note from Table 15 that the state contribution fell from 15 percent to 9
percent of total finances over the 1965-70 period. While it is difficult
to measure the productivity of public education expenditures, data for a
five-year period presented in Table 16 show that the increase in expenditures
per student was accompanied by an increase in student enrollments and a
slight decline in the student-teacher ratio.

33.   The increase in fiscal emphasis on the education function has
been accomplished at the expense of a declining relative share of the budget
being devoted to water supply. Over the 1961-70 period, expenditures for
water supply declined as a percentage of Bombay Municipal Corporation's
spending from 23.7 percent to 19.7 percent. Though time changes in either
the quality of water services or the unit costs of providing any given
quality of service are, to say the least, difficult to measure, the average
daily quantity of water provided, per rupee of expenditure, declined (see
Table 16) If the trends shown in Table 16 do not give any information
as to the temporal behavior of the quality of water services, they may
partially reflect the effects of rising prices on the cost of providing
water supply. On the financing side, declining budget emphasis on the
water supply function may reflect only an inadequacy of meter rates to
recover costs. First, metered rates may well be of an inadequate level.
Moreover, though there is a municipal government policy to meter all water
supplies, a substantial amount of water charges are still made on a basis
of ratable value (see Table 17). If it would be difficult to justify
ratable value as a proper proxy for water benefits received under normal
circumstances, it would be next to impossible to provide such justification
where rent controls are operative.

34.   In the public health (medical relief) sector, both the absolute
and the relative am int spent increased over the period in question. Simul-
taneously, there has been an increase in the total number of hospital beds
and the total number of in-patients served.

   (2) Capital expenditures

35.   Because capital expenditures for particular functions may reflect
the "lumpiness" of such investments, the six-year trend in the level and
the composition of capital expenditures which is presented in Table 18 must
be interpreted with some caution. However, these data do show a reversal
in the trend of increase in total capital spending, with absolute declines
in the fiscal years 1968-69 and 1969-70. A similar pattern is observable

Table 15. Bombay Municipal Corporation: Financing Primary Education

(**In lakhs of rupees**)

	1965	1966	1967	1968	1969	1970
Education cess	88	98	1,03	94	1,43	1,51
Contribution from municipal account	2,88	3,27	4,60	5,90	5,99	6,03
State grant-in-aid	68	62	63	81	72	74
Other	8	10	6	8	5	7
Total	4,52	4,97	6,32	7,73	8,19	8,3⁵

Percentage Distribution

	1965	1966	1967	1968	1969	1970
Education cess	.19	.20	.1F	.12	.17	.18
Contribution from municipal account	.64	.66	.73	.76	.73	.72
State grant-in-aid	.15	.12	.10	.1C	.09	.09
Other	.02	.02	.01	.01	.01	.01

Sources: Administration Report(s) of the Municipal Commissioner for Greater Bombay, for the year(s) 1964-65 to 1968-69.

Annual Accounts, Bombay Municipal Corporation (City, Suburbs, Extended Suburbs, and Education Fund), for the same years.

Table 16. Bombay: Selected Indicators of Public Service Levels

Year	Water			Primary Education			Health		
	Per Cent of Samples Free From Chloroform Bacteria	Average Quantity of Water Per Day (Millions of Gallons)	Gallons Per Day Per Rupee of Expenditure on Water	Number of Students	Student-Teacher Ratio	Per Student Primary Education Expenditure	Hospital Beds	In-Patient	Medical Relief Expenditure Per In-Patient
1965	91.6	204.33	3.82	4,34,535	37.18	104	1949	1,18,840	232
1966	95.5	214.75	3.55	4,50,114	37.10	110	2024	1,17,991	312
1967	91.8	201.91	3.19	4,74,468	35.17	133	2024	94,235	436
1968	90.7	198.36	3.17	4,81,211	34.63	160	2090	1,20,903	419
1969	87.2	208.67	2.67	4,91,332	35.35	166	2130	1,28,509	396

Sources: Administration Report(s) of the Municipal Commissioner for Greater Bombay, for the year(s) 1964-65 to 1968-69.

Annual Accounts, Bombay Municipal Corporation (City, Suburbs, Extended Suburbs, and Education Fund), for the same years.

Table 17. Bombay Municipal Corporation; Water Charges Collected
by Metering and on a Value Basis, 1965-70

Year	Collections on Value Basis	Collections by Meter
1965-66	63,25,485	3,12,73,514
1966-67	65,97,460	2,88,32,631
1967-68	69,92,359	2,01,41,952
1968-69	73,27,389	2,75,68,820
1969-70	75,43,912	3,22,05,338

Source: Data supplied by Bombay Municipal Corporation authorities.

Table 18. Bombay Municipal Corporation:[1]/
Capital Expenditures, 1965-70

(In thousands of rupees)

	1965	1966	1967	1968	1969	1970
General control	11,17	23,83	22,95	27,59	27,83	13,65
Water works	2,34,70	6,08,74	7,95,56	9,03,02	4,59,34	4,18,27
Health and education	1,34,71	1,04,81	82,99	2,00,86	1,10,89	1,31,18
Sanitation	74,24	52,07	47,09	74,53	69,75	65,84
Roads, sewers, and street lights	1,76,59	86,63	2,00,62	2,99,64	2,83,05	1,83,69
Urban development	39,72	69,90	77,28	65,54	29,58	1,52
Other	82,01	84,06	1,06,70	1,46,73	1,46,42	1,34,35
Total	7,53,14	10,30,04	13,33,32	17,17,91	11,26,86	9,48,50
Percentage Distribution						
General control	1.48	2.31	1.72	1.60	2.46	1.43
Water works	31.16	59.09	59.66	52.56	40.76	44.09
Health and education	17.88	10.17	6.22	11.69	9.84	13.83
Sanitation	9.85	5.05	3.53	4.33	6.18	6.94
Roads, sewers, and street lights	23.44	8.41	15.04	17.44	25.11	19.36
Urban development	5.27	6.78	5.79	3.81	2.62	--
Other	10.88	8.16	8.00	8.54	12.99	14.16

1/ Including the improvement trust fund and education fund.

Sources: Administration Report(s) of the Municipal Commissioner for
Greater Bombay, for the year(s) 1964-65 to 1968-69.

Annual Accounts, Bombay Municipal Corporation (City, Suburbs,
Extended Suburbs, and Education Fund), for the same years.

for capital expenditures expressed on a per capita basis and as a percent of
income (see Table 13). These data also show clearly that the capital spend-
ing activities of the BMC have been closely tied to water supply and road-
sewer-street light activities.

36.   Since current surpluses and capital receipts other than loan
proceeds have been relatively small, capital expenditures of the BMC have
been financed primarily through borrowing. Currently, there are three
sources of loan funds for the BMC, two external and one internal. The
external loans are issued in conformity with the requirements of the
Reserve Bank of India and the Central Government. The great majority of
these loans are taken by banks and other institutional investors. They must
be raised at a prescribed interest rate and for a life of 12 years. The
present prescribed rate is well below the market rate, thereby providing a
form of central government subsidy to the BMC. The availability of subscrip-
tions to these loans is due to the requirement that banking institutions are
required to invest a prescribed proportion of their deposits in a narrow
range of prescribed public securities (those of the central, state, and the
BMC governments). The other external source available to the Municipal Corp-
oration is the Nationalized Life Insurance Corporation of India. These loans
are raised at a slightly higher, but still subsidized interest rate, and
sometimes carry a slightly longer maturity. Internal loans are generated
either by the investment of sinking funds or the investment of special funds.
They carry a 25-year maturity and interest at the currently prescribed rates
for public loans. Internal loans account for over half of total debt out-
standing.

37.   As may be seen from the data in Table 19, there has been a marked
tendency in the very recent past to rely less n internal sources, primarily
because of availability of funds from the Life Insurance Corporation of
India. Annual borrowing of the BMC has typically been in response to
fluctuations in capital expenditures (see Table 20), and accordingly the
pattern of total debt outstanding, presented in Table 21, shows a tapering
off of the level of debt financing. If total general revenues of the BMC
may be viewed in some sense as an indicator of the ability to repay debt,
the over-all "debt burden" has actually declined over the 1965-70 period
(see Table 20).

The Finances of the Maharashtra State Government

a.   Revenue growth and structure

38.   The Maharashtra state government has vastly greater taxing powers
than does the Bombay Municipal Corporation, therefore state government
revenues are nearly ten times greater. State revenues may be segmented
into "revenues from own sources" and revenues which are received as a part
of total central assistance, i.e., grants and shared taxes. Over the
1961-69 period, the percentage of total state revenues from own sources has
fallen, that is, there has been a secular increase in relative dependence

Table 19.   Bombay Municipal Corporation: Borrowing Activities,
1965-70

	TOTAL Capital Expenditures	TOTAL Borrowing	Sources of Loan Funds		
			Internal	Public Subscription	Life Insurance Corporation of India
1965	7,53,14	6,40,79	3,45,79	2,95,00	--
1966	10,30,04	10,21,91	6,71,98	3,49,93	--
1967	13,33,32	11,85,62	8,10,62	3,75,00	--
1968	17,17,91	14,85,28	9,59,34	3,25,94	2,00 00
1969	11,26,86	13,42,72	5,37,50	5,05,22	3,00,00
1970	9,48,50	14,53,39	44,91	8,08,48	6,00,00

Sources: Administration Report(s) of the Municipal Commissioner for
Greater Bombay, for the year(s) 1964-65 tc 1968-69.

Annual Accounts, Bombay Municipal Corporation (City, Suburbs,
Extended Suburbs, and Education Fund), for the same years.

Table 20.   Bombay Municipal Corporation: Over-All Fiscal Position

	1965	1966	1967	1968	1969	1970
TOTAL current revenues	25,78	32,30	38,31	38,93	43,02	48,30
TOTAL current expenditures	25,43	30,88	34,48	39,96	42,00	48,56
Current surplus/deficit	35	1,42	3,83	-1,03	1,02	-26
TOTAL capital expenditures	7,53	10,30	13,33	17,17	11,26	9,48
TOTAL noncurrent financing required	7,18	8,88	9,50	18,20	10,24	9,74
TOTAL borrowing	6,40	10,21	11,85	14,85	13,42	14,53
Other[1]	78	-1,33	-2,35	3,35	-3,18	-4,79

[1] Represents the net effect of transactions of the Suspense Account and other specific purpose accounts such as the Premia Fund, Equipment Fund, etc.

Sources: Administration Report(s) of the Municipal Commissioner for Greater Bombay, for the year(s) 1964-65 to 1968-69.

Annual Accounts, Bombay Municipal Corporation (City, Suburbs, Extended Suburbs, and Education Fund), for the same years.

Table 2i.   Bombay Municipal Corporation: Outstanding Debt

Year	TOTAL DEBT OUTSTANDING (In thousands of rupees)	Per Capita Debt Outstanding (In rupees)	Debt Outstanding as a Percent of TOTAL BMC Revenues
1965	69,84,77	144.34	2.71
1966	76,70,80	152.56	2.37
1967	84,53,19	161.81	2.20
1968	94,84,29	175.64	2.43
1969	1,05,91,62	187.79	2.39
1970	1,09,51,98	186.89	2.27

Sources: Administration Report(s) of the Municipal Commissioner for
Greater Bombay, for the year(s) 1964-65 to 1968-69.

Annual Accounts, Bombay Municipal Corporation (City, Suburbs,
Extended Suburbs, and Education Fund), for the same years.

on external sources of revenue (see Table 22). Both total revenues and revenues from own sources have increased on a per capita basis, largely because of increases in sales tax rates, and in the sales tax base over this period. 1/ Moreover, revenues raised from own sources have also increased as a percentage of income, a crude indication of rising revenue effort. The estimated income elasticity coefficient both for taxes from own sources and for total revenues is about 1.4, i.e., a 1 percent increase in income results in a 1.4 percent increase in tax revenues from own sources, and a 1.4 percent increase in total revenues. 2/ Hence, the state government tax structure has a base which is apparently responsive to over-all state income growth. However, it should be noted that these data have not been adjusted for discretionary actions, i.e., for tax revenue increments which have resulted from rate charges rather than from natural base increase.

39.   As of 1965 the state government was raising about Rs 48 in taxes from every Rs 1,000 in income, as compared with a national average of about Rs 43 (see Table 23). 3/ Only Tamil Nadu (5.37 percent) of income, Kerala (5.28 percent), and Andhra Pradesh (4.92 percent) did better. Moreover, since these comparisons do not include local government taxes, and since the Bombay Municipal Corporation's tax performance may be stronger than that of most other Indian cities, the over-all tax burden in Maharashtra a d therefore its relative position may be even better than that shown here.

40.   The sales tax is the single most important element in the Maharashtra state revenue structure, constituting about one third of all receipts (see Table 24). No other single revenue source accounts for more than 10 percent.

1/   However, the increase in real terms must have been considerably smaller. The all-India Index number of wholesale prices on a 1961-62 basis, had risen to 165.4 by 1969. Source: Office of the Economics Advisor, Ministry of Industrial Development, Internal Trade and Company Affairs, Government of India.

2/   As estimated with single equation least squares for the 1961-69 period. The results show

$$\ln T = -0.7358 + 1.425 \ln Y$$
$$\ln R = -0.4809 + 1.423 \ln Y$$

where   T = tax revenues from own sources
         R = total revenues
         Y = income

3/   These comparisons are taken from A. T. Eapen, "A Critique of Indian Fiscal Federalism," Public Finance, Vol. XXIV (1969), Table 1.

Table 22. Maharashtra State: Revenue Trends

Year	TOTAL Revenue	Revenues From Own Sources	Percentage From Own Sources	Per Capita Amounts		As a Percentage of Income	
				TOTAL Revenues	Revenues From Own Sources	TOTAL Revenue	Revenue From Own Sources
1961	11529	9133	79.2	294	232	7.2	5.72
1962	11677	9020	77.3	291	225	7.1	5.47
1963	14593	10747	73.6	355	261	8.1	5.93
1964	18361	14093	76.8	435	334	9.0	6.92
1965	19843	15128	76.3	458	349	8.9	6.68
1966	22147	16655	75.2	498	375	9.4	7.07
1967	26570	19479	73.3	584	428	9.6	7.06
1968	29314	21666	73.9	629	464	9.3	6.87
1969	336.3	24848	73.8	703	519	10.1	7.46

Sources: Financial Statement (Budget) of the Government of Maharashtra
for the year 1970-71.

Information on subsidiary points presented to the Fifth Finance
Commission (Government of Maharashtra Finance Department, 1968).

Information supplied by the Maharashtra State Government authori-
ties.

By comparison with other states, Maharashtra's tax ratio is also high.

Table 23. Comparisons of Tax Effort and Taxable Capacity
Among Indian States: 1965-66

State	Index of Fiscal Capacity Per Capita Income			Index of Tax Effort State Tax Collection per Rs 1000 of Income		
	Amount	Capacity Relative[1]/	Rank	Amount	Effort Relative[2]/	Rank
Maharashtra	574	140	1	4.82	112	4
West Bengal	567	139	2	4.23	98	9
Punjab	541	132	3	4.45	103	8
Gujarat	480	117	4	4.57	106	7
Tamil Nadu	426	104	5	5.37	125	1
Assam	401	98	6	3.98	93	11
Kerala	388	95	7	5.28	123	2
Mysore	377	92	8	4.72	110	6
Lammu and Kashmir	370	91	9	2.24	52	15
Uttar Pradesh	370	90	10	3.17	74	13
Andhra Pradesh	361	88	11	4.92	114	3
Madhya Pradesh	351	86	12	3.87	90	12
Orissa	343	84	13	2.98	69	14
Rajasthan	324	79	14	4.79	111	5
Bihar	274	67	15	4.03	94	10
Average	409			4.30		
Coefficient of variation[3]/	21.4			1.98		

Source: A. T. Eapen "A Critique of Indian Fiscal Federalism," Public Finance, Vol. XXIV (1969), Table 1.

1/ Ratio of per capita income for any given state to average per capita income.
2/ Ratio of tax effort index to average tax effort.
3/ Standard deviation as a per cent of the mean.

Table 24. Maharashtra State Government: The Composition of Current Revenues

(In crores of rupees)

Revenue	1965-66 Amount	1965-66 Per Cent	1968-69 Amount	1968-69 Per Cent	Revised Estimates 1969-70 Amount	Revised Estimates 1969-70 Per Cent	Budget Estimates 1970-71 Amount	Budget Estimates 1970-71 Per Cent
Income taxes other than corporate income	16.77	7.37	27.90	7.67	35.35	8.93	41.60	9.61
Estate duty	0.62	.27	0.62	0.17	0.63	0.16	0.66	0.15
Land Revenue	5.58	2.45	8.82	2.42	7.34	1.85	15.25	3.52
State excise duty	3.26	1.43	5.49	1.51	7.49	1.89	7.94	1.83
Taxes on vehicles	7.76	3.41	11.83	3.25	12.78	3.23	14.05	3.25
Sales tax	70.59	31.04	106.45	29.25	24.20	31.37	135.71	31.35
Other taxes and duties	25.89	11.39	43.16	11.86	48.40	12.22	53.59	12.38
Stamps	8.28	3.64	10.80	2.97	12.06	3.05	12.85	2.97
Registration fees	0.79	.35	1.05	0.29	1.12	0.28	1.23	0.28
State share of union excise duties	13.43	5.91	29.59	8.13	30.49	7.70	33.37	7.71
Grants-in-aid from central government	24.95	10.97	31.56	8.67	25.44	6.42	26.82	6.20
Interest	14.31	6.29	17.97	4.94	24.22	6.12	26.85	6.20
Medical charges	4.14	1.82			6.64	1.68	5.59	1.29
Agricultural charges	3.43	1.51	4.98	1.37	9.48	2.39	1.50	0.35
Electricity schemes	1.72	.76	25.42	6.99	7.26	1.83	9.11	2.10
Forest receipts	7.65	3.36	8.16	2.24	9.65	2.44	13.57	3.14
Other			30.10	8.27	33.41	8.44	33.13	7.65
Total revenue	2,27.39		3,63.90		2,95.96		4,32.82	

b.   Revenues from own sources

(1)   Sales Taxes

41.   The Maharashtra state sales tax is a composite system combining
three types of sales tax, i.e., Sales Tax, General Sales Tax, and Retail
Sales Tax. Sales Tax is levied at the first point of sale; General Sales
Tax Tax at the first sale to a retailer or consumer; and Retail Sales Tax
on sales by retailers.   Goods are grouped into five classes for purposes of
taxation. The schedules specify the rate at which each is subject to tax,
and the types of sales tax to which goods are subject. The variation in
treatment is from certain necessities which are totally exempt, to certain
luxuries which are subject to all three types of sales tax. The rate sched-
ule for Sales Tax and General Sales Taxes is complicated, while the Retail
Sales Tax is levied at a general rate of one-fourth of 1 percent on speci-
fied goods. Sales tax on goods in interstate trade is levied under the
Central Sales Tax Act, and receipts become part of the general fund of the
state. Motor spirits are taxed under a separate enactment.

42.   Total sales tax receipts have grown from an amount of Rs 24 crores
in 1960-61 to about Rs 124 crores in 1969-70. Though this growth far out-
strips that of income over the same period, and suggests a substantial rev-
enue-income elasticity of sales tax receipts, no precise estimate is pos-
sible because there have been substantial discretionary (base and rate) ad-
justments over this period.

(2)   Other revenues from own sources

43.   As noted above, the state revenue structure is diverse to an
extent that no other single source accounts for more than 10 percent of
total revenues (see Table 24). However, because of their particular rele-
vance to urban development in Bombay, it would seem useful to examine here
state government taxation of electricity undertakings, and motor vehicles.

44.   Two state taxes are levied on transactions involving electric
power. The first is an electricity duty on units of energy consumed by
different categories of users. Residential users in general pay a rate over
five times greater than that paid by industrial users, and residential users
in Bombay pay a higher rate than those residing in other parts of Maharashtra.
There is, however, no differential rate charged to industries located with-
in Greater Bombay (as opposed to those outside Greater Bombay). The other
tax is on the sale of electrical energy sold by a bulk licensee, if the
sale exceeds 5 million units per year. The current rate of tax is half a
paisa on every unit sold by the bulk licensee. The net proceeds of this
tax are earmarked for subsidies to the Maharashtra State Electricity Board
for its rural electrification scheme, and for other needs of power develop-
ment.

45.   Th' state motor vehicle tax is based on weight, with a rate
schedule which specifies different rates for different classes of vehicles.
Where commercial vehicles are registered solely for use within Greater Bom-
bay, a rebate equivalent to two-thirds of the state rate is allowed. Unlike
the experience with the wheel ..x of the Bombay Municipal Corporation, the
state government erforcement procedures permit collection of over 90 percent
of motor vehicle taxes assessed.

c.   Central assistance

46.   Approximately one fourth of state tax revenues are the result of
intergovernmental assistance from the central government, either in the
form of shared taxes or grants-in-aid. The amount of these intergovernmental
revenues accruing to Maharashtra state are a function of decisions by the
Finance and Planning Commissions regarding the total amounts available for
sharing and the methods to be used for dividing any given amount among the
states. The 75 percent of union income tax receipts designated for sharing
is allocated among states, 90 percent on a basis of population, and 10 per-
cent on a basis of state of collection. The 20 percent of union excise
duties which are shared, are done so: (a) 80 percent on a population
basis, (b) 13.33 percent un a population basis among those states with per
capita income below the national average, and (c) 6.67 percent on a basis
of economic backwardness as determined by the following criteria:

    a.   Scheduled tribes population

    b.   Number of factory workers per lakh population

    c.   Net irrigated area for cultivator

    d.   Length of railways and surfaced roads per 100 square
         kilometers

    e.   Shortfall in number of schoolgoing children as compared
         to those of schoolgoing age

    f.   Number of hospital beds per 1,000 population

With these criteria, the recommendations of the Fifth Finance Commission
show Maharashtra's share of income taxes (11.34 percent) to be exceeded
only by the share of Uttar Pradesh (16.01 percent), and the share of excise
duties (7.93 percent) only by Uttar Pradesh (18.82 percent), Bihar (13.81
percent), and Madhya Pradesh (8.48 percent). Of total shared taxes and
duties under the Fifth Finance Commission the percentage distributed to
Maharashtra is 10.60 as compared with 12.08 under the Fourth Finance Com-
mission.

47.   With respect to Finance Commission grants-in-aid, the Fifth
Commission recommended that the portion of a state's deficit not covered
by shared taxes should be considered in determining the allocation of grants-
in-aid among the states. It should be noted that these are not the actual

deficits incurred by the state governments, but are estimated by the Finance Commission using certain normative criteria. In making this estimate, state resources on a basis of actual 1968-69 tax levels and expenditure requirements are considered. The Commiss on concluded that seven states, including Maharashtra, had over-all surpluses and therefore were not entitled to grants-in-aid. Then, of total shared taxes and Finance Commission grants, the share accruing to Maharashtra state was 8.99 percent as compared to 9.14 percent under the Fourth Finance Commission.

48. The formula for distributing plan grants apparently places more emphasis on rewarding higher tax efforts and on specific needs than does that of the Finance Commission. After providing for the needs of Jammu and Kashmir, Nagaland, and Assam, central plan assistance to the remaining states is distributed 60 percent on a basis of population; 10 percent on a basis of population for states with below average per capita incomes; 10 percent on a basis of tax ''·-t; and 10 percent in proportion to commitments in respect of major inuing irrigation and power projects. The remaining 10 percent is distributed on a discretionary basis and relates to specific problems such as those relating to urbanization, floods, and tribal areas.

49. Because there are not major provisions for maintenance of tax effort in the distribution of central assistance among states, it is possible that external funds will be substituted for what might otherwise be locally raised resources. One test for this substitutive effect, over time in Maharashtra, would involve expressing per capita taxes from own sources (T/P) as a function of per capita intergovernmental assistance (G/P), after adjusting for time changes in per capita income (Y/P), i.e.,

$$(T/P)_t = a + b_1 (Y/P)_t + b_2 (G/P)_t$$

The results 1/ show

$$(T/P)_t = -11.14 + \quad \text{::}(Y/P)_t + 1.03(G/P)_t$$
$$\quad\quad\quad\quad (7.87 \quad\quad\quad (1.76)$$

with the coefficient of per capita income, but not that of per capita grants significantly different from zero. This result, even given the statistical estimation problems present, suggests that time changes in the level of intergovernmental assistance had no impact on the level of taxation from own sources.

d.   State government expenditures

( ) Current expenditures

50. Current expenditures by Maharashtra state have more than doubled over the past decade. As may be seen from Table 25, the major component of state expenditures is social services, including education. The recent

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1/   t ratios are shown in parentheses.

trend in expenditures as depicted in Table 25 indicates that the buoyancy in receipts, due mainly to the state sales tax, has been devoted in large to debt service and education spending, primarily at the expense of a slackening in the rate of increase in spending for economic development activities in general.

51.   In an analysis such as this, where the focus is on the fiscal dimension of Bombay's urban problem, a useful set of data would be Maharashtra state government expenditures broken down by that portion spent inside and outside of Greater Bombay. The fact that such data are not readily available underlines the absence of a coordinated mechanism for efficiently allocating state, central, and local revenue resources among competing functional ends in Greater Bombay.

Table 25. Maharashtra State: Current Expenditure Trends

(In thousands)

It m	1965-66		1968-69		Increase	
	Amount	Percent	Amount	Percent	Amount	Percent
General administration	53,38,05	22.14	77,92,32	21.28	24,54,27	45.98
Debt service	26,61 16	11.04	61,42,64	16.78	34,81,58	130.83
Social services (Education)	1,06,79,49 (40,60,60)	44.29 (16.84)	1,55,51,26 (73,18,96)	42.47 (19.99)	48,71,77 (32,58,36)	45.62 (80.24)
Economic development	21,54,70	8.94	29,25,26	7.99	7,70,56	35.76
Other	32,78,84	13.60	42,02,56	11.48	9,23,72	28.17
Total	2,41,12,14		3,66,14,09		1,25,01,95	286.30

Source: Same as Table 22.

(2) Capital expenditures and financing

52.   The capital financing position of the Maharahtra state government is described for the year 1968-69 in Table 26. It may be seen that the largest component of capital expenditures is for multipurpose river, irrigation, and power schemes. It should also be noted that an amount roughly equivalent to 70 percent of total direct capital expenditures was lent by the state to other governments or autonomous agencies in Maharashtra. 1/

1/   More to the point of this analysis is the fact that none of this amount was lent by the state to the BMC.

53.   As may be seen from Table 26, the greatest portion of these expenditures were financed by central government loans, which are allocated on various bases to the state governments in connection with plan finances. Moreover, the approximately Rs 550 million borrowed from the open market are, in effect, allocated by the central government. Early each year in connection with approval of Annual Plan Finances, the central government determines an allowable ceiling for Maharashtra's open market operations. In effect therefore, the magnitude of total capital finances of the Maharashtra state government is dictated by central government policy.

(3)   State plan financing

54.   Not only the magnitude, but also the composition of state government expenditure activity is effected by the central government--the latter through the requirement that state plan budgets be approved annually. The draft Fourth Five-Year Plan (1970-74) of Maharashtra state makes provision for a total expenditure of Rs 1,000 crores (see Table 27). For the purposes at hand, the important question is the extent to which these expenditures are to be of direct benefit to Greater Bombay. Such data are not readily available, since no breakdown of plan expenditures on a basis of inside of and outside of Greater Bombay, is available. However, there are some specific referenc   to, and other indirect implications for, Bombay in the State's draft plan. With regard to power, though there are no specific references, it is known that about 75 percent of all power consumed in the State is consumed in Bombay, hence the relatively large commitment to power does presumably hold substantial benefits for the Bombay metropolitan region. The rail lines proposed, the Diva-Panvel-Apte, the Apte-Goa, and the Diva-Tarapur will have direct relevance to Greater Bombay. The Plan calls for beginning the second stage of the Wilbur Smith Highway Plan--at an expense of Rs 4 crores each by the BMC, Union, and State Governments-- and for an expense of Rs 1.6 crores to complete the express highways and the Tnana Creek Bridge. An amount of Rs 47.55 crores of total state planned expenditure for water supply is allotted to Greater Bombay, with Rs 35.07 crores to be raised by the BMC. No specific reference is made to Bombay in the housing investment area, though Rs 18.75 crores are allocated for urban housing, to an end of constructing 13,000 new units and clearing 4,700 slum units.

Table 26. Maharashtra State Capital Finances, 1968-69

(In thousands of rupees)

	1968-69
Payment to landholders	14,85
Social and developmental services	15,76,77
Multipurpose river schemes, irrigation, and electricity schemes	32,96,98
Public works	10,62,15
Transport and communications	40,27
Miscellaneous, including government trading schemes	13,11,06
Total capital expenditures	73,02,10
Current deficit	2,23,64
Loans and advances by state government	53,58,00
Total financing required	1,28,83,74
of which:	
Permanent debt	17,85,00
Floating debt	37,52,00
Loans from central government	57,00,00
Loans from autonomous bodies	3,19,00
Interstate settlement	39,00

Sources: Financial Statement (Budget) of the Government of Maharashtra for the year 1970-71.

Information on subsidiary points presented to the Fifth Finance Commission (Government of Maharashtra Finance Department, 1968).

Information supplied by the Maharashtra State Government authorities.

Government of Maharashtra Civil Budget Estimates for the year 1970-71.

Table 27. Maharashtra State: Fourth Five Year Plan
Expenditures and Revenues

	Draft Plan Amount	
Expenditure		
Agriculture/Irrigation	375	
Power	300	
Industry and Mining	25	
Roads	60	
Other transport	26	
Water supply	85	
Housing and urban development	24	
Social services and miscellaneous	105	
Total	1000	
Financing		
Central assistance	498	
Own resources	502	
Open market loans		85
LIC loans		25
Bombay Municipal Corporation (water supply)		35
State agencies		54
Other		303

Source: Government of Maharashtra Five Year Plan, Part I, pp. 25, 33;
Part II, p. 6. Government of India Five Year Plan, p. 67.

55.   The most important element of this discussion of state fiscal
planning is not the balance between the intended proportion of state plan
expenditures in Greater Bombay and the proportion of total state population
in Greater Bombay, but rather it is the lack of any state government concern
for the spatial allocation of expenditures within the state. In a world of
considerable rural-urban migration and public concern over the location
choices of industry, such data would seem essential.

e.   State-local fiscal relations

56.   The formal intergovernmental fiscal relationship between Mahara-
shtra state and the Bombay Municipal Corporation centers around educational
finances and state assistance for urban development. In any case, the mag-
nitude of state government assistance is small.

57.   The state government assists in the financing of primary education
through an aid program, and is directly repsonsible for financing secondary
education. A property tax surcharge, described above, is earmarked for edu-
cation purposes, but is not returned by the state on a basis of place of

collection, and therefore provides only a small portion of needed resources for Bombay's primary education program. This explains in part the pressure for increased financial support for education from the general revenues of the Bombay Municipal Corporation. From the four years of data shown in Table 28, the equalizing intentions of the state government education assistance program may be seen. The relative share of aid going to Bombay has been declining in the case of both secondary and primary education. At least in the case of education, there is no built-in intergovernmental mechanism which suggests an alleviation of expenditure pressures.

Table 28. State Education Grants in Maharashtra

| | Primary Education | | Secondary Education | | Total | |
	Bombay	Rest of Maharashtra	Bombay	Rest of Maharashtra	Bombay	Rest of Maharashtra
1970	71.5	3956.34	30.02	410.54	101.52	4366.88
1969	71.5	3027.34	18.90	311.88	90.40	3339.22
1968	80.5	2595.98	8.02	243.85	88.52	2839.83
1967	62.5	2001.91	1.27	137.21	63.77	2139.12

Source: Data supplied by Maharashtra State Government officials.

58.   The other source of state local fiscal relations is a grant to the Bombay Improvement Trust for urban development purposes. The grant is intended to cover the deficit of the Improvement Trust, but it may not exceed 10 lakhs in amount. Over the past four years, the grant has totaled as follows:

Year	Amount of Grant Paid (In lakhs)
1969-70	0.39
1968-69	9.61
1967-68	3.48
1966-67	10.00

59.   In addition to these two relatively small flows from the state to the local government, there is a less formal out fiscally more important relationship in the area of financing water supply. The state's program of multi-purpose river development includes the construction and operation of dams which in the case of the Bhatsai project, provide storage capacity for a water supply scheme. Then while in principle, the Bombay Municipal Corporation is responsible for total construction and operating costs associated with water supply, there is this form of state assistance.

60.   Finally, expenditures on national highways within Greater Bombay
are shared equally between the Bombay Municipal Corporation, the Maharashtra
state, and the central governments.

f.   Autonomous agencies

     (1)   State Building Repairs and Reconstruction Board

61.   State government involvement in urban redevelopment--heretofore
limited to the slum clearance program of the Housing Board and a relatively
small grant to the Bombay Municpal Corporation for slum clearance--was ex-
panded in 1969 to encompass rehabilitation of selected core city housing.
The state Building Repairs and Reconstruction Board was created to provide
for a certain time for the repair or reconstruction of dangerous buildings
and to provide for the rehousing of dishoused 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;1/
to move the state government to acquire properties beyond repair for purposes
of reconstruction; and to take action for the demolition of dangerous or di-
lapidated buildings.

62.   For these purposes, the Board is authorized to levy a property
tax, with the Bombay Municipal Corpora ion 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 license
basis, and certain newer properties. For purposes of assessing the tax lia-
bility, 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 29). In each case, the owners' share of the tax is 10
percent of ratable value with the remainder being paid by the tenant in the
form of a higher controlled rent. It may also be seen from Table 29 that
the greatest portion of the cess is collected from the oldest class of prop-
erty, and that total collections from the cess are equivalent in amount to
approximately 10 percent of total property tax collections of the Bombay
Municipal Corporation.

1/   Other than the cess described below.

Table 29.   Repairs and Reconstruction Board
Property Tax Rates

Class of Property	Date Constructed	Normal Rate	Rate if Structurally Repaired	Ratable Value (In lakhs)	Property Tax Assessed (In lakhs)
A	Before 1940	25	40	13,08.19	2,45.59
B	1940-50	20	30	2,56.63	38.18
C	After 1950	15	20	21,87.33	3,53.76

Source: Data supplied by Maharashtra State Government officials.

Problems in the Delivery of Public Services

63.   The focus of the two preceding sections is on the financial struc-
ture of the two major local government bodies which provide services to the
Bombay metropolitan region. However, these descriptions, for the most part,
treat the Bombay Municipal Corporation and Maharashtra state governments in
isolation, much to the neglect of their joint impact on the shape of Bombay's
urban development. The objective here is to re-examine the policy decisions
of the Central, State, Municipal Corporation, and autonomous agency govern-
ments with an eye to determining their effects on relative prices of public
and private goods, and on relative prices of various types of public goods.
Since the movement of people and the location of jobs are largely a function
of these relative prices, it should be possible to examine at least the di-
rection of the partial effects of such government policy decisions on the
land use distribution. It follows that some notion of the aggregate social
costs and benefits of these policy decisions might be established.

a.   Housing

64.   Efficiency questions concerning housing policy in Greater Bombay
relate to the supply, the location, and the price to consumers. Public
housing decisions in metropolitan Bombay are made primarily by the Mahara-
shtra Housing Board, an autonomous state government agency: but also by the
Railways, the Port Authority, BEST, and the Maharashtra state government,
each of which supply employee housing. There is no coordination among these
agencies with respect to any of the three issues raised above. The discus-
sion in the remainder of this section will center on the Maharashtra Housing
Board since it provides, by far, the largest share of total public housing
in greater Bombay.

65.   The increase in the stock of public housing provided by the Maha-
rashtra Housing Board in greater Bombay is expectedly a function of financial
constraints. These constraints are in turn related to State government de-
cisions as to the proper investment in housing vis-a-vis all other public

functions, the proper distribution of housing investment in Maharashtra vis-a-vis the rest of the state, and Central government decisions as to total resource needs in Maharashtra vis-a-vis the other states. With respect to the latter, it might also be argued that the Federal government is exerting a dampening effect on the total stock of housing by redistributing central assistance away from Maharashtra state. Apart from the level of public investment, the supply of housing is also affected by the state government rent control ordinance which has a dampening effect on the stock and quality of housing by discouraging private investment and reinvestment.

66.   On the location of housing, Maharashtra Housing Board decisions are made essentially on a basis of the availability of government land; hence, the Board's housing projects continue to be located in suburban areas. On the benefits side, such locations are cheaper and therefore a greater housing stock for a given investment is possible. On the cost side, if these tenants work in the city area, at least a greater drain on the transportation system results.

67.   As noted above, there is a system of direct rent subsidies for "economically weak" and industrial worker housing. In the former case, these subsidies--which amount to negative taxes--move hutment dwellers into adequate housing and therefore have some socially desirable effect. It may or may not affect the cost of providing other public services, i.e., the hutments in many cases were originally located in the same area as the new public housing, hence commuting patterns do not change and the price of city services consumed in the new housing hopefully is included in rents and reflected in property taxes. But with respect to the other housing subsidy program, it is not as likely that industrial workers tenants previously resided in the same area. Moreover, from the point of view of the Maharashtra Housing Board, the location of industrial jobs is not necessarily a major consideration in choosing the location of subsidized industrial housing. Hence commuting patterns and therefore public sec.or costs may increase if industrial workers relocate because of such rent subsidies. 1/

68.   While these two classes of housing are directly subsidized by the state government with a rent reduction, all classes of Maharashtra Housing Board flats are implici'ly subsidized because of preferential land prices which are given the Board. Such government intervention in fact leads to a suboptimal land use, i.e., some competing use would have outbid public housing for use of that particular land. This suboptimal use, its attendant lower property tax payments, and the economic benefits lost by "zoning" out the other land use, may be viewed as the opportunity cost of subsidized housing.

69.   In sum, the state Housing Board, through location and pricing decisions for housing, increases the strain on the transport system, i.e., the Federal government's railways, the municipality's buses, and the State's

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1/   However, it is possible that the industrial contribution to that subsidized housing scheme at least partially offsets the higher social costs.

roads. Similarly, in the absence of coordinating housing decisions, at least on location, with the Bombay Municipal Corporation, some inefficiencies and possibly quality deteriorations in the provision of education and other municipally provided services may result. Finally, the state's rent control ordinance depresses the Bombay Municipal Corporation's resources for meeting these increased needs, and has a dampening effect on the stock of housing available. Housing policy in Maharashtra highlights the inefficiencies of an uncoordinated (among governments) system of public service delivery.

(1) The distributional effects of rent control: a digression

70.　　The binding effects of rent control on the growth of the property tax base are readily apparent. Most of the natural growth in the base is restricted to new construction. However, the income distribution implications are a little less apparent. The distributional implications of a rent control program and an annual value property tax system do warrant some attention here since public policy evaluation of the desirability of rent control ultimately must focus on whether or not the opportunity costs outweigh the benefits. Rent control, in the absence of a property tax, may be viewed as a transfer of real income from landlord to tenant, of amount (T) equal to

$$T = (M - C - K)$$

where M = true market rents

C = controlled rents

K = "key money"

If a property tax is now introduced, with an effective rate of (r), and if the incidence of the property tax is assumed to be on the renter, the transfer of real income to the tenant (T) becomes

$$T = M(1 + r) - C(1 + r) - K$$

of which am amount (T_e),

$$T_e = C + K - M$$

is paid by the landlord, and an amount (T_g),

$$T_g = r(C - M)$$

is paid by government. Hence from the point of view of property taxation, the opportunity cost of rent control is public services of amount (T_g) which are foregone. [1]

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[1]　This analysis ignores the effects of physical urban deterioration, often attributed to rent controls, on the property tax base.

b. **Transportation**

71.   Responsibility for the transportation system in greater Bombay is
divided among the Central government for railways, the Municipality for bus
services (through BEST), and the State government for streets.

72.   There is little doubt but that mass transit services are subsi-
dized. Neither railway nor bus fares are adequate to cover the marginal
costs of such services, and as a result there is overutilization of the
existing service levels. Moreover, the subsidies are a part of the consumer-
commuter's decision as to the tradeoff between housing and transportation
services, and probably biases the choice in favor of farther out residential
locations and longer journeys to work. The results of this choice are at
least a higher social cost created by crowding and delay on the trains and
buses. On the distribution side, the subsidy might be viewed as an implici'.
subsidy to employers who, as a result of lower transportation fares, are
able to pay a lower wage than they otherwise would.

73.   The decision-making process for mass transit services is more
fragmented than that for housing. Federal decisions about railway services,
Municpal decisions about bus services, and central, state, and local deci-
sions about highways are not coordinated in such a way as to encourage a
more efficient allocation of resources. And if the relationship among the
agencies responsib.e for mass transportation facilities is not adequate,
that between housing and transportation policy decision makers is even worse.

74.   Consider now the alternative remedial strategies which might be
followed if it were argued on the basis of rush hour crowding that the quan-
tity of rail and tus services offered during peak hours is less than that
demanded at current fares. 1/ There are at least four possiblities for elim-
inating such excess demand. One is to effect an ir··ease in the peak hour
capacity of the mass transit system by altering the methods of delivering
such services. Such an alternative is discussed in the mass transit section
of this report. The second is to raise fares which simultaneously rations
users and (given a relatively price-inelastic demand for transportation
services) provides resources necessary for increasing the quantity of ser-
vices available. The fare increase for trains and buses would be a central
and municipal decision, respectively, and could be taken independently.
However, such fare increases have been rejected by each governmental level
on political grounds.

75.   The third possibility would be to hold fares constant but subsi-
dize operations and expansions from general revenues, thereby increasing
the over-all supply of transport services. In the case of bus services,
such a subsidy would necessarily come either from an increase in electricity

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1/ It would not seem possible to make the same argument for road travel.

rates or from the Bombay Municipal Corporation's general revenues. Given
the deficit of BEST in 1969, one of these actions seems a real possibility.
The increased subsidy of buses with electricity operations involves essen-
tially a decision about a real income transfer between consumers of power
and consumers of transit services. The other alternative, a subsidy from
the general revenues of the Bombay Municipal Corporation, would further de-
plete revenues which are already constrained to a considerable extent by
the state Rent Control Ordinance. In th. case of railroads, further subsi-
dization would be at the opportunity cost of a lower level of some public
service consumed somewhere in India. Little more can be said, hence there
is little if any room for evaluation.

76.   Even if resources were found to increase the supply of transpor-
tation services at current fares, it may well follow that supply will create
its own demand such that the current excess demand would be duplicated at a
greater level of service. Whether or not such an effect occurs depends in
large on the reaction of the state government, especially in terms of its
housing program. The lesson here is that an isolated treatment of transpor-
tation policy is likely to solve nothing.

77.   Note that the three policies discussed above have in common the
intention of increasing the peak hour carrying capacity of the system. A
fourth possibility would have the objective of holding the capacity of the
system constant, while reducing the demand for commuter services. For exam-
ple, policies which would cause a reduction in suburban housing subsidies,
an increase in the stock of central city housing, and a movement of jobs to
suburban locations. That is, a program to discourage commuting into the
congested area is a program which increases the relative costs and reduces
the relative benefits of doing so.

78.   From the above it may be noted that although mass transportation
decisions and responsibilities in greater Bombay are vested in the central
and municipal governments, the state government plays an integral role in
determining the quality of services available. It follows that it will not
be possible to remedy mass transit problems on a governmental level, rather
a coordinated intergovernmental strategy will be required.

c. Municipal infrastructure and services

79.   Service responsibility for sewers, water, primary education, sani-
tation, fire protection, and most other custodial services (with the excep-
tion of police) are vested in the Bombay Municipal Corporation. However,
both the cost of providing these services and the amount of resources avail-
able to meet these costs are a function of the policy decisions of other
levels of government. For example, the cost of certain of these services--
either in terms of a higher rupee per unit paid or a lower service quality
for a given rupee amount--are directly related to overcrowding in the city
area. For example, where overcrowding leads to slum conditions, at least

sanitation and fire costs will tend to be higher. Moreover, there are dis-
economies of density with respect to public utilities which become especially
important when replacement of existing infrastructure must be considered.
It might be argued effectively that the overcrowding which gives rise to such
costs is to some extent effected by State and Central government decisions
which were not taken in consultation with the Bombay Municipal Corporation.
Not only is an uncompensated spillover imposed on the Bombay Municipal Cor-
poration on the cost side, but the State government's rent control program
deprives the city of much of the revenue necessary to meet these higher
costs. As noted above the direct response of the state, in terms of inter-
governmental fiscal programs to offset the resource-requirement gap of
the Bombay Municipal Corporation, has been all but nonexistent.

d. Urban development

80.   The function of direct investment for redevelopment of slum or
dilapidated areas in Greater Bombay is now almost exclusively a state gov-
ernment endeavor. The program takes two forms. One is the activity of the
Maharashtra Housing Board in replacing hutment slums with subsidized housing
for the "economically weak." the other is the Building Repair and Recon-
struction Board which uses the proceeds of a special assessment on real prop-
erty to rehabilitate dilapidated housing in central Bombay. There is some
coordination between the Board and the Bombay Municipal Corporation since
the latter officially designates properties which must undergo repair. In
the case of Maharashtra Housing Board replacement of hutment slums, there
is little coordination with either the Bombay Municipal Corporation or the
Repair and Reconstruction Board with respect to priorities in areas to be
renewed. However, in terms of effects on over-all urban efficiency, the
general policy of locating the housing projects near the cleared hutment
site minimizes the possibility of introducing differential costs. However,
in general, it is clear that the present arrangement for carrying ot renew-
al activities does not enable a tradeoff in the use of resources by the two
autonomous agencies, and further makes the question of priorities in slum
clearance and renewal more a state than a city decision.

81.   Apart from slum clearance and redevelopment is the question of ur-
ban physical development per se. The Bombay Municipal Corporation does ex-
ert some measury of control here via a land use plan and a set of zoning
Ordinances. The latter includes a designated maximum ratio of floor space
to building area, the floor space index, which declines from the city to the
suburban areas. There would seem to be little economic rationality associ-
ated with such a policy, i.e., it is not conducive to permitting construction
of the optimal size structure on any given plot of land. Moreover, the floor
space index (FSI) effectively limits intensive use of suburban land, and in
so doing biases certain choices in favor of core city locations. Hence,
from a point of view of social costs this policy is contrary to the general
decentralization objectives of the Bombay Municipal Corporation.

82.   Another phase of the urban development program in Greater Bombay
involves the state housing board auctioning of suburban, government-owned
land for private. commercial, and residential uses, and using the proceeds

to finance public housing projects. The market price of these properties, e.g., along either express highway, is directly influenced by the allowable FSI. In such a case, the real cost of maintaining a FSI below that which is optimal for the land in question, is some amount of public housing foregone.

83.   A major urban development concern in Greater Bombay is the Backbay Reclamation project. It is a state government activity, and from a cost-benefit point of view is lucrative. However, the highest use of reclaimed land is commercial, and hence a greater flow of commuters to the city area is generated. It follows that the Federal Government and the Bombay Municipal Corporation share in the higher costs of the Backbay project, but in few of the benefits. Apart from adjustment in transportation fares to reflect true marginal costs, or abandonment of the project, there would seem to be two alternatives to redressing the kinds of governmental resource-requirement imbalances which have occurred. The first is for the state to compensate the Bombay Municipal Corporation and the Federal Government for the higher costs incurred on account of the project, if such a cost could in fact be accurately calculated. The second is to create a requirement whereby each job created would have to be accompanied by some specified amount of housing. This scheme would probably have the effect of reducing the market price per unit of public service costs. Moreover, it would have the effect of stimulating some investment in housing which might not otherwise have existed.

Needed adjustments in the tax-expenditure process

a. Coordination and fiscal balance

84.   A combination of certain provisions in the Indian Constitution and certain provisions in the statutes has created a fiscal imbalance for urban governments which is conducive neither to adequate financing not to adequate control of urban development. The kinds of considerations which originally prompted the designation of certain taxing powers as union, and others as state, and which prompted states to designate certain taxes specifically for local use, are apparently no longer relevant. The position of the Bombay Municipal Corporation is one of having expenditure responsibilities which are growing rapidly in response to the pressures of economic development, urbanization, and in-migration. However, the revenue system of the Bombay Municpal Corporation is comparatively income-inelastic. Compounding this failure to establish a balance between expenditure requirements and revenue resources, is a fragmented system of delivering public services and in general a piecemeal approach to public policy decision-making. This absence of public policy coordination has resulted in a set of uncompensated externalities. For example, the growth of the property tax base (the base of the major revenue producer of the Bombay Municipal Corporation) is limited by controlled rents—a state government ordinance—while pressures for expenditure increase on the part of the BMC are effected by state government actions

such as the Backbay Reclamation project and by Federal and State government
decisions regarding the pr.: ip of railway transportation a J housing ser-
vices. In general, deci...-w by each layer of government ar. taken '· pen-
dently and therefore ' .p. regate must not move total efficiency towa· i some
optimum. If they do, it :ust be by accident.

85.   Such a situation demands, as a first step toward improving urban
efficiency, a more coordinated approach to decision making, i.e., to all
questions relating to the allocation of scarce resources within the Bombay
Metropolitan Region. As a mimimum, the formation of a Metropolitan Council
of Covernments with appropriate representation from all layers of government,
including autonomous agencies, would seem necessary. It would be unrealistic
to assume that such an agency could have decision making authority. What it
could do, however, is produce an annual analysis (a) of alternative strategies
for investing funds to deliver public services, and (b) of all public poli-
cies which affect such delivery. At the very minimum, such an arrangement
might force a mor . appropriate examination of the issues, and a marshalling
of the kinds of data most relevant to the decisions in question.

b. Tax reform

86.   Tax reform for the Bombay Municipal Corporation is needed for two
reasons. One is the premium which must be placed on the mobilization of
resources for public use, and the other relates to structural problems which
may adversely affect the distribution of land use within the metropolitan
region. Accordingly, suggested in the following sections are possible tax
policy changes wh .ch are related to octroi, the wheel tax, the propert.· tax
treatment of vacant land, and the property tax treatment of governmen· prop-
erty.

    (1) Octroi

87.   Numerous public reports have dealt with the evils of octroi and
have recommended replacing it with some other form of revenue (see section
1d above). While there is much agreement as to the undesirable features of
octroi, there is little agreement as to a proper substitute. Since octroi
is in fact a sales tax, the most often suggested replacement is some less
objectional form of sales tax, for example, a surcharge on/or a share of the
present state sales tax. The advantages of this alternative are real. First,
the administrative machinery is already present in the state system. Second,
the state sales tax base shows evidence of a substantial income elasticity,
a feature badly needed by the Bombay Municipal Corporation. Third, a cursory
examination of rate schedules suggests that the octroi is more regressive
than the state sales tax, and finally, the state sales tax possesses none of
the objectional administrative features of octroi. The problem with this
alternative stems from the fact that replacement of the octroi throughout
the state has been suggested, and there is expected disagreement over the
appropriate method of sharing the local sales tax surcharge.

(3)   Property taxation of vacant land

92.   Currently, vacant land is assessed at 3.5 percent to 5.0 percent
of capital value, and is allowed a property tax rebate equal to two-thirds
of the existing rate. This type of preferential treatment is a shortcoming
which most countries using the annual value method have abandoned. It ef-
fectively reduces the holding cost of land and has the effect of encouraging
speculators to hold their land off the market for a longer period. This in
fact imposes a social cost on the community if it induces a leapfrog pattern
of urban development. Contrary to the objectives of an annual value property
tax system, the preferential treatment of vacant land ignores the returns
from waiting which accrue to speculators as surely as do rent payments to
landlords. It follows that vacant land should be assessed at the full rate,
including the city and state education cesses. Moreover, there should be
periodic reassessment of vacant land on a basis of full market value in its
highest and best use.

(4)   Property tax treatment of government properties

93.   As pointed out above, the preferential property tax treatment which
is afforded government property has two undesirable effects. First, there
is a revenue loss to the BMC which may be viewed as a governmental income
transfer from the BMC to the Maharashtra state and the union governments.
If it could be argued that the public resource-requirement gap is greater
for the BMC than for either the State or Central Government, it would follow
that removal of this preferential treatment would bring about an over-all
improvement in fiscal balance.

94.   Beyond the question of revenues is the possibility that government,
as a property owner, realizes a lower cost of land than do private sector
land users. Therefore, government will tend to overinvest in land vis-a-vis
other factors. The problems created by this malallocation of resources have
been well covered in the text.

95.   To alleviate these two ill effects, two property tax adjustments
should be made. First, all government-owned vacant land should be assessed
at true market value and be subject to the full general rate plus the educa-
tion cess. Second, the procedure of allowing a payment in lieu of property
taxes should be abandoned in favor of full payment by all government bodies.

c.   Intergovernmental fiscal relations

96.   Coordination of public policy decision making would in fact in-
crease the efficiency of urban development, i.e., it would enable an increase
in real benefits gained per rupee spent. However, this does not necessarily
resolve the fiscal imbalance problem in that expenditure demands on the Bom-
bay Municipal Corporation will still outstrip resources available. There
are a number of possibilites for redressing this imbalance. First, a free-
ing of the property tax base via decontrol of rents and permission for the

88.   If a surcharge on the state sales tax was designed to replace octroi, there would seem some basis for arguing for distribution of at least a portion of the proceeds on a basis of point of collection. A benefits justification for including in Bombay's share, sales taxes on goods destined for resale in other parts of Maharashtra, is simply that there are costs associated with serving as a trading center for which the Bombay Municipal Corporation is entitled to be reimbursed. In practice, a point-of-collection distribution would have returned about 80 percent of any surcharge to Greater Bombay in 1969.

89.   Other approaches, than a uniform state-wide shift to sales taxation, might be taken. Technically it would be possible to adopt a shared sales tax to replace octroi in Greater Bombay but to retain octroi in all other municipalities in the state. Alternatively, it would be possible to permit all local governments in Maharashtra to levy a sales tax surcharge up to a maximum rate, depending on their own discretion, where the maximum rate for the BMC would be larger than for any other municipal government in the state. It should be noted that the alternative of replacing octroi with a shared state sales tax, distributed within the state on an income-equalizing basis, would not give the Bombay Municipal Corporation an income-elastic revenue source. In fact, such a plan would probably give an intergovermental revenue source with a lower elasticity than the octroi.

90.   Some idea as to the necessary magnitude of such a surcharge may be gained by exaamining current revenue levels. Octroi collections in Greater Bombay in 1969-70 amounted to Rs 12,40 lakhs. Of total State Government sales tax revenues of Rs 1,28,50 lakhs that year, Rs 1,03,57 were collected in the Bombay city division. Hence octroi is equivalent to about 13 percent of state sales collections in Bombay city. In order to determine an appropriate set of rates for the local surcharge, a careful study both of the composition of revenues from the state sales tax and of the equity effects desired would be required. Such a study is beyond the scope of this mission.

   (2) Motor vehicle taxation

91.   Through a relatively minor source of the Bombay Municipal Corporation's revenue, the wheel tax is poorly administered and in need of reform. As noted above, less than 40 percent of wheel taxes assessed are collected because of enforcement difficulties. Meanwhile, the state government is able to collect over 90 percent of motor vehicle taxes assessed, primarily because of a relatively more efficient enforcement procedure. The case for a sharing arrangement is made even stronger by the present requirement in the state tax law that vehicles registered exclusively for use in Bombay be so declared. One possibility for a sharing arrangement would require the Bombay Municipal Corporation to conform its classfication and tax base to that of the state government, and the state would then act as a collecting agent. If 90 percent of wheel tax assessed in 1969-70 had been collected, receipts would have totaled 2,80 lakhs as compared with the 1,03 lakhs actually realized.

Bombay Municipal Corporation to replace octroi with a state sales tax surcharge would markedly improve the revenue position of the Bombay Municipal Corporation. Another possibility is the direct transfer of functions, e.g., water and sewerage, to the state. This alternative, however, removes allocation decisions from the Bombay Municipal Corporation where, it might be argued, they can best be made.

97.   Another possibility is that the fiscal relief for the Bombay Municipal Corporation will come in the future from the Union government, via a larger share of central assistance to state government on a basis of urban needs. Should this come to pass, there is no vehicle by which the funds could be passed through by the state to the Bombay Municipal Corporation. The existing state assistance programs are an education aid program which discriminates against Bombay in favor of the rural hinterland, and a relatively anemic urban development grant. Maharashtra state could increase the fiscal viability of the Bombay Municipal Corporation and create a flexibility for passing through Federal funds by instituting a sizable and general purpose urban grant to the Bombay Municipal Corporation. The grant could be defined in terms of some percentage of an elastic state government revenue source, e.g., the sales tax. Quite apart from the argument that such a program would better balance the requirements and resources of the city government, one might take the (debatable) position that in-migration to Bombay imposes an uncompensated externality on the Bombay Municipal Corporation for which the Maharashtra state government should provide compensation.

II. A PROGRAM FOR A MORE EFFICIENT DELIVERY OF PUBLIC SERVICES

Introduction

98.   For purposes of suggesting a remedial urban development program for Grea'er Bombay, two types of urban problems must be distinguished. One is inadequate public sector investment. The other is a failure to obtain maximum benefit from a given level of investment because of an inefficient arrangement of economic activity within the metropolitan area and because of a fragmented decision-making process. The first problem requires additional resources as a part of the solution. It is not considered here. The very existence of the second problem suggests that policies aimed at changing the spatial distribution of economic activity and/or establishing a proper system of prices for public and private goods might increase total welfare by permitting a more efficient delivery of public services. These policies would necessarily have to be accompanied by some integration of the governmental decision-making process, i.e., by the establishing of some method for allocating scarce revenue resources among competing expenditure needs.

99.   The objective of the discussion below is to describe a program which, through effects on implicit and explicit prices, will result in (a) a reduction of the per resident public service costs of supplying any given level of services, (b) an increase in the revenue resources available to the Bombay Municipal Corporation, (c) an increase in the available stock and quality of housing, and (d) an improvement in the quality of transportation services. The accompanying intergovernmental reforms necessary to complement such a program are also described.

100.   Because of the relevance of the question of the existence or non-existence of scale economies in the provision of urban public services to the composition of a remedial program such as that described here, the following section is given over to that subject. However, note that in the absence of corroborating evidence, an assumption of constant (per person) costs is made. The scale economy issue is discussed below primarily to suggest the possible implications of an alternative assumption, e.g., that there exist scale diseconomies. Section III provides a description of the elements of the program, and Section IV is an analysis of the mechanism of response of land-use, housing, transportation, public costs and resources, and job location. Finally, the income redistribution consequences are examined. There is no attempt to assign "price tags" to the effects of various elements of this program. Rather, the goal is merely to argue for the direction of effect on various elements of the urban economy (e.g., the stock of housing).

Scale economies, distance costs, and the delivery of urban public services

101.   The general question of the public service cost implications of alternative arrangements of economic activity may be examined by considering separately the variation in costs of delivering transportation, public utilities, and general public services to different configurations of population and economic activity.

102.   It might be argued that on a per capita basis, transportation costs rise with the distance between place of residence and place of employment. It also is higher if great numbers of commuters demand service at particular times (e.g., peak hours) and have the same destination (e.g., Victoria Terminal or Churchgate Station). Then per capita transportation costs are a function of factors such as distance and destination, and congestion, irrespective of over-all city population size and density. It follows that with the same total carrying capacity of the system, a rearrangement of the present origin-destination pattern could result in lower per capita cost.1/

103.   In the case of public utilities and general public services, questions of whether or not there exist economies of scale, or economies of density, become more relevant. Because of the importance of the scale economy issue for formulating an appropriate urban strategy for Bombay, it would seem worthwhile to simply state the rudiments of the economy of scale issues as well as the relevance of excess capacity and external effects on factor prices to the costs of providing public services. In the present context, economies of scale may be said to exist if population growth allows the use of different combinations of factor inputs which in turn results in increased average productivity such that there is a reduction in per capita costs.2/ Conversely, after a certain size is reached, further population growth yields factor input combinations and factor prices which cause per person costs to rise. These are diseconomies of size. The argument for scale effects in Greater Bombay takes a somewhat different line. It is that the relevant consideration is not economies of population size but economies of population density.3/ That is, for a given size population, there is some optimal density with respect to per capita costs. Increases in density short of that optimum yield falling per person costs and increases beyond that optimum yield rising per capita costs.

1/   See the Transportation Annex to this report.

2/   That is, the productivity increase more than offsets any increase in factor prices.

3/   However, since land area is a constant, this distinction is more for expositional than theoretical purposes.

104.   Now consider the arguments as to how per capita costs relate to
the level of population density, in the provision of public utility and gen-
eral public services. There are short-run declines in the per person cost
of distributing water, sewer, and power services to more dense populations,
simply because once the system is created and idle capacity exists, the real
costs of distribution to incremental units are small. This is, in fact, a
"spreading" effect of allocating the cost of the system, i.e., it results
from the "lumpiness" feature of such investments. However, there is some
optimal density after which per capita costs may rise (for any given size
system), either because of pumping costs occasioned by higher buildings, or
because higher densities tend to be associated with higher land values and
consequently a greater real cost of land input. Thus, the short-run 1/ aver-
age cost curve may be U-shaped. The other relevant question relates to the
shape of the long-run average cost curve, i.e., as system capacity is ex-
panded, do per person costs rise, fall, or remain constant. The arguments
that they rise are persuasive. For example, if land values are a positive
fuction of population density, expansions of the distribution system at
higher levels of output will be increasingly costly.

105.   Per capita costs of providing general municipal services such as
sanitation, street cleaning, and fire protection may also be U-shaped with
respect to population density. This will be expecially true if higher den-
sities are associated with slum conditions which spawn, among other things,
unsanitary living conditions and greater fire hazards. Primary education
costs in Greater Bombay are probably not directly affected by the density
of population, with the exception of those costs associated with transport-
ing students to and from schools.

106.   Then for public utility and general service costs, it might be
argued that the short-run per capita cost curve is U-shaped with respect to
population density. But there is no empirical basis for hypothesizing that
level of population density which is optimal. And even if there were, it
would not necessarily follow that a reduction in population density 2/ in a
particular area within the metropolitan region would reduce per capita costs.
As for public utilities, the pumping costs for higher buildings will not
disappear and land values may or may not drop with declines in density. In
the longer run context, however, it might be argued that an arrest in the
growth of population density may enable the city to delay replacement of the
present system with one which has greater capacity. On the other hand, dis-
economies of density for general municipal services tend to be associated
with slum conditions, and the strategy for reducing these costs has to do
with urban renewal as much as with decreasing density.

1/   Where the short-run is defined here as a period where the total capa-
city of the sytem is held constant.

2/   Such as would result from a movement of population from the city area
to the suburbs.

107.   Thus far, the discussion has centered on the density-diseconomy question with respect to the city area. It follows that the converse may be true in the suburbs--an increase in population size and/or density would result in lower per capita costs. Generally, this argument would have to rest on the existence of idle infrastructure in suburban Bombay. This may well be the case if intensive suburban development is considered. However, in the case of other areas of the suburbs, the growth of population would probably necessitate further capital investment in order to create a capacity for satisfying at least public utility needs. Ideally, planners would know, for each public service, the differential costs associated with locating a marginal bloc of population in any given area of the region. The present value of the costs could then be matched against public and private sector benefits, all interrelations considered, and an optimal arrangement of people and jobs defined. With an analysis so general as that presented here, and with far less than the necessary data available, it cannot even be said whether total public service costs (excluding transportation) will rise or decline if the marginal resident is moved from the city area to the suburbs. Therefore, in the analysis below it will be assumed constant. It will be assumed, however, that an improved balance in each of the city and the suburban areas in the employment-residence ratio will reduce per capita total transportation costs.

A remedial program

108.   There are numerous ways to effect the level of urban efficiency in Bombay. One is to recover full marginal (private and social) cost from the provision of any service and let people live and work where they want. This not being possible, another involves introducing a set of public policies which will induce a reduction in the distance between place of employment and place of residence and thereby reduce per capita transportation expenditures. Specifically, such policies could focus on either rearranging the core city land use distribution, or inducing job movement to the suburbs. The strategy suggested here leans heavily toward the latter.

109.   The program described here is one which, through effects on implicit and explicit prices, should result in a decentralization of job locations, a lowering of over-all per resident public service costs (for any given quality of service), an increase in resources available to the Bombay Municipal Corporation, and an increase in the available stock and quality of housing. The elements of such a program are as follows:

1.   A selective decontrol of rents beginning with all commercial establishments, all housing presently rented on a leave and license basis, and all new residential housing. At a later point in time, residential housing would be decontrolled on a selective area-by-area basis.

2.   An incentive for housing rehabilitation composed of permission
for any landlord to carry out approved renewal of his proper-
ties, evict present tenants, and thereafter be free from rent
controls. However, an initial constraint would be that the
property still be used for residential purposes after the
improvements are made.

3.   A change in the floor space index to allow higher buildings
in suburban areas, with the provise that any incremental
public costs associated with higher buildings would be covered
by the developer.

4.   The government portion of direct rent subsidies to industrial
workers in Maharashtra Housing Board flats would be eliminated.

5.   The Backbay (and other) reclamation project(s) could continue,
but there would be a housing requirement for each block of
employees, i.e., for each square foot of office space created,
a designated amount of housing space would be required. The
onus of this requirement would be placed on the commercial
developer. A similar requirement would be imposed for any
other sizable nonresidential development in the core city of
either a governmental or a quasi-government agency. The re-
quirement would also hold for government land which is auc-
tioned to the private sector for commercial development.

6.   The preferential property tax treatment for privately owned
vacant land would be eliminated along the lines discussed
above, as would all preferential property tax treatment
afforded government properties.

7.   Rail and bus fares would be raised, but not necessarily by an
amount such that they would be sufficient to cover marginal
cost. No major improvements in the quality of transportation
services, e.g., new rail lines, are suggested.

Effects on job location

110.   The over-all effects of this seven-part program would be a decen-
tralization of job locations. Certain commercial establishments are located
in the city because the Rent Control Ordinance effectively subsidizes these
locations. Part of the subsidy becomes an economic rent to the entrepreneur
and the remainder allows him to pay a necessary premium for factor inputs,
e.g., the higher real wage necessary to attract suburban labor to central
city job locations. Decontrol of rents on commercial properties will bid
up the location cost of such establishments and force the currently margin-
al operations to seek other locations. These firms will be replaced either
by residential uses or by other commercial uses (neither of which will be
covered by rent controls) which find core city locations optimal even when

true land rents are paid. Higher transportation charges will tend to dis-
courage commuting by bidding up the wage required by workers to commute to
the city area. Hence, not only will site rents of city area locations rise,
but labor costs will also increase and central commercial locations will
become less desirable for yet another group of marginally profitable loca-
tions.

111.   These policies, of course, will not have the effect of decentral-
izing jobs if suburban locations do not become relatively more attractive
than before the program. The case made here is that a program such as this
does in fact raise the relative attraction to suburban sites. Six reasons,
of varying degrees of importance, could be offered in support of this argu-
ment. First, higher transportation fares will make suburban residents less
willing to commute to central city job locations and this may be revealed
in a willingness to accept a 'ower money wage in a suburban location. Second,
since the effect of rent control probably is a greater divergence between
market and actual rents in the city than in the suburbs, a decontrol of
rents on commercial sites will raise location costs relatively more in the
city than in the suburbs. Third, a liberalization of the floor space index
in the suburban area will permit taller buildings there, and if there is a
positive shadow price 1/ associated with the incremental story in the suburbs,
the comparative advantage of suburban sites will be enhanced. Fourth, the
more harsh treatment of vacant land should result in forcing such land into
use earlier than would otherwise be the case. Since vacant or unutilized
sites are typically more prevalent in the suburbs than in the city, the
quantity of available suburban land should be increased, and the price at
which this land is offered on the market should be lower. Fifth, the elim-
ination of the property tax subsidy to the state and central government agen-
cies will effectively raise the cost of city vs. suburban locations and
therefore would tend to bias future decisions in favor of the latter. Fin-
ally, the comparative advantage of Backbay (and other reclaimed and govern-
ment-owned) commercial sites over suburban commercial sites will be reduced
by the joint housing requirement which effectively lowers the returns to be
had from such sites.

Effects on the stock and quality of housing

112.   The net effect of this program will be to increase the stock and
the quality of housing in Greater Bombay. In the city area, rent decontrol
of commercial establishments would result in a replacement of some existing
commercially used land by other businesses, and in some cases by residential
units. Similarly, the Backbay housing requirement, the private housing re-
habilitation incentive, and the promise of decontrol on all new units con-
structed, should result in more private investment in housing both in the

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1/   That is, if there is a positive value attached to the story which
       could not be built because of the FSI restraint. Current evidence
       that this shadow price is positive is the willingness of suburban
       commercial developers to build to the maximum allowable height, and
       the petition of the Maharashtra Housing Board to the BMC to make
       allowance for a more liberal FSI for suburban sites which are intended
       for auction to the private sector.

city and in the suburbs. The net effect would be an increase in the stock
of housing, initially probably of a high-income type. All decontrolled
rents will surely be raised and the majority of new construction may well
be of a middle-income and high-income type. However, a trickle-down effect
would be operative as people moved to new residences. This housing policy
coupled with increased transportation fares may bid up wage payments by core
city employers, hence increase the capacity of the population to absorb the
higher rents. Finally, as the rent decontrol program is extended to cover
older residences, higher property taxes would induce rehabilitation of
housing in prime locations and thereby increase the quality of housing.

Effect on public costs-resources

113.   The general effects of the program described would be to decentral-
ize job locations and to create a better balance between jobs and residences
in the suburbs. There are also serious implications for public sector oper-
ations. As pointed out above, the lack of knowledge about the shape of the
average cost functions prohibits a realistic estimate of the effects of this
program on public utility and other general public service costs, and so for
the sake of discussion, they are assumed constant. 1/ On the other hand,
the decentalization process described above is assumed to reduce the per
person cost of providing any given quality of transportation services.

114.   On the revenue side, the selective decontrol of rents will result
in a higher assessment on all decontrolled properties, and if over-all effi-
ciency is increased by this amount of freeing of the market, it follows that
total taxable capacity (including annual rents, income, and total sales) will
be--in the long run--increased. However, it should be noted that in the case
of the property tax, an assessment of commercial properties on a basis of
economic rents rather than reproduction cost would be necessary to capture
the tax effects of increased efficiency. Finally, increased rail and bus
fares also represent increased resources for public uses. On a governmental
level, the Bombay Municipal Corporation would stand to realize an increase
in fiscal balance because of increased property tax revenues and higher bus
fares. Moreover, the freeing of annual rent assessment, even partially,
from the rent control constraint will result in a greater elasticity of the
Bombay Municipal Corporation's property tax base. The central government
would conceivably benefit from reductions in service responsibility and from
increased rail fares.

115.   It is therefore tempting to make the over-all argument that such
rearrangements of economic activity, as described above, will simultaneously
increase government revenues and raise the level of services which could be
supplied with any given amount of resources.

1/   To the extent this is not true, different implications for effects on
     public costs may be derived. It is possible to much such inferences
     under different sets of assumptions, but such an exercise is not at-
     tempted here.

Income distribution implications

116.   While a higher level of government services and a greater effi-
ciency of government services may be attained as a result of such a program,
it can be shown that there are relevant income distribution issues to be
considered.

117.   Assessment of the effects of this program has heretofore rested
on certain assumptions about the Bombay labor market and the actual opera-
tion of the rent control program. The decontrol of rents on commercial es-
tablishments may drive some merchants to suburban locations, others to change
either occupation or their status as entrepreneur. Moreover, if replacement
is accompanied by changes in the type of commercial establishments to those
which are less labor intensive, and if existing labor is not occupationally
mobile, some unemployment could result. On the other hand, if there is some
elasticity to the supply function of labor for the new core city establish-
ments, and if it is responsive to cost of living factors, wage rates will
be bid up via a process as described above.

118.   For residential housing, the effects of decontrol will be a trans-
fer of real income from tenants, to landlords, to other tenants, and to gov-
ernment--the latter in the form of higher property tax payments. The size
of this transfer will depend on the extent to which "key money" is presently
being extracted from tenants, and the real transfer will be reduced to the
extent that the incidence of the Bombay Municipal Corporation's expenditures
with the incremental funds are progressive. At any rate, housing prices
will rise in the absolute, and, depending on the nature of the supply sched-
ule for labor, as a percentage of income.

119.   The share of total income extracted by government will rise as
assessed property values begin to reflect market rents and if higher wages
result, the state's consumption tax base will rise. Again, a progressive
redistribution of these expenditures by the state government will lessen
the undesirable red- -ributive effects of such a program.

120.   The removal of direct government subsidies for industrial worker
housing will, depending on the nature of the supply curve for labor, result
in increasing the money wage rate for these workers. In essence, the argu-
ment here is that the government share of the subsidy initially was divided
between employers, in terms of the lower wage rates which they could offer,
and employees, in terms of the lower rent which they would have to pay. The
subsidy has an opportunity cost of some amount of federally provided public
services foregone, since the union government pays part of the subsidy, hence
it is possible to argue that the lack of coordination between the location
of such housing for industrial workers and industrial site location results
in a public sector social cost which might have been avoided in the absence
of the subsidy.

A remedial public administration

121.   A price-oriented program along the lines argued above would neces-
sarily have to be supplemented with a decision-making process which could
ensure some optimum in the distribution of funds. Obviously, a program such
as this could be hindered by, e.g., the Bombay Municipal Corporation's zon-
ing which might impede commercial movement to the suburbs, new state housing
subsidies which might offset the decentralizing effects of higher rail and
bus fares, cr increased federal capital gains taxation which might alter lo-
cation decisions in favor of remaining in centr locations. Also obvious
is the stimulative effects to such a program of actions such as improved
communications services in the suburbs.

122.   The decision-making process will have to span both governmental
responsibility and functional responsibility. Thus, a regional transporta-
tion planning organ will be as ineffective as a Bombay Municipal Corporation
economic and physical planning commission. What must be created is a Greater
Bombay public sector advisory commission which will comprehensively analyze,
on a regular basis, all implicit as well as explicit resource allocation
questions. Such a body would be responsible for providing annually a set
of recommendations for public investment, in Bombay, by all levels of govern-
ment.