

3. FISCAL IMPORTANCE OF SALES TAX

Introduction

The sales tax has come to occupy an important place in the fiscal structure of the Indian States. Its yield which was Rs 85 crore only in 1957-58, has increased by leaps and bounds over the years. By 1979-80, it had gone up to Rs 3,211 crore. With such an increase in the yield of the tax, its aggregate share in the State taxes has gone up from 30.64 per cent of their own tax revenue in 1957-58 to 56.64 per cent in 1979-80 (Table 3.1). Among the States, in 1957-58, Tamil Nadu was the only State having more than 40 per cent of its revenue from the sales tax; but the position has changed over the years. By 1979-80, six States raised more than 60 per cent of their own tax revenue from this tax, four States between 50 and 60 per cent, and another six States collected slightly less than 50 per cent.

The upsurge in the fiscal importance of this tax is reflected in the compound growth rate of the tax^{1/} which is between 15 and 20 per cent over the years in most of the States (Table 3.2). The growth rate of the other State taxes has been much lower than that of the sales tax (Purohit, 1976). This increased the relative fiscal importance of the tax.

^{1/} The growth rate has been calculated by the relationship $Y_t = ab^t$, where $b = (1+r)$, Y_t is the value of tax revenue and t varies from 1 to n .

TABLE 3.1

The Role of Sales Tax in State's Own Tax Revenue

(Rs crore)

	Y e a r					
	1957-58			1979-80		
	State's own tax revenue	Sales tax reven- ue	Sales tax reven- ue as per cent of Sta- te's re- venue	State's own tax revenue	Sales tax reven- ue	Sales tax revenue as per cent of State's own tax revenue
Andhra Pradesh	3221	962	29.87	49271	22022	44.70
Assam	1273	239	18.77	7206	3508	48.68
Bihar	2147	546	25.44	23359	15546	66.55
Gujarat	-	-	-	44888	28937	64.46
Haryana	-	-	-	19730	9005	45.64
Himachal Pradesh	-	-	-	2867	1113	38.82
Jammu & Kashmir	102	10	9.80	2900	1280	44.14
Karnataka	1748	497	28.43	40486	19978	49.35
Kerala	1325	492	37.13	29080	16264	55.93
Madhya Pradesh	2040	502	24.61	32025	16104	50.29
Maharashtra	-	-	-	98085	62643	63.87
Manipur	-	-	-	258	128	49.61
Meghalaya	-	-	-	404	197	48.76
Nagaland	-	-	-	344	150	43.60
Orissa	645	199	30.85	4210	6595	58.83
Punjab	1966	503	25.58	30906	12979	42.00
Rajasthan	1462	322	22.02	21679	13686	62.67
Sikkim	-	-	-	253	54	21.34
Tamil Nadu	3331	1382	41.49	48636	32506	66.84
Tripura	-	-	-	324	155	47.84
Uttar Pradesh	5004	1635	32.67	56227	30252	53.80
West Bengal	3615	1253	34.66	46776	28107	60.09
All States	27878	8542	3.64	566914	321109	56.64

Sources: 1. Purohit, M.C. "Growth and Composition of States' Tax Revenue in India". Artha Vijnana, June 1976 for the year 1957-58.

2. Reserve Bank of India, Bulletin, August, 1981, for the year 1979-80.

TABLE 3.2

Annual Compound Growth Rate of Sales Taxes in Different States

(Per cent per annum)

State	General Sales Tax		Sales tax on tax		Capital Sales Tax		Total Sales Taxes	
	Rate	R ²	Rate	R ²	Rate	R ²	Rate	R ²
Andhra Pradesh (1963-64 to 1979-80)	16.673 (19.381)	0.962	-	-	23.123 (14.682)	0.935	16.835 (20.410)	0.965
Assam (1963-64 to 1973-80)	11.024 (12.269)	0.909	4.970 (2.959)	0.369	23.051 (9.027)	0.845	12.056 (26.308)	0.979
Bihar (1963-64 to 1978-79)	17.357 (15.835)	0.962	-	-	8.597 (5.820)	0.708	14.432 (19.745)	0.965
Goa (1963-64 to 1973-80)	17.492 (27.330)	0.980	19.044 (20.494)	0.966	20.531 (25.145)	0.978	18.267 (27.474)	0.981
Haryana (1966-67 to 1977-78)	25.123 (9.432)	0.899	23.353 (14.903)	0.957	27.214 (10.420)	0.196	26.180 (10.404)	0.915
Himachal Pradesh (1970-71 to 1979-80)	21.683 (5.402)	0.785	-	-	34.789 (5.959)	0.816	32.163 (5.344)	0.781
Jammu & Kashmir (1963-64 to 1978-79)	23.715 (18.971)	0.963	3.077 (0.967)	0.072	-	-	19.774 (23.866)	0.976
Karnataka (1963-64 to 1979-80)	17.043 (24.729)	0.976	-	-	26.017 (18.081)	0.956	18.168 (25.529)	0.978
Kerala (1963-64 to 1978-79)	16.967 (29.815)	0.984	-	-	15.141 (17.334)	0.955	16.709 (28.062)	0.983
Kerala Pradesh (1963-64 to 1979-80)	18.076 (17.599)	0.954	-	-	17.374 (17.835)	0.955	17.171 (17.489)	0.953
Maharashtra (1963-64 to 1979-80)	16.346 (52.098)	0.995	14.074 (39.941)	0.991	17.905 (43.446)	0.992	16.623 (55.134)	0.995
Orissa (1963-64 to 1979-80)	15.271 (13.307)	0.922	-	-	14.669 (11.004)	0.890	14.290 (14.361)	0.932
Punjab (1966-67 to 1979-80)	17.007 (20.019)	0.973	17.643 (15.537)	0.953	16.741 (17.527)	0.962	16.982 (25.390)	0.982
Rajasthan (1963-64 to 1979-80)	17.955 (18.003)	0.945	-	-	20.364 (18.009)	0.956	17.617 (16.722)	0.905
Tamil Nadu (1963-64 to 1979-80)	16.504 (21.111)	0.905	17.017 (24.826)	0.976	18.787 (9.084)	0.846	16.320 (33.298)	0.987
Uttar Pradesh (1963-64 to 1979-80)	18.834 (21.852)	0.970	17.390 (21.781)	0.969	19.576 (15.902)	0.944	17.919 (21.853)	0.970
West Bengal (1963-64 to 1979-80)	19.885 (22.903)	0.972	12.700 (21.441)	0.968	11.450 (15.995)	0.945	14.115 (26.390)	0.979

Note: Figures within parentheses denote 't'-values.

✓ For the period of 1963-64 to 1976-77.

In Tamil Nadu, the growth of the sales tax has been comparable to that in any other advanced State in the country. Its receipts in the State have increased from Rs 19.12 crore in 1960-61 to Rs 81.85 crore in 1970-71 and to Rs 325.06 crore in 1979-80 (Table 3.3). Alongside the growth in absolute terms, the relative importance of the tax has also increased over the years. The contribution of the sales tax to State's own tax revenue has increased from 45.7 per cent in 1960-61 to 66.8 per cent in 1979-80, with a rate of growth of 16.8 per cent per annum. During the same period, the growth of the tax revenue excluding sales tax was around 10.10 per cent per annum. These percentages demonstrate the growing importance of sales tax revenue in comparison with other sources of tax revenue of the State.

Additional Tax Mobilisation

The higher growth of the sales tax has partly been due to the efforts of the States to mobilise resources through this tax. As in other States, in Tamil Nadu too, efforts were made to mobilise additional resources through the sales tax by increasing the rates, and/or expanding the base. As shown in Table 3.4, during the last decade, almost every year substantial revenue has been raised through additional tax measures relating to the sales tax. In contrast, there were no discretionary changes with respect to most of the other taxes or they were not of much fiscal significance.

TABLE 3.3

Revenue from Sales Taxes in Tamil Nadu
(1960-61 to 1979-80)

(Rs crore)

Year	Tamil Nadu general sales tax	Central sales tax	Motor spirit tax	Total sales tax revenue	State's own tax revenue net of sales tax	State's own tax revenue (4:5)
	(1)	(2)	(3)	(4)	(5)	(6)
1960-61	14.29	2.28	2.55	19.12	22.74	41.86
1961-62	15.31	2.68	2.77	21.26	25.97	47.23
1962-63	18.79	3.11	2.90	24.80	33.72	58.52
1963-64	20.09	4.85	2.08	27.02	42.42	69.44
1964-65	25.66	6.31	3.33	35.30	43.14	78.44
1965-66	29.95	7.15	3.85	40.95	51.67	92.62
1966-67	42.05	1.93	4.79	48.77	49.06	97.83
1967-68	41.18	10.16	5.14	56.48	63.33	119.81
1968-69	45.22	10.36	5.54	61.12	66.88	128.00
1969-70	52.91	12.39	6.85	72.15	60.17	132.32
1970-71	61.05	13.79	7.01	81.85	67.00	148.85
1971-72	73.46	15.82	9.69	98.97	92.56	191.53
1972-73	85.91	18.11	10.00	114.02	114.63	228.65
1973-74	98.08	20.82	13.35	132.25	140.87	273.12
1974-75	140.44	28.87	18.57	190.75	114.93	305.68
1975-76	155.94	33.27	19.72	211.27	107.83	319.10
1976-77	165.06	42.42	21.86	230.55	115.80	346.35
1977-78	176.80	42.90	22.16	243.04	118.37	361.41
1978-79	217.36	49.84	26.32	294.18	153.21	447.39
1979-80	234.12	62.45	28.20	325.06	161.30	486.36

- Sources: 1. Purohit, M.C. "Growth and Composition of States' Tax Revenue in India", Op.cit. for the years 1960-61 to 1970-71.
2. Reserve Bank of India, Reserve Bank of India Bulletins (Monthly), for the year 1971-72 onwards.

TABLE 3.4.

Mobilisation of Additional Resources in Fiscal Heads
(1968-69 to 1979-80)

Tax	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
Agricultural income tax	0.30	-	-	-	-	-	-	-	-	-	-	1.45
Land revenue	-	-	(-12.00)	-	-	-	-	-	4.00	-	-	-
Stamp duty and registration fee	-	-	0.06	-	-	-	-	2.10	-	-	-	-
Sales taxes (a) General sales tax	-	0.60	4.48	-	-	-	11.26	3.50	-	-	4.80	2.05
(b) Central sales tax	-	-	3.06	-	-	-	11.26	3.50	-	-	2.80	2.05
(c) Sales tax on motor spirit	-	-	-	-	-	-	-	-	-	-	-	-
Motor vehicles tax	-	0.60	1.40	-	-	1.89	2.00	-	-	-	2.00	-
State excise	-	-	-	-	-	-	-	-	3.00	-	-	-
Entertainment tax	-	-	0.14	-	(-10.20)	1.46	1.72	-	-	-	-	-
Electricity duty	-	-	-	-	-	-	-	-	-	-	-	-
Total State Revenue	0.30	0.60	5.96	23.56	1.15	3.35	24.49	5.60	7.00	-	7.30	8.90

Sources: 1. RBI, Reserve Bank of India Bulletin (Monthly).
2. State Government, Budget Documents.

Responsiveness of Sales Tax

The higher growth rate of the sales tax could, to a great extent, be attributed to its responsiveness to the tax base (i.e., normal automatic growth in revenue due to the growth in the base). It is found that the sales tax has always been highly responsive to increases in its base, in comparison to the other State taxes. This is proved by various studies attempted in this regard. One of the earliest studies attempted for the State of Rajasthan for the period 1955-56 to 1962-63 showed that the elasticity coefficient was 1.166 (Chelliah, 1967). Another study attempted for each tax and every State for the period 1960-61 to 1970-71 shows that the elasticity coefficient was ranged between 1.099 in Kerala and 1.871 in Karnataka in the case of the sales tax but ranged between (-) 1.496 in Kerala and 2.039 in Maharashtra in the case of the passenger and goods tax (Purohit, 1978). The study for a more recent period by the Study Team of the National Institute of Public Finance and Policy also proves that the trend continues to be the same. The results of our study, presented in Table 3.5, show that, during 1960-61 to 1978-79, the lowest elasticity coefficient for the sales tax is 1.17 in Kerala as compared to 1.67 (the highest) in Rajasthan. The coefficient is 1.54 in Tamil Nadu, 1.48 in Andhra Pradesh and 1.46 in Karnataka. Similar results are seen for each tax and every State for the period 1963-64 to 1978-79 (Table 3.6). The coefficients of income elasticity and buoyancy exceed unity. The coefficients are particularly high in Tamil Nadu as compared to some of the neighbouring States. This might be due to, among other factors, the rapid expansion of coverage and growth in trade. However, it is important to note that the MST in Tamil Nadu is less income elastic

TABLE 3.5

Buoyancy and Elasticity Coefficient of Sales Taxes
in Different States

States	Buoyancy		Elasticity	
	Coefficients	R ²	Coefficients	R ²
(1)	(2)	(3)	(4)	(5)
Andhra Pradesh	1.536 (28.879)	0.980	1.480 (32.321)	0.984
Assam	1.344 (19.893)	0.961	1.282 (18.308)	0.954
Bihar	1.469 (25.683)	0.976	1.358 (24.105)	0.978
Gujarat	1.593 (27.699)	0.980	1.357 (23.776)	0.972
Haryana ^{1/}	1.995 (10.404)	0.915	1.862 (9.716)	0.904
Himachal Pradesh ^{2/}	2.811 (4.515)	0.744	2.242 (3.425)	0.626
Jammu & Kashmir	1.818 (18.917)	0.955	1.567 (15.499)	0.934
Karnataka	1.685 (33.149)	0.985	1.467 (32.725)	0.984
Kerala	1.385 (33.119)	0.989	1.173 (31.411)	0.984
Madhya Pradesh	1.632 (21.482)	0.964	1.484 (19.165)	0.956
Maharashtra	1.456 (45.787)	0.992	1.309 (35.227)	0.986
Orissa	1.499 (21.030)	0.963	1.303 (21.259)	0.964

Cont'd.....

TABLE 3.5 (Contd.)

Punjab ^{1/}	1.482 (19.173)	0.974	1.360 (17.575)	0.968
Rajasthan	1.704 (17.974)	0.950	1.674 (17.669)	0.948
Tamil Nadu	1.705 (38.582)	0.989	1.547 (23.117)	0.985
Uttar Pradesh	1.705 (22.849)	0.968	1.554 (24.945)	0.973
West Bengal	1.402 (37.609)	0.988	1.259 (32.193)	0.984
All States	1.504 (37.029)	0.988	1.323 (56.965)	0.955

Notes: 1/ Reference period - 1966-67 to 1977-78

2/ Reference period - 1970-71 to 1978-79

@ This table does not include buoyancy and elasticity coefficients of five States viz., Nagaland, Meghalaya, Manipur, Tripura and Sikkim because of limited number of observations.

@@ Figures within parentheses denote ~~t~~-value of the coefficients.

Electricity & State Taxes
 (4 to 1979-80)

General sales tax	Motor spirit (87)	Motor vehicle tax	Passenger goods tax	Entertainment tax	State excise	Electricity duty
2.190	-	0.918	-	1.408	1.413	2.0204
2.190	-	1.261	-	1.641	1.696	2.0204
2.217	0.324	0.674	0.798	1.337	0.367	1.270*
2.229	0.513	0.677	0.798	1.344	0.463	1.446*
0.888	-	3.076	1.452	1.159	0.649	0.893
0.888	-	3.085	1.711	1.251	0.993	1.044
1.684	0.750	0.695	1.223	1.146	1.138	1.236
1.699	0.580	1.027	1.495	1.545	1.138	1.392
2.093	1.281	2.377	1.306	1.978	1.607	1.470**
2.093	1.801	2.672	2.066	2.148	1.680	1.567**
2.905	-	2.667	2.319	1.037	2.015	-
2.905	-	2.858	2.640	1.048	2.089	-
-	0.143 ⁵	0.600	-	0.903	0.882	0.463****
-	0.274 ⁵	1.021	-	1.294	1.564	1.346****
2.377	-	1.018	0.632 ⁶	1.715	2.004	0.909
2.377	-	1.201	1.343	1.977	2.192	1.122
1.294	-	0.846	0.758 ⁶	0.387	1.332	2.113
1.294	-	0.961	0.917	0.307	1.367	2.252
1.461	-	0.982	1.194	0.881	0.956	1.348
1.575	-	1.212	1.115	1.421	1.247	1.501
1.396	0.982	0.826	0.496	0.943	1.627	0.962
1.479	1.192	0.930	1.309	1.359	2.096	1.041
1.536	-	1.115	-	1.409	0.986	1.531
1.536	-	1.216	-	1.741	1.012	1.889
1.450	1.118	0.901	1.065	0.980	1.217	1.276
1.450	1.510	1.845	1.324	1.495	1.246	1.358
1.713	-	1.026	0.991	1.125	0.718	1.436
1.798	-	1.223	1.485	1.701	0.887	1.644
1.758	1.087	0.950	-	1.161	(-)0.423	(-)0.318
1.758	1.622	1.393	-	1.340	2.196	(-)0.318
1.948	1.334	1.038	1.643	1.084***	0.797	1.282
1.948	1.732	1.321	1.756	1.563***	1.258	1.760
1.190	1.026	0.501	2.195	1.100	0.754	0.416
1.190	1.312	0.818	2.216	1.344	0.949	0.704

than the other components, viz., the GST and the CST. This is partly explained by the fact that till recently there prevailed specific rates in the case of the MST.

Relative Tax Effort

The higher coefficient of buoyancy could be interpreted to mean that the relative growth of sales tax revenue has been higher in the State. This could be partly the result of the higher tax effort of the State. In this section, we shall study the relative tax effort of Tamil Nadu in the field of the sales tax.

One of the ways of measuring tax effort, is to carry out a multiple regression to work out the average degree of relationship between tax ratios in different States and what are identified as taxable capacity factors. The tax ratio estimated on the basis of the regression equation is taken to represent the tax ratio which a State would have had if it had used its capacity to an average extent. Hence, comparison of the estimated ratio with the actual tax ratio will indicate whether the State concerned is making the average degree of effort, or more, or less.

For carrying out the above exercise, the selection of the capacity factors is crucial. We initially selected a number of factors which a priori could be said to affect taxable capacity. These factors were (i) per capita income (Y/P); (ii) the proportion of income from industrial and commercial sectors to total SDP (Y_{ic}/Y); (iii) the proportion of income from agricultural sector to total SDP (Y_A/Y), and (iv) the degree of

urbanisation (U). Relating all the above capacity factors with the total tax-income ratio (T/Y) showed that Y/P was a very important factor. But by itself it explained only a minor part of the variations in tax ratio; Y/P taken with U explained most of the variations. Hence, we finally used the following equation to derive the State's tax effort:

$$\left(\frac{T}{Y} \right) = 2.9566 + 0.0003 (Y/P) + 0.1394 (U)$$

(2.9447) (0.3040) (3.5960)

$$R^2 = 0.534 \quad SEE = 1.067$$

(Figures within parentheses denote t-values).

The results of the above exercise, as presented in Table 3.7, show that both Karnataka and Kerala have made higher effort than Tamil Nadu.

The ranking of Tamil Nadu, however, changes when we consider the effort of the States in respect of sales tax alone. In doing so, we include all the components of sales tax to obtain the sales tax - income ratio (ST/Y) and relate it to capacity factors shown in R(i) above as follows:

$$(ST/Y) = (-) 0.3542 + 0.0387 (Y_i.c/Y) + 0.0822 (U)$$

(- 0.3864) (1.4427) (2.5513)

$$R^2 = 0.666 \quad SEE = 0.687$$

(Figures within parentheses denote t-values).

The results of the sales tax effort obtained through equation (2) show that Kerala has exploited capacity to a greater extent than Tamil Nadu (Table 3.8).

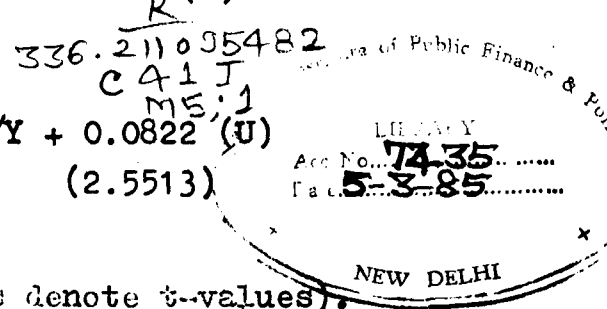


TABLE 3.7

Relative Tax Effort : A Study of Relative Tax Effort
in Relation to Total Taxes
 (1976-77 to 1978-79)

State	Tax - income ratio (per cent)		Index A Tax effort
	Actual	Estimated	
Andhra Pradesh	7.50	6.51	1.15
Assam	4.56	4.46	1.02
Bihar	4.63	4.92	0.94
Gujarat	7.14	7.72	0.92
Haryana	8.10	6.47	1.25
Himachal Pradesh	3.90	4.41	0.88
Jammu & Kashmir	4.56	5.86	0.78
Karnataka	7.87	7.33	1.07
Kerala	8.22	5.88	1.40
Madhya Pradesh	6.31	6.05	1.04
Maharashtra	7.74	8.33	0.93
Orissa	4.32	4.84	0.89
Punjab	7.52	7.40	1.02
Rajasthan	5.74	6.17	0.93
Tamil Nadu	8.14	7.85	1.04
Uttar Pradesh	5.47	5.74	0.95
West Bengal	5.26	7.03	0.75

TABLE 3.8

Relative Tax Effort : A Study of Relative Tax Effort
in Relation to Sales Taxes
 (1976-77 to 1978-79)

State	Sales tax - income ratio (per cent)		Index A Tax effort
	Actual	Estimated	
Andhra Pradesh	3.30	3.46	0.95
Assam	1.91	1.39	1.01
Bihar	2.54	2.29	1.11
Gujarat	4.68	4.60	1.02
Haryana	3.60	3.16	1.14
Himachal Pradesh	1.33	2.13	0.62
Jammu & Kashmir	1.49	2.79	0.53
Karnataka	3.98	3.93	1.01
Kerala	4.76	3.23	1.47
Madhya Pradesh	3.16	2.98	1.06
Maharashtra	4.97	5.18	0.96
Orissa	2.45	1.97	1.24
Punjab	3.41	3.62	0.94
Rajasthan	3.18	2.94	1.08
Tamil Nadu	5.43	4.99	1.09
Uttar Pradesh	2.90	2.92	0.99
West Bengal	3.02	4.05	0.75

Another approach to estimating relative tax effort is based on the measurement of the extent of a State's tax potential. The use of tax potential is measured by first obtaining the effective rate of tax (ERT)^{1/}, for all the States. This is the average rate for each State for the period 1976-77 to 1978-79. From the ERT for each State we obtain an average ERT for all the States. By applying the average ERT to the potential base in each State we derive the tax potential of that State. The index of use of tax potential is then calculated by dividing actual tax revenue with the estimated tax potential (See Chelliah and Sinha, 1982). It is found (Table 3.9) that Kerala has used the sales tax potential to greater extent than Tamil Nadu. Thus, according to either of the two approaches, it is found that Kerala has made higher relative tax effort than Tamil Nadu in the field of sales tax.

Summing Up

The sales tax has come to occupy an important place in the fiscal structure of the Indian States. In Tamil Nadu, the growth of this tax has been comparable to that in any other advanced State in the country. Efforts have been made to mobilise additional resources through the sales tax by increasing the rates and/or expanding the base. Besides, in Tamil Nadu, as in most other States, the coefficient of buoyancy exceeds unity. However, Kerala has seems to have made higher relative tax effort than Tamil Nadu.

^{1/} The ERT is defined as the ratio of tax revenue (TR) to the potential tax base (TB), i.e., $ERT = TR/TB$.

TABLE 3.9

Effective Rates and Average Effective Rate of
Sales Tax Excluding the CST
(1976-77 to 1978-79)

State	Tax revenue (Rs lakh)	Tax base* (Rs lakh)	Effect- ive rate in (per cent)	Tax po- tential (Rs lakh)	Index of Rank- ing in use of tax po- tential of Col. (2)/Col. (6) Col. (5)	Rank- ing in terms of Col. (6)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Andhra Pradesh	14832	486860	3.05	13875.51	1.0689	6
Assam	2406	160403	1.50	4571.49	0.5263	14
Bihar	10408	468380	2.22	13348.83	0.7797	12
Gujarat	16464	443467	3.71	12638.81	1.3027	4
Haryana**	3957	180215	2.20	5136.13	0.7704	13
Karnataka	11846	363587	3.26	10362.23	1.1432	5
Kerala	11257	247527	4.55	7054.52	1.5957	1
Madhya Pradesh	10090	414003	2.44	11779.99	0.8550	10
Maharashtra	35842	926253	3.87	26398.21	1.3577	3
Orissa	3360	387887	0.87	11054.78	0.3039	15
Punjab	8419	301043	2.80	8579.73	0.9813	8
Rajasthan	8409	294270	2.86	8386.70	1.0027	7
Tamil Nadu	21087	473850	4.45	13504.73	1.5615	2
Uttar Pradesh	23187	911167	2.54	25968.26	0.8929	9
West Bengal	15008	632640	2.37	18030.24	0.8324	11
Average effective rate = 2.85						

Notes: * State Domestic Product at factor cost.

** For the years 1976-77 and 1977-78 only.