

Chapter 3

An Analysis of Changes in State Government Subsidies: 1977-87

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Correcting fiscal imbalances is today the single most important task of macroeconomic management in India in the face of rising inflation, burgeoning public debt, a severe paucity of resources for plan financing and a deepening balance of payment crisis. Each of these problems is traceable either directly or indirectly to the growing gap between government expenditure and revenue. Budgetary subsidies are obviously one of the specific instruments of policy requiring careful analysis in the drive toward prudential financial management, since subsidies now constitute one of the largest items of public expenditure.

We have, in an earlier paper, analysed the volume and composition of total subsidies arising from the budgetary operations of the central government and 14 major states in the year 1987-88 (Mundle and Rao, 1991). This chapter focuses on the trend over time in the flow of

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subsidies at the state level. The analysis is confined to the 14 major states.

At the state level, the problem of fiscal imbalance has a special feature which must be noted. As the states do not have independent powers to borrow, particularly after the Overdraft Regulation Scheme was introduced in 1985, they in fact face a hard budget constraint. Given the political difficulties in raising larger resources and the prior claim of non-plan revenue expenditure, plan expenditure (particularly capital expenditure under the plan) has tended to grow slowly in recent years. During the Seventh Plan, for example, while total public sector outlay in the country exceeded the planned outlay by about 4.5 per cent, at the state level the total outlay fell short of the planned outlay by about 8 per cent. The shortfall was mainly on account of budgetary contributions (i.e., balance from current revenue and additional resource mobilisation). As against a planned share of 36 per cent of total outlay for budgetary contributions, the actual was only about 23 per cent.

An important reason for the worsening budgetary situation in the states is the negligible contribution of non-tax revenues. While the states over the years have made substantial investments in social and economic services, recoveries have not only been insignificant but even have been on the decline as a proportion of states' own revenues. The composition and growth of states' own non-tax revenues, presented in Table 3.1, clearly bring out three salient features.²

First, the share of non-tax revenues in states' own total revenues is not only small, but it has also declined over time. Second, all major items of non-tax revenues, i.e., administrative receipts from general, social and economic services, surpluses from departmentally run undertakings as well as interest receipts and dividends from non-departmental enterprises, have grown at rates lower than the rate of growth of states' revenue expenditure as well as own tax revenue. The only exception is the royalty and cess on mines and minerals, which grew at over 30 per cent per annum. Non-tax revenues excluding royalty and cess grew at an average annual rate of only 7.4 per cent per annum, and when royalty and cess are included, the growth rate was 10.5 per cent. Clearly, compared to other sources of non-tax

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2. We have excluded interest receipts of the states from departmental undertakings, as these are merely book adjustments and do not represent real transfers. These are shown as revenue receipts under the major head 'Interest Receipts' and as an expenditure item under the respective major head under which the account of the undertaking is shown (e.g. irrigation).

revenue, the states have found it easier to effect recoveries from royalty and cess on minerals, (which is a form of tax on natural resources), the burden of which is substantially exported to the residents of other states. Third, the inflows from all items of non-tax revenues are less stable than the inflow of tax revenues. As may be seen from the F values in Table 3.2, the variance of non-tax revenues was significantly higher than those of both tax revenue and revenue expenditure. Fluctuation in the returns from departmental undertakings was particularly large, ranging from a surplus of Rs 119 crore in 1980-81 to a deficit of Rs 9.8 crore in 1988-89. This small and unstable pattern of non-tax revenue flows suggest that this is virtually a residual item of revenue, not seriously considered as a source of financing expenditure by the states.

Within this overall pattern there are of course large variations across states, the rate of growth of non-tax revenue ranging from as little as 0.2 per cent per annum in the case of West Bengal to as much as 33 per cent in the case of Bihar (see Table 3.3). In the states where non-tax revenues grew at high rates, it was largely due to the buoyancy of revenues from royalty and cess on mines and minerals. When royalty and cess are excluded, there is a sharp fall in the growth of non-tax revenues in Bihar, Gujarat, Madhya Pradesh and Orissa.

Thus, while revenue expenditures in the states have been increasing at very high rates, the growth of revenue receipts, especially non-tax revenues, has lagged behind. Clearly, where the high growth of state government expenditures relates to services other than pure public goods, it is necessary to analyse how far the cost of these services is recovered and, if not, how far the flow of subsidies can be linked to identifiable policy objectives.

The present study does not address all important issues relating to states' cost recoveries, the implicit subsidies involved and their incidence. Here, an attempt is made to estimate the volume of subsidies involved in the provision of various social and economic services only and to examine how these have changed over the last decade. The concept of 'subsidy' employed in this paper is discussed in section 2, and some issues of estimation are explained. Section 3 presents estimates of cost recovery and the volume and composition of subsidies. Section 4 summarises the important conclusions of the study.

THE CONCEPT OF SUBSIDY AND THE METHOD OF MEASUREMENT³

Definition and Scope

In the economics literature, there is no single accepted definition of subsidy. Definitions vary depending on the purpose in view (Wiseman, 1981). We have, for the purpose of this study, defined budgetary subsidies as the difference between the cost of delivering publicly provided goods or services (henceforth referred to as services) and the recoveries arising from such deliveries.⁴

This definition includes subsidies arising only from those departments which come directly under the state governments. Subsidies arising from the operation of non-departmental public enterprises are included only to the extent that they are reflected in the difference between financial assistance extended to such enterprises by the state governments and the returns which these governments receive from them.

The analytical framework underlying our analysis is detailed in the paper cited above. Briefly, we may classify the public services provided by the government as pure public goods, pure private goods and 'merit' goods. In the case of pure public goods, non-excludability in consumption implies that true consumer preferences will not be revealed. Since these services cannot be easily priced, their costs have to be met out of the general budget. Therefore, the concept of a subsidy in the provision of pure public goods does not seem appropriate. Could we say, for instance, that the entire expenditure on defence is a subsidy? 'Merit goods' can be priced. However, the existence of externalities may necessitate subsidisation to ensure optimal provision of such services. Finally, in the case of private goods which can be priced and have zero externality by definition, if subsidies are provided, they should be justifiable on distributional considerations.

It is difficult to operationalise these concepts, in particular the classification of services as pure public goods, merit goods or private goods and the measurement of externality. In this exercise, we have followed a conservative rule of thumb, of treating only expenditures on general administrative services, relief on account of natural calamities, the general secretariat expenses of social and economic

3. For more detailed discussion of these issues, see Mundle and Rao (1991).

4. We ignore, for the moment, the issue of differences between the actual cost and efficiency cost of public services.

services and the compensation and assignment of resources to Local Bodies and Panchayat Raj institutions as pure public services. The expenditure incurred on these items has accordingly been excluded from the computation of subsidies.

Public expenditure on transfer payments has also been excluded, since these cannot be treated as costs incurred in the provision of a service. We have also excluded the tax-expenditure or revenue losses incurred on account of tax incentives from the computation of subsidies, though these are sometimes treated as subsidies in the literature.

Method of Measurement

This exercise estimates the subsidies involved in the provision of public services by the fourteen major state governments in 1977-78 and 1987-88. In all, there are 123 major heads of account identifiable from the budget classification, of which 37 are in general administrative services, etc., and are treated as pure public services as explained above. For each of the remaining 86 social and economic services, subsidy has been computed as

$$s_j = v_j + i (K_j + L_j) + d.K_j - y_j - r_j - t_j \quad (1)$$

where $j = 38 \dots 123$, indicates the services. For the j^{th} service

s_j is the subsidy;

v_j is the variable cost or revenue expenditure on the service;

K_j is the capital stock in the sector;

L_j is the stock of investments made outside government under the budget head j in the form of loans or equity;

i is an imputed interest rate representing the opportunity cost of money for government;

d is the depreciation rate;

y_j is revenue receipt from service j ;

r_j is income by way of interest or dividend on loans and equity under budget head j ; and

t_j is a transfer payment under budget head j to individual agents.

The total volume of subsidies on all services is given by

$$S = \sum_{j=38}^{123} s_j \quad (2)$$

Similarly the cost of any service j ($j = 1 \dots 123$) is given by

$$c_j = v_j + i(K_j + L_j) + dK_j - t_j. \quad (3)$$

The total cost of all services, including transfer payments and pure public services, is given by

$$C = \sum_{j=1}^{123} c_j + \sum_{j=1}^{123} t_j \quad (4)$$

The imputed interest rate or the average cost of money to the government, calculated as the ratio of interest payments by central and state governments taken together to the stock of total public debt, works out to 5 per cent in 1977-78 and 7 per cent in 1987-88. The depreciation rate has been set at 2 per cent in real terms, assuming an average life of fifty years for capital stock in government activities as on 31st March, 1987. Allowing for an inflation rate of 7.4 per cent, depreciation in nominal terms works out to 9.4 per cent.

The data used for the exercise have been drawn primarily from the Finance Accounts of the state governments published by the Office of the Comptroller and Auditor General. This has been supplemented by additional information drawn from budget documents and from *Indian Economic Statistics: Public Finance* published by the Ministry of Finance.

STATE BUDGETARY SUBSIDIES: VOLUME AND COMPOSITION

A comparative analysis of the cost of public services, cost recoveries and the volume of subsidies involved in 1977-78 and 1987-88 are presented in Table 3.4. In 1987-88, the total cost of public services and transfers together amounted to Rs 43,358 crore. Of this, the cost of administrative services (public goods) and transfers together was of the order of Rs 11,271 crore and the cost of social and economic services amounted to Rs 32,087 crore. After deducting cost recoveries of Rs 4,625 crore, the budgetary subsidy amounted to Rs 27,463 crore. This works out to about 8.3 per cent of GDP or over 63 per cent of the total cost of public services and transfers.

These orders of magnitude, when compared with the base values for 1977-78, indicate that subsidies grew phenomenally over the decade 1977-78 to 1987-88. The increase in cost recoveries lagged substantially behind the rising cost of social and economic services, resulting in rapid growth of subsidies. Thus, in the aggregate, while the cost of social and economic services provided by state governments

increased at an average annual rate of 17 per cent per annum, cost recoveries increased only by 12.4 per cent, causing subsidies to grow at 18 per cent (See Table 3.4). This pattern is seen uniformly in all states and hence also for the groupings of high income, middle income and low income states.

Another feature worth noting is the variation in subsidies across states. It may be seen from Table 3.5 that a more than proportionate share of subsidies accrued to high and middle income states. In 1987-88 the four high income states, with only a 20 per cent share of population, claimed almost 25 per cent of all-state level subsidies, while the share of the 46 per cent of the population in low income states was less than 40 per cent. In fact, all high and middle income states, with the sole exception of West Bengal, claimed a share of subsidies higher than their respective population shares. The per capita subsidy in high income states worked out to Rs 481, as against only Rs 323 per capita in low income states. This reflects higher per capita expenditures on social and economic services in these states, which are, in turn, a direct reflection of their greater revenue raising capacities. It is also seen that, in 1987-88, per capita subsidies were highly correlated with both per capita state domestic product (SDP)⁵ and the Ninth Finance Commission's estimate of per capita taxable capacity.⁶ This implies that the federal transfer mechanism has failed to achieve its major objective of offsetting the fiscal disadvantages of the states. In other words, the transfer mechanism has not succeeded in *enabling* the fiscally disadvantaged states to provide a normatively determined level of public services at a uniform tax effort. Consequently, both levels of services and per capita subsidies in the fiscally disadvantaged states were lower than in the better off states.

The third important feature of the inter-state distribution of subsidies in 1977-78 and 1987-88 is a remarkable stability in the relative shares of different states over the decade (Table 3.6). The share of the five low income states remained virtually unchanged at about 40 per cent. The high income states gained one percentage point in 1987-88 at the cost of the middle income states, as compared to the shares in 1977-78. This stability in relative shares is somewhat surprising as there is a general impression that since the Seventh Finance Commission, the statutory transfers have been distributed on the basis of more progressive formulae. Therefore, the shares of low income states should have shown an increase. However, non-statutory transfers, particularly those for central sector and centrally

5. This refers to the comparable estimates of SDP averaged for 1982-85.

6. The correlation coefficients were respectively 0.78 and 0.80.

sponsored schemes, have grown in importance, and their less progressive distribution seems to have, by and large, neutralised any increase in the progressivity of statutory transfers awarded by the recent Finance Commissions.⁷

Subsidies in Social Services

Subsidies in the provision of social services in all the major states taken together amounted to Rs 14,540 crore, forming about 53 per cent of total subsidies flowing through state governments. The share of subsidies on education alone accounted for about 30 per cent, and the share of subsidies on protective and preventive health care (medical, public health, water supply and housing) services constituted another 17 per cent of total state subsidies.

The estimates presented in Table 3.7 show that in each of the 14 major states, social services claimed a predominant share of subsidies, ranging from 46 per cent in Haryana to about 67 per cent in Kerala. The broad similarity in the relative shares of various sub-sectors of social services among the states is also notable. In every state, the highest share of subsidy was in education, followed by medical and public health, water supply and sanitation and housing.

In the case of both education and health care, the two largest subsidy items, the most striking feature that emerges from the analysis is that, generally, per capita subsidies were higher in the states where levels of educational and health services were also higher and *vice-versa*. In the case of education, for example, the coefficient of correlation between per capita subsidy and literacy rate was 0.76. In Kerala, both the literacy rates and per capita subsidies were the highest. Similarly, in the states of Gujarat, Karnataka, Maharashtra, Punjab and Tamil Nadu, where literacy rates were higher than the all-states average, per capita subsidies were also substantially higher. Subsidy levels were the lowest in Bihar, Madhya Pradesh, Orissa and Uttar Pradesh, all of which had very low literacy rates.

A similar association between levels of service and per capita subsidy is noticed also in the case of preventive and protective health care (medical, public health, water supply, sanitation and housing). In Haryana, Karnataka, Kerala, Maharashtra, Punjab and West Bengal, where infant mortality rates were much below the average, per capita subsidies on protective health care (medical and public health) were higher. In Kerala, which had the lowest infant mortality rate (27 per

7. It may be noted that the share of grants for central sector and centrally sponsored schemes in total current central transfers increased from 13.5 per cent in 1977-78 to 20 per cent in 1987-88.

1000 births), the per capita subsidy in protective health care was higher than the average by 33 per cent. Similarly, in Punjab, where per capita subsidies were 54 per cent higher than the average, the infant mortality rate was much lower than the average. A similar pattern can be observed in the case of subsidies in preventive health care services. The correlation coefficient between infant mortality and per capita subsidy on medical and public health worked out to (-)0.72.

We have pointed out above that per capita subsidies on social services were higher in states where the levels of these services were higher. It is quite likely that it is because of higher levels of subsidy that the consumption of social services was higher in these states. If so, an egalitarian Federal transfer policy would require that such subsidies be enhanced over time in states having lower consumption of social services relative to those with higher social services consumption. Unfortunately, the actual experience belies this expectation.

Per capita subsidies on major social services in 1977-78 and 1987-88 at constant (1977-78) prices are shown in the Table 3.8. It turns out that per capita subsidies on social services in real terms increased at very high rates in all states and under each of the major social service items. However, there is little evidence to suggest that there was any attempt at redressing inter-state inequities in the allocation of subsidies on social services over time. In fact, the five states having the highest per capita subsidies on social services in 1977-78 continued to hold their position in 1987-88. Similarly, the four states which had the lowest per capita subsidy on social services in 1977-78 remained at the bottom of the ordering in 1987-88 also. The only major rank shift was in the case of West Bengal, which slipped from the sixth position in 1977-78 to the tenth in 1987-88. The rank correlation coefficient of the ordering of states by per capita social service subsidy in the two years was as high as 0.89. The pattern was also broadly similar in the case of the largest social service subsidy item, namely, education. In fact, there was no change at all in the ranks of the first 10 states. The rank correlation coefficient of the education subsidy ordering of states between the two years was as high as 0.95. It is thus clear that during the period considered, there was no equity improvement in the inter-state allocation of subsidies on social services.

The inequitable distribution of social service subsidies between states is probably reinforced by inequity in the inter-personal allocation of such subsidies within states. Illiteracy itself is a barrier to accessing such services as, for example, non-primary education. This point is rather important in view of the fact that user charges in social

services are not only very low but also declining over time (Table 3.9). The recovery rate on social services for all the states taken together declined from 5 per cent in 1977-78 to only 2.8 per cent in 1987-88. A declining trend is also evident in every state. In 1987-88, the recovery rate was less than 6 per cent in all states; in Bihar and West Bengal, it was just a little over 1 per cent. The pattern of low and declining recovery rates appears in both education and health.

Low recovery rates in education and health services presumably reflect a deliberate policy of providing these services free or at very low prices for both externality and distributional considerations. However, when there are barriers to access to these services, such that a disproportionate share of subsidies accrues to a relatively small and privileged section of population, it implies that some of the external benefits of the subsidy are lost and the distributional objective is substantially undermined. Ensuring greater accessibility of subsidies to economically disadvantaged groups requires massive expansion in the levels of these services and also requires much more effective targeting and complete elimination of such subsidies for those who can afford to pay for them.

Low and declining recovery rates in social services are a major factor accounting for the sharp increase in real per capita subsidy noted earlier. Since the recovery rate on social services is much below the average and expenditure on these services has been increasing faster than expenditure on other services (Mundle, 1988 and Rao and Tulasidhar, 1991) in recent years, the average per capita subsidy has tended to increase over time. Of course, this tendency has been reinforced by the general trend of declining recovery rates in all government services across the board.

The education sector alone accounts for about a third of total budgetary subsidies in the states, so it would be instructive to analyse it in greater detail. The disaggregated picture of subsidies and recovery rates in the education sector in the 14 major states, presented in Table 3.10, reveals three important features. First, in 1987-88 the subsidy on primary education constituted about 46 per cent of the total subsidy on education, despite the fact that almost 65 per cent of the population in the states was illiterate (according to the 1981 census). Over 54 per cent of the education subsidy was allocated to higher levels of education. The pattern was broadly similar in all the states. Second, the subsidy on higher, technical, medical and agricultural education, which accrues mainly to the literate section of population, amounted to a staggering Rs. 2,000 crore in 1987-88, comprising 23 per cent of the total education subsidy. This amount

could easily have financed augmentation of outlay on primary education by about 50 per cent! Some degree of subsidisation at higher educational levels may be desirable. However, there is clearly a very strong case for pruning these to provide more subsidies at the primary level, in view of the high rate of illiteracy that still prevails in India. Only a small and relatively better off section of the population benefits from subsidies on education at higher levels. Thus, our analysis underlines the inequitable distribution of the education subsidy not merely in terms of its inter-regional spread but also in terms of its inter-personal distribution within regions.

In contrast to the required direction of reform described above, we find that the proportion of subsidies at higher educational levels has, in fact, been increasing over the years. While the share of primary education in the total subsidy on education declined from 49 per cent in 1977-78 to 46 per cent in 1987-88, that of higher education increased from 20.5 per cent to 22.9 per cent during the period. The pattern was broadly similar across most individual states except Karnataka, Orissa, Uttar Pradesh and West Bengal, where the share of subsidies on higher education showed a marginal decline. The increase in the share of subsidies on higher education was primarily due to a very large decline in the recovery rate from 6.7 per cent in 1977-78 to only 1.7 per cent in 1987-88. Recovery rates for higher education showed a significant decline in every state; in 1987-88, in as many as 11 states, higher education had become virtually free, with a recovery rate of less than 2 per cent!

Subsidy in Economic Services

The volume of subsidies in economic services in the states totalled Rs 15,950 crore in 1987-88, accounting for about 47 per cent of the total bill of subsidies. The largest component of this, amounting to over Rs 4,700 crore, was in irrigation, and Rs 4,100 crore was in agriculture and allied activities. Other important sectors involving significant subsidies included power and transport.

As in the case of social services, a disproportionately large share of subsidies on economic services has accrued to more developed states (Table 3.11). In Punjab, for example, the per capita subsidy on economic services amounted to Rs 345, which was more than double the per capita subsidy of Rs 163 in Bihar, the least developed state. In the more developed states of Gujarat, Haryana and Punjab, subsidies were appreciably higher than the average, whereas in the less developed states like Uttar Pradesh, Bihar and Madhya Pradesh they were substantially lower. This pattern is also apparent in subsidies to

important individual economic services, with large inter-state variations both in recovery rates and in per capita subsidies. In the case of agriculture and allied activities, for example, the per capita subsidy in advanced states like Gujarat, Haryana, Maharashtra and Punjab were much higher than the all states' average. For irrigation and power, the per capita subsidy in better off states like Gujarat (not for power), Haryana and Punjab were significantly higher than the average for all states. Incidentally, power in Karnataka and Kerala are the *only* cases across all social and economic services in all states where no subsidy is involved.

The subsidy to power consumption is largely on account of the very low rates of tariff for electricity consumed in irrigation. The two subsidies taken together could therefore be interpreted as the total direct and indirect subsidy on irrigation. Along with the subsidy under 'agriculture and allied activities', the total flow of subsidies to the farming sector may be placed at about Rs 10,400 crore, out of a total flow of subsidies to economic services from state budgets amounting to approximately Rs 13,000 crore.

Subsidies implicit in the underpricing of economic services also have important allocative effects. Underpricing of both irrigation and power, for example, can lead to overuse of water. This is likely to distort cropping patterns in favour of water-intensive crops. Similarly, underpricing of forest products leads to excessive depletion of forest resources, with undesirable effects on the environment. The adverse distributional and resource allocation effects of the existing pattern of subsidies do not imply that the subsidies should be wholly eliminated. What they do imply is that subsidies should be made transparent and carefully targeted explicitly, keeping in view the distributional and resource allocation effects. It is important that subsidisation should be done as a conscious policy to alter resource allocation or income distribution along intended lines, and unintended effects should be avoided.

The pattern of subsidy flows in 1987-88 presents a snapshot at one point of time. From a dynamic reform perspective, it is interesting to ask whether the picture in 1987-88 represents an improvement or a deterioration over time in terms of the adverse distributional and allocative effects. The analysis of subsidies in 1977-78 and 1987-88 shows that if anything, the distortions have been increasing over time. Table 3.12 shows that in real terms the per capita subsidy in economic services grew at higher than average rates in some of the economically advanced states like Gujarat, Haryana, Karnataka, Maharashtra and Tamil Nadu. To a large extent, this was due to a very high increase in

per capita subsidies on agriculture and allied activities and also irrigation in the case of Gujarat and Haryana.

Per capita subsidies on economic services, in all 14 states taken together, increased at an annual average rate of 7.7 per cent, which was higher than the growth rate for social services, despite the fact that expenditures on social services increased at a faster rate in recent years. This implies that though the recovery rates on economic services were higher, they declined more than the recovery rates on social services during this period. The recovery rates on economic services in the two years presented in Table 3.13 confirm this. The average rate for the major states taken together for economic services as a whole declined from 36 per cent in 1977-78 to about 25 per cent in 1987-88. Decreases of varying magnitudes occurred in all the states and in almost all the sectors, the maximum decrease being from 52 per cent to about 29 per cent in agriculture and allied services. A few conspicuous exceptions include the rates on irrigation in Maharashtra, Tamil Nadu and Uttar Pradesh and on power in Haryana.

In this context, it should be noted that all the Finance Commissions since the Seventh have fixed certain normative rates of return for departmental and non-departmental enterprises of the states. In the case of a major departmental enterprise like irrigation, for example, while the seventh Finance Commission proposed that it should yield at least one per cent interest on the capital invested, the Eighth Finance Commission proposed that at least working expenses should be covered. The analysis of the rates of return shown in Table 3.14 shows not only that these norms have not been met but also that there was a further deterioration of the position in 1987-88 as compared to 1977-78. The loss on account of irrigation deteriorated from (-)2 per cent of the capital invested to (-)6 per cent over the period, the deterioration being particularly marked in Gujarat, Haryana, Karnataka, Punjab, Rajasthan and West Bengal.

The important non-departmental undertakings at the state level are electricity boards and road transport corporations. In the case of electricity boards, the eighth Finance Commission fixed the norm at 7 per cent rate of interest on capital invested. Although strict comparison with the Commission's norm is difficult⁸, it is quite evident that the rate of return declined in 1987-88 as compared to 1977-78 in a number of states, as well as in the aggregate. The decline in the rate

8. Certain adjustments have to be made before the rates are compared with the Finance Commission norms. In particular, capital outlay on work in progress and rural electrification should be deducted before computing the rate of return.

was particularly marked in Tamil Nadu and West Bengal. Even Punjab and Tamil Nadu generated very high negative rates of return. Similarly, the return from Road Transport Corporations declined from 3 per cent in 1977-78 to (-2) per cent in 1987-88.⁹ The deterioration in rates of return occurred in all states except Andhra Pradesh and was particularly sharp in Gujarat, Orissa, Punjab and West Bengal.

CONCLUSIONS

The search for policy options to correct fiscal imbalances in India calls for a careful analysis of budgetary subsidies, with a view to making them more transparent and facilitating better targeting. Benefits to intended beneficiaries of a tax-transfer system can be provided either through pure income transfers or through subsidies on goods and services. Direct transfer payments are transparent, and their beneficiaries are explicitly targeted. As a pure redistributive device, this should be the preferred policy instrument. However, if the intention is to induce higher absorption of specific public services, specific subsidies would be necessary. The problem with this, however, is that the total volume of subsidies involved is often not known. Its allocative and distributive implications remain unclear, and therefore, targeting and avoiding unintended distributional or allocative effects, difficult.

In this context, the following important conclusions which emerge from our analysis of non-tax revenues and budgetary subsidies should be noted.

- (i) The states have not used non-tax revenues except cess and royalty on mines and minerals as a significant source of finance. Non-tax revenues formed not only a low and declining share in states' revenues but have also been highly volatile.
- (ii) The estimated total volume of subsidies in the 14 major states in 1987-88 amounted to a staggering Rs 27,463 crore, or 8.3 per cent of GDP. Since the growth of recoveries lagged behind increases in expenditures, subsidies increased at a phenomenal rate of 18 per cent per year between 1977-78 and 1987-88. Per capita subsidies at constant prices increased at an annual rate of 6 per cent in the case of social services and almost 8 per cent in the case of economic services. In all the

9. The Eighth Commission had set the norm at 3 per cent rate of return.

states, subsidies formed a high and increasing proportion of the cost of public services.

- (iii) One major reason for the high rate of growth of subsidies was the rising share of expenditure on social services, which generally have very low recovery rates. However, a more disturbing reason was the declining rate of cost recoveries both in social and in economic services. The decline was sharper in the case of economic services, and therefore, subsidies on these services grew at a faster rate than those on social services even though expenditures on the latter increased more rapidly. Declining recovery rates was a common feature across all the states though, of course, the magnitudes have varied.
- (iv) At present the distribution of subsidies appears to be highly inequitable. In the interregional dimension, federal transfer policies have failed to adequately offset low revenue raising capacities of poorer states. As a consequence, per capita subsidies were much higher in the better off states. Particularly in the case of social services, if higher subsidies were associated with higher literacy, better health etc., it would be desirable that per capita subsidies in poorer states should gradually catch up with those in the richer states. But, there has been no improvement in the inter-state distribution of per capita subsidies over time.
- (v) Inequitable distribution of subsidies across states is reinforced by inequitable distribution within states. Better-off sections of population are appropriating a disproportionate share of subsidies, whether in education, agriculture, irrigation or power.
- (vi) The undesirable distributional effects of subsidies are compounded by undesirable resource allocation effects, e.g., in the underpricing of water for irrigation. Both types of adverse effects, which have worsened over time, call for a much wider application of the user charge concept to lend greater transparency to subsidies, combined with careful targeting of subsidies to intended beneficiaries in line with distributional and allocative objectives.
- (vii) In spite of the Finance Commissions fixing normative rates of return, the workings of both departmental and non-departmental undertakings have become increasingly unsatisfactory, as revealed by declining rates of return on states' investments. Again, there is a need for greater clarity regarding the policies or practical measures that should be set in

motion when public enterprises fail to meet even the minimum norms set by various Finance Commissions with regard to the rates of return. The issue requires urgent attention in view of the severe resource constraint faced by the states, its effect especially on the erosion of plan finance and the marginal contributions which non-tax revenues make at present to states' resource mobilisation.

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Table 3.1

**States' Own Revenue Receipts - Growth and Composition
All Major States**

	States' Own Revenue (Rs. lakh)		Share in Total Revenue (%)		Annual Average Growth Rate (%)
	1980-81	1988-89	1980-81	1988-89	(%)
1. States' Own Tax Revenue	645989	2135682	77.83	83.95	15.59
2. States' Own Non-Tax Revenue					
a. Administrative Receipts :					
(i) General Services	34636	53057	4.17	2.09	7.02
(ii) Social Services	24903	56378	3.00	2.22	9.36
of which					
Education	7136	12784	0.86	0.50	7.21
Medical, Public Health and Family Welfare	9001	14674	1.08	0.58	5.69
(iii) Economic Services	41273	178368	4.97	7.01	20.13
of Which					
Royalty and Cess on Minerals	11929	104563	1.44	4.11	30.08
b. Surplus(+)/ Deficit(-) of Departmental Enterprises	11973	-9767	1.44	-0.38	-54.58
c. Interest and Dividends from Non-Departmental Enterprises and Cooperatives	40432	77099	4.87	3.03	11.69
d. Other Interest Receipts*	30756	53801	3.71	2.11	11.23
2. Total Own Non-Tax Revenue#	172045	304374	20.73	11.96	7.39
\$	183974	408937	22.17	16.07	10.50
3. Total Revenue	829963	2544619	100.00	100.00	15.03

Note: # Excluding Royalty and Cess on Minerals

 \$ Including Royalty and Cess on Minerals

*Does not include interest receipts from departmental undertakings which are merely in the nature of book adjustments.

Table 3.2

**Variance of Revenue and Expenditure
All Major States**

	<i>Trend Coefficient</i>	<i>Variance</i>	<i>F-Statistic With Respect to Variance of States' Own Tax Revenue</i>	<i>F-Statistic With Respect to Variance of States' Expenditure</i>
1. States' Revenue				
Expenditure	0.1553	0.0003	-	-
2. States' Own Tax Revenue	0.1449	0.0006	-	-
3. States' Own Non- Tax Revenue				
a. Administrative Receipts:				
(i) General Services	0.0678	0.0180	28.5	61.5
(ii) Social Services	0.0895	0.0061	9.7	21.0
of which				
Education	0.0696	0.0024	3.8	8.3
Medical and Public Health and Family Welfare	0.0553	0.0056	8.8	19.0
(iii) Economic Services	0.1834	0.0015	2.4	5.1
of which				
Cess on Royalty	0.2630	0.0080	12.6	27.2
b. Surplus (+)/Deficit(-) of Departmental Enterprises	-0.7891	6.6008	10421.2	22507.8
c. Interest and Dividends from Non-Depart- mental Enterprises and Cooperatives	0.1105	0.0155	24.5	52.8
d. Other Interest Receipts*	0.1064	0.0203	32.1	69.3
4. Total Own Non-Tax Revenue#	0.0942	0.0016	2.4	5.3
\$	0.1331	0.0014	2.2	4.8
5. Total Revenue	0.1434	0.0005		-

Note: # Excluding Royalty and Cess on Minerals

 \$ Including Royalty and Cess on Minerals

*Does not include interest receipts from departmental undertakings which are merely in the nature of book adjustments.

Table 3.3

Inter-State Differences in Growth of Non-Tax Revenues

(per cent)

	Andhra Pradesh	Bihar	Gujarat	Haryana	Karnataka	Kerala	Madhya Pradesh	Maharashtra	Orissa	Punjab	Rajasthan	Tamil Nadu	Uttar Pradesh	West Bengal	All States
I. Total Revenue Expenditure	17.66	15.42	17.96	17.04	16.81	16.10	17.51	16.75	14.90	16.72	18.76	15.88	17.63	16.75	16.79
II. Non-Plan Revenue Expenditure	16.77	13.89	18.39	16.77	16.01	16.76	16.95	15.24	13.34	16.44	16.34	15.07	16.89	14.60	15.95
III. States' Own Tax Revenue	17.81	14.34	15.09	15.66	16.47	16.31	16.40	15.36	16.88	13.47	16.87	14.57	15.01	15.19	15.59
States' Own Non-Tax Revenue															
a. Administrative Receipts :															
(i) General Services	11.65	20.03	13.69	14.23	7.69	-3.11	9.27	16.29	8.15	10.66	6.99	14.56	15.76	-16.08	7.02
(ii) Social Services	9.58	9.80	13.42	14.37	10.29	6.42	12.75	6.37	10.05	7.85	11.63	17.37	0.10	8.10	9.36
Education	8.65	6.21	12.79	14.03	7.89	10.64	2.09	10.75	-0.29	4.71	0.19	5.89	3.04	8.21	7.21
Medical and Public Health	8.95	5.02	8.78	10.84	7.56	3.01	8.94	0.17	4.16	5.82	8.44	14.78	7.62	2.92	5.69
(iii) Economic Services	20.96	36.50	20.68	11.07	16.08	10.62	17.92	11.75	17.69	7.22	10.05	12.18	15.11	3.43	20.13
Cess on Royalty	14.84	38.53	28.78	20.06	12.11	20.34	23.21	22.79	-22.01	12.92	21.13	11.18	13.54	21.13	30.08
b. Surplus (+) / Deficit (-) of Departmental Enterprises	-12.16	3.45	-45.01	11.21	-49.83	-23.13	6.04	-18.57	-7.38	-39.87	-32.45	-35.60	-48.07	-7.09	-54.58

	Andhra Pradesh	Bihar	Gujarat	Har- yana	Karna- taka	Kerala	Madhya Pradesh	Mahara- shtra	Orissa	Punjab	Rajas- than	Tamil Nadu	Uttar Pradesh	West Bengal	All States
c. Interest and Dividends from Non-Departmental Enterprises and Cooperatives	8.70	12.10	2.10	28.81	10.84	37.83	12.86	24.51	3.92	19.26	12.62	-5.68	17.29	15.14	11.69
d. Other Interest Receipts *	8.76	11.91	-8.58	51.63	11.94	42.06	12.80	25.69	29.59	21.84	-13.83	-6.48	50.43	1.77	11.23
IV. Total Own Non-Tax Revenue#	16.68	15.18	11.30	12.44	13.24	1.68	10.61	11.01	12.40	8.58	6.66	14.26	10.20	-0.64	9.88
	\$ 16.41	32.99	17.82	13.16	13.18	1.82	15.73	11.53	10.06	8.59	8.68	14.19	10.60	0.18	14.23
V. Total Revenue	17.68	20.14	15.46	15.48	16.12	14.14	16.29	15.02	14.81	13.17	14.63	14.52	14.60	13.89	15.42

Note: # Excluding Royalty and Cess on Minerals

\$ Including Royalty and Cess on Minerals

*Does not include interest receipts from departmental undertakings which are merely in the nature of book adjustments.

Table 3.4

Budgetary Subsidies in the States

(Rs. lakh)

States	Total Cost of Public Services Including Transfers		Cost of Social and Economic Services		Recoveries from Social and Economic Services		Total Subsidy		Recovery Rates from Social and Economic Services						
	1977-78	1987-88	1977-88	1987-88	1977-88	1987-88	1977-88	1987-88	1977-78	1987-88					
	Rate Per annum(%)	Rate Per annum(%)	Rate Per annum(%)	Rate Per annum(%)	Rate Per annum(%)	Rate Per annum(%)	Rate Per annum(%)	Rate Per annum(%)	%	%					
High Income States															
Gujarat	54418	29995	18.61	43539	235752	18.40	9432	31088	12.67	34107	204663	19.62	21.77	13.19	-39.42
Haryana	23928	14370	19.63	20073	112291	18.79	6936	31655	16.40	13138	80635	19.89	34.55	28.19	-18.41
Maharashtra	110533	54190	17.23	78121	389488	17.43	27453	99409	13.73	50668	290079	19.06	35.32	25.52	-27.74
Punjab	39862	18495	16.59	33746	134719	14.85	5790	16476	11.02	27956	118243	15.51	17.52	12.23	-30.20
Aggregate- High Income States	228742	1170515	17.73	175480	872249	17.39	49612	178629	13.67	125868	693621	18.61	28.27	20.48	-27.56
Middle Income States															
Andhra Pradesh	80827	368463	16.38	67454	278998	17.12	13600	44743	12.65	43854	234255	18.24	23.67	16.04	-32.25
Karnataka	57347	291258	17.65	43455	214996	17.31	12570	39722	12.19	30884	175274	18.95	29.00	18.48	-36.29
Kerala	43595	187118	15.68	34164	131507	14.43	6760	13017	6.77	27404	118490	15.77	19.83	9.90	-50.07

States	Total Cost of Public Services Including Transfers				Cost of Social and Economic Services				Recoveries from Social and Economic Services				Total Subsidy				Recovery Rates from Social and Economic Services			
	1977-78		1987-88		1977-78		1987-88		1977-78		1987-88		1977-78		1987-88		1977-78		1987-88	
	Rate Per annum(%)	Growth Rate Per annum(%)	Rate Per annum(%)	Growth Rate Per annum(%)	Rate Per annum(%)	Growth Rate Per annum(%)	Rate Per annum(%)	Growth Rate Per annum(%)	Rate Per annum(%)	Growth Rate Per annum(%)	Rate Per annum(%)	Growth Rate Per annum(%)	Rate Per annum(%)	Growth Rate Per annum(%)	Rate Per annum(%)	Growth Rate Per annum(%)	Rate Per annum(%)	Growth Rate Per annum(%)	Rate Per annum(%)	Growth Rate Per annum(%)
Tamil Nadu	72965	348151	16.91	48065	260958	18.43	8385	22968	10.60	39680	237990	19.62	18.41	8.80	-52.19					
West Bengal	74007	301468	15.08	55133	214336	14.54	5903	12030	7.38	49230	202305	15.18	10.75	5.61	-47.81					
Aggregate-Middle Income States	328741	1496458	16.36	238271	1100795	16.55	47218	132481	10.87	191053	968315	17.66	19.82	12.03	-39.12					
Low Income States																				
Bihar	59566	346577	19.26	46632	257610	18.64	4513	13604	11.67	42119	244006	19.20	9.68	5.28	-45.44					
Madhya Pradesh	65483	344973	18.08	50557	262962	17.93	15317	51605	12.91	35239	211357	19.62	30.54	19.62	-35.73					
Orissa	36072	158588	15.96	28302	120339	15.57	7122	11850	5.22	21180	108489	17.75	25.17	9.85	-60.87					
Rajasthan	47876	273589	19.04	36109	197422	18.52	8204	23212	10.96	27905	174211	20.10	23.20	11.76	-49.33					
Uttar Pradesh	117231	545074	16.61	92581	400083	15.76	12133	51078	15.46	80447	319005	15.81	13.29	12.77	-3.95					
Aggregate-Low Income States	326227	1668801	17.73	254181	1238417	17.16	47290	151348	12.34	206890	1087068	18.05	18.61	12.22	-34.31					
All States	883710	4335773	17.24	667931	3211461	16.99	144120	462458	12.37	523811	2749003	18.02	21.77	14.41	-33.81					

Note: Classification of the states has been done on the basis of per capita net State Domestic Product estimates for (1982-85). The same classification was followed by the Ninth Finance Commission to estimate taxable capacities of the states.

Table 3.5

Budgetary Subsidies in the States in 1987-88

<i>States</i>	<i>Per Capita Subsidy</i> <i>(Rs)</i>	<i>Share of Individual State's Subsidy in All States' Subsidy</i> <i>(Per cent)</i>	<i>Share of Individual State's Population in All States' Population</i> <i>(Per cent)</i>
High Income States			
1. Gujarat	529.94	7.45	5.3
2. Haryana	527.37	2.94	2.1
3. Maharashtra	406.67	10.56	9.8
4. Punjab	625.29	4.31	2.6
Aggregate High Income States	481.18	25.26	19.8
Middle Income States			
1. Andhra Pradesh	388.55	8.53	8.3
2. Karnataka	406.79	6.28	5.8
3. Kerala	416.19	4.31	3.9
4. Tamil Nadu	443.60	8.67	7.4
5. West Bengal	327.51	7.37	8.5
Aggregate Middle Income States	391.57	35.16	33.9
Low Income States			
1. Bihar	305.01	8.88	11.0
2. Madhya Pradesh	353.38	7.70	8.2
3. Orissa	367.14	3.95	4.1
4. Rajasthan	429.20	6.34	5.6
5. Uttar Pradesh	275.94	12.71	17.4
Aggregate Low Income States	323.12	39.58	46.3
All States	377.66	100.00	100.0

Note: To estimate per capita subsidies, mid-year population estimates of Registrar General of India are employed.

Table 3.6

**Relative Shares of States in Budgetary Subsidy
1977-78 and 1987-88**

(per cent)

States	Share in Total Subsidy		
	1977-78	1987-88	Difference
High Income States			
Gujarat	6.51	7.45	0.94
Haryana	2.51	2.94	0.43
Maharashtra	9.67	10.56	0.89
Punjab	5.34	4.31	-1.03
Aggregate High Income States	24.03	25.26	1.23
Middle Income States			
Andhra Pradesh	8.37	8.53	0.16
Karnataka	5.90	6.28	0.39
Kerala	5.23	4.31	-0.92
Tamil Nadu	7.58	8.67	1.09
West Bengal	9.40	7.37	-2.03
Aggregate Middle Income States	36.47	35.16	-1.31
Low Income States			
Bihar	8.04	8.88	0.84
Madhya Pradesh	6.73	7.70	0.97
Orissa	4.04	3.95	-0.09
Rajasthan	5.33	6.34	1.02
Uttar Pradesh	15.36	12.71	-2.65
Aggregate Low Income States	39.50	39.58	0.09
All States	100.00	100.00	

Table 3.7

State-Wise Details of Budgetary Subsidies in Social Services (1987-88)

	Andhra Pradesh	Bihar	Gujarat	Haryana	Kerala	Karnataka	Maharashtra	Madhya Pradesh	Orissa	Punjab	Rajasthan	Tamil Nadu	Uttar Pradesh	West Bengal	All States
I. Education															
(i) Total Subsidy (Rs. lakh)	67597	77455	57677	22092	56119	50782	53079	104998	29076	33390	47238	65336	94197	71890	830925
(ii) Per Capita Subsidy (Rs.)	112.12	96.82	149.34	144.49	132.29	178.37	88.75	147.20	98.40	176.57	116.38	121.78	74.48	116.38	114.27
(iii) Share of Total State Subsidy (%)	28.86	31.74	28.18	27.40	32.52	42.86	25.11	36.20	26.80	28.24	27.12	27.45	26.99	35.54	30.26
(iv) Recovery Rate (%)	1.92	0.26	1.08	2.91	1.69	3.37	0.66	0.97	1.37	0.71	0.57	1.95	2.18	0.82	1.41
(v) Literacy Rate (%)	29.90	26.20	43.70	36.10	38.50	70.40	27.90	47.20	34.20	40.90	24.40	46.80	27.20	40.90	36.20
Medical and Public Health															
(i) Total Subsidy (Rs. lakh)	22331	17511	14187	6376	17998	13557	19019	31945	9529	10658	15139	20046	37180	23645	259120
(ii) Per Capita Subsidy (Rs.)	37.04	21.89	36.74	41.70	42.43	47.62	31.80	44.78	32.25	56.36	37.30	37.36	29.40	38.28	35.63
(iii) Share of Total State Subsidy (%)	9.53	7.18	6.93	7.91	10.43	11.44	9.00	11.01	8.78	9.01	8.69	8.42	10.65	11.69	9.44
(iv) Recovery Rate (%)	1.36	1.98	3.73	1.16	2.37	2.79	3.73	1.71	0.41	2.29	0.76	8.83	3.19	1.26	2.73
(v) Infant Mortality Rates (per 1000 Births)	82	101	107	85	74	27	118	63	123	68	107	90	132	71	96

	Andhra Pradesh	Bihar	Gujarat	Haryana	Karnataka	Kerala	Madhya Pradesh	Maharashtra	Orissa	Punjab	Rajasthan	Tamil Nadu	Uttar Pradesh	West Bengal	All States
3. Water Supply and Sanitation and Housing															
(i) Total Subsidy (Rs. lakh)	16732	11528	19770	5764	10385	8943	22463	32714	8236	5957	16814	18268	16864	16678	211117
(ii) Per Capita Subsidy (Rs.)	27.75	14.41	51.19	37.70	24.48	31.41	37.56	45.86	27.87	31.50	41.42	34.05	13.33	27.00	29.03
(iii) Share of Total State Subsidy (%)	7.14	4.72	9.66	7.15	6.02	7.55	10.63	11.28	7.59	5.04	9.65	7.68	4.83	8.24	7.69
(iv) Recovery Rate (%)	3.15	1.66	5.71	7.22	2.66	1.18	4.94	7.21	5.39	5.82	20.41	5.28			5.93
4. Other Social Services															
(i) Total Subsidy (Rs. lakh)	25476	7460	11182	2709	12174	6420	18225	11835	8685	2939	3268	10735	22209	9484	152802
(ii) Per Capita Subsidy (Rs.)	42.26	9.33	28.95	17.72	28.70	22.55	30.47	16.59	29.39	15.54	8.05	20.01	17.56	15.35	21.01
(iii) Share of Total State Subsidy (%)	10.88	3.06	5.46	3.36	7.06	5.42	8.62	4.08	8.01	2.49	1.88	4.51	6.36	4.69	5.56
(iv) Recovery Rate (%)	3.51	9.60	10.49	6.52	4.33	2.35	3.59	10.44	1.93	11.57	5.70	8.50	3.95	1.13	5.42
5. All Social Services															
(i) Total Subsidy (Rs. lakh)	132138	113954	102817	36941	96676	79702	112786	181491	55527	52944	82459	114385	170449	121697	1453963
(ii) Per Capita Subsidy (Rs.)	219.17	142.44	265.23	241.60	227.90	279.95	188.57	254.44	187.91	279.98	203.15	213.21	134.76	197.02	199.95
(iii) Share of Total State Subsidy (%)	56.41	46.70	50.24	45.81	56.02	67.26	53.36	62.57	51.18	44.78	47.33	48.06	48.84	60.15	52.94
(iv) Recovery Rate (%)	2.29	1.34	3.46	3.59	2.33	2.95	2.54	2.94	1.91	2.2	95.61	4.39	2.53	1.18	2.75

Note: Estimates of literacy rates are according to 1981 census.

Estimates of infant mortality rates are taken from Sample Registration System, Registrar General of India.

Table 3.8

Per capita Subsidy in Social Services at Constant Prices

		Per capita Subsidy at Constant (1977-78) Prices (Rs.)														
		Education			Health			Water Supply, Sanitation and Housing			Other Social Services			All Social Services		
		1977-78	1987-78	Growth Rate(%)	1977-78	1987-78	Growth Rate(%)	1977-78	1987-78	Growth Rate(%)	1977-78	1987-78	Growth Rate(%)	1977-78	1987-78	Growth Rate(%)
Andhra Pradesh		30.18	51.38	5.47	10.89	16.98	4.54	4.41	12.72	11.18	8.13	19.37	9.06	53.62	100.44	6.48
Bihar		20.28	44.37	8.14	4.45	10.03	8.46	2.99	6.60	8.25	2.23	4.27	6.71	29.95	65.28	8.10
Gujarat		42.48	68.44	4.88	12.68	16.84	2.87	6.07	23.46	14.47	5.25	13.27	9.72	66.49	122.01	6.26
Haryana		36.80	66.22	6.05	15.16	19.11	2.35	2.97	17.28	19.25	3.66	8.12	8.30	58.58	110.73	6.57
Karnataka		34.54	60.63	5.79	11.48	19.44	5.41	3.69	11.22	11.75	4.61	13.15	11.05	54.32	104.45	6.76
Kerala		57.93	81.75	3.50	15.03	21.82	3.80	6.38	14.40	8.49	2.56	10.33	14.98	81.90	128.30	4.59
Madhya Pradesh		24.88	40.67	5.04	9.41	14.57	4.47	4.69	17.21	13.88	6.15	13.96	8.55	45.12	86.42	6.71
Maharashtra		40.44	67.46	5.25	10.18	20.52	7.26	10.61	21.02	7.07	2.37	7.60	12.35	63.61	116.61	6.25
Orissa		26.89	45.09	5.30	9.65	14.78	4.35	5.43	12.77	8.93	4.85	13.47	10.76	46.82	86.12	6.28
Punjab		51.76	80.92	4.57	16.04	25.83	4.88	11.27	14.44	2.51	9.61	7.12	-2.95	88.68	128.31	3.76
Rajasthan		32.33	53.34	5.13	12.40	17.09	3.26	5.58	18.98	13.02	0.63	3.69	19.25	50.95	93.10	6.21
Tamil Nadu		33.48	55.81	5.24	12.55	17.12	3.16	6.11	15.60	9.84	1.00	11.43	27.59	50.87	97.71	6.74
Uttar Pradesh		23.42	34.13	3.94	7.76	13.47	5.67	2.06	6.11	11.46	2.63	8.05	11.82	35.88	61.76	5.58
West Bengal		29.29	53.34	6.18	13.23	17.54	2.86	9.74	12.37	2.42	3.85	7.04	6.23	56.11	90.29	4.87
All States		31.39	52.37	5.25	10.34	16.33	4.67	5.47	13.31	9.29	3.56	9.63	10.47	50.76	91.63	6.08

Table 3.9

Recovery Rates in Social Services

	per cent)											
	Education		Health		Water Supply, Sanitation and Housing		Other Social Services		All Social Services			
	1977-78	1987-88	1977-78	1987-88	1977-78	1987-88	1977-78	1987-88	1977-78	1987-88		
Andhra Pradesh	2.76	1.92	1.83	1.36	18.35	3.15	3.74	3.51	4.23	2.29		
Bihar	1.58	0.26	18.05	1.98	4.56	1.66	10.89	9.60	5.43	1.34		
Gujarat	1.28	1.08	5.65	3.73	12.77	5.71	16.87	10.49	4.68	3.46		
Haryana	4.34	2.91	2.76	1.16	15.65	7.22	14.08	6.52	5.25	3.59		
Karnataka	3.87	1.69	3.72	2.37	20.78	2.66	5.04	4.33	5.31	2.33		
Kerala	4.76	3.37	2.78	2.79	12.75	1.18	6.05	2.35	5.12	2.95		
Madhya Pradesh	1.56	0.66	3.31	3.73	14.74	4.94	3.55	3.59	3.74	2.54		
Maharashtra	1.14	0.97	8.13	1.71	19.37	7.21	20.58	10.44	6.65	2.94		
Orissa	6.41	1.37	0.93	0.41	12.08	5.39	13.59	1.93	6.84	1.91		
Punjab	1.65	0.71	8.35	2.29	5.55	5.82	5.53	11.57	3.85	2.29		
Rajasthan	2.91	0.57	2.75	0.76	35.01	20.41	27.56	5.70	8.22	5.61		
Tamil Nadu	6.33	1.95	2.46	8.83	11.04	5.28	-38.94	8.50	6.76	4.39		
Uttar Pradesh	3.51	2.18	5.40	3.19	5.30	1.14	6.86	3.95	4.28	2.53		
West Bengal	0.64	0.82	3.17	1.26	3.03	2.63	5.31	1.13	1.99	1.18		
All States	2.89	1.41	4.85	2.73	13.81	5.93	9.24	5.42	5.05	2.75		

Table 3.10

State-Wise Details of Subsidies in Education

Sub-Sector Under Education	Andhra Pradesh	Bihar	Gujarat	Haryana	Karnataka	Kerala	Madhya Pradesh	Madhya Pradesh	Orissa	Punjab	Rajasthan	Tamil Nadu	Uttar Pradesh	West Bengal	All States
I. Literacy Rate (per cent) 1981	29.90	26.20	43.70	36.10	38.50	70.40	27.90	47.20	34.20	40.90	24.10	46.80	27.20	40.90	36.20
II. Total Education Subsidy (Rs. lakh)															
1977-78	15271	13320	13707	4857	12184	14828	12767	23571	7105	8129	10350	15824	24279	15996	187999
1987-88	70305	80714	61047	24393	58874	54034	54915	111380	30461	36070	49681	67967	96622	74498	870961
III. a. Share of Subsidy in Education 1977-78 (Per cent)															
(i) Primary Education	43.60	62.26	54.88	35.50	52.75	55.60	46.27	46.07	39.45	36.12	54.50	49.01	47.82	37.10	49.11
(ii) Secondary Education	27.34	15.70	27.09	35.92	21.41	22.68	32.43	33.85	35.83	42.39	25.53	32.95	31.34	36.00	30.45
(iii) Higher, Agricultural, Medical, Technical and Other Education	29.06	22.04	18.02	28.58	25.84	21.72	21.30	20.07	24.72	21.50	19.97	18.04	20.84	26.90	20.45
III. b. Share of Subsidy in Education 1987-88 (Per cent)															
(i) Primary Education	44.85	55.05	48.49	35.69	49.27	48.12	55.60	43.31	54.72	30.53	49.10	43.93	47.13	38.01	46.37
(ii) Secondary Education	26.48	18.96	31.34	35.50	27.59	26.27	22.06	35.83	21.56	43.19	31.56	35.11	35.03	37.63	30.74
(iii) Higher, Agricultural, Medical, Technical and Other Education	28.67	25.99	20.17	28.81	23.14	25.62	22.34	20.86	23.73	26.29	19.34	20.95	17.84	24.37	22.89

Sub-Sector Under Education	Andhra Pradesh	Bihar	Gujarat	Haryana	Karnataka	Kerala	Madhya Pradesh	Maharashtra	Orissa	Punjab	Rajasthan	Tamil Nadu	Uttar Pradesh	West Bengal	All States
IV. a. Cost Recovery Rate: 1977-78 (per cent)															
(i) Primary Education	0.08	0.17	0.29	0.32	0.79	0.05	0.00	0.50	0.00	0.27	2.74	0.00	0.19	0.13	0.38
(ii) Secondary Education	6.85	0.11	0.67	7.39	9.81	10.20	0.83	0.58	6.47	1.86	2.69	2.22	5.98	0.34	3.64
(iii) Higher, Agricultural, Medical, Technical and Other Education	2.56	6.13	4.92	3.41	4.23	9.59	5.83	3.66	3.53	3.48	3.82	5.01	6.56	1.76	6.74
(iv) Total Education	2.73	1.54	1.26	3.83	3.75	4.67	1.56	1.18	3.28	1.65	1.83	1.82	3.43	0.65	2.30
IV. b. Cost Recovery Rate 1987-88 (per cent)															
(i) Primary Education	0.47	0.01	0.32	3.48	0.00	0.25	0.00	0.15	1.25	0.05	0.36	0.02	0.11	0.02	0.26
(ii) Secondary Education	4.38	0.23	0.34	2.80	4.73	6.32	0.20	0.24	0.00	1.06	0.58	2.82	3.93	0.09	2.00
(iii) Higher, Agricultural, Medical, Technical and Other Education	1.36	0.30	5.23	2.13	0.00	7.34	1.63	0.61	1.87	0.99	0.83	2.92	0.13	1.30	1.68
(iv) Total Education	1.92	0.26	1.08	2.91	1.69	3.37	0.66	0.97	1.37	0.71	0.57	1.95	2.18	0.82	1.14

Note: 'Total Education' includes agricultural and medical education.

Table 3.11

State-Wise Details of Budgetary Subsidies in Economic Services

	Andhra Pradesh	Bihar	Gujarat	Haryana	Karnataka	Kerala	Madhya Pradesh	Maharastra	Orissa	Punjab	Rajasthan	Tamil Nadu	Uttar Pradesh	West Bengal	All States
1. Agriculture and Allied Services															
a. Total Subsidy (Rs. Lakh)	53525	36786	36479	11937	25155	11112	10981	40082	12770	11760	23080	43483	57515	31868	406530
b. Per Capita Subsidy (Rs.)	88.78	45.98	94.46	78.07	59.30	39.03	18.36	56.19	43.21	62.19	56.86	81.05	45.47	51.59	55.90
c. Share of State Subsidy (%)	22.85	15.08	17.82	14.80	14.58	9.38	5.20	13.82	11.77	9.95	13.26	18.27	16.48	15.75	14.80
d. Recovery Rate (%)	11.49	17.26	12.07	10.82	27.95	32.25	77.50	56.19	35.17	11.33	6.88	18.06	17.79	13.96	28.57
2. Irrigation															
a. Total Subsidy (Rs. Lakh)	37781	57109	42386	18810	34690	14202	49791	41210	26839	18440	36442	10579	63331	18873	470481
b. Per Capita Subsidy (Rs.)	62.67	71.39	109.75	123.02	81.78	49.88	83.25	57.77	90.82	97.51	89.78	19.72	50.07	30.55	64.70
c. Share of State Subsidy (%)	16.13	23.40	20.71	23.33	20.10	11.99	23.56	14.21	21.74	15.59	20.92	4.45	18.15	9.33	17.13
d. Recovery Rate (%)	21.51	2.24	30.05	26.30	26.01	7.03	3.51	39.24	2.52	18.09	21.15	29.82	25.74	12.88	20.60

	Andhra Pradesh	Bihar	Gujarat	Haryana	Karnataka	Kerala	Madhya Pradesh	Maharashtra	Orissa	Punjab	Rajasthan	Tamil Nadu	Uttar Pradesh	West Bengal	All States
3. Power and Energy															
a. Total Subsidy (Rs. Lakh)	3923	15089	9672	6315	-400	-466	11441	9615	825	25134	9104	38425	27547	7113	163338
b. Per Capita Subsidy (Rs.)	6.51	18.86	25.04	41.30	-0.94	-1.64	19.13	13.48	2.79	132.91	22.43	71.62	21.78	11.52	22.46
c. Share of State Subsidy (%)	1.67	6.18	4.73	7.83	-0.23	-0.39	5.41	3.31	0.76	21.26	5.23	16.15	7.89	3.52	5.95
d. Recovery Rate (%)	73.34	0.25	0.03	56.68	104.21	125.49	38.95	58.96	69.68	5.74	0.85	0.00	0.04	5.61	26.48
4. Industry and Minerals															
a. Total Subsidy (Rs. Lakh)	5140	6566	6378	1251	8161	4216	5743	7325	4439	2859	2856	7043	2052	6441	70470
b. Per Capita Subsidy (Rs.)	8.53	8.21	16.51	8.18	19.24	14.81	9.60	10.27	15.02	15.12	7.04	13.13	1.62	10.43	9.69
c. Share of State Subsidy (%)	2.19	2.69	3.12	1.55	4.73	3.56	2.72	2.53	4.09	2.42	1.64	2.96	0.59	3.18	2.57
d. Recovery Rate (%)	39.73	24.16	19.61	9.66	26.22	8.20	5.81	9.64	11.06	13.99	45.88	23.15	82.38	15.98	28.39

	Andhra Pradesh	Bihar	Gujarat	Har- yana	Karna- taka	Kerala	Madhya Pradesh	Orissa	Punjab	Raja- sshan	Tamil Nadu	Uttar Pradesh	West Bengal	All States	
5. Transport and Communication															
a. Total Subsidy (Rs. Lakh)	9290	13189	5988	5385	10924	9150	20011	9983	7787	7164	21818	11761	27212	14875	174537
b. Per Capita Subsidy (Rs.)	15.41	16.49	15.51	35.22	25.75	32.14	33.46	14.00	26.35	37.88	53.75	21.92	21.51	24.08	24.00
c. Share of State Subsidy (%)	3.97	5.41	2.93	6.68	6.33	7.72	9.47	3.44	7.18	6.06	12.52	4.94	7.80	7.35	6.36
d. Recovery Rate (%)	11.36	1.72	2.25	69.88	0.71	4.35	3.66	5.83	3.01	48.76	0.30	8.28	2.84	3.32	12.71
6. Total Economic Services															
a. Total Subsidy (Rs. Lakh)	102118	130052	101847	43694	78598	38788	98571	108588	52962	65299	91752	123605	178556	80609	1295040
b. Per Capita Subsidy (Rs.)	169.38	162.57	263.72	285.77	185.29	136.21	164.81	152.23	179.23	345.32	226.05	230.39	141.17	130.50	178.09
c. Share of State Subsidy (%)	43.59	53.30	49.76	54.19	45.55	32.74	46.64	37.43	48.82	55.22	52.67	51.94	51.16	39.85	47.16
d. Recovery Rate (%)	28.97	8.49	21.20	40.93	32.29	21.45	33.05	46.37	16.90	18.92	16.64	12.53	20.71	11.60	24.64

Table 3.12

Per Capita Subsidy in Economic

	Per capita Subsidy at								
	Agriculture and Allied Services			Irrigation			Power and Energy		
	1977-78	1987-88	Growth rate(%)	1977-78	1987-88	Growth rate(%)	1977-78	1987-88	Growth rate(%)
Andhra Pradesh	10.41	40.69	14.61	16.32	28.72	5.81	-0.64	2.98	NA
Bihar	8.45	21.07	9.57	19.10	32.72	5.53	2.03	8.64	15.58
Gujarat	12.70	43.29	13.04	18.50	50.30	10.52	1.00	13.83	30.04
Haryana	16.02	35.78	8.37	16.07	56.38	13.38	8.17	18.93	8.76
Karnataka	9.56	27.18	11.02	17.48	37.48	7.93	-0.38	-0.43	NA
Kerala	1.33	17.89	29.67	11.67	22.86	6.96	2.40	-0.75	NA
Madhya Pradesh	-0.69	8.41	NA	14.25	38.15	10.35	2.79	8.77	12.12
Maharashtra	0.76	25.75	42.29	14.28	26.48	6.37	0.46	6.18	29.79
Orissa	11.05	19.81	6.01	11.70	41.62	13.54	-4.81	1.28	-12.40
Punjab	28.65	28.50	-0.05	34.34	44.69	2.67	18.08	60.91	12.92
Rajasthan	10.03	26.06	10.01	18.21	41.15	8.49	3.39	10.28	11.72
Tamil Nadu	8.21	37.14	16.29	9.47	9.04	-0.47	5.96	32.82	18.60
Uttar Pradesh	14.58	20.84	3.64	16.07	22.95	3.25	6.05	9.98	5.14
West Bengal	12.19	23.64	6.85	13.49	14.00	0.37	1.29	5.28	15.10
All States	9.30	25.62	10.67	15.88	29.65	6.45	3.06	10.29	12.88

Services at Constant(1977-78) Prices

<i>Constant(1977-78) Prices (Rs.)</i>											
<i>Industry and Minerals</i>			<i>Transport and Communication</i>			<i>Other Economic Services</i>			<i>Total Economic Services</i>		
<i>1977-78</i>	<i>1987-88</i>	<i>Growth rate(%)</i>	<i>1977-78</i>	<i>1987-88</i>	<i>Growth rate(%)</i>	<i>1977-78</i>	<i>1987-88</i>	<i>Growth rate(%)</i>	<i>1977-78</i>	<i>1987-88</i>	<i>Growth rate(%)</i>
3.09	3.91	2.38	7.98	7.06	-1.22	-0.34	-5.73	NA	36.82	77.62	7.74
1.57	3.76	9.15	3.98	7.56	6.62	0.96	0.75	-2.43	36.09	74.50	7.52
1.55	7.57	17.20	13.87	7.11	-6.47	0.10	1.12	27.09	44.86	120.86	10.42
2.22	3.75	5.40	15.80	16.14	0.22	-2.72	-0.01	NA	55.55	130.97	8.96
3.77	8.82	8.86	7.30	11.80	4.92	0.90	0.07	-22.09	38.63	84.92	8.20
4.14	6.79	5.06	9.83	14.73	4.13	1.31	0.92	-3.43	30.69	62.44	7.36
1.58	4.40	10.80	8.33	15.33	6.29	0.41	0.46	1.25	26.67	75.53	10.97
2.92	4.71	4.89	6.88	6.41	-0.70	-0.11	0.24	NA	25.19	69.77	10.72
2.42	6.88	11.03	7.69	12.08	4.61	-0.27	0.47	NA	37.39	82.14	8.19
3.45	6.93	7.21	12.37	17.36	3.45	-0.03	-0.14	NA	96.86	158.26	5.03
-1.42	3.22	NA	8.73	24.63	10.93	1.50	-1.75	NA	40.45	103.60	9.86
3.99	6.02	4.18	8.53	10.05	1.66	0.95	10.52	27.20	37.12	105.59	11.02
1.94	0.74	-9.14	6.31	9.86	4.56	-0.17	0.33	NA	45.37	64.70	3.61
2.94	4.78	4.98	8.40	11.04	2.77	0.73	1.07	3.89	39.04	59.81	4.36
2.37	4.44	6.48	7.90	11.00	3.36	0.30	0.61	7.18	38.82	81.62	7.71

Table 3.13

Recovery Rates in Economic Services

	Agriculture and Allied Services		Irrigation		Power and Energy		Industry and Minerals		Transport and Communication		Total Economic Services	
	1977-78	1987-88	1977-78	1987-88	1977-78	1987-88	1977-78	1987-88	1977-78	1987-88	1977-78	1987-88
Andhra Pradesh	36.77	11.49	34.71	21.51	109.21	73.34	20.18	39.73	7.63	11.36	41.09	28.97
Bihar	28.35	17.26	6.62	2.24	0.00	0.25	2.99	24.16	4.53	1.72	12.92	8.49
Gujarat	31.95	12.07	37.35	30.05	131.64	0.03	40.49	19.61	12.65	2.25	38.03	21.20
Haryana	22.25	10.82	57.62	26.30	0.00	56.68	7.68	9.66	64.21	69.88	50.65	40.93
Karnataka	54.45	27.95	34.69	26.01	107.40	104.21	65.90	26.22	5.82	0.71	47.38	32.29
Kerala	91.75	32.25	10.24	7.03	57.89	125.49	8.67	8.20	5.35	4.35	43.21	21.45
Madhya Pradesh	102.86	77.50	6.95	3.51	49.26	38.95	14.17	5.81	4.38	3.66	52.48	33.05
Maharashtra	97.50	56.19	35.51	39.24	91.61	58.96	-1.17	9.64	7.70	5.83	63.37	46.37
Orissa	45.32	35.17	53.49	2.52	5.22	69.68	9.50	11.06	7.52	3.01	39.95	16.90
Punjab	12.44	11.33	16.17	18.09	0.00	5.74	25.73	13.99	63.45	48.76	26.47	18.92
Rajasthan	20.81	6.88	39.92	21.15	0.00	0.85	130.01	45.88	0.43	0.30	35.55	16.64
Tamil Nadu	47.77	18.06	23.92	29.82	2.04	0.00	15.10	23.15	14.62	8.28	28.65	12.53
Uttar Pradesh	26.03	17.79	18.10	25.74	0.94	0.04	23.23	82.38	10.78	2.84	19.01	20.71
West Bengal	32.84	13.96	14.01	12.88	0.00	5.61	20.33	15.98	2.46	3.32	20.82	11.60
All States	52.05	28.57	26.57	20.60	40.85	26.48	32.88	28.39	17.85	12.71	36.12	24.64

(per cent)

Table 3.14

Rates of Return of Public Enterprises

	(per cent)													
	Departmental Enterprises				Non-Departmental Enterprises				Cooperatives				All Public Enterprises	
	Irrigation		All Departmental Enterprises		Electricity		Transport		All Non-Departmental Enterprises		Cooperatives		All Public Enterprises	
1977-78	1987-88	1977-78	1987-88	1977-78	1987-88	1977-78	1987-88	1977-78	1987-88	1977-78	1987-88	1977-78	1987-88	
Andhra Pradesh	-3.98	-3.14	-3.44	-8.24	5.72	15.23	4.87	5.07	4.47	8.22	-2.37	-6.01	0.17	-3.30
Bihar	-1.17	-3.92	0.17	-1.94	2.84	1.24	0.00	0.02	2.11	1.63	-6.43	-4.56	0.43	-0.99
Gujarat	-3.13	-16.37	-2.62	-14.17	15.31	5.05	4.73	-0.09	12.68	3.52	-1.60	-8.11	3.46	-3.61
Haryana	-0.94	-10.26	-1.46	-11.88	2.67	3.17	9.99	7.85	3.37	2.78	3.41	0.62	1.36	-2.74
Karnataka	-1.32	-7.32	1.44	-7.21	7.19	10.32	3.92	0.00	5.85	7.61	-1.35	-3.54	3.15	-0.86
Kerala	-2.92	-3.42	14.74	-1.39	4.83	23.60	1.71	-1.68	3.16	6.58	-0.82	-9.88	6.57	1.73
Madhya Pradesh	0.42	-2.62	10.74	1.27	3.44	7.58	6.37	0.00	3.24	8.18	0.12	-0.82	6.88	3.94
Maharashtra	-1.94	-3.25	0.87	-2.07	10.38	11.65	5.21	2.81	8.62	9.16	-2.41	0.65	3.96	3.13
Orissa	0.50	-2.39	3.95	-0.04	2.03	29.68	7.31	0.01	1.87	12.72	-1.02	-2.20	3.03	3.42
Punjab	-3.44	-8.18	-4.18	-9.34	1.54	-3.04	8.56	-11.49	2.89	-2.48	-2.50	-0.25	0.55	-3.98
Rajasthan	-1.67	-12.32	2.11	-14.89	1.44	3.60	1.13	0.12	-2.39	3.11	-4.13	-2.35	0.31	-7.28
Tamil Nadu	-6.51	-8.69	-3.80	-6.16	-3.90	14.14	5.75	1.66	-3.50	-20.84	-0.68	-7.22	-3.27	-16.48
Uttar Pradesh	-1.88	-6.76	1.67	-4.92	0.58	1.07	6.73	-0.17	0.96	0.95	-3.29	14.32	1.00	-0.79
West Bengal	-6.50	-17.92	-6.37	-20.34	13.17	2.32	-4.21	-9.62	4.73	-1.25	-4.25	-13.71	-1.01	-6.51
All States	-2.19	-6.37	0.77	-5.67	4.15	3.64	3.02	-1.88	3.48	1.88	-2.18	-2.03	1.83	1.79