III Central Budgetary Subsidies: Measurement and Analysis

In this chapter, we first examine subsidies that are explicitly budgeted for in the central budgets. We subsequently move to a comprehensive estimation of subsidies that are measured as unrecovered budgetary costs in the public provision of social and economic goods/services.

Explicit Central Budgetary Subsidies

Food and fertiliser subsidies together occupy the centrestage in explicit subsidies provided for in the central budget, estimated at Rs. 23,838 crore in the 1999-2000 budget. Starting with modest amounts, both food and fertiliser subsidies have grown (table 1 and chart 1) at rates far higher than what would have been required to cover for inflation.

TABLE 1:
Explicit Subsidies in the Central Budget: Selected Growth Rates

Period	Food	Fertiliser	Total
1971-72 to 1990-00	16.67	--	18.53
1976-77 to 1990-00	--	20.87	--
1983-84 to 1999-00	14.87	14.75	--

Source (basic data): GOI, various issues (c).

Food subsidy for people above poverty line (APL) is counter-productive. As already argued, a subsidy induced reduction in relative food prices, generates an income effect for the APL beneficiaries. Given an inelastic demand for food, the income effect can only lead to higher demand for non-food items. Food subsidy must, therefore, be restricted to (BPL) beneficiaries. Even for a universal coverage of BPL households with subsidisation of 50–60 percent of economic cost, food subsidy (in 1999–2000) would have been in the range of Rs. 4300–5200 crore. If the economic cost can be reduced by cutting down the storage and other operational costs and other attendant losses of the Food Corporation of India (FCI), the bill can be reduced further (see end notes for details).

The economic case of providing fertiliser subsidies is weak. While it could be promoted and proposed for a short period, it cannot be allowed to become a permanent feature of the economy. Like other economic agents, farmers should also be exposed to market signals provided the agricultural sector is simultaneously freed from other controls and rigidities (movement of agricultural produce, exports, administered prices) supplemented by a mechanism to reduce volatility and risk in agricultural incomes (possibly through insurance). Further, the retention price mechanism of determining fertiliser subsidies subsidises production inefficiencies far more than it protects the farmers. It also leads to overuse and disproportionate use of fertilisers, thereby inducing long term damage to soil. Fertiliser subsidy needs to be phased out by reversing its growth phase into a decline phase. Countries like Indonesia, Pakistan, and Bangladesh have drastically and successfully reduced fertiliser subsidies in recent years.

Central Budgetary Subsidies: Comprehensive Estimates

In a comprehensive estimate of subsidies, covering both explicit and implicit subsidies, subsidies may be measured as the excess of costs of providing a service over the recoveries from that service. The costs associated with the provision of services can be divided into two components, *viz.*, current costs and capital costs. The latter is taken as the annualised cost of capital which is equivalent to the depreciation cost of capital assets and the interest cost of capital. The current cost is taken as the revenue expenditure on the service. This relates to the costs of purchasing goods and materials that go into the provision of the good and the payment of wages and salaries to people who are employed for providing these services.

As compared to the one adopted in DP 1997, the methodology of estimating depreciation costs has been modified (*see,* Technical Note). Also, one-third of capital investment in the three years preceding the year of estimate has been put aside as capital not yet yielding service in the current year.

a. Volume: In table 2, estimates of central budgetary subsidies covering both explicit and implicit subsidies for 1995–96 and 1996–97 have been provided. In 1996–97, subsidies amounted to Rs. 47,781 crore. This is nearly three times the explicit subsidies in 1996–97 (Rs. 16,125 crore), and eats up roughly 38 percent of the revenue receipts of the central government. While subsidies for social services amounted to Rs. 8,953 crore, those for the economic services, at Rs. 38,828 crore, constituted the core. Since subsidies are financed by tax and non-tax revenues, it is useful to relate them to the central revenue receipts net of revenue transfers to the states. It is indicated that nearly 37 to 38 percent of the revenue receipts of the central government are exhausted by the subsidies.

TABLE 2:
Comprehensive Estimates of Central Budgetary Subsidies

	Aggregate costs (Rs. crore)	Aggregate receipts (Rs. crore)	Subsidy (Rs. crore)	Subsidy as % of central revenue receipts
1995-96				
Social services	7671.4	605.2	7066.1	6.52
Economic services	41856.4	5981.5	3587.5	32.58
Total	**49527.8**	**6586.7**	**42941.1**	**38.99**
1996-97				
Social services	9770.3	817.1	8953.2	7.09
Economic services	46545.4	7717.8	38827.5	30.75
Total	**56315.7**	**8534.9**	**47780.7**	**37.84**

Source (basic data): CAG, 1995-96 and 1996-97.

b. Classification of Subsidies: The central budgetary subsidies are classified as three categories: *Merit 1; Merit 2;* and *Non-Merit*. About 63 percent of the total subsidies in 1995–96, and about 57 percent of the total subsidies in 1996–97 are estimated to be *Non-Merit*. The *Merit 1* category claims only 4.62 percent and 5.68 percent of the subsidies in these two years, respectively. The *Merit 2* category accounts for 32.46 percent of the total subsidies in 1995–96, and 37.28 percent of the total subsidies in 1996–97 (table 3).

TABLE 3:
Central Budgetary Subsidies: Category-Wise Aggregates

(Rs. crore)

Sectors	Merit 1	Merit 2	Non-Merit	Total
1995-96				
Social services	1839	2736	2491	7066
Economic services	147	11204	24524	35875
Total subsidised sectors	1986	13940	27015	42941
1996-97				
Social services	2493	3810	2650	8953
Economic services	221	14002	24605	38827
Total subsidised sectors	2714	17811	27255	47781
	(Percent to Total)			
1995-96				
Social services	4.28	6.37	5.80	16.46
Economic services	0.34	26.09	57.11	83.54
Total subsidised sectors	4.62	32.46	62.91	100.00
1996-97				
Social services	5.22	7.97	5.55	18.74
Economic services	0.46	29.30	51.50	81.26
Total subsidised sectors	5.68	37.28	57.04	100.00

Source (basic data): As in table 2.

*c. **Excess Subsidisation:*** Utilising the proposed classification and the corresponding average recovery rates in the concerned categories, we can estimate excess subsidisation in relation to some benchmark values for desirable degree of subsidisation for the different categories of subsidies. Thus, considering 95 percent, 70 percent, and 10 percent, as the desirable `average' degree of subsidisation in the three categories, it would appear that the aggregate excess subsidisation in the central budget amounted to Rs. 27,739 crore in 1995-96 and Rs. 28,941 crore in 1996-97. This translates into 68 percent of the total subsidy in 1995-96 and 65 percent in 1996-97 of the total subsidies in the two years, respectively. Results of a sensitivity analysis with alternative assumptions about category-wise desired average degree of subsidisation are given in annex 3.

*d. **Sectoral Shares:*** The relative shares of subsidies pertaining to different sectors are given in chart 2. While social services accounted for 18.74 percent of total subsidies, the economic services accounted for a massive 81.26 percent in 1996-97 (table 4). Within economic services,

sectors arranged in order of their share in the total subsidies, may be listed (percentage share in brackets) as follows: agriculture and allied services (26.66), science, technology, and environment (11.68), industry and minerals (24.34), energy (8.94), transport excluding railways (6.69), and postal services and satellite systems (2.46).

e. Structure of Costs: In table 5, the structure of costs is analysed in aggregate terms. On an average, in the case of social services, current costs account for nearly 88 percent of total costs; for education and health, the share of current costs is as high as 97 and 94 percent, respectively. These figures pertain to 1996-97, although the figures relating to 1995-96 are not much different. Among the economic services, the lowest share of current costs is 24.4 percent in the case of energy. In the case of agriculture and irrigation, current costs have a large share in total costs, amounting to 89 and 85 percent, respectively. The same is the case in postal services and the science, technology and environment group, where the share of current costs is higher than 90 percent.

TABLE 4:
Sector-Wise Subsidies: Recovery Rates and Relative Share in Total Subsidies

	1995-96			1996-97		
	Volume (Rs. Crore)	Share (Percent)	Recovery Rate	Volume (Rs. Crore)	Share (Percent)	Recovery Rate
Total subsidy	42941	100.00	13.30	47781	100.00	15.16
Social services	7066	16.46	7.89	8953	18.74	8.36
Economic services	35875	83.54	14.29	38827	81.26	16.58
Industry and minerals	10211	23.78	12.97	11629	24.34	18.85

Source (basic data): As in table 2.

TABLE 5:
Central Budgetary Services: Structure of Costs and Receipts

(percent)

	1995-96		1996-97	
	Revenue Expenditure	Capital Costs (Annualised)	Revenue Expenditure	Capital Costs
	As Percent of Aggregate Costs			
Social services	87.3	12.7	88.2	11.8
Economic services	66.3	33.7	65.9	34.1

(percent)

	1995-96		1996-97	
	Revenue Receipts	Interest and Dividends	Revenue Receipts	Interest and Dividends
	As Percent of Aggregate Receipts			
Social services	97.7	2.3	98.1	1.9
Economic services	47.9	52.1	40.6	59.4

Source (basic data): As in table 2.

f. Structure of Receipts: A distinction can be made between revenue receipts and interest and dividends. The former relates to services in which government departments/ministries participate directly, while the latter relates to government investment in the form of equity and loans. In the case of social services, as expected, the share of revenue receipts is very high because loans, etc., are given in a limited number of sectors in this group (table 5). In the case of economic services, the share of interest and dividends is more than 50 percent of total receipts both in 1995–96 and 1996–97. In fact, interest and dividends account for the bulk of receipts in energy and industry and minerals. The structure of receipts basically reflects the structure of nature of provisions of services, direct or through investment, and as such indicates the segment on which focus needs to be drawn in constructing a programme for improved recoveries.

g. Decomposition of Recovery Rates: The average sectoral recovery rates are also given in table 4. The recovery rate was 8.36 percent for social services and 16.58 percent for economic services in 1996–97. In 1996–97, the highest recovery rate is for information and broadcasting (49.64 percent). In the group of economic services, the range is between 2.53 (irrigation and flood control) to 50.85 (postal services and satellite system). The recovery rate in the case of energy is 37.63 percent of costs.

Since direct services can be distinguished from investment, the aggregate recovery rate can be decomposed into two parts: rate of recovery in direct services, and rate of recovery on loans and equity. In the latter category, recovery is of two kinds — dividend on equity and interest on loan. Their weighted averages would provide the aggregate recovery rate for the service. These decompositions are given for the broad heads of social and economic services in table 5, with further disaggregation in annex 6. In the case of direct services, only 9.30 percent of current costs are recovered for social services, and 10.22 percent of current costs, for economic services (1996–97). The rate of return on investment (equity and loans) by the government is as low as 12.99 percent of the average cost of borrowing those funds. In the case of economic services, 65.71 percent of the cost of borrowing is recovered.

h. Subsidising Education: Elementary education may be subsidised to an extent of 90–100 percent. Generalised subsidisation for secondary and higher education may be reduced to 50–70 percent on an average. Beyond that, individualised subsidisation for targeted beneficiaries may be desirable. Centre's contribution to university and higher education is made through grants by UGC and from funds administered by the Ministry of Human Resource Development. These funds are usually provided in the form of grants which are `gap-filling' in nature. As already noted, current costs constitute a very large portion of total costs in the education sector. Whereas costs for providing education have steadily increased due to increased salaries of staff, and costs of equipment and maintenance, the fees, especially tuition fees, have remained stagnant for long periods. As a result, while in 1950s and 1960s, fees contributed about 20 percent of the total income of educational institutions, in the nineties, its contribution has gone down to less than 4 percent (*see,* annex 4). Since this sector is considerably short of funds, a reduction in budgetary support is not warranted. In fact, the budgetary support may need to be increased. However, if this is accompanied by a more than proportionate increase in non-government funding including tuition fees, the result would be a larger outlay for the sector with a reduced degree of subsidisation. Increase in fees would need to be accompanied by merit-cum-means scholarships and educational loans. In designing a scheme of revision of tuition fees, attention may be paid to (a) higher cost recoveries from foreign students;

(b) self-financing seats and courses; (c) linking degree of subsidisation to performance indicators; and (d) differentiated fee structure according to the demand for and costs of running different courses.

Chart 1: Major Explicit Subsidies: Central Government

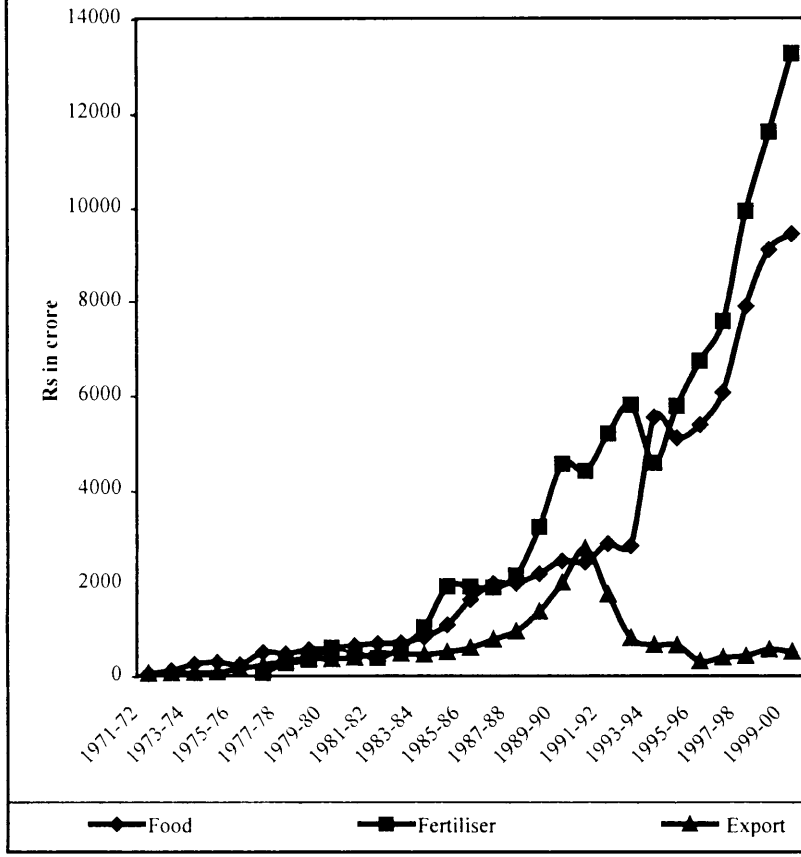

Chart 2: Major Sectoral Subsidies: Relative Shares