Chapter V Fiscal Policy In India - Issues And Evidence

5.1 Introduction

Fiscal policy refers to that segment of national economic policy which is concerned with the receipts and expenditure of governments, the relation between these two flows and their economic effects on all functions in which governments are engaged.

Objectives of Fiscal Policy

The major classification of fiscal policy objectives are in terms of allocation, distribution and stabilisation. To these, economic development with equity and creation of employment opportunities could be added.

Fiscal policy in a developing economy is a mixture of macro and micro policies. Their objectives sometimes differ and conflict with each other; there is therefore a need to arrange them in order of priorities and decide the extent of trade off in case of a conflict.

Fiscal Objectives in India

Fiscal policy in India is geared towards fulfilment of following objectives: (a) raising revenue (traditional objective) (b) increasing public savings (resource mobilisation) (c) Promoting development and employment (d) reducing inequalities of income and wealth. These goals are sought to be achieved through tax and expenditure policy supplemented

TABLE : 1 TAX REVENUE AS PERCENTAGE OF GDP AT CURRENT MARKET PRICES@

Year	Direct Taxes	Indirect Taxes	Total Tax revenue
1950-51	2.4	4.1	6.5
1960-61	2.7	6.3	9.0
1970-71	2.7	9.6	12.3
1971-72	3.0	10.4	13.4
1972-73	3.1	10.8	13.9
1973-74	2.8	10.0	12.8
1974-75	2.8	10.8	13.6
1975-76	3.6	11.9	15.5
1976-77	3.6	12.4	15.9
1977-78	3.2	11.9	15.1
1978-79	3.1	13.0	16.1
1979-80	3.1	13.7	16.8
1980-81	2.8	13.1	15.9
1981-82	3.0	13.6	16.7
1982-83	2.9	14.0	16.9
1983-84	2.8	13.8	16.6
1984-85	2.8	14.4	17.3
1985-86	2.8	15.2	18.2
1986-87	2.8	15.7	19.1
1987-88	2.8	15.9	19.3

@ Central and State government revenues combined are shown.

Source : National Accounts Statistics (New Delhi: Govt. of India Central Statistical Organisation).

by contributions from public enterprises, borrowing from the public and to an increasing extent deficit financing.

5.2 Fiscal Policy and Resource Mobilization

The purpose of this section is to attempt a summary assessment of India's fiscal policy in terms of fundamental objectives of resource mobilization and resource allocation. Here the issue of resource mobilization is taken up. The relative success and failure of fiscal policy in mobilizing resources can be assessed on the basis of a set of alternative criteria like performance according to tax effort, performance in relation to plan targets for public savings and private savings etc.

As table:1 shows, Indian economy has done rather well to raise the tax GDP ratios from under 7 percent in 1950-51 to around 17 percent in 1984-85 and a little above 19 percent in 1987-88. For a country which began this period with a very low per capita income and achieved only a modest increase of 1 or 2 percent per year, on average, over the period, this record in mobilizing tax revenues is clearly commendable. In this, however, the share of direct tax is quite small and this reflects clearly lower compliance by tax payers belonging to the upper rich class. The authorities must make efforts to recover old dues on income taxes and should increase the cost of non-compliance in the form of legal, statutory action and

TABLE : 2 BUOYANCY OF INDIA'S TAX SYSTEM

	1960-61 to 1973-74	1974-75 to 1988-89
Corporate Tax	1.10	1.19
Income Tax	0.93	0.79
Union Excise	1.32	1.50
Sales Tax	1.32	1.41
State Excise	1.23	1.30
Stamps and Registration	1.02	1.06
Land Revenue	0.43	0.49
Tax Revenue (Centre)	1.20	1.16
Tax Revenue (States)	1.28	1.28
Total Tax Revenue	1.23	1.20

Source : Report on currency and finance and Economic Survey

Note: Here, Buoyancy" is the change in the tax revenue/change in however, alternatively Buoyancy may be estimated by GNP. a log linear equation linking a time series on tax revenue to its corresponding GDP or GNP series. On the other hand, elasticity is also estimated with a log linear equation but the time series on tax revenues is adjusted for discretionary tax measures.

TABLE : 3 : ADDITIONAL RESOURCES MOBILIZED (ARM) BY THE CENTRE AND STATES DURING THE PLANS

	ARM (at current prices	ARM through Taxation (Rs. Crores)	Share of ARM Taxation to Total ARM (Percent)
First Plan (1951-56)	395	244	61.77
Second Plan (1956-61)	1216	1022	84.05
Third Plan (1961-66)	2891	2617	90.52
Annual Plans (1966-69)	835	681	81.56
Fourth Plan (1969-74)	4 997	4313	86.31
Fifth Plan (1974-79)	13891	8203	59.05
Sixth Plan (1980-85)	32970	22042	66.85
Seventh Plan (1985-90)@	42515	29441	69.24

@ the data refer to 85-88.

Source : Report on currency and Finance

TABLE : 4 : TERMINAL YEAR PUBLIC SAVINGS : PLAN TARGETS AND ACTUAL (As percent of GDP)

	Plan Target	Actual
1973-74 (Fourth Plan)	4.5	1.9
1978-79 (Fifth Plan)	4.6	4.9
1980-85 (Sixth Plan)	6.0	3.2
1988-89 (Seventh Plan)	5.6	5.1

Source : Economic Survey, 1989-90.

Note : Before IVth Plan, Budget documents did not explicitly specify targets for public savings. This practice started only with IVth Plan.

if possible, confiscation of unreported money, assets and wealth. It seems major contribution to tax revenue has come from indirect taxes. The strong, intertemporal revenue performance is also borne out by the buoyancy shown by almost all major taxes. As table:2 indicates, all major taxes, except noncorporate income tax and land revenue, have recorded buoyancy greater than unity. A given 1 percent increase in GNP seems to result into a more than proportionate increase in majority of tax revenues. Table:3 brings out the role of additional resource mobilization (ARM). In the context of five year plans, targets set for additional resource mobilization have usually been overfulfilled at least in nominal terms. Table: highlights importance of taxation in ARM over the last four decades.

Now tax revenues constitute only one, though admittedly critical, dimension of resource mobilization. Other aspects include generation of nontax revenues, control over current Government expenditure and performance of public sector enterprises. And in India's federal structure, each of these dimensions needs to be assessed at both the Central and State levels. Perhaps the best summary assessment of resource mobilization performance may be obtained by focusing on trends in overall public savings, especially in relation to plan targets.[1]

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1. I.K.Khadye (1981), "The responsiveness of tax revenues to national income in India (1960-61 - 1978-79), Reserve Bank of India occassional Papers 2, No.1.

Ever since the fourth Five-Year Plan, ending in 1973-74 plan documents have explicitly specified target rates of public savings (relative to GDP) for the terminal year of the respective Five Year Plan. Table:4 compares actual performance with plan targets. A glance at the table shows that public savings performance in the terminal year fell short of target in the Fourth(1969-74), Sixth Five Year(1980-85) Plans and Seventh Plan(1985-89). The target was exceeded in the fifth Five-Year Plan(1974-79) but even this is subject to a qualification. The initial version of the Fifth Plan had proposed a target of 6.0 percent of GDP for the terminal year for public savings. The oil shock of 1973-74 led to a revision of the plan, with the final document, which emerged midway in the Plan period having scaled down the public savings target to 4.6 percent of GDP. Thus, in overall terms, it is difficult to avoid the conclusion that public savings performance has fallen markedly below planned levels in the past fifteen years.

Part of the explanation for the lackluster public savings performance may be gleaned from an examination of the disaggregated picture of public savings, provided in Table:5. The data clearly highlight the declining contribution of Government savings to overall public savings in recent years. The share of Government savings in total public savings has declined from a peak of 63 percent in 1975-76 to a negative 10 percent in 1984-85.and then it has increased to around 26 percent in 1988-89. What is more as Table:6 shows, this

TABLE : 5 : STRUCTURE OF PUBLIC SECTOR GROSS SAVINGS
(as percent of GDP at Market Prices)

Years	Govt. Admn.	Public sector Enterprises			Total (Col. 2+5)	Percent Distribution	
		Dept.	Non-Dept.	Total (3+4)		Govt. Admn.	Public Sector Enterprises.
1.	2.	3.	4.	5.	6.	7.	8.
1970-71	1.4	0.7	1.0	1.7	3.1	46.0	54.0
1971-72	1.2	0.8	1.0	1.7	3.0	41.5	58.5
1972-73	1.1	0.6	1.1	1.7	2.8	38.7	61.3
1973-74	1.6	0.3	1.2	1.5	3.1	51.9	48.1
1974-75	2.1	0.8	1.4	1.7	3.8	55.1	44.9
1975-76	2.8	0.5	1.2	1.7	4.5	62.7	37.3
1976-77	2.7	0.8	1.8	2.6	5.2	50.9	49.1
1977-78	2.3	0.8	1.5	2.3	4.6	50.4	49.6
1978-79	2.6	0.7	1.6	2.3	4.9	52.7	47.3
1979-80	2.4	0.7	1.5	2.2	4.6	52.1	47.9
1980-81	1.7	0.5	1.4	1.9	3.6	47.7	52.3
1981-82	2.3	0.6	2.1	2.7	4.9	46.0	54.0
1982-83	1.5	0.7	2.6	3.3	4.8	32.1	67.9
1983-84	0.6	0.6	2.5	3.1	3.7	16.4	83.6
1984-85	-0.3	0.7	2.8	3.5	3.2	-10.2	110.2
1985-86	0.2	0.7	2.8	3.5	3.7	10.2	89.8
1986-87	1.2	0.8	2.9	3.7	4.9	22.7	77.3
1987-88	1.0	0.7	3.0	3.7	4.7	29.3	70.7
1988-89	0.8	0.9	3.4	4.3	5.1	26.4	73.6

Source : National Accounts Statistics (various issues) (New Delhi Govt. of India, Central Statistical Organization).

TABLE : 6 GOVERNMENT CURRENT RECEIPTS AND EXPENDITURE
(as percent of GDP at Market prices)

Years	Current receipts		Current Expenditure			
	Total	Of which Tax Receipts	Total	of which Defence	Interest	Subsidies
1.	2.	3.	4.	5.	6.	7.
1970-71	13.7	12.3	12.3	3.1	0.5	0.8
1971-72	15.0	13.4	13.8	3.6	0.6	1.0
1972-73	15.7	13.9	14.1	3.5	0.7	1.1
1973-74	13.9	12.8	12.3	3.0	0.8	1.2
1974-75	14.9	13.6	12.8	3.1	0.5	1.7
1975-76	16.8	15.5	14.0	3.5	0.7	1.5
1976-77	17.6	15.9	15.0	3.4	0.7	1.7
1977-78	16.7	15.1	14.4	3.1	0.8	2.0
1978-79	17.8	16.1	15.2	3.0	1.0	2.3
1979-80	18.5	16.8	16.1	3.3	0.9	2.4
1980-81	17.6	15.9	15.9	3.2	1.2	2.2
1981-82	18.4	16.7	16.1	3.3	1.3	2.2
1982-83	19.0	16.9	17.5	3.4	1.6	2.3
1983-84	18.4	16.6	17.7	3.4	1.9	2.6
1984-85	19.6	17.3	20.0	3.5	2.5	3.3
1985-86	20.2	16.8	19.8	3.5	2.7	3.2
1986-87	19.8	16.4	21.3	3.6	2.9	3.3
1987-88	19.4	17.3	20.3	3.6	3.0	3.4
1988-89	21.8	18.3	23.2	3.7	3.5	3.3

Source : National Accounts Statistics(various issues)

decline in Government savings is attributable less to any weakness in mobilizing revenues and more to a rapid growth in current Government expenditures. Total current receipts of the Government have increased, as a ratio of GDP, fairly steadily from under 14 percent in 1970-71 to nearly 22 percent in 1988-89. And this buoyancy in current receipts had been mainly due to the strong performance in mobilizing tax revenues, whose share has risen from 12.3 percent of GDP in 1970-71 to 18.3 percent in 1988-89. The real problem for Government savings has been the outpacing of current receipts by current expenditures. Over the same period, current expenditures grew from 12.3 percent to 23 percent of GDP. Table:6 also suggests that the main elements fueling the growth of current expenditures have been subsidies and interest payments.

The decline in the share of Government savings, in total public savings, highlighted in Table:5 has meant a corresponding increase in the relative contribution of public sector enterprises (PSEs). But this statistical tautology cannot be taken as an unqualified tribute to the surplus generation performance of these units. Even the increase of PSE savings ratio from 1.7 percent of GDP in 1970-71 to 4.3 percent in 1988-89 has to be interpreted with caution. It is necessary to emphasize that each year public investment augments, by substantial amounts, the capital stock employed by PSEs. The real issue is what has been PSE savings performance in relation to potential. A serious answer to this question would require a major exercise. However, some pieces of information are suggestive. At the central level, the

capital employed in some 207 enterprises in 1988-89 is estimated to have been about Rs.36400 Crores at historical cost. Of this, about half was in the form of equity. If this equity were to yield a modest return of 10 percent after tax, then after tax profits would have amounted to about Rs.1800 Crores. In fact the return was only Rs.930 crores or about half as much. Furthermore, net after-tax profits of a handful of petroleum companies amounted to about Rs.1120 crores, indicating that, but for these companies, the Central PSEs would have shown a net loss after tax in 1988-89.

At the State Level, the PSE record is distinctly worse. The most important units are the State Electricity Boards, which were estimated to account for over Rs.1300 Crores of capital employed in 1988-89. But these units are estimated to have turned in a commercial loss of Rs.1100 crores in that year. Another important set of State-level PSEs is constituted by the State Road Transport Undertakings. Preliminary estimates suggest that these units ran a net loss of about Rs.300 crores in 1988-89.

Taken together, this piecemeal evidence suggests that savings performance of PSEs has been well short of potential in recent years.

To sum up, public savings have generally fallen short of Plan targets in the last fifteen or so years. Despite a

strong performance in raising current receipts, especially tax revenues, Government savings have fallen sharply because of a sustained increase in current Government expenditures, especially on account of interest payments and subsidies. Though in relation to GDP, savings of public sector enterprises have shown a significant increase, the results fall substantially short of the potential implicit in the massive and growing stock of productive assets at the disposal of these units.[2]

Performance in Relation to Private Savings

No assessment of fiscal policy with respect to resource mobilization can be complete, even superficially, without considering the effects of fiscal policy on private savings. However, in contrast to the case of public savings, the links between fiscal policy and private savings are less direct and more debatable. To begin with, fiscal policy clearly plays an important role in determining the disposable income in the hands of private entities, whether these are households, corporations or unincorporated enterprises. And, in most theories of private savings behavior, disposable income is a leading factor. Fiscal policy is also important in influencing the rates of return to savings and investment and such rates of return are generally believed to play a significant part in determining the savings of households and enterprises. Fiscal policy influences rates of return both directly, through tax incentives/disincentives, and indirectly, through its effects on overall profitability and price stability.

2. K.S.Gill(1991) - "Budget Deficit of the Central Government", Economic and Political Weekly, Vol.XXVI,Nos.1 and 2,Jan.5-12

In India, fiscal (more particularly) tax policy has been used extensively for giving special inducements for savings. Subject to certain limits, savings out of current income if invested in life insurance, provident fund or certain 'small' saving schemes like the National Savings Certificates of specified categories are allowed to be deducted from taxable income. Interest income from certain investments like bank deposits, dividends from Indian company shares and income from units of the United Trust of India is exempt from income tax, again subject to certain limits. Investments in life insurance or provident fund are exempt from wealth tax without any limit, while those in certain other assets like bank deposits and shares (stocks) of Indian companies are exempt up to certain limits. These limits have been revised upward from time to time. Investments in equities of newly created industrial companies have also enjoyed tax concessions in various forms.

Concessions in income and wealth taxes are provided also for encouraging investment in specified areas like housing. Income from new houses is exempt upto certain limits. The value of one house is exempt also from wealth tax. Recently, imputed income from owner occupied houses has been exempted from tax. The area of tax benefits for saving in general and in housing in particular is proposed to be expanded further. Payments made by a tax payer towards the cost of new residential property including repayment of loan and interest are proposed to be made tax deductible, if the borrowings for this investment

TABLE : 7 TERMINAL YEAR SAVINGS RATES - PLAN TARGETS VERSUS ACTUALS (As percent of GDP)

	Fourth plan (1973-74)		Fifth plan (1978-79)		Sixth plan (1984-85)		Seventh plan (1987-88)	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual
1. Private	8.7	13.0	11.3	19.8	18.4	19.0	19.2	21.2
of Which:								
Households	7.6	12.1	9.8	18.2	16.4	17.3	16.9	19.2
Corporations	1.1	0.9	1.5	1.6	2.0	1.7	2.3	3.0
2. Public	4.5	1.9	4.6	4.9	6.0	3.4	5.1	3.7
3. Total	1322	14.9	15.9	24.7	24.4	22.4	24.3	24.9

Source : National Accounts Statistics (various issues)

TABLE : 8 PERCENT SHARE OF PUBLIC SECTOR IN GDP (CURRENT PRICES)

	50-51	60-61	70-71	77-78	83-84	84-85	85-86	87-88
Administrative Departments	3.7	4.3	6.5	6.9	7.8	8.2	8.7	8.9
Department Enterprises	2.9	3.2	4.0	4.1	3.9	4.1	4.3	4.6
Non-Departmental Enterprises	3.1	3.5	4.4	8.4	11.4	11.7	11.9	12.3
Total..	9.7	11.0	14.9	19.4	23.1	24.0	24.9	25.8

Source : National Accounts Statistics (various issues)

are made from specified sources. There are also "Rollover provisions" for relief from capital gains tax in the case of investment in housing.

An adequate consideration of the impact of these concessions and the more general question about the impact of fiscal policy on private savings is quite beyond the scope of this section. Here we summarize the record on private and economywide savings in relation to terminal-year plan targets.

Table:7 reveals several obvious points. First, in each of the last three Five-Year Plans, the private savings rate for the terminal year has exceeded the plan target, with the overfulfillment being quite dramatic in the Fourth and Fifth Five-Year Plans. Second, this remarkable buoyancy in private savings has been entirely due to the strong savings performance of the household sector (including unincorporated enterprises). The target set for that sector has always been overfulfilled.

5.3 Fiscal Policy and Allocational Efficiency

Fiscal policy also influences economic growth through its effect on the efficiency of resource allocation and use. In this section we briefly consider some of the issues involved.

Over focus here, as in previous sections, is on the effects of fiscal policy on the supply side of the economy. This is in sharp contrast to the preoccupation (at least until recently) in industrialized economies with the output

effects of fiscal policy operating through changes in aggregate demand(that is, loosely speaking, the Keynesian perspective). It is interesting that the traditional concern of development economies with issues of aggregate supply have, of late, become remarkably fashionable in the economic policy debate of industrialized countries.

The proportion of India's GDP accounted for by the public sector has increased substantially since the introduction of planned economic development. Furthermore, this increase is almost wholly accounted for by the proliferation and growth of nondepartmental PSEs(the 'Departmental Enterprises' are basically railways, posts and telegraph). These points are highlighted by the summary Table.8.

This growth in the role of the public sector is directly traceable to the preponderant share in total plan outlay allocated to the public sector. Plan expenditures (investment and current development outlay) in the various Five Year Plans are given in the table:9. In the Third, Fourth and Fifth Plans, this share was well in excess of 60 percent. Even after the decline in the next three plans, the public sector was still allocated just over half of total planned outlay in the Seventh Plan and Eighth Plan.

Commensurate with the growth in relative significance of the public sector in producing goods and services, there

TABLE : 9 : SHARE IN INDIA'S TOTAL PLAN OUTLAY FROM FIRST TO SEVENTH PLAN
(Original Estimates in Percentages)

	First Plan	Second Plan 1956-61	Third Plan 1961-66	Fourth Plan 1969-74	Fifth Plan 1974-79	Sixth Plan 1980-85	Seventh Plan 1985-90	Eighth Plan 1990-95
1. Public Sector	56.91	54.07	64.66	63.92	69.57	56.62	51.70	52.80
A. Current development outlay	-	-	10.35	9.02	10.95	7.84	7.40	8.50
B. Investment	53.20	54.09	54.31	54.90	58.62	48.78	44.30	44.30
2. Private Sector Investment @	43.08	45.93	35.34	36.08	30.43	43.38	48.30	47.20
3. Total Plan outlay	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

@ Excludes investment financed by capital transfers from the public sector on plan account.

Source : National accounts statistics(various issues)

has been increasing interest and concern about the efficiency of resource use within this sector. In view of the especially rapid growth in the share of investment and output accounted for by nondepartmental PSEs, this interest has quite naturally focused on these enterprises.

Though studies of individual enterprises and sectors/ subsectors abound, it is difficult to come by rigorous appraisals of the efficiency of resource use by the PSEs, taken as a whole. As a matter of research priority, it is very important to address this lacuna since purely financial indicators are obviously inadequate yardsticks of performance when enterprises are explicitly charged with objectives other than the maximization of commercial profits.

Nonetheless, despite the absence of such rigrous and comprehensive appraisals, the abundance of studies at the enterprise, subsector and sectoral levels, the indifferent financial performance of PSEs alluded to earlier and available data on physical input-output ratios and productivity indices all suggest that the efficiency of resource use in PSEs is well below potential. Partly in response to this widely held perception of the problem, the Government had advanced, in its paper on Administered price policy, a number of proposals for giving greater weight to cost cutting and productivity increases in setting PSE administered prices.[3]

3. Administered Prices Policy: A discussion paper (New Delhi: Government of India, Ministry of Finance, 1986).

Tax Structure and Allocational Efficiency

Tax policy is of course, a key determinant of the efficiency of resource use in the economy. The evolution of India's tax structure, in terms of contribution to total tax revenue is summarized in Table:10. Several points stand out. First, the share of direct taxes has fallen from 37 percent in 1950-51 to 15 percent in 1987-88, Correspondingly, the share of indirect taxes has risen from 63 percent to 80 percent. Thus, the sustained increase in the tax GDP ratio, noted earlier, has essentially been fueled by the growth of indirect taxes. Second, within the ambit of indirect taxes, the preponderant role has been played by three taxes: customs and excise duties at the Central Government level and sales taxes at the State level. Hence, it is commodity taxation which has basically accounted for the growth of tax revenues over the last four decades. Third, an issue which we take up below in the discussion of the equity dimensions of fiscal policy, the share of personal income tax has fallen markedly from 21 percent in 1950-51 to 5 percent in 1984-85 and then had increased to 9 percent in 1987-88.

The heavy reliance on commodity taxation has had important consequences for the efficiency of resource allocation in the economy, many of which had not been fully appreciated when the tax policies were being framed, mainly on the basis of revenue-raising considerations. First, a number of studies have pointed

TABLE : 10 : INDIA'S TAX STRUCTURE (CENTRE, STATES AND UNION TERRITORIES) 1950-51 to 1987-88

(Percentage to total tax revenue)

	1950-51	1960-61	1970-71	1980-81	1984-85	1985-86	1986-87	1987-88
Direct Taxes	36.79	29.77	21.23	16.47	15.18	17.50	18.90	15.20
Corporation tax	6.28	8.12	7.80	6.61	7.85	8.47	7.40	7.80
Income Tax	21.37	12.49	9.95	8.59	5.03	6.40	8.20	9.20
Wealth Tax	-	0.60	0.32	0.34	0.27	0.26	0.28	0.29
Land Revenue	8.22	7.24	2.54	0.79	0.91	0.93	0.94	0.98
Agricultural I	0.57	0.71	0.22	0.23	0.13	0.15	0.18	0.22
Indirect Taxes	63.21	70.23	78.76	83.53	84.82	82.5	81.10	79.80
Customs	25.07	12.59	11.03	17.18	19.73	20.10	21.10	20.10
Union Excise	10.78	30.83	37.00	32.76	31.03	32.10	28.10	26.20
State Excise	7.95	4.07	4.24	4.46	5.26	5.30	5.60	6.1
Sales Tax	9.29	12.14	16.55	20.25	20.42	21.00	22.00	20.9
Stamps and Registration	4.43	3.49	2.84	2.20	1.97	2.00	2.10	1.8
Motor Venicles	1.24	2.53	2.36	2.14	1.97	2.00	2.20	1.9
Centre's Taxes	64.59	66.30	67.47	66.41	65.84	66.10	67.00	67.40
State's Own Taxes	33.41	33.70	32.53	33.59	34.16	33.90	32.80	32.60

Source : Indian Economic Statistics, Public Finance (New Delhi: Government of India, Ministry of Finance).

out that India's structure of customs duties, coupled with the regime of quantitative restrictions, has conferred high and widely divergent rates of effective protection to different lines of industrial activity(J.N.Bhagwati and P.Desai (1970)[4]. This has been interpreted as prima facie evidence of efficiency losses due to, in large part, the customs tariff structure.

Second, as emphasized by the report of the Jha Committee on indirect taxes, 1978 a readiness to levy indirect taxes on inputs has led to the problem of "cascading" of tax and interest costs, distorted the incentive structure for investment and production, penalized exports and made it extremely difficult to assess the burden of indirect taxation. Furthermore, both the Jha committee, as well as its predecessors, such as the Venkatappiah Committee 1974 have criticized the sheer complexity of the indirect tax structure for contributing to evasion and for compounding administrative problems[5].

All in all, what out assessment of fiscal policy conveys is that there are number of problems pertaining to raising of

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4. J.N.Bhagwati and P.Desai(1970) India: Planning for industrialisation: Industrialization and Trade Policies since 1951, Oxford University Press, New Delhi.

5. Report of the Indirect Taxation Enquiry Committee (New Delhi; Government of India, Ministry of Finance, 1978).

   Report of the Central Excise Review Committee(New Delhi Government of India, Ministry of Finance, 1974).

tax revenues, mobilization of resources by public sector and the taxation policy and that there is a need to simplify tax structure and tax laws, to improve the public sector performance, to improve tax administration and to strengthen methods of expenditure control. The preceding analysis by and large, provided a summary assessment of fiscal policy in India. The analysis has pointed towards fiscal mismanagement in India and this has been markedly visible in growing deficits of the government. It is instructive to analyse the growth and composition of budgetary deficit in India.

5.4 Union Budget Deficit : Its growth, Composition and Implications.

The orthodox theory of public finance advocated a 'balanced budget' for the government on the ground that a continuing imbalance would either pile up deficits or involve a rising public debt. It argued that the growth in either deficit or public debt would weaken confidence in the government and imply a higher taxation in future and would also lead to extravagance and waste. Therefore, the orthodox theory stipulated that the revenue and expenditure of the government should balance in an accounting period, and thereby ruled out a deficit in the budget.

However, over a period of time the concept of budgetary deficit evolved from an initial stage of "War deficits" to a final stage of "Development deficits" - the intermediary stages

being those of "depression" and "defence deficits". While Adam Smith himself conceded an unbalanced budget to meet the emergency arising out of a war, the Keynesian revolution advocated an unbalanced budget as a cure for the depression. On the other hand, later economists pleaded that when a country is undertaking a development programme in the public sector of a large magnitude it is not economically and politically feasible for it, to finance it within the framework of a balanced budget. On the basis of these explanations, the concept of unbalanced budget has been accomodated in theories as well as in most countries in the world including India.

It is also often argued that the budgetory deficits are a temporary phenomenon only and with the revival of economic prosperity, through acceleration of developmental expenditures, the deficits will be wiped out through surplus budgets, so that in the long run there are no deficits. This longterm flexible budgeting is only an "extension" of the orthodox theory of balanced budgeting. However, in India, long-run balancing of budget has not happened. The adverse impact of the growth of budgetary deficits, which create 'new money' (in Indian context, through rise in net RBI credit to Central Government) is the steep rise in the price level. Therefore, economic theories generally discourage 'chronic' as well as a higher rate of budgetary deficit in a country like India where so many infrastructural bottlenecks prevent acceleration of economic development.

TABLE : 11 : GROWTH AND COMPOSITION OF TOTAL UNION BUDGETARY DEFICITS

(Rs. Crores)

	I Plan 1951-52 to 1955-56	II plan 1956-57 to 1960-61	III Plan 1961-62 to 1965-66	Annual Plans 1966-67 to 1968-69	IV Plan 1969-70 to 1973-74	V Plan 1974-75 to 1978-79	VI Plan 1980-81 to 1984-85	VII Plan 1985-86 to 1988-89
1. Deficit(-) or Surplus(+) under Revenue Account.	+249.4	+238.0	+1006.5	+409.0	+412.2	+2671.7	-9157.7	-28580
2. Deficit(-) or Surplus(+) under capital Account	-407.2	-1156.0	-1791.7	-1177.1	-2461.2	-6328	-1629	+3614
3. Total Budgetary deficits	-157.8	-918.0	-785.2	-768	-2049	-3656.2	-10786.9	-24966
4. (1) as % of (2)	61.2	20.6	56.1	35.0	17.0	42.2	562.1	791.0

The figures on deficits are the values summed up over the respective plan period.

Source : Various issues of Report on currency and Finance

Note : Percentages in (4) are calculated without considering the signs. However, what is to be noted is from 61 per cent in I Plan, the figure in (4) has fallen to 17 and 42 per cent in IV and V Plan; this indicates contribution of surplus on revenue account to finance deficit on capital account has fallen to that extent. In VI and VII Plans, we have deficits on both the accounts and that on revenue account are substantial amounts.

But in India, there has been an enormous growth in the budgetary deficits. For instance, the total budgetary deficit, which was Rs.917.95 during the second plan period increased to Rs.10786.80 crores and Rs.24986 crores during the sixth and seventh plan period(Table:11) that is, it increased nearly by 17 times and 42 times during these periods respectively. Though many scholars in India have very often cautioned about the growth of total union budgetary deficits, not many have specifically pointed the changing composition of the total budgetory deficits and its implications for the financial soundness of the union government. From Table : 11 we infer that starting from the Second Plan period to the Fifth Plan, the revenue account of the union budget always had a surplus. However, the revenue account, which used to generate a surplus in order to partly offset the deficit in the capital account has turned into a deficit during the Sixth Plan period and Seventh Plan. The core of the problem of the centre's budget deficit lies in the very poor budget performance on revenue account. The budget estimates of 1989-90 would be a pointer on this. Accordingly, as much as 35 percent of the estimated budget deficit of Central govt. for 1989-90 could be attributable to its negative savings. Another 20 percent is attributable to expenditure of capital nature on revenue account, mostly capital transfers and a further 8 percent to direct capital outlays by central Government. In both cases, the expenditure is unremunerative directly. If it is agreed that such outlays may be financed preferably by govt. saving rather than borrowing, the appropriate remedy for

the deficit will be to eliminate negative Government savings and secure positive saving large enough to finance atleast the essential but directly unremunerative capital outlays. The budget deficit is a reflection, first and foremost of the failure to secure even a minimum positive balance on revenue account.

Much more serious is the fact that the deficit under revenue account during the Sixth plan is Rs.9157.70 crores, which is nearly six times the deficit in the capital account of the corresponding period and it is nearly eight times for seventh plan. Till the end of the Fifth Plan period the surplus in the revenue account had always come in handy to reduce the deficit in the capital account in varying proportions. For instance, during the Third Plan period, the revenue surplus of Rs.1018.74 crores had compensated the capital deficit of Rs.1791.70 by 57 percent and thereby the total deficit was reduced to Rs.782.15 crores. This 'compensatory role' of revenue account was reduced to 42 percent during the fourth plan period. But during the sixth plan period the revenue account had no longer assumed the 'compensatory role' rather it had become 'complementary' to capital deficit. The deficit in the revenue account had been 562 percent of deficit in the capital account, and has been exceedingly higher in the Seventh Plan. It is 791 percent of surplus in the capital account.

The serious implications of the recent change in the composition of the total budgetary deficit would be clear

if we briefly examine the distinction between the revenue and capital accounts of union budget. The receipts under the capital account are those receipts which have repayment liabilities. For instance, public debt, provident fund, small savings etc. are part of the capital receipts. The expenditure terms of capital account fall under three category viz. (1) creation of new physical assets (needed for developmental activities); (2) creation of financial assets, for instance loans to state governments; and (3) repayment of past capital receipts like provident fund, public debt, small savings etc., which have corresponding liabilities. Thus from the structure of capital account it is clear that the growing deficit on this account would mean either increase in financial or physical assets, or growth of new physical assets, or both. Therefore, in one sense, the growth of deficit in the capital account is partial indicator of soundness of an economy.

On the other hand, the receipts under the revenue account are those which do not have any repayment liabilities and they mainly accrue to the union government through taxes, The expenditures of this account are mainly incurred towards non-developmental activities like defence, interest payments, administration grants to states etc., and also towards developmental activities, which are basically undertaken to maintain the existing physical assets meant for development purpose.

Thus, the deficit on this account would mean the inability of the union government to sustain the ordinary business of the nation(let alone the business of developmental activities). Therefore, what an under developed country should aim at is to have a surplus in its revenue budget both by raising maximum resources through taxation and by keeping the consumption expenditure as low as possible and to use this surplus to finance the capital budget. The deficit on the revenue account will be either an index of an inadequate tax policy or extravagance in public expenditure on consumption or both provided the growth of the deficit is not solely caused by the growth of grants made to state governments. If we presume that the revenue deficit growth is not primarily a result of the growth of grants element, then this deficit not only means negative saving but it may also lead to the consumption of capital. From this discussion, the serious implications of the revenue deficit at the order of Rs.9157.70 crores during the sixth plan period and of Rs.28580 crores during the seventh plan are obvious.

From table it is also interesting to note the fact that the overall budgetary deficit has absolutely decreased from Rs.917.95 crores during second plan period to Rs.764.00 crores during annual plan period. On the contrary, the total deficit increased by 14 times during the period between the annual plans and the Sixth Plan and that between annual plans and Seventh Plan it increased by 45 times which is phenomenal! This makes one to be curious to know what factors were largely responsible for the growth of total budgetary deficits during this period.

TABLE : 12 : EXPENDITURE OF UNION GOVERNMENT - THEIR GROWTH AND ASSOCIATION WITH BUDGETARY DEFICITS

	I Plan	II Plan	III Plan	Annual Plan	IV Plan	V Plan	VI Plan	VII Plan	Annual compound growth rate		Correlation coefficient with Budgetary deficit	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	1969-85	1969-89	1969-85	1969-89
Total budgetary deficits	157.8	918.0	785.2	768	2049	3656.2	10786.8	24966	17.0	19.8	1.00	1.00
Subsidy	122	165	230	10.1	885	4598	13531.9	32675	25.0	23.2	0.69	0.72
Defence	944	1315	3262	2910	6555	12645	27372	55626	15.0	15.80	0.59	0.61
Interest Payments	199.2	258	1291	2697.7	3569	7345	24871	42125	14.8	14.70	0.57	0.59
Loans and Advances	807	1419	3793	4269	9655	18562	38702	38783	14.7	11.6	0.65	0.67
Total Federal Grants	8444	1385	2189	1414.9	2615	4910	18908	33849	17.5	17.2	0.80	0.75
Other Non-development expenditure	524	735	923	1007.8	3212	6422	7812.3	20138	13.6	16.1	0.32	0.41
Development Expenditure	760	1065	1661	2268.6	8351	19266	40034.9	78096	19.6	19.3	0.55	0.58

Source : Report on currency and Finance, various issues

Note : We had also calculated correlation- coefficient for other periods but our interest is to find values of correlation of different variables with budgetary deficits. The period 1969-85 and 1969-89 provide useful information.

The expenditure data and total deficit data are analysed for the period starting from first plan to the end of seventh plan and their results are given in Table:12.

From the column 3 of the table, it is clear that mainly the growth of three components of union expenditures, viz. subsidy, development expenditures and federal grants led to the spurt in the total deficits. While all other items of expenditures increased, the subsidy increased by 79 times, the developmental expenditures by 34 times and the federal grants by 24 times. On the other hand, the aggregate budgetary receipts increased only by 14 times during this period. In terms of growth rate, the aggregate receipts grew by 20 percent per annum during the same period. Thus, the growth in the three expenditure components outweighed the growth in the aggregate receipts and thereby they caused the spurt in the budgetary deficit.

The last column of Table 12 gives the correlation coefficient of each variable with the budgetary deficit. Since the federal grant does not in any way lead to generation of revenue to union government it shows the highest degree of correlation with budgetary deficits among all expenditure components. The subsidy element too shows very high degree of association with the budgetary deficit indicating that to a large extent the subsidy element also does not bring back any receipts to the union budget. Though the ability to generate financial resources to the government budget is not the sole consideration of expenditure

policies, nevertheless it helps to sustain the growing government's business activities.

In India, the growth of federal grants (which are largely) used to fill the gap in the revenue accounts of states' budgets and to assist the state governments in their plan activities) is generally encouraged in the interests of 'sound federalism' and large development perspectives. However, the evergrowing budgetary subsidies in India have not been justified either interms of 'growth' or 'equity' grounds. The equity and growth implications of two major subsidies viz., fertilizer subsidy and food subsidy which put together, at present, account for 70 percent of total subsidies are yet to be empirically proved. According to official data, the subsidies account for around 8% share in the total expenditure of the Central government and about one-fourth of the revenue collected through various indirect taxes is drained out in the form of total subsidies.

Since the subsidies generally form part of revenue expenditures, the unchecked growth of subsidy would further accelerate the revenue deficit and therefore the Indian economy would reach a stage where the 'capital consumption would be the dominant business activity of the government. Thus, the present analysis indicates the need for empirical study of fertilizer and food subsidies in order to evaluate their 'equity' and 'growth' implications. If their growth is justified on either one of these two grounds or on both, the union

government should attempt to tap larger tax revenues in order to sustain the growing subsidy as well as to prevent the deficit in the revenue account. On the other hand, if empirical research does not justify the growth of subsidies on either or these two grounds, then the union government should curtail these subsidies immediately.

Finally the growth of development expenditures, which had increased nearly by 18 times and 34 times during VIth and VIIth plan and thereby assumed second major role in acceleration of the budgetary deficits raises a serious question. While the growth of development expenditures led to the spurt in the budgetary deficits, the former itself was a result of the union government's encroachment over the state governments' responsibilities of developmental activities, which were originally conferred by the constitution to the later. On the one hand, this encroachment led to the dominance of union government over the state governments as far as developmental activities are concerned, on the other, it has weakened the state governments finally by generating inflationary spiral in the whole country. The role of fiscal policy in affecting level of economic activity and other macro variables hardly needs to be stressed. In theory and at the empirical level, the government surplus or deficit has come to be recognized as a major fiscal policy variable influencing economic activities and money stock in an economy. In the efforts of the authorities to fine tune the economy, the role of government deficit is accorded a crucial role and

and here, we attempt to examine this role of government deficit during the growth cycles of the Indian economy. After that, in the final sections 5.6, we take up the issue of assessing empirical relationship between monetary policy variables(money stock and reserve money) and fiscal policy variables(govt. deficit and government expenditure).

5.5 The Government Deficit as a Business Cycle Stabilizer

The Government surplus or deficit, or rather the change in it has long been considered a stabilizing factor in business cycles. Its stabilizing properties are partly automatic and partly deliberate or policy determined. The deliberate or policy changes occur when tax rates are cut during a recession or the duration of unemployment benefits is extended and expenditures thereby increased. They can also be partly automatic as when tax collections go down during a recession with a decline in incomes or profits or when expenditures go up because of a rise in some welfare programs like unemployment compensation.[6] It is also possible for them to work in reverse during a business cycle expansion and help to dampen the inflation that usually accompanies rapid growth. In order to determine how well or poorly the large deficits of recent years in India have worked in these respects, some consideration of the past record of deficits during business cycles is essential. For the Indian

6. In the context of Indian economy, automatic elements do not exist in practice and are not found to operate.

economy, there exists one contributary work on business cycles (Chitre, V.S. 1982)[7]. Prof. Chitre has examined in detail the short term fluctuations in economic activity and he has been able to delineate five growth cycles which the Indian economy passed through during the quarter of a century since 1951.

In this section we attempt to study the behaviour of deficit during these identified growth cycles. It should be noted that the degree of stimulation (or restriction) of economic activity stemming from fiscal policy has been regarded as dependent on the size of the observed budget surplus or deficit. The budget has been popularly regarded as stimulative when in deficit (government outlays exceeding revenues), and restrictive when accruing a surplus.

The study by Prof. Chitre is confined only to the period 1951-75 and hence it has excluded the most recent period. We have attempted to identify growth cycles in the Indian economy over the period 1950-51 to 1985-86.

Methodology

We have attempted to identify growth cycles using data on yearly growth rate of real national income. For this purpose,

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7. Chitre V.S. (1982), "Growth Cycles in the Indian economy" Artha Vijnan, December, Vol.XXIV, No.4

we have used the method of least squares to fit the time trend with respect to yearly growth rate of real national income over the period 1950-51 to 1985-86. The following time trend model was adopted :

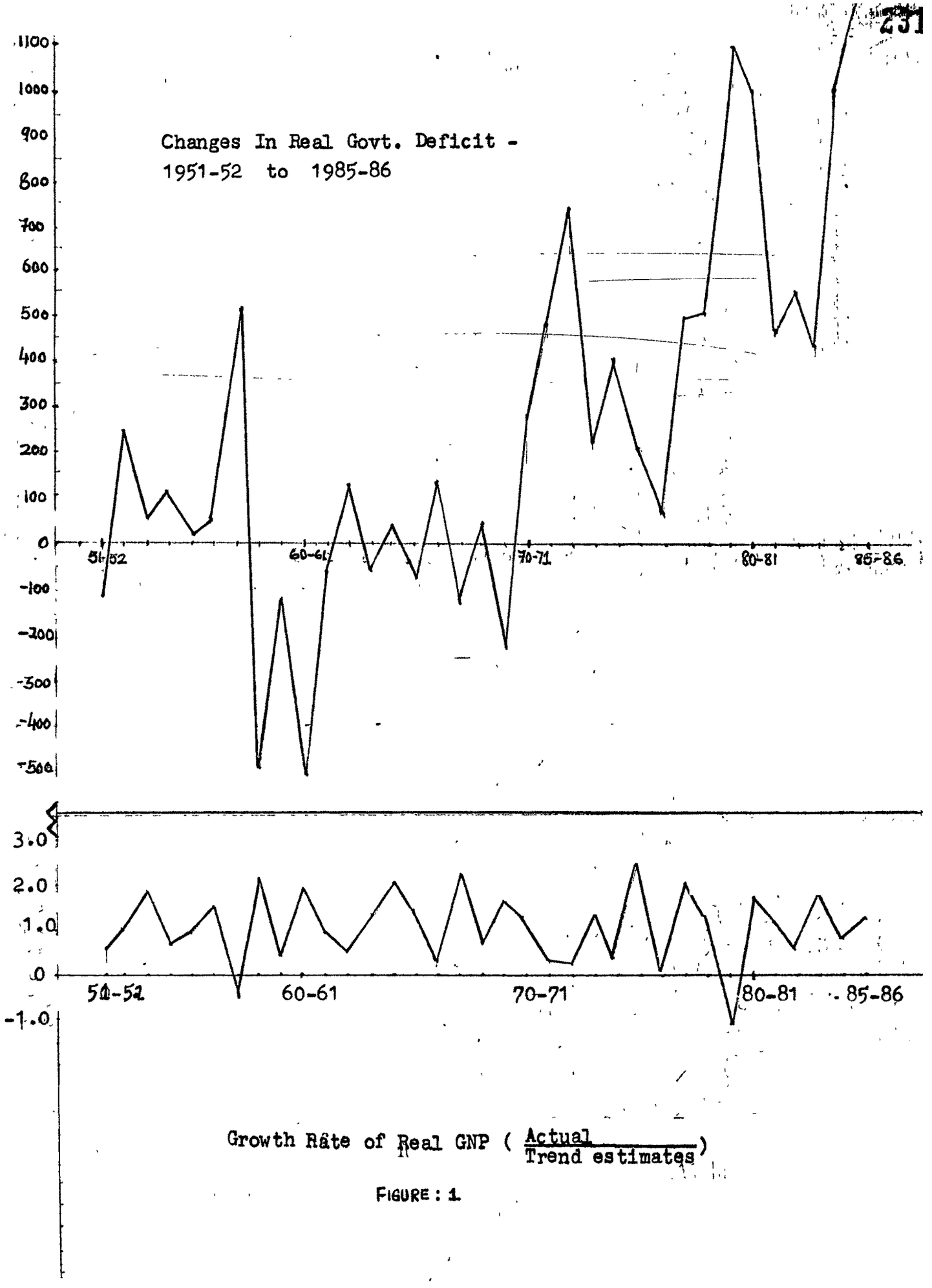
$$y = a + \beta t + e$$

Where y = yearly growth rate of real national income.

t = time, a and β are the parameters,

While e is the error term.

On the basis of the results derived through real growth trends, growth cycles could be detected. The most commonly used method of separating trend and growth cycles in a time series is to express the actual data for real growth rate as a percentage of trend value for each year. If the ratio of actual real growth rate to its trend value is less than "one", or, "100%", it indicates a situation of low levels of economic activities. If the ratio is greater than "one" or "100%", it reflects high levels of economic activities or a period of expansion. The "trough" and "peak" points of series for actual to trend value of real growth rate denote depression and prosperity years respectively. Depending upon the change of direction, the troughs and peaks in the real growth rate series were located through inspection of the data and graph (figure: 1). A period preceding through is termed period of "contraction" and that following "trough" is called expansion. In short, contraction denotes recessionary phase, trough indicates depression, expansion shows revival while peak reflects prosperity. The estimated trend equation on growth rate of real national income is as follows :



Growth Rate of Real GNP ($\frac{\text{Actual}}{\text{Trend estimates}}$)

FIGURE : 1

TABLE : 13 : GROWTH RATES OF REAL NATIONAL INCOME 1951-52 to 1985-86

Year	Actual growth rate	estimated trend growth rate	Actual rate / Estimated rate = Col.2 / Col.3
1.	2.	3.	4.
1951-52	2.1	3.32	0.63
1952-53	3.6	3.35	1.07
1953-54	6.4	3.38	1.90
1954-55	2.7	3.41	0.78
1955-56	3.3	3.45	0.95
1956-57	5.4	3.48	1.55
1957-58	-1.8	3.51	-0.51
1958-59	8.3	3.54	2.36
1959-60	1.7	3.52	0.47
1960-61	6.8	3.60	1.88
1961-62	3.4	3.64	0.93
1962-63	2.1	3.67	0.57
1963-64	5.1	3.70	1.37
1964.65	7.8	3.73	2.08
1965-66	-5.3	3.76	1.40
1966-67	1.0	3.80	0.26
1967-68	8.6	3.83	2.24
1968-69	2.8	3.86	0.72
1969-70	6.3	3.89	1.61
1970-71	5.6	3.92	1.42
1971-72	1.5	3.96	0.37
1972-73	-1.0	3.99	-0.25
1973-74	5.1	4.02	1.26
1974-75	1.2	4.05	0.29
1975-76	9.9	4.08	2.42
1976-77	0.6	4.12	0.14
1977-78	8.7	4.15	2.09
1978-79	5.8	4.18	1.38
1979-80	-4.7	4.21	-1.11
1980-81	7.4	4.25	1.74
1981-82	5.4	4.28	1.26
1982-83	2.6	4.31	0.60
1983-84	8.0	4.34	1.84
1984-85	3.7	4.37	0.84
1985-86	5.1	4.40	1.15

$$Y = 3.29 + .032T \qquad R^2 = 0.25$$
$$(1.75) \text{ - t-values}$$

On the basis of above equation, we have obtained series on estimated values of growth rates of real national income. Table:13 gives information on actual growth rates, estimated growth rates and column:3 gives calculated ratios of actual values to those of estimated values. With the help of this, we have identified the periods of expansion and contraction. In what follows is an attempt to study, the behaviour of centre's budgetary deficit and government expenditure during the identified growth cycles. Needless to say the analysis is in real terms. This is because the nominal deficit figures have to be adjusted to allow for the fact that the price level has risen substantially. A rupee of deficit now is not worth the same in real goods and services as a rupee of deficit ten or twenty years ago. It is desirable also to allow for the fact that the economy has grown substantially in real terms. The figures in Table:14 then, measure the deficit, government expenditure and net national product in constant (1970-71 = 100) prices. The changes in real deficits are given in absolute levels while those on government expenditure and NNP are expressed in percentage terms. Our expectations are that both real deficit and govt. expenditure should show sizeable increases during periods of recessions while converse should occur for the periods of expansions. Table:14 refers to the periods of expansion. Several points are worth noting:

TABLE : 14 : CHANGES DURING EXPANSION

Expansion from Trough year to Peak year	(-) fall or (+) Rise in Real deficit	Real Govt. expenditure (Percent)	Real NNP (Percent)
1. 1951-53			
1951-52	-107	15	3.6
1952-53	241	13	6.5
2. 1954-56			
1954-55	118	49	3.2
1955-56	20	11	5.5
3. 1957-58	524	36	8.5
4. 1959-60	-121	.82	6.9
5. 1962-64			
1962-63	133	19	5.2
1963-64	-61	19	7.7
6. 1967-68	-125	-14	2.7
7. 1969-70	-227	6	5.6
8. 1973-74	236	-13	1.5
9. 1975-76	211	24	0.4
10. 1977-78	501	9	5.6
11. 1980-81	1002	3	5.3
12. 1983-84	447	10	3.5
13. 1985-86	1398	15	4.9

Note : The data used in this exercise are given in the Appendix.

Source : See the table in the appendix:I, P.58

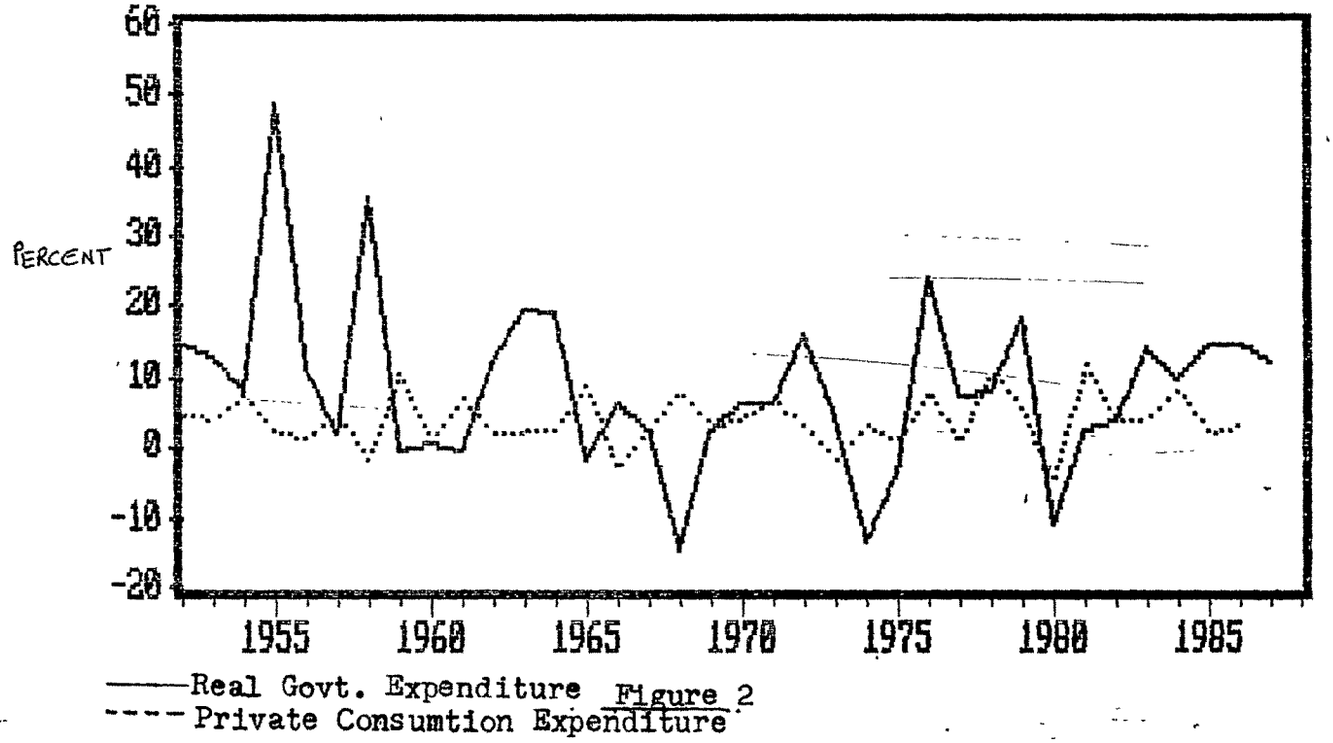

60
50
40
30
20
10
0
-10
-20
PERCENT
1955
1960
1965
1970
1975
1980
1985
——Real Govt. Expenditure
----Private Consumtion Expenditure

Figure 2

1. The real deficit does not show any consistent fall in every period expansion as one would expect a priori? Out of sixteen years of expansion, the real deficit has shown a substantial increase in eleven years, stimulating further the economic activity which is already at a high level and which as such does not require further stimulus. This stimulus though not warranted and not justified could lead to accentuating price trends. In fact, one would expect a modest increase or decreases govt. deficit during periods of expansion.

2. It is equally surprising to find that real government expenditure is also showing substantial increases which are much more than what is required. This procyclical increase which is pronounced could lead to unhealthy trends in output and prices; It could create artificial fluctuations; Given the years of expansion, in eight to nine years, the govt.expenditure has increased sizably and it has increased simultaneously with real private final consumption expenditure (Pfce) as is borne out by the accompanying graph. If real pfce is already rising sufficiently, then government does not need to stimulate economy at an already high level of economic activity. Its efforts at fine tunning could further destabilize economy.

3. The real deficit has not acted as powerfully to constrain expansion as to constrain recession. The observed increases in real deficits appear larger in magnitude during recession as compared to the observed declines in real deficits during expansion. In other words, the

behaviour of real deficit and govt.expenditure during during recession appear relatively better than during expansion in the context of fine tunning the economy.

Apart from the period of expansion, it is worthwhile to examine as to what happened during years of contraction. Only then one can tentatively conclude as to whether the deficit behaved in a stabilizing manner or not. Table:15 reports relevant information. Several points are worth noting :

1. The figures on real deficits and real govt. expenditure upto the period 1965-66 are not consistent with expectations and they have shown sizable declines contrary to what is needed to stabilize the economy. Atleast the data upto 1965-66 hardly seems to lend credence to the appropriability of the policy.

2. The period after 1965-66 witnessed increases in both real deficits and govt. expenditure. The data clearly indicate that the authorities seem to be far more aware of and responsive in constraining the falling economic activity levels. The stance of fiscal policy is clearly expansionary.

3. It should be noted, however, that after 1965-66 and especially after year of nationalisation, the government has been attempting quite distinctly to prempt real resources at a much faster rate than what is sustainable at the going rate of inflation. This has led to an increasing spurt in government expenditure since in view

TABLE : 15 : CHANGES DURING CONTRACTION

Contraction from Peak year to trough year	(-) fall or (+) Rise in Real Deficit	Real Govt. expenditure (Percent)	Real NNP (Percent)
1. 1953-54	60	8.1	2.5
2. 1956-57	48	2.2	-2.2
3. 1958-59	-495	-0.7	1.6
4. 1960-62			
1960-61	-509	-0.6	3.3
1961-62	-62	12.5	1.5
5. 1964-67			
1964-65	42	-1.6	-5.9
1965-66	-67	6.3	0.7
1966-67	149	2.5	8.9
6. 1968-69	51	2.8	6.2
7. 1970-73			
1970-71	285	6.1	1.4
1971-72	494	16.3	-1.4
1972-73	750	4.3	5.3
8. 1974-75	414	-3.8	10.1
9. 1976-77	74	7.3	8.9
10. 1978-80			
1978-79	511	18.2	-5.2
1979-80	1118	-10.7	7.4
11. 1981-83			
1981-82	497	3.6	2.4
1982-83	561	14.0	8.1
12. 1984-85	1120	15.3	5.1

Source : refer to the table in appendix: I, P.58

of lower rate of increase in revenues, real commitments have been growing faster every years. The issue is whether larger deficits and government expenditure are a reflection of a conscious anti-cyclical policy or whether it is a reflection of the government's efforts to meet its real routine commitments.[8] On the basis of the simple analysis, we can also infer that there is a need to streamline Govt. expenditure and if possible, like monetary targetting, there is an imperative need to adopt targetting for government deficit and government expenditure as well. On some prespecified criteria or even on discretionary grounds, a 'government expenditure or deficit rule' (like a 'monetary rule') should be instituted. Even if this does not constitute a major solution, it could prove to be a far more appropriate stabilization recipe that would, at least, minimize inadequate ups and downs of the economic activities.

Furthermore, what this simple exercise accomplishes is that it strongly suggests the need for sufficient short-term flexibility in government fiscal policy which is required to offset both demand and supply shocks. We believe that these shocks usually emanate from industrial demand such as private investment or consumption spending and agricultural fluctuations.

8. It can be argued that a business cycle stabilizing mechanism like the deficit should not operate in a wholly symmetrical manner during expansions and recessions, because it is desirable to stimulate growth. Furthermore, fiscal stimulus may be desirable during the initial recovery phase of an expansion but not later. In a fuller analysis, one should take these points into account.

The Indian economy periodically suffers an internal exogenous shock from drought, which has caused a decline of agricultural production of as much as 15 percent in a year, and a 5 percent decline of GDP. This suggests that budgetary policy should aim to offset such shocks, by adjusting expenditures or taxes in the usual way. The key question really relates to the pattern of government fiscal policy in response to shocks from industrial and agricultural sectors; should the government expand the economy in bad years and contract it in good years or should it contract it in bad years and expand it in good years! Needless to say these questions also involve issues of linkages of industry-Agriculture, stability of food prices, volatility or otherwise of govt. food stock holding and industrial output etc. That requires a far more comprehensive and indepth study. However, the necessity of an anti-cyclical fiscal can hardly be debated though that would partly necessitate that govt. is able to forecast likely fluctuations in industrial, agricultural and aggregate output, if not precisely the output levels, their direction.

5.6 --Relationship between Fiscal Policy and Monetary Policy

The public sector is widely recognised to exercise important influence on the stock of money, either directly of indirectly. The extent of this influence depends on the method of financing the deficit. Specifically, if the deficit is financed by domestic or external non-monetary borrowing (borrowing from the domestic,

non-bank private sector and from non-residents) the money stock willremain essentially unaffected, but if it is financed through the banking system, ceteris paribus, the money stock will increase. In a framework where monetary policy decisions are made independently of fiscal policy decisions, the monetary authorities, through the relevant credit policy decisions, determine the level of government debt purchases by the non-bank private sector, while the fiscal authorities are left to finance the residual. For example, the Reserve Bank of India can adjust its portfolio so as to offset bank purchases of government bonds. By contrast, if monetary policy is passive with respect to fiscal policy, credit policy decisions and the level of government debt purchases are directly linked to the deficit since the full amount of it must be financed by the monetary authorities. At least in the present scenario, this seems to be the case in India, that is from the view point of the monetary authorities, the size of the public sector deficit to be financed is an outside parameter. It seems once the government expenditures and revenue have been decided by the treasury, the Reserve Bank has to finance the residual, either through the sale of government securities or through banking system.[9]

Drawing on the actual data, it seems by law, and in practice, monetary arrangements in India severely constrain the scope for

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9. Jadhav N. and Singh, B.(1990),"Fiscal Monetary dynamic nexus in India: an econometric model", Economic and political weekly.

a monetary policy that is independent of the government budget. The government's borrowing requirement is met in substantial measure by the banking system in general and by the Reserve Bank in particular. The Reserve Bank holds 90 percent of outstanding treasury bills and 30 percent of outstanding government securities. Borrowing from the Reserve Bank adds directly to Reserve money. From 1970 to 1985, net Reserve bank credit to government constituted a staggering 97 percent of additions to reserve money. In more recent time periods, this exceeds 100 percent. Since the Reserve bank cannot control government deficits and has to land to cover them, monetary policy seems to be largely concerned with making room for the government in reserve money expansion. This has also led to the ineffectiveness of open market operations and Bank rate policies in regulating the liquidity in the economy. All these suggest that the liquidity in the economy has an imperative bias in the upward direction. Government borrowing from the Reserve Bank has increased the reserve money and the Reserve Bank has been understandably reluctant to squeeze private sector liquidity beyond a point for fear of hurting production.

For the Indian economy, no empirical attempt has been made to examine the possible nexus between budgetary operations and reserve money and other money stock measures. This relationship is often assumed away. In this section, we attempt to assess the influence of the fiscal deficit on reserve money, M_1 (narrow money) and M_3 (broad money) using yearly observations for the period 1951-1987. For estimation purposes, we have used

alternative measures of fiscal policy viz. overall current govt. expenditure, budgetary deficit, overall central govt. deficit and net RBI credit to government. All these four measures of fiscal policy could be used as proxies for each other for some limited purposes since all of them, in a sence, imply the size and extent of government activity and its borrowing requirement. However, definitionally they are different and their coverage of budgetary operations in some cases sizably differ from each other. We have utilized all four measures in examining the impact of fiscal operations on money stock for if all four are found statistically significant then the hypothesis that it is the fiscal policy which dominates monetary policy gets ample evidence and that it will have a much stronger empirical support.

Formally, one can argue that there are plausible reasons for expecting government expenditures in developing countries to adjust faster than revenues to nominal income increases arising from inflation. Even if governments fully recognise the need to restrain expenditures during periods of inflation, they find it difficult to reduce their commitments in real terms. On the other hand, in contrast to the situation in most developed countries, where nominal revenue often more than keep pace with price increase, in developing countries, they lag substantially behind. The contrast arises both because of low nominal income elasticities of tax systems and long lags in tax collection in developing countries. All these mean only that attempts by the

government to extract real resources at a faster rate than was sustainable at any given rate of inflation would result in increases in the money supply and further inflation which again could lead to higher borrowing requirements by the government to finance the ever widening deficits. This also sugguests that there must exist a close link between any measure of money stock to fiscal policy variables. If supply of money, M_1 can be multiplicatively related through the money multiplies, m, to the stock of high powered money, H or reserve money(RM).

$$M_t = m_t H_t \quad \ldots.(1)$$

changes in high powered money can occur through changes in international reserves, changes in the central bank's claims on government($\triangle$ CG), and changes in central bank's claims on commercial banks and the private sector. If we consolidate changes in international reserves and changes in claims on the private sector into one composite variable($\triangle$ OA), one can write

$$\triangle H_t = \triangle CG_t + \triangle OA_t \quad \ldots.(2)$$

or

$$H_t = \triangle CG_t + \triangle OA_t + Ht\text{-}1 \quad \ldots(3)$$

If changes in Central bank claims on the government are simply a reflection of the fiscal deficit, equation(3) can be specified as

$$H_t = G_t - R_t + E_t \quad \ldots..(4)$$

(Where $E_t = \triangle OA_t + H_{t-1}$)

An increase in the fiscal deficits is thus assumed to result in an equal change in the stock of high-powered money. This would

be true to the extent that government deficits were financed by borrowing from the Central Bank or using cash balances held with the Central bank, by borrowing abroad or by borrowing from commercial banks replenishing reserves by recourse to central bank.[10]

Estimation :

In order to examine whether the variables representing governments budgetary operations are statistically significant in explaining the variations in variables representing monetary policy, we have used a two variable regression model and have utilised ordinary least squares method for estimating coefficients. We have experimented alternatively with three variables believed to be reflecting government's fiscal operations. They are overall central govt. deficit, budgetary deficit and Central government expenditure. Reserve money (high powered money), M_1 (currency with the public + demand deposits + other deposits with RBI) and M_3 (M_1 + time deposits) have been considered relevant variables representing monetary policy. We have estimated equations for the whole period 1951-87 and also for the sub-periods 1951-70 and 1971-87 in order to see whether the underlying relationship is maintained and remains statistically significant in both the periods. We expect, a priori, positive relationship between fiscal

10. C.Rangarajan and R.Arif(1990)", Money, output and prices - a macro econometric model", - Economic and Political weekly, Vol.XXV, No.16, April 21, PP.837-852.

policy variables and monetary policy variables and also we expect the relationship much stronger in the whole period (which includes the recent period) than in the subperiod(1951-70). The results are reported in the accompanying tables 16,17 and 18.

$$M_t = G_t - R_t + E_t \quad \ldots.(4) \quad (\text{where } E_t = \triangle OA_t + H_{t-1})$$

In equation (4), if we make a plausible assumption that other influencing factors are not important or that they have not changed in substantial amounts so that provisionally we can keep them constant and for empirical purposes, we simply specify an equation where the reserve money(RM) or high powered money(H_t) is a function of only government deficits.

$$H_t = a + \beta(GD) \quad \ldots.(5)$$

Where GD is government's deficit.

We expect β to be positive and statistically significant. The equation also suggests an indirect relationship between govt. deficits and money stock since the stock of money varies endogenously through the feedback from reserve money which changes to accommodate fiscal deficits. In fact, a detailed specification of the government's budgetary operations thus provides a link between the fiscal sector and the monetary sector through the endogenous determination of the resource gap.

For the whole period(1951-87), In all the equations, the variables representing fiscal policy are found statistically significant and they explain around 80 to 99 percent variations in monetary variables. In terms of goodness of fit criteria, highest R^2 is obtained in equations having government expenditure

TABLE : 16 : RELATIONSHIP BETWEEN FISCAL POLICY AND MONETARY POLICY - 1951-52 to 1987-88

Equation No.	Dependent Variable	Independent variable	Estimated coefficient	Constant	R^2	D.W.
1.	Reserve Money	Budgetary deficit(centre)	6.05 (11.8)	3538	0.81	1.5
2.	Reserve Money	Budgetary deficit(Centre, states & Union territories)	6.60 (14.3)	3699	0.86	1.3
3.	Reserve Money	Govt.Expenditure Centre, States & Union territories)	0.72 (75.7)	773	0.99	1.8
4.	M_1	Budgetary deficit(C)	6.50 (11.1)	5219	0.80	1.04
5.	M_1	Budgetary deficit(C.S.U)	7.03 (12.7)	5424	0.84	1.37
6.	M_1	Govt.Expenditure	0.77 (41.0)	2201	0.98	2.10
7.	M_3	Budgetary Deficit(c)	18.45 (13.0)	5599	0.84	1.09
8.	M_3	Budgetary deficit(C.S.U.)	20.10 (16.0)	6102	0.88	1.23
9.	M_3	Govt.Expenditure	2.16 (60.0)	-2325	0.99	2.15

Note : Figures in parentheses are t-values ; The data on variables used in this exercise is given in Appendix:I

TABLE : 17 : RELATIONSHIP BETWEEN FISCAL POLICY AND MONETARY POLICY - 1951-52 to 1970-71

Equation No.	Dependent variable	Independent variable	Estimated coefficients	Constant	R^2	D.W.
1.	Reserve Money	Budgetary deficit(Centre)	2.41 (1.25)	2175	0.08	1.7
2.	Reserve Money	Budgetary deficit(Centre, States & Union territories).	3.86 (2.75)	1825	0.22	1.6
3.	Reserve Money	Govt.Expenditure Centre, States,& Union Territories).	0.46 (41.8)	937	0.98	1.5
4.	M_1	Budgetary deficit(C)	3.82 (1.26)	2941	0.082	1.8
5.	M_1	Budgetary Deficit(C.S.U.)	6.29 (2.37)	2355	0.24	1.8
6.	M_1	Govt.Expenditure	0.72 (32.7)	1020	0.98	1.9
7.	M_3	Budgetary Deficit(C)	5.74 (1.22)	3955	0.07	1.9
8.	M_3	Budgetary deficit(C S.U.)	9.60 (2.32)	3049	0.23	2.0
9.	M_3	Govt.Expenditure	1.11 (23.6)	971	0.96	1.8

Note : Figures in parentheses are t-values ; The data on variables used in this exercise is given in Appendix:I

TABLE : 18 : RELATIONSHIP BETWEEN FISCAL POLICY AND MONETARY POLICY - 1971-72 TO 1987-88

Equation No.	Dependent variable	Independent variable	Estimated coefficients	Constant	R^2	D.W.
1.	Reserve Money	Budgetary deficit (Centre)	5.88 (9.0)	6943	0.83	1.2
2.	Reserve Money	Budgetary deficit (Centre, States & Union Territories)	5.38 (7.0)	6710	0.75	1.6
3.	Reserve Money	Govt. Expenditure Centre, States & Union Territories).	0.71 (44.3)	959	0.99	1.7
4.	M_1	Budgetary deficit (C)	6.13 (9.8)	9206	0.85	1.5
5.	M_1	Budgetary deficit (C.S.U.)	5.55 (7.1)	9090	0.75	1.8
6.	M_1	Govt. Expenditure	0.73 (43.0)	3226	0.99	1.9
7.	M_3	Budgetary deficit (C)	18.6 (9.8)	12911	0.85	1.7
8.	M_3	Budgetary deficit (C.S.U.)	17.0 (7.5)	12053	0.78	1.7
9.	M_3	Government Expenditure	2.23 (39.1)	-5174	0.98	2.0

Note : Figures in parentheses are t-values ; The data on variables used in this exercise is given in Appendix:I

(centre, states and union territories) as the independent variables; However, budgetary deficit is also found quite significant. It is also important to assess whether such relationship is observed in the sub-periods so that one can decide whether the relationship remains stable or not. We have estimated the same equations for the sub-periods 1951-52 to 1970-71 and 1971-72 to 1987-88. For the period 1951-52 to 1970-71, centre's budgetary deficit is found insignificant in all three equations incorporating RM, M_1 and M_3 respectively. Extremely low value of R^2 suggests that there was no statistically significant relation between monetary policy and fiscal policy if such an assessment has to be based on equations incorporating centre's budgetary deficit as the independent variable; however, with budgetary deficits of centre, states and union territories and govt. expenditure as independent variables, statistically significant relation is found; Though R^2 for budgetary deficit(C.S.U.) is low, the variable is found to be statistically significant. With government expenditure, the R^2 is very high as well as coefficients are statistically significants at 1% level of significance; It is found that one unit increase in government expenditure results into .46 unit increase in RM, .72 unit increase in M_1 and 1.11 unit increase in M_3. For the latter subperiod(1971-87), all the fiscal policy variables are found to be significant; The values of R^2 and t-values are found quite high and here again, the best equation in terms of statistical evidence is the one which has included government expenditure as the independent variable; In this later subperiod, one unit increase in government

expenditure is found to result in around 0.72 unit increase in RM and M_1 whereas the same unit increase in Government expenditure brings about 2.23 unit increase in M_3. The implication of the preceding results is that monetary policy is found passive and accomodating to budgetary operations. It is questionable whether one can talk about a pure monetary policy. In this scenario, what is required is deliberate action by budgetary authorities to eliminate budgetary deficits or even to achieve surpluses, if the burden on monetary policy is not to be excessive. The evidence furnished in the simple but nonetheless important exercise is a pointer to the profligacy of government in spending and borrowing large sum of money in an attempt to preempt larger real resources and then endagering inglationary situations associated with relatively greater amount of liquidity in the economy. All in all, the empirical evidence furnished in this exercise supports the view that the public sector operations has been an important influence on the money stock in the Indian economy. In more recent years, the overall contribution of budgetary operations seems to have been considerably larger than in initial years. It lends credence to the view that monetary growth in India has been largely a by product of expansionary fiscal policies. The evidence also casts doubts on the ability of the monetary authorities to control monetary aggregates since passive nature of monetary policy has deprived them of any autonomy that they could enjoy. The evidence furnished here also suggests that fresh initiatives have to be taken to strengthen methods of expenditure control. A very firm line of action has

to be taken with the perennial problems of overdrafts by states. In the search for effective prioritization and control over government expenditures, a system of zero-base budgeting has to be introduced to assure proper assessment and allocation of funds according to accepted priorities.