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**DEPENDENCE OF STATES ON CENTRAL
TRANSFERS: AGGREGATE AND
STATE-WISE ANALYSIS**

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Aggregate and State-wise Analysis**

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Dependence of States on Central Transfers: Aggregate and State-wise Analysis

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Abstract

This paper examines the dependence of states on central fiscal transfers. It particularly focuses on the role of transfers through tax devolution under the recommendation of the Finance Commissions. The analysis of dependence is then extended to total transfers that are given in the form of share in central taxes, Finance Commission grants, plan grants and other grants. The analysis with respect to states covers the period 1950-51 to 2007-08. In addition, pattern of dependence of states on central transfers is also studied with respect to five groups of states, namely, high, middle and low income general category states and two groups of special category states. The analysis covers the period from 1990-91 to 2007-08. We find that the dependence of the states on their share in central taxes has increased both because of high buoyancy of total central taxes and a progressive increase in their share recommended by successive Finance Commissions. In terms of groups of states, the extent of dependence is relatively quite high for the special category states.

Key Words: *Central Transfers, Tax Devolution*

JEL Codes: *H11, H77*

INTRODUCTION

States derive a certain portion of their revenue receipts from central transfers in the form of share in central taxes and grants from the Finance Commission and other channels. The share of total transfers from the centre in the total revenue receipts of the states or revenue expenditures indicates the extent to which a state depends on the transfers from the centre. These shares show variations across states and over time. In this paper, we undertake an aggregate analysis of the degree of dependence of the states taken together on central transfers for the period from 1950-51 to 2007-08. We also undertake an analysis of the degree of dependence of individual states (or groups of states) on central transfers for the period from 1990-91 to 2007-08. This covers the periods of awards of the Second Report of the Ninth Finance Commission, Tenth Finance Commission, Eleventh Finance Commission, and Twelfth Finance Commission. States are divided into five groups: for general category states the groups pertain to high, middle and low income states; the special category states are divided into two groups: Group 1 and Group 2. Group 1 contains the following states: Himachal Pradesh, Jammu and Kashmir, Uttaranchal, Sikkim and Meghalaya. Group 2 contains the following states: Arunachal Pradesh, Manipur, Mizoram, Nagaland, and Tripura.

In this paper, we look at the pattern of changes in states' dependence particularly on the share of central taxes, which they get on the basis of the recommendations of the Finance Commissions. State's dependence on the share of central taxes has changed over time. These changes are partly due to the recommendation of the Finance Commission as to the share that should be given to the states from centre's shareable portion of tax revenues as well as on changes in economic growth and tax-efforts of both the central and state governments. Important among the macro variables are the ratios of the centre's gross tax revenue and state's own revenue receipts to GDP. We

look at the changes over the period from 1950-51 to 2007-08 for individual years as well as for Commission-period averages.

This paper proceeds as follows. Initially, we examine the methodology for decomposing the states share in central taxes for understanding the pattern of changes over time. Then, we discuss the pattern of changes in states' share in central taxes from the First to the Twelfth Finance Commission period, and present the total transfers as percentage of states revenue receipts. In the subsequent section, the share of transfers in revenue receipts and expenditures is analysed for high income, middle income and low income general category states and for special category states are analysed for group 1 and group 2. Finally, the findings are summarized.

METHODOLOGY FOR DECOMPOSING DEPENDENCE OF STATES' ON CENTRAL TAXES

We can decompose the states share in central taxes in to three components for purposes of understanding the pattern of changes over time. We define the variables as follows:

SCTR: States' share in central taxes

GCTR: Gross central tax revenue

Y: GDP at market prices

SRR: States' revenue receipts

We can define states' share in central taxes as a proportion of states' revenue receipts as follows:

$$SCTR/SRR = (SCTR/GCTR) * (GCTR/Y) * (Y/SRR)$$

or

$$SCTR/SRR = (SCTR/GCTR) * (GCTR/Y) * [(SRR/Y)^{-1}]$$

This indicates that the states' dependence on the share of central taxes will move positively with (a) an increase in their share in the gross central

tax revenues (which depends on Finance Commission recommendations), (b) share of central taxes in GDP at market prices (which depends on centre's tax effort), and (c) inversely with the share of states' revenue receipts in GDP at market prices (which depends on states' revenue effort).

We may represent these ratios as follows:

$$\text{SCTR/SRR} = Z$$

$$\text{SCTR/GCTR} = A$$

$$\text{GCTR/Y} = B$$

$$\text{Y/SRR} = C$$

Taking logarithms we can express this decomposition as follows:

$$\ln Z = \ln A + \ln B - \ln C$$

PATTERN OF CHANGE IN STATES' SHARE IN CENTRAL TAXES

Table 1 indicates the profile of states' share in central taxes as percentage of states' revenue receipts indicating how the dependence of the states has increased over time in the share in central taxes. For the First Finance Commission period, the average share of central taxes in states' revenue receipts was 14.2 percent. It increased over successive Finance Commission periods to reach a level of 22 percent for the Fifth Finance Commission period. After which it fell for the period of Sixth Finance Commission and increased again to 24.3 percent in the Seventh Finance Commission period.

During the period covered by the recommendations of the Eighth to Twelfth Finance Commissions, this ratio was stable in the range of 22.1 to 23.5 percent (Chart 1). Year-wise details are given in Appendix Table 1.

Table 1: Share of States' in Central Taxes and Related Aggregate Determinants

Commission Period Averages	States' Share in Central Taxes as % of States' Revenue Receipts	Share of Central Taxes in Gross Central Tax Revenue	Gross Central Tax Revenue as % of GDPmp	States' Revenue Receipts as % of GDPmp
First	14.2	15.7	4.2	4.6
Second	16.6	18.5	5.1	5.7
Third	16.4	15.2	7.0	6.4
Fourth	17.2	17.8	6.7	6.9
Fifth	22.1	23.3	7.4	7.8
Sixth	19.6	19.9	8.9	9.0
Seventh	24.3	27.1	9.3	10.4
Eighth	22.8	25.2	10.2	11.3
Ninth	22.7	26.7	9.8	11.5
Tenth	23.5	27.6	9.0	10.5
Eleventh	22.1	27.0	9.0	11.0
Twelfth*	22.8	26.2	11.0	12.7

Source (Basic Data): Indian Public Finance Statistics, various issues.

Note: * average of three years (2005-08).

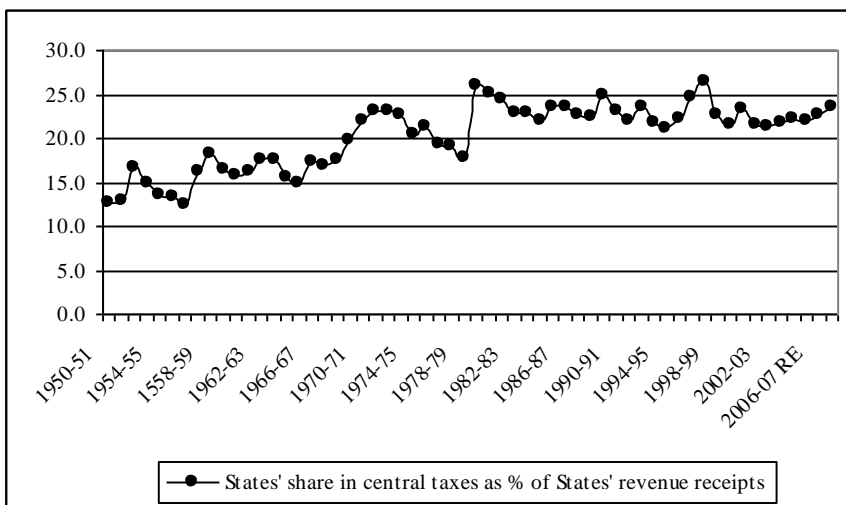


Chart 1: States' Dependence on Share in Central Taxes

From Table 1, it can be seen that the share of central taxes in gross central tax revenues also shows a corresponding pattern. This share was the highest for the Tenth Finance Commission period at 27.6 percent. It was relatively stable during the period covered by the Ninth to Eleventh Finance Commissions at around 27.0 percent. There is clearly a stability in this ratio observed throughout the period covered by the Seventh Finance Commission onwards (Chart 2).

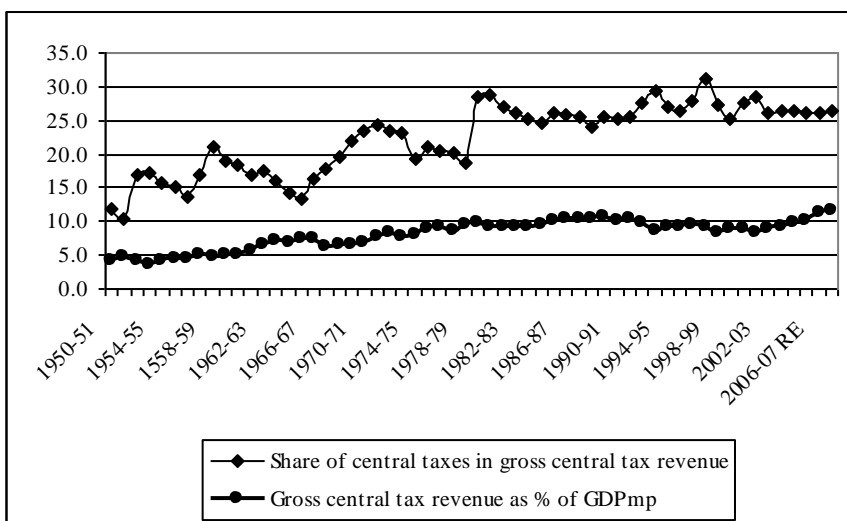


Chart 2: States’ Share of Central Taxes in Gross Central Tax Revenues and Gross Central Taxes relative to GDP

Table 2 indicates changes in states’ dependence on the share in central taxes over successive Finance Commissions. Column 1 of Table 2 indicates states dependence on share in central taxes in particular it indicates the direction of change in dependence between one Finance Commission and its preceding Finance Commission. Column 2 indicates changes in share in central taxes in gross central tax revenue over successive Finance Commission periods. We expect that as the share of central taxes in gross central tax revenue increases, the dependence of

states on central taxes would also increase unless it is counter balanced by a higher increase in their own revenue receipts. We find that the changes reflected in column 1 and 2 are similar in direction for the Second Finance Commission period until the Eight Finance Commission period although there are large difference in magnitudes in the case of the Third and the Seventh Finance Commissions. The signs are different between these indicators only for the Ninth and the Twelfth Commission periods. In the case of the Ninth Finance Commission period while the share of central taxes in gross central tax revenue increases states dependence on central taxes falls. The opposite is observed in the case of the Twelfth Finance Commission. This pattern needs to be explained by examining changes in centre's tax-GDP ratio as also states' revenue effort relative to GDP.

Table 2: Changes in States' Dependence on Share in Central Taxes Over Successive Commissions

Commission Period Averages	States' Share In Central Taxes as % of States' Revenue Receipts	Share of Central Taxes in Gross Central Tax Revenue	Gross Central Tax Revenue as % of GDPmp	States' Revenue Receipts as % of GDPmp
Change Relative to the Previous Commission Period Average				
Second	2.41	2.81	0.96	1.07
Third	-0.20	-3.25	1.84	0.77
Fourth	0.79	2.58	-0.30	0.43
Fifth	4.93	5.51	0.77	0.95
Sixth	-2.49	-3.39	1.42	1.19
Seventh	4.68	7.22	0.49	1.42
Eighth	-1.47	-1.94	0.86	0.83
Ninth	-0.09	1.49	-0.42	0.21
Tenth	0.78	0.89	-0.82	-0.95
Eleventh	-1.43	-0.58	0.01	0.44
Twelfth*	0.69	-0.82	2.06	1.72

Source (Basic Data): Indian Public Finance Statistics, various issues.

Note: * average of three years (2005-08).

In the third column of Table 2, it is indicated that the gross central tax revenues as percentage of GDP at market prices increased in all the Commission periods except for the periods covered by the Fourth, Ninth and Tenth Finance Commissions. During the ten year period of the nineties, covered by the Ninth and Tenth Finance Commissions the average tax-GDP ratio for the centre fell. As a result, inspite of an increase in the share of central taxes in gross central tax revenues, states' share in central taxes as percentage of their revenue receipts fell.

Table 3: Decomposition of Percentage Change in States' Share in Central Taxes Relative to States' Revenue Receipts

Commission	States' Share in Central Taxes as % of States' Revenue Receipts	Share of Central Taxes in Gross Central Tax Revenue	Gross Central Tax Revenue as % of GDPmp	States' Revenue Receipts as % of GDPmp
First	2.65	2.75	1.42	-1.53
Second	2.81	2.91	1.63	-1.74
Third	2.79	2.72	1.94	-1.86
Fourth	2.84	2.88	1.89	-1.93
Fifth	3.09	3.15	2.00	-2.06
Sixth	2.97	2.99	2.18	-2.20
Seventh	3.19	3.30	2.23	-2.35
Eighth	3.13	3.23	2.32	-2.42
Ninth	3.12	3.28	2.28	-2.44
Tenth	3.15	3.31	2.19	-2.35
Eleventh	3.09	3.30	2.19	-2.39
Twelfth*	3.13	3.27	2.40	-2.54
Change Relative to Successive Previous Commission Average				
Second	0.161	0.165	0.206	-0.210
Third	-0.014	-0.195	0.309	-0.128
Fourth	0.050	0.159	-0.045	-0.064
Fifth	0.251	0.272	0.107	-0.129
Sixth	-0.120	-0.157	0.177	-0.140
Seventh	0.214	0.309	0.055	-0.149
Eighth	-0.062	-0.073	0.088	-0.076
Ninth	-0.005	0.057	-0.043	-0.019
Tenth	0.032	0.032	-0.086	0.087
Eleventh	-0.061	-0.019	0.000	-0.042
Twelfth*	0.031	-0.030	0.207	-0.146

Source (Basic Data): Indian Public Finance Statistics, various issues.

Note: * average of three years (2005-08).

Table 3 highlights the role of different factors in explaining the pattern of changes in terms of additive changes by taking logarithms of the factors.

The following observations can be made. There are only five Commission periods where the dependence of states on central taxes increased compared to the previous Commission average. These relate to Fourth and Fifth Finance Commissions, the Seventh Finance Commission period and the Tenth and Twelfth Finance Commission periods. The percentage change is high only in the case of Fifth and Seventh Finance Commission period at 0.25 percent and 0.21 percentage points, respectively. In both cases, it is explained by the increase in the share of central taxes in the gross central tax revenue which was 27 percent and 31 percentage points respectively.

Chart 3 highlights the pattern of these changes.

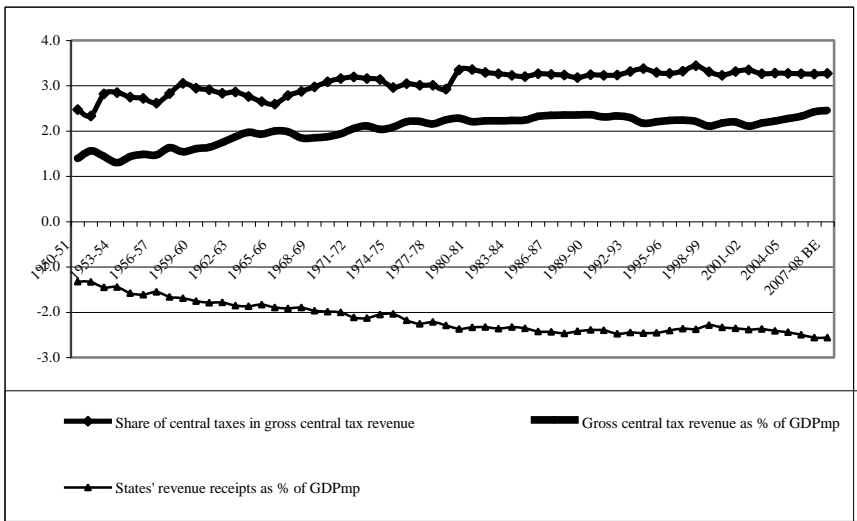


Chart 3: Logarithmic Changes in Determinants of States' Dependence on Share in Central Taxes

TOTAL TRANSFERS AS PERCENTAGE OF STATES REVENUE RECEIPTS

In this section, as part of the aggregate analysis, taking all states together, we examine the pattern of dependence of the states on total transfers from the centre taking into account the share in central taxes as well as grants from all sources. Chart 4 indicates the long term profile of states' dependence on central transfers. It is clear that up to about 1971-72, the dependence on the states on central transfers increased steadily reaching a peak of a little more than 44 percent. After this, the share of total transfer in states' revenue receipts seems to have stabilized except for a tangible fall to a trough of 37.6 percent around the middle of the Eleventh Finance Commission recommendation period.

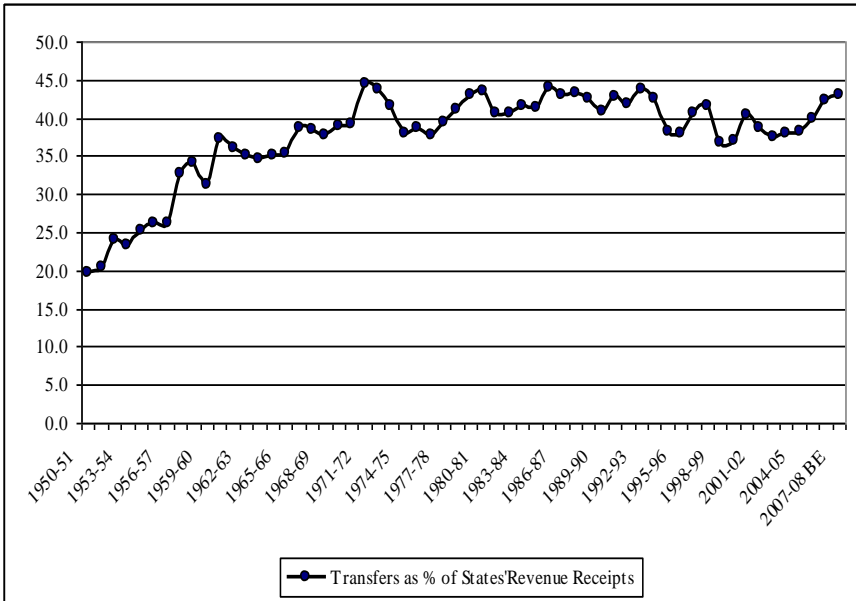


Chart 4: Transfers as percent of States' Revenue Receipts

SHARE OF TRANSFERS IN REVENUE RECEIPTS AND EXPENDITURES

In this section, we undertake state-wise analysis of the pattern of dependence of the states on central transfers.

i. High Income General Category States

a. Transfers as Percentage of Revenue Receipts

The high income general category states receive the lowest transfers relative to their revenue receipts. On average, Haryana is shown to be the least dependent state on central transfers, followed by Punjab, Maharashtra, Gujarat, and Goa. As shown in Table 4, there are interesting patterns over time across states and across Finance Commissions.

- a. In the case of Goa, the extent of transfer has come down over time from an average of 37 percent during 1990-95 to just about 10 percent during 2000-05, subsequently there is a marginal increase.
- b. For Haryana the share has ranged between 11.9-16.4 percent.
- c. For Maharashtra it has ranged between 11.4 percent on an average to 21.6 percent. The lowest share was in the Eleventh Finance Commission period.
- d. For Punjab the share has varied between 9.7-19.8 percent. Here also the lowest share was during the Eleventh Finance Commission award period.
- e. Comparing across Finance Commissions, the high income group states obtained the lowest shares during Eleventh Finance Commission period, followed by Tenth Finance Commission period.

Table 4: Total Transfers from the Centre as Percentage of Revenue Receipts: High Income States

Year	Goa	Gujarat	Haryana	Maharashtra	Punjab
1990-91	45.35	17.05	17.39	20.52	21.73
1991-92	38.06	13.60	17.64	20.78	14.19
1992-93	36.01	21.93	19.79	21.49	25.10
1993-94	30.17	24.03	15.86	22.39	21.76
1994-95	29.60	20.18	8.86	18.11	13.17
1995-96	17.64	18.96	13.14	17.21	14.59
1996-97	19.79	20.99	12.77	15.12	15.97
1997-98	14.48	20.79	15.23	14.55	14.96
1998-99	12.16	18.52	15.35	18.23	17.13
1999-00	11.08	20.28	17.17	16.10	15.52
2000-01	11.62	21.24	12.52	14.36	16.49
2001-02	8.92	18.63	12.66	13.79	12.86
2002-03	10.46	24.39	15.01	12.14	11.96
2003-04	11.59	20.84	12.93	16.47	10.94
2004-05	12.87	20.81	10.45	15.33	10.90
2005-06	14.35	24.00	16.72	18.50	20.28
2006-07	17.10	26.09	14.96	24.26	21.33
2007-08	15.72	24.93	15.30	24.42	23.09
Averages					
1990-95	35.84	19.36	15.91	20.66	19.19
1995-00	15.03	19.91	14.73	16.24	15.63
2000-05	11.09	21.18	12.71	14.42	12.63
2005-08	15.72	25.01	15.66	22.39	21.57

Source (Basic Data): Reserve Bank of India, State Finances A Study of Budgets, various years.

b. Transfers as percentage of Revenue Expenditures

Table 5 shows total transfers from the centre as percentage of revenue expenditures for the five states included in the high income group. The pattern showed here, both in terms of inter-state comparisons and over time comparisons, reflects by and large, the same pattern as that for the case of revenue receipts. The difference between the role of transfers in financing revenue expenditure arises because in addition to revenue

receipts, revenue expenditures also get financed by fiscal deficits as long as states are in revenue deficit.

Table 5: Total Transfers from the Centre as Percentage of Revenue Expenditure: High Income States

Years	Goa	Gujarat	Haryana	Maharashtra	Punjab
1990-91	46.53	14.11	17.22	20.39	17.04
1991-92	36.98	12.10	17.39	17.59	12.56
1992-93	36.81	20.88	19.77	20.13	20.44
1993-94	32.50	24.37	16.23	22.18	17.63
1994-95	33.09	20.88	8.31	18.44	11.55
1995-96	18.38	18.48	12.29	16.60	13.42
1996-97	20.33	19.78	11.42	13.22	12.84
1997-98	14.29	19.05	13.57	12.91	12.13
1998-99	10.83	15.13	11.98	15.44	11.76
1999-00	9.47	16.09	14.24	13.77	11.37
2000-01	10.08	15.17	11.46	11.35	13.20
2001-02	7.95	13.11	11.11	10.84	9.03
2002-03	9.58	20.33	13.91	9.33	8.93
2003-04	10.67	17.32	12.58	13.26	8.45
2004-05	12.05	17.35	10.21	12.32	8.75
2005-06	4.17	23.62	18.32	17.14	18.90
2006-07	16.87	27.74	14.37	23.04	19.21
2007-08	15.68	26.24	16.35	24.60	21.36
Averages					
1990-95	37.18	18.47	15.78	19.75	15.84
1995-00	14.66	17.71	12.70	14.39	12.30
2000-05	10.07	16.66	11.85	11.42	9.67
2005-08	12.24	25.87	16.35	21.60	19.82

Source (Basic Data): Reserve Bank of India, State Finances A Study of Budgets, various years.

The following observations can be made on the basis of Table 5.

1. For some years, the dependence of Goa on transfers for financing their revenue expenditures has been as low as 4.2 percent. In terms of Commission period averages, for the Eleventh and Twelfth Finance Commission periods, Goa's dependence on transfers has fallen to just about 10-12 percent.
2. Compared to the Eleventh Finance Commission period, for all high income states, the share of transfers has increased for the Twelfth Finance Commission period.
3. Across states in this group, dependence is least for Goa and highest for Gujarat. For the Twelfth Finance Commission period, it ranges between 12.2 to 25.9 percent among the states in this group.

ii. Middle Income General Category States

a. Transfers as percentage of Revenue Receipts

Among the middle income general category states, across states, the lowest dependence on Finance Commission transfers is that of Karnataka and the highest, that of West Bengal. Total transfers as percentage of revenue receipts have remained relatively stable for Karnataka with Commission period averages in the range of 26-27 percent. For Andhra Pradesh, there is a significant decline comparing the Ninth and Tenth Finance Commission period averages at round to 36 percent to 31 percent for the Eleventh and Twelfth Finance Commission period averages. For Kerala, after declining from 34 percent for the Ninth Finance Commission period to 26.2 for the Eleventh, the share of transfers in total revenue receipts increased for the Twelfth Finance Commission period (Table 6).

Table 6: Total Transfers from the Centre as Percentage of Revenue Receipts: Middle Income States

Years	Andhra Pradesh	Karnataka	Kerala	Tamil Nadu	West Bengal	Chhattisgarh
1990-91	35.97	26.79	35.53	31.10	42.74	
1991-92	35.76	26.26	33.08	28.38	42.45	
1992-93	36.78	28.06	34.72	31.95	45.35	
1993-94	37.16	28.12	31.97	31.75	45.59	
1994-95	34.47	26.28	31.52	28.34	40.67	
1995-96	42.02	23.81	27.76	24.43	39.53	
1996-97	41.87	26.11	28.20	25.85	43.16	
1997-98	35.69	27.67	29.01	27.82	44.99	
1998-99	31.22	25.09	27.66	24.39	45.04	
1999-00	31.86	27.51	27.92	24.82	44.30	
2000-01	31.73	27.80	25.22	23.60	50.89	43.29
2001-02	29.13	28.55	28.59	22.59	49.92	44.88
2002-03	29.80	27.53	24.95	22.24	43.27	37.94
2003-04	35.20	25.20	24.71	20.30	43.56	39.38
2004-05	30.40	22.68	27.54	24.20	43.42	37.70
2005-06	31.43	25.85	29.94	23.65	51.92	38.31
2006-07	31.85	25.82	31.23	23.51	49.18	41.96
2007-08	30.38	29.96	30.42	24.02	49.27	40.24
Averages						
1990-95	36.03	27.10	33.37	30.30	43.36	
1995-00	36.53	26.04	28.11	25.46	43.40	
2000-05	31.25	26.35	26.20	22.59	46.21	40.64
2005-08	31.22	27.21	30.53	23.73	50.12	40.17

Source (Basic Data): Reserve Bank of India, State Finances A Study of Budgets, various years.

b. Transfers as percentage of Revenue Expenditures

As shown by Table 7 as far as dependence of revenue expenditures on transfers is concerned for the middle income states, the following are the noticeable points.

Table 7: Total Transfers from the Centre as Percentage of Revenue Expenditure: Middle Income States

Years	Andhra Pradesh	Karnataka	Kerala	Tamil Nadu	West Bengal	Chhattisgarh
1990-91	34.94	26.26	30.22	28.05	34.25	
1991-92	34.82	25.31	29.33	22.16	37.29	
1992-93	36.15	27.21	31.52	26.24	41.85	
1993-94	38.24	28.65	29.21	29.24	39.10	
1994-95	31.83	25.21	29.03	27.12	36.58	
1995-96	39.09	23.98	25.84	23.73	33.80	
1996-97	32.56	24.63	25.53	23.67	34.27	
1997-98	33.96	26.97	25.06	25.28	35.87	
1998-99	26.27	22.64	21.57	19.66	29.68	
1999-00	29.68	23.31	19.17	19.55	23.20	
2000-01	26.79	24.69	18.53	19.88	33.43	40.04
2001-02	25.74	23.51	22.21	19.72	31.02	52.42
2002-03	26.31	23.66	17.98	18.04	27.13	33.78
2003-04	31.71	24.58	18.84	19.04	28.09	38.58
2004-05	27.91	24.17	21.65	23.62	30.73	34.04
2005-06	31.37	27.98	24.85	25.10	39.59	39.10
2006-07	31.81	27.90	23.80	23.37	37.50	45.77
2007-08	30.36	31.21	24.43	23.97	39.93	47.70
Averages						
1990-95	35.20	26.53	29.86	26.56	37.81	
1995-00	32.31	24.31	23.43	22.38	31.36	
2000-05	27.69	24.12	19.84	20.06	30.08	39.77
2005-08	31.18	29.03	24.36	24.15	39.01	44.19

Source (Basic Data): Reserve Bank of India, State Finances A Study of Budgets, various years.

1. In the case of Kerala and Tamil Nadu, the dependence on transfers for financing revenue expenditure came down close to 20 percent during the Eleventh Finance Commission period, although since then both of these shares increased to a little more than 24 percent for the Twelfth Finance Commission period.

2. Leaving Chhattisgarh, the highest dependence on transfers among the middle income states for financing revenue expenditures has been that for West Bengal, which has been in the range of 30-39 percent.
3. The next state in this order is Andhra Pradesh where the dependence on transfers for financing revenue expenditures has ranged between 27.7 to 35.2 percent.
4. The range of variation in these ratios across Finance Commission period averages is relatively narrow.

iii. Low Income General Category States

a. Transfers as percentage of Revenue Receipts

For the low income states in the general category, the share of transfers in revenue receipts is far more compared to the middle and high income groups. As shown by Table 8, for the Twelfth Finance Commission period, it varies from a minimum of 42 percent for Rajasthan to a maximum of 78.7 percent for Bihar. The following general observations can be made based on Table 8.

1. For Bihar the role of transfers in the revenue receipts has increased over time since 1990 and to some extent for Madhya Pradesh also.
2. It has been rather stable for Orissa, Rajasthan and Uttar Pradesh with possibly a small fall, if we compare the average for the Ninth Finance Commission period to that of the Twelfth Finance Commission period.

Table 8: Total Transfers from the Centre as Percentage of Revenue Receipts: Low Income States

Years	Bihar	Madhya Pradesh	Orissa	Rajasthan	Uttar Pradesh	Jharkhand
1990-91	55.88	42.85	59.93	44.17	52.59	
1991-92	61.85	41.28	61.86	44.77	52.65	
1992-93	60.74	41.42	60.52	43.95	54.55	
1993-94	60.25	42.28	60.24	44.05	51.78	
1994-95	58.65	41.12	56.46	43.01	49.47	
1995-96	60.86	38.80	54.88	34.63	48.29	
1996-97	58.79	39.30	57.45	40.67	52.43	
1997-98	68.02	41.52	57.63	40.83	52.82	
1998-99	58.83	39.27	55.11	38.31	46.00	
1999-00	57.10	37.41	58.87	37.64	46.91	
2000-01	67.14	46.12	58.43	43.65	47.77	
2001-02	72.57	43.72	55.18	40.92	52.66	50.24
2002-03	73.31	41.71	54.58	40.20	47.23	56.28
2003-04	71.86	42.13	53.43	39.59	49.80	53.94
2004-05	76.07	38.03	53.40	40.55	51.05	50.35
2005-06	77.11	45.03	53.61	39.45	51.95	47.83
2006-07	78.62	49.71	56.90	43.00	50.37	55.03
2007-08	80.44	49.48	57.90	43.01	53.22	55.65
Averages						
1990-95	59.47	41.79	59.80	43.99	52.21	
1995-00	60.72	39.26	56.79	38.42	49.29	
2000-05	72.19	42.34	55.00	40.98	49.70	52.70
2005-08	78.73	48.07	56.14	41.82	51.85	52.84

Source (Basic Data): Reserve Bank of India, State Finances A Study of Budgets, various years.

b. Transfers as percentage of Revenue Expenditures

There are some noticeable differences in the pattern of dependence of the low income states in financing their revenue expenditures. The dependence of Bihar on transfers in financing its revenue expenditures has gone up from 52.6 to nearly 82 percent. Similarly, the dependence of Madhya Pradesh on transfers has gone up from 41 to nearly 51 percent, comparing the Ninth Finance Commission period with the Twelfth Finance

Commission period. In the interim, during the Tenth and the Eleventh Finance Commission periods, for Madhya Pradesh the dependence on transfers was limited to only about 35 and 38 percent, respectively (Table 9). For Orissa and Rajasthan, any increase in dependence is not noticeable although they all seem to follow a U-shaped pattern where dependence was more for the Ninth and Twelfth Finance Commission periods and less for Tenth and Eleventh Finance Commission periods.

Table 9: Total Transfers from the Centre as Percentage of Revenue Expenditure: Low Income States

Years	Bihar	Madhya Pradesh	Orissa	Rajasthan	Uttar Pradesh	Jharkhand
1990-91	49.41	41.04	59.39	46.30	45.82	
1991-92	52.31	40.95	57.45	45.30	48.98	
1992-93	55.13	43.34	57.83	42.99	50.19	
1993-94	54.57	39.76	55.49	41.80	47.30	
1994-95	51.57	40.11	50.03	40.30	42.96	
1995-96	53.09	36.77	45.45	31.71	41.85	
1996-97	57.25	34.34	48.13	36.49	43.75	
1997-98	66.01	39.86	48.21	38.18	41.82	
1998-99	51.35	31.34	36.80	28.39	30.66	
1999-00	44.53	30.61	40.95	27.44	35.07	
2000-01	53.29	42.06	45.67	36.01	38.08	
2001-02	59.04	34.08	39.38	31.18	42.42	51.08
2002-03	60.47	38.36	45.99	30.91	39.89	53.88
2003-04	66.42	32.08	46.44	32.40	31.37	54.98
2004-05	81.67	41.65	51.15	36.18	43.05	43.70
2005-06	77.46	45.10	55.50	38.24	50.54	40.22
2006-07	76.11	53.51	59.42	43.16	53.36	49.69
2007-08	92.14	53.30	61.18	43.34	58.04	53.33
Averages						
1990-95	52.60	41.04	56.04	43.34	47.05	
1995-00	54.45	34.58	43.91	32.44	38.63	
2000-05	64.17	37.65	45.73	33.34	38.96	50.91
2005-08	81.90	50.63	58.70	41.58	53.98	47.75

Source (Basic Data): Reserve Bank of India, State Finances A Study of Budgets, various years.

iv. Special Category States Group 1

a. Transfers as percentage of Revenue Receipts

For the special category states considered in Group 1, the dependence is highest for Jammu and Kashmir, followed by Meghalaya and then Himachal Pradesh. For Sikkim the share of transfers in revenue receipts has come down quite significantly. It was 70 percent during the Ninth Finance Commission period and for the Twelfth Finance Commission period, it is about 46 percent. This reflects more an increase in states own revenues rather than a fall in the transfers (Table 10).

Table 10: Total Transfers from the Centre as Percentage of Revenue Receipts: Special Category States: Group 1

Years	Himachal Pradesh	Jammu and Kashmir	Meghalaya	Sikkim	Uttaranchal
1990-91	72.70	80.79	84.50	76.17	
1991-92	73.06	84.36	83.86	78.07	
1992-93	72.59	79.30	85.47	79.68	
1993-94	74.31	86.40	84.76	81.39	
1994-95	66.92	85.95	82.10	36.68	
1995-96	73.84	86.74	80.53	31.21	
1996-97	71.94	83.61	82.91	26.48	
1997-98	67.83	84.32	85.16	26.33	
1998-99	66.37		83.21	27.16	
1999-00	54.88	82.64	80.20	28.96	
2000-01	70.27	82.29	81.87	58.86	61.22
2001-02	70.02	78.65	79.52	33.12	61.33
2002-03	70.95	79.06	81.56	31.68	56.61
2003-04	67.94	79.08	78.08	51.89	55.65
2004-05	59.81		77.93	41.37	51.24
2005-06	66.66		77.18	42.10	56.03
2006-07	65.47		82.04	51.36	56.47
2007-08	62.30		84.20	44.74	59.75
Averages					
1990-95	71.92	83.36	84.14	70.40	
1995-00	66.97	84.33	82.40	28.03	
2000-05	67.80	79.77	79.79	43.39	57.21
2005-08	64.81		81.14	46.07	57.42

Source (Basic Data): Reserve Bank of India, State Finances A Study of Budgets, various years.

b. Transfers as percentage of Revenue Expenditures

There are significant changes in the pattern of dependence on transfers in financing revenue expenditures for these special category states. In particular, the extent of dependence increases rather than falls for most of these states. In the case of Jammu and Kashmir, the dependence on transfers for financing revenue expenditures has been as high as 97 percent (Eleventh Finance Commission period). For Meghalaya also this dependence has been in the range of 82-92 percent looking at Commission period averages (Table 11).

Table 11: Total Transfers from the Centre as Percentage of Revenue Expenditure: Special Category States: Group 1

Years	Himachal Pradesh	Jammu and Kashmir	Meghalaya	Sikkim	Uttaranchal
1990-91	65.05	86.13	95.97	94.82	
1991-92	73.79	97.00	91.98	91.84	
1992-93	66.70	73.77	89.26	92.79	
1993-94	80.56	111.84	87.91	96.91	
1994-95	54.15	108.92	95.28	38.06	
1995-96	68.01	92.22	94.89	33.34	
1996-97	66.75	81.76	98.16	27.40	
1997-98	54.55	91.66	86.61	27.20	
1998-99	46.02		84.97	26.16	
1999-00	53.35	89.74	81.57	29.00	
2000-01	48.91	106.12	85.86	66.52	61.93
2001-02	56.86	93.79	77.21	35.97	59.17
2002-03	50.49	93.82	87.28	35.01	49.56
2003-04	48.40	94.11	83.14	58.93	45.94
2004-05	47.85		75.48	45.43	41.57
2005-06	67.61		80.52	46.79	55.29
2006-07	64.97		95.21	63.08	59.59
2007-08	60.24		99.90	51.96	66.74
Averages					
1990-95	68.05	95.53	92.08	82.89	
1995-00	57.74	88.85	89.24	28.62	
2000-05	50.50	96.96	81.79	48.37	51.64
2005-08	64.27		91.88	53.94	60.54

Source (Basic Data): Reserve Bank of India, State Finances A Study of Budgets, various years.

v. Special Category States Group 2

a. Transfers as percentage of Revenue Receipts

For the relatively lower income states included in the Group 2 of the special category states, as shown in Table 12, the minimum dependence on transfers has been for Assam in the range of 63-69 percent of the revenue receipts. In comparison, the highest dependence has been for Nagaland where transfers accounted for 90-93 percent of their revenue receipts. Except for Assam, all the four other states are now deriving nearly 87-92 percent of their revenue receipts from transfers as shown by the relevant percentages for the Twelfth Finance Commission period.

Table 12: Total Transfers from the Centre as Percentage of Revenue Receipts: Special Category States: Group 2

Years	Arunachal Pradesh	Assam	Manipur	Mizoram	Nagaland	Tripura
1990-91	87.86	60.73	89.69	70.49	89.39	91.05
1991-92	88.04	67.96	91.99	91.67	90.79	91.72
1992-93	88.42	62.57	92.26	91.51	91.32	90.88
1993-94	83.75	71.01	91.96	92.86	93.33	90.31
1994-95	85.77	67.63	87.53	92.75	86.19	90.63
1995-96	88.23	69.25	89.39	91.77	92.97	90.77
1996-97	90.91	71.76	90.92	92.05	91.72	90.17
1997-98	92.29	70.80	91.16	92.56	92.06	90.16
1998-99	91.79	68.17	93.06	93.83	92.25	89.83
1999-00	92.07	65.51	92.28	94.53	91.94	87.63
2000-01	91.21	65.59	91.31	93.38	92.95	86.56
2001-02	90.07	64.81	93.14	92.63	93.26	86.28
2002-03	61.88	61.32	90.84	92.11	92.44	85.02
2003-04	89.62	61.16	91.65	93.30	94.51	82.04
2004-05	85.37	61.93	91.34	92.33	91.51	83.84
2005-06	85.72	61.05	92.88	89.41	91.08	88.11
2006-07	88.38	67.65	90.77	90.83	92.59	86.66
2007-08	89.04	66.23	90.09	91.42	92.64	86.90
Averages						
1990-95	86.77	65.98	90.69	87.86	90.21	90.92
1995-00	91.06	69.10	91.36	92.95	92.19	89.71
2000-05	83.63	62.96	91.66	92.75	92.93	84.75
2005-08	87.71	64.98	91.25	90.55	92.10	87.22

Source (Basic Data): Reserve Bank of India, State Finances A Study of Budgets, various years.

b. Transfers as percentage of Revenue Expenditures

For the special category states included in this Group, we find that the share of transfers in revenue expenditures is more than 100 percent for some years and some states (Table 13). This applies to all states in this group except Assam. The reason for this is that part of the transfers in the form of plan grants that are meant for capital expenditures.

Table 13: Total Transfers from the Centre as Percentage of Revenue Expenditure: Special Category States: Group 2

Years	Arunachal Pradesh	Assam	Manipur	Mizoram	Nagaland	Tripura
1990-91	121.92	56.19	115.55	106.82	88.29	90.74
1991-92	136.48	76.49	109.85	114.21	91.95	94.33
1992-93	130.80	66.71	111.31	103.07	89.08	99.85
1993-94	114.73	81.20	121.56	111.46	86.86	90.28
1994-95	118.33	61.23	101.95	107.73	75.34	95.20
1995-96	131.10	65.38	99.92	101.89	85.92	108.16
1996-97	122.12	77.47	103.75	99.01	92.65	102.27
1997-98	116.20	75.83	98.62	100.93	91.06	92.00
1998-99	113.56	69.56	105.82	99.82	91.07	96.92
1999-00	114.38	54.25	68.75	100.80	89.12	86.27
2000-01	96.43	57.63	84.35	75.71	92.92	81.77
2001-02	92.52	56.47	81.92	71.25	96.15	88.87
2002-03	66.49	58.57	85.25	83.20	85.84	81.52
2003-04	101.49	56.20	88.91	99.33	123.02	86.26
2004-05	84.93	60.16	96.40	99.45	99.92	98.98
2005-06	95.06	69.80	111.63	93.11	100.21	111.41
2006-07	107.23	65.09	122.63	99.64	108.70	104.69
2007-08	95.72	69.93	105.53	99.82	115.49	105.28
Averages						
1990-95	124.45	68.36	112.05	108.66	86.30	94.08
1995-00	119.47	68.50	95.37	100.49	89.96	97.13
2000-05	88.37	57.81	87.37	85.79	99.57	87.48
2005-08	99.34	68.27	113.26	97.52	108.14	107.13

Source (Basic Data): Reserve Bank of India, State Finances A Study of Budgets, various years.

vi. Observations on the States' Share of Transfers in Revenue Receipts and Expenditure

In a scheme of transfers that aims to achieve a suitable degree of equalization, it is to be expected that the share of transfers in revenue receipts and dependence of states on transfers for financing their revenue expenditures would in general be larger for the states that have relatively lower fiscal capacities. Any departures from this expected scheme of things would be due to higher than average tax effort on the part of some states (where the share of transfers in revenue receipts will be less than average) or due to some components of transfers that are not equalizing in nature.

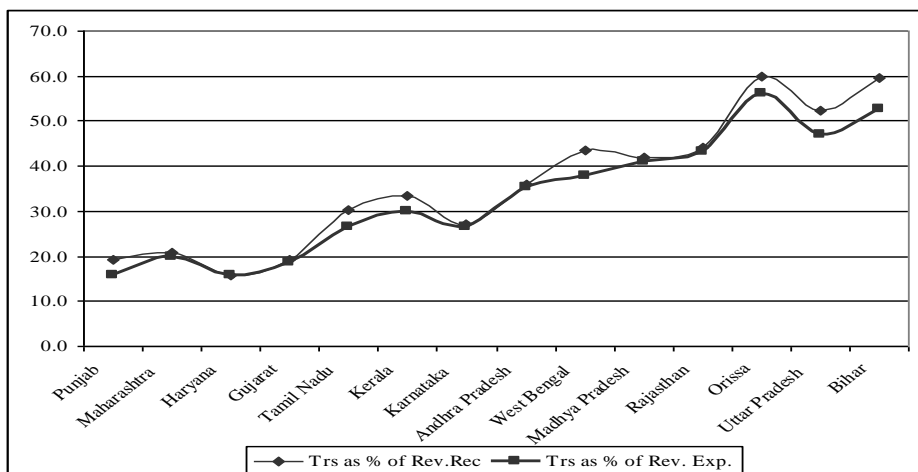


Chart 5: Ninth Finance Commission: Transfers as percentage of State's Revenue Receipts and Revenue Expenditures

Chart 5 shows the transfers as percentage of revenue receipts and revenue expenditures with reference to the Ninth Finance Commission period averages of all the general categories states except Goa. States are arranged in descending order of per capita GSDP at current prices relevant for the period 1990-95. It will be seen that the general expected pattern is exhibited showing higher dependence on

transfers of the lower income states. The curve showing the transfers as percentage of revenue expenditures shows the same pattern across states as that with revenue receipts. However, the gap between the two curves is generally larger as we move towards the lower income states.

Chart 6 shows a similar pattern for the relevant averages for the Tenth Finance Commission period. With respect to the share of transfers in revenue receipts, the general upward trend as we move to the lower income states is broken only for Uttar Pradesh where the extent of dependence on transfers is lower as compared to Orissa. This pattern was also observable in Chart 5 for the Ninth Finance Commission period. The pattern of higher dependence of transfers for revenue expenditures as we move towards lower income states is also clearly visible.

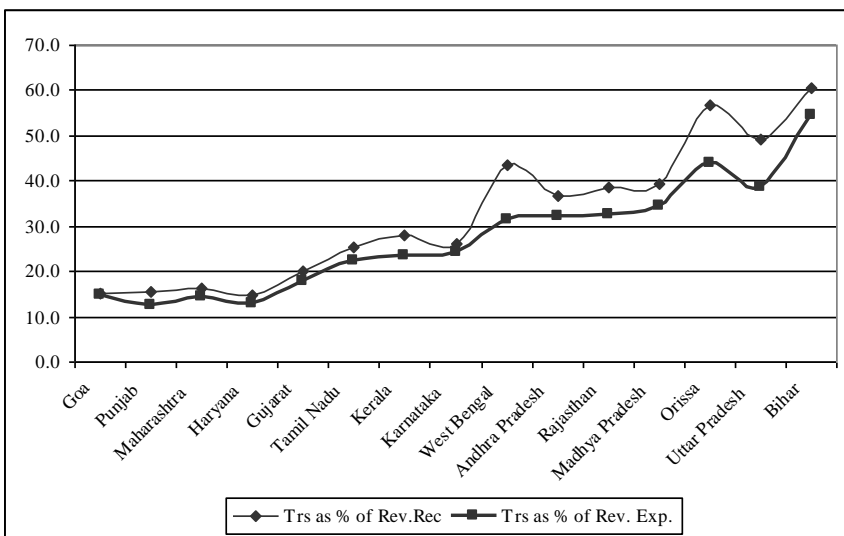


Chart 6: Tenth Finance Commission: Transfers as percentage of State's Revenue Receipts and Revenue Expenditures

Chart 7 shows a similar patter for the Eleventh Finance Commission period. However, the lower dependence of Uttar Pradesh on

fiscal transfers as compared to other lower income states is again clearly visible. Alongwith Uttar Pradesh, Madhya Pradesh also seems to be in a similar position. In their cases, the degree of dependence is lower compared to some states with comparatively higher incomes.

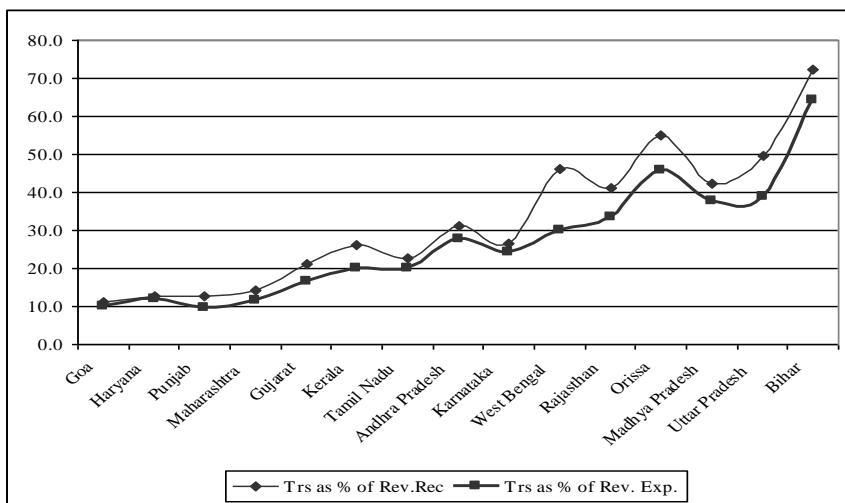


Chart 7: Eleventh Finance Commission: Transfers as percentage of State’s Revenue Receipts and Revenue Expenditures

CONCLUSIONS

In this paper, we have looked at the pattern of dependence of the states on central transfers. This analysis is done with respect to the revenue receipts of the states as also their revenue expenditures. We have looked at the pattern of dependence both in terms of the aggregate account of the states and for individual states.

State’s dependence of the share of central taxes has changed over time. These changes are partly due to the recommendation of the Finance Commission regarding the share that should be given to the states from centre’s shareable portion of tax revenues as well as on changes in macro variables. Important among the macro variables are

the ratio of the centre's gross tax revenue and state's own revenue receipts with respect to GDP.

The following observations can be made.

Third Finance Commission: relative to the average for the preceding Commission's period, states' dependence on central taxes increased inspite of a fall in the share of central taxes in gross central tax revenues. This is because of a large positive role played by an increase in centre's tax-GDP ratio.

Sixth Finance Commission: There is a fall in the states' share in central taxes relative to states' revenue receipts. This is almost entirely due to a fall in the share of central taxes in gross central tax revenues.

Eighth and Eleventh Finance Commissions: There is a fall in states' dependence on share in central taxes relative to the averages for the immediately preceding commission periods. This is mainly due to a fall in the share of central taxes in gross central tax revenue.

Ninth and Tenth Finance Commissions: There is a fall in states' dependence on share in central taxes relative to the commission-period average. This is mainly due to a fall in centre's tax-GDP ratio. In the case of the Tenth Finance Commission period, there was a fall in states' revenue effort.

In all other periods, the dependence of the states' on their share in central taxes increased and it was due to a combination of both an increase in the share of central taxes in gross central tax revenues and an increase in centre's tax effort. Throughout this period, except for the period of the Tenth Finance Commission, states' own revenue effort also increased indicating that the role played by central taxes increased on a trend basis inspite of the increasing revenue effort of the states' themselves.

State-wise analysis of the pattern of dependence indicates as to how far the states rely on central transfers for their revenues and how far their revenue expenditures are financed by central transfers. Some of the main findings are summarised below.

- a. In the case of Goa, the extent of transfer has come down over time from an average of 37 percent during 1990-95 to just about 10 percent during 2000-05, subsequently there is a marginal improvement.
- b. For Haryana the share has ranged between 11.9 - 16.4 percent.
- c. For Maharashtra it has ranged between 11.4 percent on an average to 21.6 percent. The lowest share was in the EFC period.
- d. For Punjab the share has varied between 9.7 - 19.8 percent. Here also the lowest share was during the Eleventh Finance Commission award period.
- e. Comparing across Finance Commissions, the high income group states got the lowest shares during Eleventh Finance Commission period, followed by Tenth Finance Commission period.

As far as shares of transfers in revenue expenditures for the middle income states are concerned the following are the noticeable points.

- a. In the case of Kerala and Tamil Nadu, the dependence on transfers for financing revenue expenditure came down close to 20 percent during the Eleventh Finance Commission period, although since then both of these shares increased to a little more than 24 percent for the Twelfth Finance Commission period.
- b. Leaving Chhattisgarh, the highest dependence on transfers among the middle income states for financing revenue expenditures has been that for West Bengal, which has been in the range of 30-39 percent.

- c. The next state in this order is Andhra Pradesh where the dependence on transfers for financing revenue transfers has ranged between 27.7- 35.2 percent.
- d. The range of variation in these ratios across Finance Commission period averages is relatively narrow.

The extent of dependence is far more for the special category states. As percentage of their revenue receipts, the dependence is highest for Jammu and Kashmir, followed by Meghalaya and then Himachal Pradesh. For some the special category states included, we find that the share of transfers in revenue expenditures is more than 100 percent for some years and some states.

In a scheme of transfers that aims to achieve a suitable degree of equalization, it is to be expected that the share of transfers in revenue receipts and the dependence of the states on transfers for financing their revenue expenditures would in general be larger for the states that have relatively lower fiscal capacities. Any departures from this expected pattern would be due to higher than average tax effort on the part of some states (where the share of transfers in revenue receipts will be less than average) or due to some components of transfers that are not equalizing in nature.

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Appendix Table 1: States' Share of Central Taxes as Percentage of States Revenue Receipts and State Revenue Receipts as Percentage of GDP

(percent)

Years	States' Share in Central Taxes as % of States' Revenue Receipts	Share of Central Taxes in Gross Central Tax Revenue	Gross Central Tax Revenue as % of GDPmp	States' Revenue Receipts as % of GDPmp
1950-51	12.661	11.847	4.02	3.758
1951-52	13.000	10.311	4.78	3.787
1952-53	16.693	16.804	4.23	4.257
1953-54	14.918	17.193	3.67	4.227
1954-55	13.536	15.574	4.20	4.832
1955-56	13.240	15.173	4.40	5.039
1956-57	12.550	13.609	4.34	4.704
1957-58	16.249	16.825	5.11	5.293
1958-59	18.113	21.103	4.65	5.414
1959-60	16.497	19.089	5.00	5.780
1960-61	15.832	18.421	5.14	5.982
1961-62	16.320	16.948	5.71	5.934
1962-63	17.653	17.433	6.48	6.400
1963-64	17.543	15.890	7.17	6.499
1964-65	15.594	14.179	6.86	6.233
1965-66	14.802	13.410	7.36	6.665
1966-67	17.227	16.170	7.28	6.829
1967-68	16.865	17.683	6.34	6.644
1968-69	17.460	19.567	6.38	7.153
1969-70	19.676	21.991	6.52	7.285
1970-71	22.051	23.539	6.93	7.400
1971-72	23.056	24.401	7.82	8.277
1972-73	23.130	23.572	8.25	8.410
1973-74	22.681	23.081	7.63	7.767
1974-75	20.398	19.371	8.06	7.655
1975-76	21.395	21.018	9.03	8.875
1976-77	19.440	20.354	9.11	9.534
1977-78	19.123	20.295	8.62	9.145
1978-79	17.776	18.591	9.45	9.884
1979-80	26.083	28.448	9.80	10.691
1980-81	25.214	28.767	9.07	10.343
1981-82	24.417	26.970	9.28	10.248
1982-83	22.920	26.219	9.26	10.595
1983-84	22.894	25.310	9.31	10.297

Appendix Table 1 (contd.): States' Share of Central Taxes as Percentage of States Revenue Receipts and State Revenue Receipts as Percentage of GDP

(percent)

Years	States' Share in Central Taxes as % of States' Revenue Receipts	Share of Central Taxes in Gross Central Tax Revenue	Gross Central Tax Revenue as % of GDPmp	States' Revenue Receipts as % of GDPmp
1984-85	22.034	24.615	9.42	10.519
1985-86	23.480	26.129	10.19	11.341
1986-87	23.552	25.808	10.43	11.429
1987-88	22.762	25.482	10.53	11.783
1988-89	22.335	23.989	10.48	11.252
1989-90	24.814	25.626	10.59	10.934
1990-91	23.163	25.245	10.11	11.017
1991-92	22.059	25.529	10.29	11.907
1992-93	23.564	27.496	9.92	11.572
1993-94	21.811	29.363	8.75	11.777
1994-95	21.022	26.916	9.09	11.634
1995-96	22.225	26.330	9.33	11.056
1996-97	24.596	27.790	9.41	10.635
1997-98	26.428	31.280	9.12	10.790
1998-99	22.704	27.222	8.21	9.845
1999-00	21.622	25.316	8.80	10.302
2000-01	23.420	27.542	8.97	10.550
2001-02	21.488	28.546	8.20	10.894
2002-03	21.430	26.160	8.78	10.722
2003-04	21.802	26.486	9.20	11.173
2004-05	22.270	26.285	9.75	11.512
2005-06	22.055	26.188	10.22	12.129
2006-07 RE	22.713	26.051	11.28	12.943
2007-08 BE	23.539	26.317	11.63	13.002

Source: Indian Public Finance Statistic, various years.

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