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The objective of the system of intergovernmental fiscal transfers is to correct both vertical imbalances and horizontal inequalities in the distribution of federal resources. The vertical imbalance arises due to the asymmetric assignment of functional responsibilities and financial powers between different levels of governments, while horizontal inequalities are the existing disparities in the revenue capacity across the constituent units of the federation. The extent of these imbalances are different across different federations and so also the design of transfers. In India, institutional mechanism of federal transfers revolves around three institutions, viz., *Finance Commission*, *Planning Commission* and various ministries of the *Central (Federal) Government*. With the evolution of the system of transfers over the years, however, a large part of the transfer of resources has fallen outside the ambit of the Finance Commission. The Planning Commission transfers in the form of plan grants and discretionary transfers in the form of centrally sponsored schemes (hereafter CSS) have become important. By their very nature, most of these grants are conditional, specific purpose grants and a significant quantum is discretionary.¹

As increasing proportion of resources transferred to the states have stayed outside the ambit of statutory transfers recommended by the Finance Commission, the system of transfer as evolved over the years is said to have introduced an element of *ad-hoc-ism* and *arbitrariness*. In case of Finance Commission transfers also, it increasingly became skewed towards tax devolution, which by nature is an entitlement for all the states. Increasing share of tax devolution in total transfers through Finance Commission in turn has left little scope for fiscal equalisation grants to play its role in equalising fiscal capacities across states. The Twelfth Finance Commission (TFC) has emphasised the need for a greater role of equalisation grants in the present scheme of transfers to correct for cost disabilities and redistributive consideration that are not adequately addressed through tax devolution.²

In recent years, the central government has also been spending directly on various services which are primarily in the functional domain of the states such as health, education and rural development.³ Although direct central spending are technically not transfers, they have a significant impact in equalising the quality of public service delivery across states. For example, in a state where education expenditure is low and if the state is lagging behind in the educational attainment compared to the rest of the country,

¹ Our estimates show that for the year 2006-07, the share of discretionary grants in total grants is as high as 48.42 percent. This does not include grants going to the implementing agencies bypassing the state budget.

² The share of grants recommended by TFC for the period between 2005-06 and 2009-10 is 18.87 percent of the total Finance Commission transfers which is substantially larger than the share of grants recommended by the earlier Finance Commissions (TFC Report: P-5)

³ The share of central spending on these three categories of expenditures has increased from 30.83 percent in 2000-01 to 41.9 percent in 2006-07 and further to 46.3 percent in 2007-08.

direct central spending on education in this particular state is one method of bringing equalisation in the provision of education services. Other methods could be grants to the states, which could be tied or untied to overcome the cost and fiscal disabilities so that individual states are able to provide comparable levels of public services. Offsetting fiscal disabilities through direct central spending over the years have become an important policy tool in India, which is reflected in the proliferation of various centrally sponsored schemes and also direct spending on various social and economic services by the central government. As noted above, these are in the overlapping functional jurisdictions of centre and states or exclusively in the functional domain of the states in India.

Rao (1997) examined the nature of non-transparent intergovernmental transfers and its role in offsetting fiscal disabilities across states. Our study examines the impact of direct spending by the central government across states and its impact on fiscal equalisation. This also brings to light the distribution of central expenditures at the state level and in turn enables us to comment on the policy of regional expenditure distribution by the central government.

No empirical work thus far has examined the spatial distribution of central expenditure (transfers plus direct spending) at state level in India⁴ and their impact in bringing fiscal equalisation. Also, despite the growing intervention of central government in the state subjects in the recent years, there is very little understanding of the pattern of central government expenditure at state level. A few questions firm up at the outset. What is the level and pattern of central government expenditure to the states and its distribution? What is the net effect of these public expenditures at the state level? Have these central transfers and direct central spending led to fiscal equalisation or have conflicted in the goal of achieving horizontal equity? We try to address these issues by analysing the interstate distribution of public expenditure by the central government.

The challenges of undertaking such an analysis are many. The most formidable obstacle is the complete absence of statewise data on direct central expenditure except for grants given to the states. The other major constraint is that all central expenditures cannot be spatially partitioned. Also, one has to be extremely careful in doing such analysis since the spatial apportioning of certain categories of expenditures may not be relevant or even appropriate. For example, defence and other expenditure that has economy wide implications needs to be excluded from spatial portioning across states even if the government spending is in a specific geographical location. In this study, we concentrate on those types of expenditure which can be spatially distributed without violating the principles defined above and also fall in the functional domain of the states or in the overlapping functional jurisdictions. For the purpose of our study, we term these direct expenditures of the central government as quasi fiscal transfers.

⁴ Existing studies are heavily skewed to the analysis of spatial inequality and fiscal transfers at the aggregate level, leaving behind the incidence of direct spending by central government to the states and below-state levels largely unexplored. Empirical studies are also rich in fiscal transfers related issues, though whether transfers are fiscally equalising is rarely attempted in Indian context. With regard to direct spending of central government to states, a few studies attempted micro level 'expenditure tracking analysis' of selected centrally sponsored schemes in selected states through primary surveys. At below state level, studies have conducted on the impact of grants on local expenditure. The benefit incidence analysis (BIA) of public expenditure across poor and non-poor has also been attempted by a few authors (Lanjouw and Ravallion, 1998). At the global level, a few studies have estimated the incidence of central expenditure across provinces, mainly in terms of household fiscal transfers, which is absent in the context of India.

II. Conceptual Framework

An important guiding principle in allocating financial resources in a federal system is to enable the states to provide comparable levels of public services at comparable tax effort. When the states are at different levels of fiscal capacity, they can incur comparable levels of expenditures on social and physical infrastructure only when central transfers offset the fiscal disability of states with low fiscal capacity. This makes the issue of designing a transfer system critically important. Despite fiscal transfers driven by various progressivity criteria recommended by successive Finance Commissions, the expenditure inequality across states has increased and more sharply in recent years⁵ (Rao, Singh, 2005; Bagchi, 2003; Bagchi & Chakraborty, 2005). Low resource base coupled with the inability of the transfer system to offset the low taxable capacity poorer states have resulted in low per-capita expenditures on basic social and economic services. One of the main reasons for the increase in fiscal inequality is attributed to the multiple channels of transfers. It has often been argued that the equalising effects of the Finance Commission transfers often get offset by the channels of transfers which are discretionary, be it plan transfers outside normal central assistance, or through the centrally sponsored schemes. Also, the effect of the direct spending by the central government on the interregional resources flows is unclear.

As all public expenditure incurred by the Central government cannot be spatially partitioned, we need to define the subset of government expenditure that can be considered as quasi fiscal transfers and can be partitioned across states. We identify categories of central expenditure having no direct sub-national level incidence and expenditures which are quasi-fiscal transfers in nature. The subset of government expenditures considered in the present study excludes expenditure under *General Services*, and '*direction and administration*' and *secretariat services* from all heads of expenditure. This we term as the adjusted net expenditure, which is the public expenditure residuum. We try to examine its incidence at sub-national levels and define it as *quasi fiscal transfers*. Also in these categories all the expenditure heads could not be considered because of the non availability of data according to the spending across states.

Other than the adjusted net expenditure under social and economic services, total grant to the states is also a major component of the central expenditure. Grants as a percentage of total expenditure of the centre constituted 20.9 percent in 2006-07. It needs to be noted here that due to the multiple channels of transfers, the transfer of grants is a complex one requiring careful analysis. We analyse this component of the central expenditure in detail. Categorising the explicit grants as formula based and non-formula based transfers, we also investigate econometrically whether these are fiscal equalising or not. The idea behind this classification is that formula based transfers are largely driven by the criteria of equity and need. So this component of the transfers should be fiscally equalising even when one is unsure of the effect of the rest of the transfers on fiscal equalisation.

⁵ Fiscal inequality has not only persisted, it seems to have aggravated in recent years due to the increasing spatial inequality. It is reasonably well established that in post-reform India, regional inequality has increased (Alhuwalia: 2002).

To start with, total grants are classified into two broad categories. These are (i) grants given to the states; and (ii) grants given under CSS directly to district level implementing agencies and local bodies. Again, the grants given to the states are categorised into formula based and non-formula based grants. The formula based grants are the sum of statutory grants recommended by the Finance Commission and the plan grants under normal central assistance. The residual is the non-formula based grants, largely CSS and plan grants outside the normal central assistance. The direct transfer to the districts is added to the non-formula based grants to the states to quantify the aggregate amount of non-formula based grants to a state. We have analysed the recent phenomenon of direct central government spending *via* CSS at the district level in detail to examine its incidence at the state level and its effect on fiscal equalisation.

In addition to grants, there is programme-specific direct spending by individual ministries/departments of central government at the state level subsumed in the adjusted net expenditure under social and economic services. As there is no state-wise data on this part of the central spending, the challenge is to partition these expenditures at the state level before one examines their nature and impact.

To arrive at the categorisation of aggregate spending at the central government level and its state-wise distribution, yet another significant step in the analysis is to comb all the ministries/departments at the aggregate level to examine their importance in relation to the aggregate central spending. It is important to note that all the ministries/departments do not have significant share in aggregate central budgetary spending. The idea is to select only those ministries/ departments whose expenditure share is high, and their expenditure functions fall in the overlapping or exclusive functional domain of the states.

Therefore, we start with an analysis of relative importance of each ministries/departments in terms of expenditure allocation in the aggregate central spending. The threshold minimum expenditure for the purpose of selection of ministries/department for further analysis of their expenditure distribution at the state level can be decided *ex-ante* (predetermined as a thumb rule) or it can also be determined *ex-post* (derived from disaggregated level of expenditure analysis across all ministries/departments in terms of its intensity in the aggregate allocation). The latter is preferred to former as *ex-post* categorisation of ministries/departments in terms of their significance in spending is better inferred from the expenditure data. A comparatively better threshold can be arrived at in the iterative procedure of delineating the ministries/departments for further analysis.

All ministries/departments which appear above the threshold minimum expenditure may not be amenable for spatial partitioning. For instance, ministries like Finance and Defence may have significant expenditure allocations in the total central government expenditure, but are not relevant to take up for the analysis of inter-state distributional impact of central spending. The determinants of the majority of these categories of expenditure are not necessarily fiscal equalising components of spatial need-based requirements. These expenditures are positively related to economic growth and in turn can have the spillover effects on all sub-national units, but that is beyond the scope of this study. Also they do not fall in the overlapping or exclusive functional domain of the states. This argument has its rubric on the positive externalities of 'equity and efficiency' arguments of the non-rival and non-excludable public good which supercede the spatial dimensions.

The following steps are followed in finding out the spatial distribution of central expenditure.

- a. To identify the central spending amenable for spatial partitioning.
- b. Divide the identified central expenditure into four categories:
 - i. Direct spending in states *via* CSS
 - ii. Direct spending at sub state level through various CSS not going through the state budget
 - iii. Direct programme-specific spending of each ministries and departments including grants and subsidies given to institutions for spending at the state level.
 - iv. And other expenditures residually determined and largely administrative in nature.

Above categorisation of central government expenditure is done to examine the following specific issues:

1. Interstate distribution of central spending, including direct spending and fiscal transfers in the form of grants.
2. Programme-specific spending and its distribution across states.
3. Selected institution-specific expenditure pattern financed by central budgetary allocation and their statewide distribution.
4. Whether the transfers and direct spending individually and in aggregate are progressive, or otherwise.

Data for the analysis is derived mainly from the Detailed Demand for Grants across ministries/departments, Expenditure Budget (Volume I and II), Union Budget documents, the data posted in individual ministries/department in terms of direct central government spending and finance accounts. The analysis pertains to the year 2005-06 and 2006-07. Before we go into the distribution of direct central expenditure at the state level, in the next section, we analyse the nature of explicit fiscal transfers to the states in the form of grants through an exploratory data analysis. As mentioned earlier, grants to the states is a major component of the central government expenditure and any analysis of the central expenditure at the state level would remain incomplete without detailed examination of the patterns of grants to the states. In the next section we deal with the transfer of grants to the states, which is a part of the explicit central transfers.

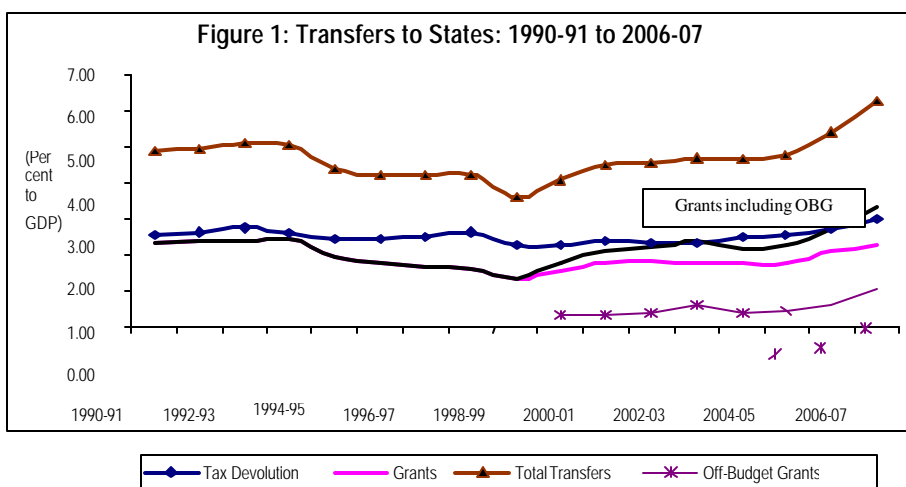
III. Explicit Fiscal Transfers to the States

Explicit fiscal transfers to states consist of tax devolution and grants. Grants comprise of finance commission grants, plan grants and grants for central sector schemes and centrally sponsored schemes, and special plan schemes for the north-eastern states. The quantum of vertical transfers in the form of tax sharing and grants as a percentage of GDP declined from 4.73 to 3.79 percent during 1990-91 to 1999-00. Tax devolution declined mainly due to the tax reforms induced fall in central tax revenues. However, the tax devolution to GDP ratio started increasing slowly thereafter and more

sharply from 2004-05. After a steady decline during the 1990s, grants to the states also increased sharply from 1999-00 onwards.

In recent years, there has been a major change in the transfer design where in a significant amount of the total grants is going directly to the district level implementing agencies bypassing the state budget, which we term as the off-budget grants. As evident from *Figure 1* this component of the grant has increased from 0.29 percent to 1.06 percent of GSDP during 1999-00 to 2006-07. When these off-budget grants are added with the budgetary grants given to the states, the transfer of grants show an even sharper increase during 1999-00 to 2006-07 and in the year 2006-07, the transfer of grants in aggregate was much higher than the tax devolution.

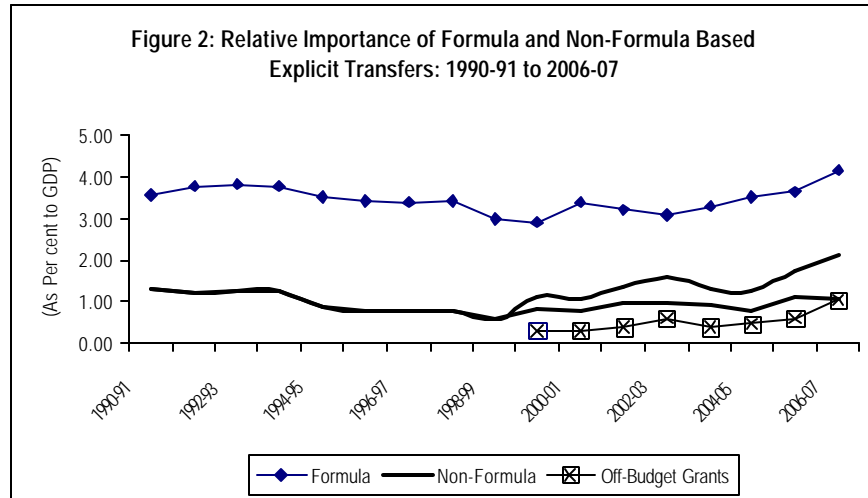
This aggregate quantum of explicit transfers and its movement does not show the nature of its distribution across states. We need to examine the nature of this distribution across various categories of explicit transfers. As there are several categories of explicit transfers having different weights in the total transfers, we thought it would be appropriate to divide them in two categories, viz., formula-based transfers and non-formula based transfers.



The formula based transfers is defined as the aggregate of tax devolution, statutory grants recommended by the Finance Commission and plan grants under normal central assistance given to the states under the *Gadgil formula*. The residual is the non-formula based transfers to the states. Presumably, the statutory transfers affected through Finance Commissions' recommendations and the plan grants under normal central assistance would be progressive as distribution formula of these grants are by and large equity and need driven. Non-formula based grants are discretionary and we need to examine how these grants are being distributed across states and also we need to look at the net effect of these transfers on fiscal equalisation.

The formula based and non-formula based transfers shown in *Figure 2* reveal that relative importance of non-formula based transfers in total transfer has increased sharply in recent years. The share of formula based transfers in total transfers declined sharply from 73 percent in 1990-91 to 66.3 percent in 2006-07. In this context it is

important to examine the state specific distribution of formula and non-formula based transfer in per-capita term.



As evident from *Table 1*, the major component of formula based transfers is tax devolution and in per-capita term, the tax devolution to low income states is much higher than the high and middle income states. The other component of the formula based transfers is the plan grants under the normal central assistance distributed under the *Gadgil formula*. In case of distribution of formula based plan grants also one observes that in per-capita terms, the transfer is much higher to many low income states *vis-à-vis* high income states. However, there are exceptions. The per-capita grant to Bihar is lower than the all-state average per-capita. It is important to note that many of the high and middle income states get higher per-capita formula based grant when compared with some of the low income states. Unlike tax devolution, the distribution of formula based grant across states is not as progressive. From the slope of the trend line fitted through the scatter plot of per-capita tax devolution and formula based grants *vis-à-vis* state level per-capita income it appears that per-capita tax devolution is more progressive than the formula based grants. This has also been proved in our econometric exercise (*Section V*).

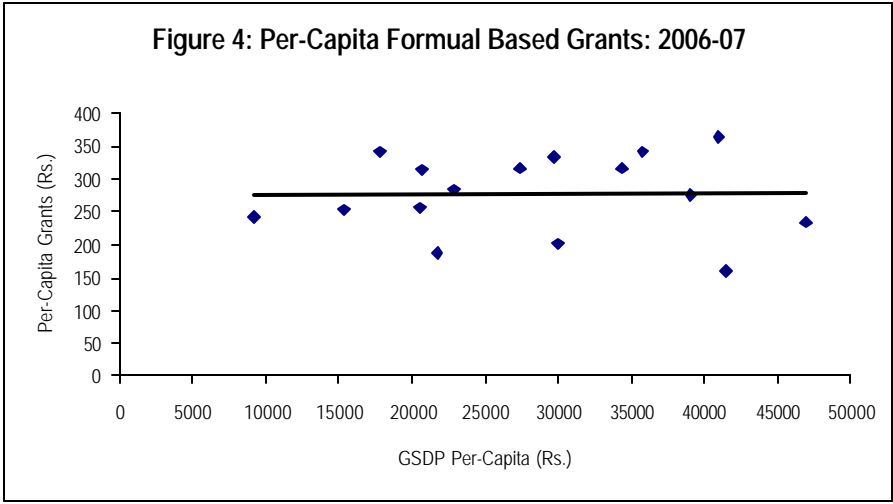
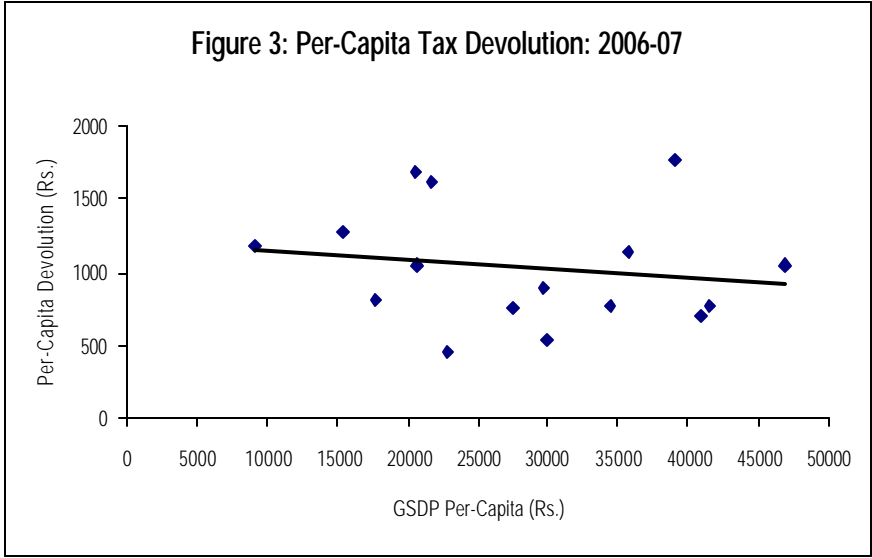


Table 1: Formula and Non-Formula Based Transfers: Per-capita State wise – 2006-07
(in Rs.)

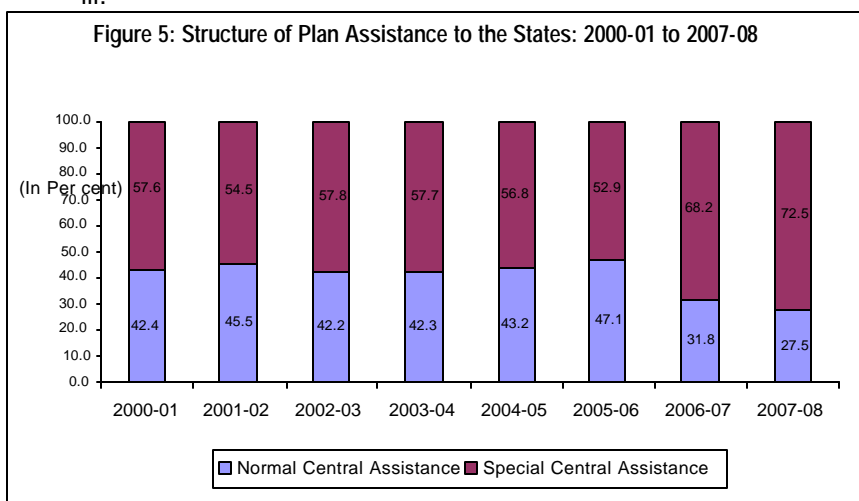
	Formula Based Transfers		Non-Formula Based Transfers			
	Tax Devo- lution	Formula Based Grants	Plan Grants Outside Normal Central Assistance	Centrally Sponsored Schemes	Other Non-Plan Grants	Direct Transfers to Districts
General Category States	1070.8	284.5	44.1	141.3	134.8	290.0
Andhra Pradesh	1091.6	333.0	21.0	161.3	96.1	306.0
Bihar	1450.6	242.6	40.5	106.3	183.3	324.1
Chattisgarh	1403.2	283.3	178.6	173.3	135.6	661.9
Goa	1963.0	201.2	140.5	91.6	123.2	95.3
Gujarat	797.9	274.7	42.1	107.7	145.7	159.2
Haryana	549.7	235.1	34.5	158.2	55.0	220.6
Jharkhand	1370.1	188.8	142.9	164.2	18.1	451.0
Karnataka	948.7	200.2	39.0	222.7	387.8	297.9
Kerala	951.3	342.5	22.1	104.4	151.6	116.3
Madhya Pradesh	1205.6	341.2	68.8	216.1	40.7	568.6
Maharashtra	569.6	365.4	16.0	100.1	327.6	178.3
Orissa	1585.1	314.1	59.3	185.0	246.6	454.4
Punjab	580.2	160.4	33.6	123.7	512.4	122.9
Rajasthan	1073.9	255.5	47.6	221.5	77.9	432.8
Tamil nadu	977.1	317.0	73.9	95.8	21.5	189.8
Uttar Pradesh	1252.8	252.8	35.0	116.9	18.9	249.6
West Bengal	991.7	317.1	20.2	128.2	45.1	211.1
Special Category	1375.6	2861.1	169.3	421.4	895.5	616.7
Arunachal Pradesh	2946.9	10886.4	1236.4	2717.9	1030.4	2599.3
Assam	1349.3	1114.5	128.4	249.3	39.2	620.9
Himachal Pradesh	933.2	2066.8	132.9	470.6	3578.3	548.7
Jammu & Kashmir	1213.2	5128.8	3.9	458.2	395.0	517.3
Manipur	1698.4	7327.9	224.4	579.3	135.4	396.7
Meghalaya	1797.3	2226.5	292.6	428.7	1899.0	731.6
Mizoram	2813.0	11245.5	780.0	1649.9	776.8	1486.2
Nagaland	1219.4	3094.6	644.3	806.8	4093.8	452.5
Sikkim	4595.6	7401.8	607.2	1739.8	1096.6	984.3
Tripura	1502.9	5987.9	257.1	550.9	141.9	677.4
Uttaranchal	1216.4	1513.1	86.5	163.9	1547.5	461.2

Source (Basic Data): Finance Accounts of the Respective States

III.a. Changing Pattern of Plan Assistance to the States

While analysing the explicit fiscal transfers, it is critical to examine closely the changing nature of plan assistance to the states. It is hardly noticed that within the plan assistance, the share of normal central assistance through Gadgil formula is coming down and the share of the rest is on the increase.⁶ As plan assistance outside normal central assistance is not formula based, and one does not have a clear idea of the nature of distribution of these grants. Thus, our objective is two fold:

- i. a closer examination of the pattern of the quantum of normal central assistance in recent years
- ii. to analyse how the rest of the central plan assistance is distributed to the states and its nature.
- iii.



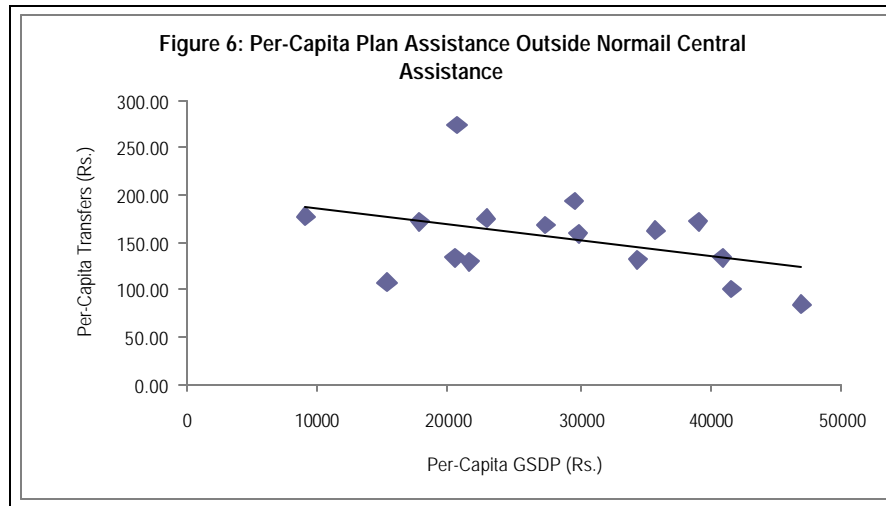
As evident from *Figure 5*, when we look at, the share of normal central assistance in total plan assistance has declined to 27.5 percent in 2006-07. This was 42.4 percent in 2000-01. The estimates of plan assistance outside the normal central assistance show an erratic pattern in the per-capita state wise distribution. It needs to be noted that the plan assistance reported in *Table 2* is cumulative one and is not comparable with the figures given in *Table 1*. As evident from *Table 2*, Goa received largest per-capita transfers in some years. Maharashtra received lowest per capita plan transfers outside normal assistance in the year 2004-05 and 2005-06, though a quantum increase in the transfers is noted for 2006-07 and 2007-08 (*Table 2*). The per-capita plan assistance outside the normal central assistance when plotted against per-capita state income, appears to have a negative relationship indicating some degree of progressivity. Whether this is statistically significant is tested econometrically in *section V*.

⁶ The major components of the rest of the Plan Assistance comprise of Special Plan Assistance, Special Central Assistance, Additional Central Assistance for Externally Aided Projects and other grants for specific projects under the state plan.

Table 2: Cumulative Per Capita Plan Transfers Outside Normal Assistance
(in Rs.)

	2004 - 05	2005-06	2006-07	2007-08
General Category States	110.2	83.6	123.9	201.0
Andhra Pradesh	106.0	117.3	222.7	335.8
Bihar	91.8	95.8	162.3	168.0
Chhattisgarh	92.2	69.7	158.3	194.1
Goa	333.2	35.7	49.7	253.0
Gujarat	95.5	165.5	136.1	310.1
Haryana	46.6	21.6	60.0	85.1
Jharkhand	91.3	74.4	46.2	83.6
Karnataka	105.0	101.4	149.4	213.4
Kerala	133.8	79.5	113.2	196.7
Madhya Pradesh	108.9	92.9	140.3	226.6
Maharashtra	67.3	60.4	179.0	267.1
Orissa	246.8	166.6	187.4	326.4
Punjab	32.8	65.8	85.5	147.7
Rajasthan	104.9	66.2	86.1	131.2
Tamilnadu	67.5	43.4	139.6	246.9
Uttar Pradesh	54.2	44.6	58.5	62.1
West Bengal	94.5	121.1	132.5	169.4
Special Category	1163.8	859.2	970.1	1773.5
Arunachal Pradesh	978.7	1052.9	1513.1	4514.8
Assam	328.7	365.8	302.2	361.6
Himachal Pradesh	940.5	812.7	860.7	1397.6
Jammu And Kashmir	1578.8	1524.4	2107.5	2644.4
Manipur	1535.3	1922.7	1841.1	3444.7
Meghalaya	639.1	315.7	462.0	613.2
Mizoram	2173.8	1243.0	1135.8	2750.8
Nagaland	720.5	667.6	618.0	814.0
Sikkim	2472.7	841.1	912.1	1720.9
Tripura	666.6	384.0	493.9	555.4
Uttarakhand	767.3	321.0	424.4	691.0

Source: http://finmin.nic.in/the_ministry/dept_eco_affairs/dea.html



III.b. Transfers by-Passing the State Budget

The other major component of non-formula based transfer from the centre is direct transfer to districts and other implementing agencies by-passing the state budget. As evident from the table, this is a new development in the design of transfers in India. As per the budget estimates 2007-08, the aggregate resource flow from the centre to the states, constituted more than 7.26 percent of GDP; resources that are going directly to districts and other implementing agencies amounted to 1.22 percent of GDP. This is higher than any other components of grants transfers and constituted 37.5 and 34.8 percent of tax devolution to the states in the year 2006-07 and 2007-08 respectively. It is important to examine what constitutes these flows.

As evident from *Table 3*, around 93 percent of this flow is through three central ministries, viz. Ministry of Rural Development (55 percent), Ministry of Human Resource Development (29 percent) and Ministry of Health and Family Welfare (11 percent). Out of this, transfers on account of *Sarva Siksha Abhiyan* and *NREGA* together constituted almost half of the total. Of the total centrally sponsored schemes to districts, the ministries of rural development, health, human resources and agriculture constitutes around 98 percent. In particular, Ministry of Rural Development constitute the single largest share of CSS to districts; with little more than half percent of total. So we concentrate on statewise district level spending in these three ministries which captures 95 percent of the direct spending in the districts by the centre.

**Table 3: Central Level Transfers to Districts /Implementing Agencies:
Ministry Wise Distribution**

Ministry/ Department	Share in Total	
	2006-07	2007-08(RE)
Agriculture	3.82	4.57
Health and Family Welfare	10.73	11.40
<i>Of which NRHM</i>	7.98	8.39
Human Resources	28.45	28.01
<i>Of which SSA</i>	24.85	23.45
Rural Development	55.18	53.69
<i>Of which NREGA/SGRY/IAY/PMGSY/SGSY</i>	47.19	41.01
Chemicals and Fertilisers	Nil	Nil
Shipping and Road Transport	Nil	Nil
Consumer Affairs, Food & Civil Supplies	Nil	
Other Ministries		
Tourism	0.04	0.10
Commerce and Industry	1.01	1.11
Environment and Forests	0.67	0.77
Women and Child Development	0.00	Nil
New and Renewable Energy	0.09	
Total	100.00	100.00

Source: Union Budget Documents, 2008-09

The inter-state pattern of district transfers reveals that in per capita terms, Chattisgarh received highest level of transfers at Rs 662 followed by Madhya Pradesh at Rs 569 and Jharkhand at Rs 451 for the year 2006-07 (*Table 4*). The states which receive the district level CSS above the all state average were Andhra Pradesh, Bihar, Chattisgarh, Jharkhand, Madhya Pradesh, Orissa, and Rajasthan (*Table 5 and 6*).

**Table 4: Per-Capita Direct Transfers to Districts/ Implementing Agencies
(In Rs)**

States	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Andhra Pradesh	51.72	58.53	65.85	67.38	113.33	174.97	305.97
Bihar	36.45	54.62	38.90	70.26	211.30	205.62	324.08
Chhattisgarh	47.72	85.20	92.71	110.52	193.94	282.54	661.94
Goa	68.25	71.01	12.48	22.64	26.47	92.94	95.30
Gujarat	41.28	44.88	60.00	66.41	84.36	125.96	159.25
Haryana	39.21	52.09	52.31	73.66	112.53	121.38	220.65
Jharkhand	69.38	105.65	70.79	153.46	196.69	291.17	451.03
Karnataka	39.04	68.59	77.51	80.48	118.59	171.77	297.94
Kerala	29.34	45.16	28.41	49.90	80.17	94.33	116.26
Madhya Pradesh	55.91	78.15	81.38	124.37	154.15	239.91	568.57
Maharashtra	33.58	61.96	41.89	62.15	98.22	155.46	178.33
Orissa	80.87	97.24	90.80	126.13	186.41	283.78	454.44
Punjab	14.88	42.29	37.14	48.18	45.85	109.59	122.88
Rajasthan	68.24	69.81	90.52	78.23	129.94	262.02	432.79
Tamilnadu	41.94	58.43	67.81	71.68	119.16	149.00	189.80
Uttar Pradesh	25.98	36.79	24.76	33.90	89.16	206.62	249.56
West Bengal	30.71	44.23	35.44	53.18	115.66	133.62	211.12
Max/MIN ratio	5.44	2.87	7.43	6.78	7.98	3.13	6.95
CV	0.39	0.31	0.44	0.45	0.43	0.38	0.56

Source: From respective ministries

The data from *Table 4* indicates that the per capita district level transfers have increased sharply over the years. However, the distribution of states in transfer per-capita did not change much. During the period, the states above the per capita district level remained the same, however with the upper bound outliers of states with more than Rs 500 from one state (Chattisgarh) in 2006-07 to two states (Chattisgarh and Madhya Pradesh) in 2007-08. Similarly, the states that lie below the state average per capita transfers remained the same with change in one of the states in the category of lower bound outlier states; being Goa and Kerala in 2006-07 and Goa and Punjab in 2007-08 (*Table 5*). The scatter plot of per-capita income and the district level transfers shows that transfers to low income states are much higher than high income states and the trend line fitted on the scatter sloped downward.

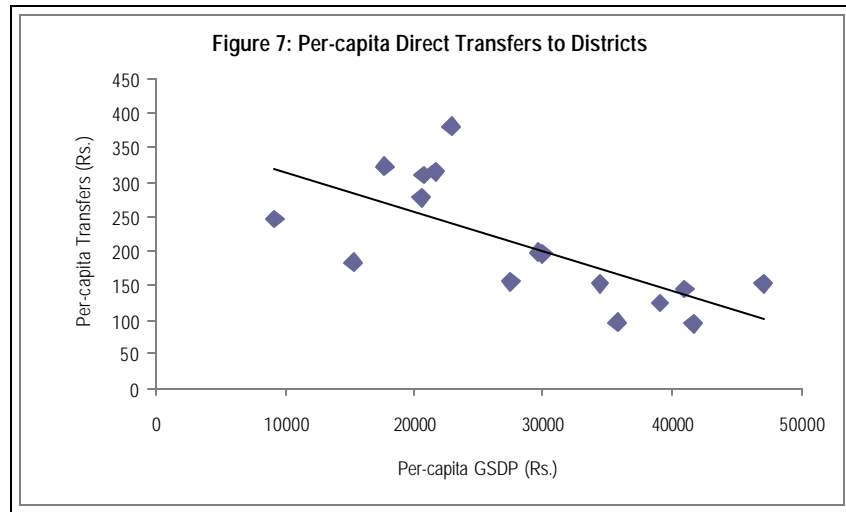


Table 5: Categorisation of States above/below State Average District level Transfers

States	2005-06	2006-07
Above State Average		
Category I (500>x> 900)	Chattisgarh	Chattisgarh, Madhya Pradesh
Category II (State Avg > x>500)	Andhra Pradesh, Bihar, Jharkhand, Madhya Pradesh, Orissa, Rajasthan	Andhra Pradesh, Bihar, Jharkhand, Madhya Pradesh, Orissa, Rajasthan
Below State Average		
Category I (100>X> State Avg)	Gujarat, Haryana, Karnataka, Maharashtra, Punjab, Tamil nadu, Uttar Pradesh, West Bengal	Gujarat, Haryana, Kerala, Karnataka, Maharashtra, Tamil nadu, Uttar Pradesh, West Bengal
Category II (0>X>100)	Goa, Kerala	Goa, Punjab

Source: (Basic data): Respective Ministries.

The distribution of these transfers is largely progressive (*Table 5*) as per capita transfers to low-income states have been several fold higher than the middle and high income states. Though these transfers have the inherent problem of central discretions, both with regard to the allocation and quantum, the data reveals a positive discretion in favour of the low-income states. But the larger question is whether these transfers can be justified on the ground of progressivity bypassing the authority of the state! If the authority of the states is bypassed on the functions that are in their domain, the accountability will be lost. As mentioned by Rao (2007, p. 1253), these kind of transfers have been “undermining the role of systems and institutions in the transfer system. In fact, even under the transfers for state plans, normal assistance, which is given according to the *Gadgil formula*, constituted less than 48 percent. Thus, we have a situation where the grants system has become predominantly purpose specific with a cobweb of conditionalities specified by various central ministries. Furthermore, quite a considerable

proportion of grants which used to be given to the states now directly goes to autonomous agencies. This raises questions about the capacity to deliver public services by these autonomous agencies, mechanisms to augment the capacity and as the funds do not pass through states' consolidated funds, of accountability."

Regarding the allocation of these funds, an element of uncertainty continues. Since these tendencies have increased over time and states are also accepting these deviations from what the Constitution of India has envisaged without resistance, central intervention on state subject would continue to grow. N. C. Saxena, as member of the National Advisory Council in an insightful paper on CSS, observed that "Gol has increased its control over the state sector in three ways, firstly through substantial funding of CSS, the budget for which is about 60 percent of the Central Assistance; secondly much of it goes straight to the districts, thus bypassing the States and placing district bureaucracy directly under the supervision of the Gol; and thirdly more than half of Central Assistance is given in the form of ACA, which is often not formula based but where the Gol Ministries have a great deal of control over the State allocations and releases."

IV. Distribution of Central Expenditure to States

When we talk about incidence of central government expenditure on states, the first step is to delineate the expenditure that does not have any impact at sub-national levels and those which cannot be spatially distributed. As mentioned earlier, expenditure items excluded are general service expenditure, expenditure on secretariat services, and direction and administration from all the categories of services. The estimates arrived at after netting out the various expenditures work out to be 16.04 percent of GDP (*Table 6*). Within the adjusted central government expenditure, general services constitutes the single most larger component at 7.15 percent of GDP; closely followed by social and economic services at 5.53 percent of GDP for the year 2006-07 and grants-in-aid to states at 3.06 percent of GDP. Out of the total grants, 1.06 percent flows directly to the districts bypassing the state budget.

Table 6: Adjusted Central Government Expenditure

Adjusted Central Government Expenditure	2006-07
Total Expenditure Net of Adjustments	16.04
General Services	7.15
Social and Economic Services	5.53
Grants-in-Aid	3.36
Through Consolidated Funds of States	2.30
Directly to the Districts	1.06
Adjusted Items	1.28

Source: Union Budget documents, 2008-09

The distribution of central spending across ministries/ departments reveals that only 10 ministries/departments out of 53 have budgetary allocations above 1 percent of

the total allocations. The point further to note is that only 4 ministries/departments have allocation higher than 5 percent of the aggregate budgetary allocation. The Ministry of Finance is the only Ministry which has allocation as high as 41 percent (*Table 7*) of the total allocation. The 43 ministries/departments with less than 1 percent of total expenditure are taken out of the analysis. This is done for the purpose of manageability and also due to their relative insignificance in total spending.

Table 7: Distribution (%) of Ministries/Departments according to the Share of Expenditure: 2008-09

Percentage share of spending	Total expenditure (In Rs. crore)	Number of ministries/departments	Aggregate share in total spending
0 to =0.1	5125.26	13	0.68
=0.1 to = 0.5	29736.82	18	3.96
=0.5 to = 1.0	63615.84	12	8.47
=1.0 to = 5.0	141962.91	6	18.91
=5.0 to =20.0	204667.55	3	27.26
=20.0	305774.66	1	40.72
Total	750883.04	53	100

Source: Union Budget Document: 2008-09

Within the ministries/departments which have allocations above one percent of the total budget, we take out Finance and Defence and Home, though they have significant budgetary allocations (*Table 8*). Most of the Finance Ministry expenditures are transfers to states and defence and home are part of the general services expenditures. So for the purpose of our spatial distribution of central expenditures across states, we focus on Ministry of Agriculture (1.93 percent), Health and Family Welfare (2.41 percent), Shipping, Road Transport and Highways (2.47 percent), Chemicals and Fertilisers (4.2 percent), Consumer Affairs, Food and Public Distribution (4.4 percent), Human Resource Development (5.15 percent) and Rural Development (5.65 percent).

Table 8: Ministry-wise Allocation and their Distribution: 2008-09

Ministry	Allocation (In Rs. crore)	Percentage Distribution
Agriculture	14476.88	1.93
Health and Family Welfare	18123.00	2.41
Shipping, Road Transport and Highways	18549.89	2.47
Home Affairs	25923.18	3.45
Chemicals & Fertilisers	31547.00	4.20
Consumer Affairs, Food and Public Distribution	33342.95	4.44
Human Resource Development	38702.87	5.15
Rural Development	42429.86	5.65
Defence	123534.82	16.45
Finance	305774.66	40.72
Other Ministries	98477.92	13.11
Total	750883.04	100.00

Source: Union Budget Document: 2008-09

After identifying these seven ministries for detailed analysis, we have analysed their *Detailed Demand for Grants* (hereafter DDG) for the year 2006-07, to examine the nature of their spending and to devise a method to see in what way their spending can be portioned across states. We have reclassified the DDG of each of the ministries into four broad categories:

- a. Transfers to states *via* CSS
- b. Direct CSS transfers to districts
- c. Grants, subsidies and contribution and programme specific spending other than CSS
- d. Other expenditures

Table 9 shows that taking all these Ministries together, the CSS explains 40 percent of their total expenditure. In other words, the estimates reveal upfront that distribution of CSS explains a major chunk of the total expenditure of these Ministries and their statewise distribution is already discussed in the last section. But our objective is to look into the direct expenditure and its distribution across states. So we concentrate on the rest of the expenditure and within that we exclude the other expenditure category, which is largely administrative in nature. The residual expenditure is 55.08 percent and 3.92 percent respectively for programme specific spending and administrative expenditure.

The disaggregated estimates across ministries reveal that the direct CSS transfers to below state level is as high as 84 percent of the total allocation in Ministry of Rural Development; 39.62 percent in the Ministry of Health; and 47.10 in case of Human Resources. While in case of grants, subsidies and programme specific spending, the spending is as high as 99 percent in case of Consumer Affairs, Food and Civil Supplies and Chemicals and Fertilisers, which needs further investigation; and in case of Shipping

and Road Transport, it is 71.80 percent. The administrative expenditure is relatively insignificant with less than one percent of the total; except for Agriculture (15.75 percent), Health (20.50 percent) and Shipping and Road Transport (9.74 percent).

Table 9: Distribution of Spending under Various Programme Heads
(In percent)

Ministry	Total	Transfers to States via CSS	Direct CSS Transfers to Districts	Grants, Subsidies & Contributions & programme specific spending other than CSS	Other Expenditures
Agriculture	100	16.60	17.94	49.70	15.75
Health	100	21.98	39.62	17.90	20.50
Human Resources	100	18.69	47.10	33.58	0.63
Consumer Affairs, Food & Civil Supplies	100	0.25	0.00	99.18	0.57
Rural Development	100	10.74	83.57	5.03	0.66
Chemicals and Fertilisers	100	0.00	0.00	99.90	0.10
Shipping and Road Transport	100	18.46	0.00	71.80	9.74
Total: All Ministries	100	10.09	30.91	55.08	3.92

Source: Detailed Demand for Grants of respective ministries 2008-09

As our focus now is on the state specific spending under the category “Grants, Subsidies and Contribution and Programme Specific Spending other than CSS”, the category of direct spending, we first examine the major broad heads of expenditure in this category. As evident from *Table 10*, the Ministry of Agriculture spends directly on crop insurance (15 percent), gives grants to NAFED (13.3) for agricultural marketing operation, Agricultural Research Institutes and PUSA (53.5 percent) and other expenditures (18 percent).

Among all the ministries, the Ministry of Chemicals and Fertilisers spends 36.52 percent of the total programme specific spending by seven ministries. The Ministry of Food and Consumer Affairs constitutes the second major chunk of the expenditure; with 31.33 percent of the aggregate spending by the selected seven ministries/departments. Within Food and Consumer Affairs, subsidy to FCI food grains constitutes 86 percent of total; followed by subsidy to states on decentralised procurement of food grains at 12.6 percent. The third largest ministry is that of Shipping and Surface Transport at 11.59 percent of the total spending of these seven ministries. Within the Ministry of Shipping and Surface Transport, the Central Road Fund constitutes 90.71 percent (*Table 10*). The Human Resource Development Ministry’s spending in total programme specific spending is 10.31 percent. Within MoHRD, *Kendriya Vidyalayas* and *Navodaya Vidyalayas* constitute 21.54 percent of total MoHRD programme specific spending allocation; while distribution of spending on central universities is at 18.33 percent, UGC at 16.61 percent, IITs at 13.85 percent. IISC, AICTE and IIMs each constituting around 1 percent only of the total. The Health Ministry spends around 2.75 percent of the total programme specific spending by three ministries. Within the Health Ministry, grants under NRHM are the highest (26.2 percent), ICMR (18.5 percent) and NACO (13.4 percent).

Table 10 : Various Programme Specific Spending by Ministries

Ministry/Department	(In.Rs. Crore)	Distribution within the Ministry	Distribution in total
2006-07			
<i>I. Agriculture</i>			
Crop Insurance	634.4	15.0	0.82
NAFED	560.0	13.3	0.73
Agriculture Research Institutes at states and PUSA	2259.2	53.5	2.93
Others	768.0	18.2	1.00
Total	4221.6	100.0	5.47
<i>II. Human Resource Development</i>			
Central Universities	1458.1	18.3	1.89
UGC	1321.3	16.6	1.71
<i>Kendriya Vidyalayas & Navodaya Vidyalayas</i>	1713.0	21.5	2.22
Ilsc Bangalore	155.0	2.0	0.20
IITs	1101.5	13.9	1.43
AICTE	91.4	1.2	0.12
IIMs	69.5	0.9	0.09
Others	2043.3	25.7	2.65
Total	7953.0	100.0	10.31
<i>III. Rural Development</i>			
FCI for Food Grains	1368.4	87.9	1.77
Others	189.2	12.1	0.25
Total	1557.6	100.0	2.02
<i>IV. Shipping and Surface Transport</i>			
Central Road Fund	8113.5	90.7	10.52
Calcutta Port Trust Subsidy	341.8	3.8	0.44
Inland Waterways Authority	114.3	1.3	0.15
Border Roads Bhutan Comp Allowance	93.7	1.1	0.12
Cochin Shipyard	70.0	0.8	0.09
Hindustan Shipyard	40.5	0.5	0.05
Hoogly Port Trust Subsidy	32.9	0.4	0.04
Others	137.5	1.5	0.18
Total	8944.2	100.0	11.59

Table 10: Various Programme Specific Spending by Ministries (contd.)			
	(In.Rs. Crore)	Distribution within the Ministry	Distribution in total
V. Food and Consumer Affairs			
Subsidy FCI food grains STATES on Decentralised procurement food grains	20786.2	86.0	26.95
Others	3041.4	12.6	3.94
	340.6	1.4	0.44
Total	24168.2	100.0	31.33
VI. Ministry of Health and Family welfare			
Grants-in-Aid Under NRHM All India Institute of Medical Sciences	556.2	26.2	0.72
		21.5	
Indian Council of Medical Research	457.3	18.5	0.59
States Aids Control Societies under NACO	394.0	13.4	0.51
PG Inst of Medical Research Chandigarh	283.9	10.9	0.37
	231.0		0.30
Total	2124.3	100.0	2.75
VII. Ministry of Chemicals and Fertilisers			
Subsidies Nitrogenous	11910.4	42.3	15.44
Subsidies Indegenous	6648.2	23.6	
Controlled fertilisers			8.62
Imported fertilisers	5071.1	18.0	6.57
Subsidies Imported Controlled fert	3649.9	13.0	4.73
Fertiliser Freight Subsidy	740.0	2.6	0.96
Other Grants	151.0	0.5	0.20
Total	28170.5	100.0	36.52
Grand Total (I+II+III+IV+V+VI+VII)	77139.4		100.00

Source: Detailed Demand for Grants for Various Ministries 2008-09

Having identified these spending categories, we have collected information on programme specific spending on states from the Ministry of Agriculture, Human Resource Development, Food and Consumer Affairs and Shipping and Surface Transport. We also have collected information from *Fertiliser Association of India* to collect state wise distribution of fertiliser subsidy. Also we have collected information from *Agricultural Insurance Corporation* on state wise disbursement of claims of agricultural insurance, from NAFED on agricultural marketing operation, and from UGC on grants to the states for universities and colleges. Having obtained the specific information we have arrived at the distribution of direct spending in the specific programmes by respective ministries in each state.

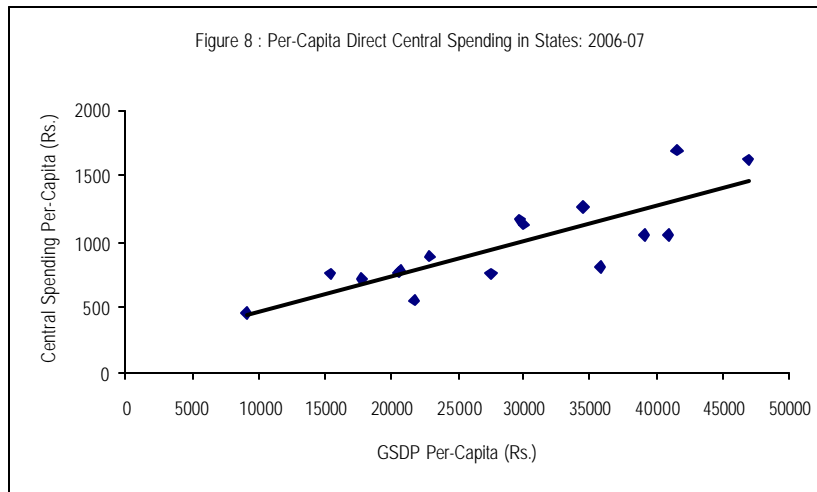
The pattern of these spending is given in *Table 11*. As evident from the *Table 11*, the bulk of the expenditure is on petroleum subsidy, followed by fertiliser and food. The other spending are much less in per capita term in three categories, viz., Agricultural

Marketing and Insurance, Central Road Fund and School and Higher Education. The per-capita distribution of this expenditure reveals highly regressive pattern (see, Figure 8). We have also specifically looked into the pattern of three major subsidies, viz., food, petroleum and fertilisers across states for the year 2006-07 and 2007-08. It is observed that there has been a significant increase in these three major subsidies in absolute volume as well as in per-capita terms and the pattern of their distribution across states continues to be regressive.

Table 11: State-wise Per-capita Direct Central Spending by Ministries (in Rs.)

	Petroleum Subsidy	Food	Fertiliser	Agricultural Marketing and Insurance	Central Road Fund	School and Higher Education	Total
General Category States	450.25	170.11	243.47	11.52	12.83	25.65	913.84
Andhra Pradesh	489.01	276.17	361.93	25.13	5.80	24.34	1182.37
Bihar	226.82	68.22	149.45	8.32	2.50	10.18	465.49
Chattisgarh	335.58	291.00	245.87	0.38	9.97	14.81	897.62
Goa	1646.55	52.20	60.69	0.00	0.00	50.28	1809.72
Gujarat	632.93	79.08	294.58	16.32	17.41	13.09	1053.42
Haryana	867.49	59.02	610.53	52.70	24.00	26.14	1639.88
Jharkhand	320.80	145.23	55.11	17.97	3.47	14.56	557.13
Karnataka	550.83	248.73	297.86	2.35	19.21	16.94	1135.91
Kerala	520.09	199.83	69.85	0.55	9.16	27.18	826.67
Madhya Pradesh	334.12	141.45	211.54	4.66	12.11	36.41	740.28
Maharashtra	623.71	141.82	243.92	2.13	20.33	21.93	1053.84
Orissa	339.81	288.18	129.31	0.61	12.90	22.82	793.63
Punjab	842.46	18.38	791.04	0.54	23.09	39.45	1714.97
Rajasthan	429.15	61.71	177.21	73.46	21.31	21.81	784.66
Tamil nadu	624.63	396.61	194.25	7.60	19.67	31.64	1274.40
Uttar Pradesh	317.99	149.26	245.96	1.34	10.42	37.46	762.44
West Bengal	350.84	185.78	183.13	3.82	7.80	28.67	760.04
Special Category	435.57	294.70	75.63	0.13	15.66	74.99	896.68
Arunachal Pradesh	506.37	298.45	3.15	0.00	87.69	136.58	1032.25
Assam	332.41	304.67	55.71	0.05	6.44	53.27	752.55
Himachal Pradesh	553.30	319.99	83.48	0.00	18.04	57.29	1032.09
Jammu & Kashmir	556.60	329.34	89.75	0.00	26.46	45.92	1048.07
Manipur	310.34	177.62	75.42	0.00	12.53	149.22	725.13
Meghalaya	577.65	270.74	20.23	0.00	22.15	283.34	1174.10
Mizoram	478.72	392.61	10.59	0.00	39.65	448.13	1369.70
Nagaland	228.75	330.85	0.22	0.00	11.04	107.60	678.47
Sikkim	702.40	439.08	0.00	0.00	24.23	31.40	1197.11
Tripura	320.43	382.32	51.39	0.32	8.51	41.38	804.36
Uttaranchal	585.31	177.99	180.07	0.72	19.84	72.65	1036.58

Source (Basic Data): 1. Fertiliser Statistics 2008, Fertiliser of Association of India, New Delhi, 2. Ministry of Petroleum and Natural Gas, Government of India, 3. Annual Report 2008, University Grants Commission, New Delhi, 4. NAFED and Agricultural Insurance Corporation, Government of India



V. Econometric Investigation

As mentioned earlier, in our approach, we further subdivide the total transfer into 'formula-based' and 'non formula-based' transfers. The first category includes tax devolution, statutory grants from the Finance Commission and state plan grants as per the *Gadgil formula*. The second category is the residual which includes other state plan grants, Central plan scheme grants, centrally sponsored scheme (CSS) and special plan scheme grants. All these are routed *via* the state budget, and therefore reflected in the finance accounts of the respective state governments. The resources going to the implementing agencies directly at the state and the district level are also added to the non-formula grants.

Apart from central transfers through state budgets and direct spending at the district level going outside it, we look at other expenditure incurred by the centre but which can be in the domain of the states. We call this group of transfers as 'quasi-fiscal transfers' (QFT). The main constituents of QFT are subsidies for food, fertiliser and fuel, procurement by NAFED from states, crop insurance, central road fund and spending by UGC in each state. The major distinguishing feature of QFT is that it is non formula-based, and the expenditure incidence in a state is dependent on many factors which may not be purely based on the principles of equity as in the case of formula based transfers.

For the purpose of our econometric exercise, we obtained data on all the categories for two years – 2005-06 and 2006-07. The statewise distribution of the various transfers is discussed in *Section III* and *Section IV*. Using this dataset, we undertake a preliminary econometric exercise to examine whether the variation in transfers across states can be explained by differences in per capita GSDP proxied for fiscal capacity of individual states. Since these are all different modes of transfers following the horizontal equity principle, we set up the null hypothesis of no relation between the transfers (dependent) and per capita GSDP. We normalise by taking log of the variables and pool the data for two years for which it is available. The regressions are run without any state or year dummies in order to see the unconstrained estimates of the explanatory

variables. In *Table 12*, we present the results for the pooled estimates using log of per capita GSDP as the explanatory variable. We run the regressions using constant but do not report the results here.

Table 12: Regressions using Per Capita GSDP

	Explanatory Variable: log Per Capita GSDP		
	Coefficient	p-value	Adj. R-squared
	Tax Devolution	-0.588	0.000
Tax Devolution + Formula Grants	-0.514	0.000	0.37
Non-formula Grants	0.111	0.521	0.01
Quasi Fiscal Transfers	0.652	0.000	0.71
Non-formula Grants + QFT	0.408	0.000	0.30

We divide the transfers into three basic categories: (i) Tax devolution, (ii) Formula based grants (block grants and Finance Commission non-plan grants), (iii) non formula based grants constituting centrally sponsored schemes, non formula plan grants and direct transfer to districts that go outside the state budget, and (iv) quasi-fiscal transfers that are expenditure carried out by the central government directly in the states, including subsidies on food, fuel and fertiliser, agricultural crop insurance, central road fund, UGC grants.

The regression results indicate a very different picture for formula based and non formula based transfers. Tax devolution singly and in conjunction with other formula grants are equalising, with per capita GSDP explaining nearly 40 percent of the variations across states in both cases.

On the other hand, the rest of the transfers that are provided to states on the basis of demand with considerable discretion on the part of the centre are not equalising in nature. Quasi fiscal transfers and total non formula grants (including QFT) are both positive and significant *vis-à-vis* per capita GSDP.

Table 13: Regressions using Time Dummy

	Ln per capita GSDP		Time Dummy		Adj. R-squared
	Coefficient	p-value	Coefficient	p-value	
Tax Devolution	-0.626	0.000	0.278	0.000	0.54
Tax Devolution + Formula Grants	-0.552	0.000	0.279	0.003	0.52
Non-formula Grants	0.056	0.713	0.402	0.005	0.20
Quasi Fiscal Transfers	0.646	0.000	0.051	0.438	0.70
Non-formula Grants + QFT	0.377	0.001	0.226	0.011	0.43

To check whether the transfers have changed significantly in the two years, we use a time dummy for 2006-07 and regress the transfers on both per capita GSDP and the dummy variable. Interestingly, we find that the latter is significant in all regression except for QFT. This also indicates a structural impact of the introduction of VAT and the

launching of various flagship programme and a quantum jump in the transfers going *via* the non-formula route, which had an impact on both the formula and non formula based transfers. The fit of the regressions improve significantly in all the cases, especially for non formula and total transfers. Moreover, the coefficient of total transfer is now weakly significant at 10 percent level, with more than one-third of the variations explained by per capita GSDP and the differences in the two years in the data.

VI. Policy Conclusions

On the basis of the above analysis, it can be concluded that the transfer system has undergone significant changes over the years, with an overwhelming influence of the transfers going outside the statutory channels. The effect of these changes through multiple channels of transfers is mixed in achieving horizontal equity and it appears that one is in conflict with the other. Our econometric result on this seems robust as this has been corroborated by the exploratory data analysis. On top of that when we add the direct central spending in the states through its own programme in seven selected ministries, the net effect becomes highly regressive. To conclude, it should be emphasised that any design of transfers in the context of in Indian federation would remain cosmetic, unless drastic redistribution takes place in the horizontal allocation of resources.

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