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Horizontal devolution: The tyranny of income distance

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Abstract

A sound system of inter- governmental fiscal transfers constitutes the cornerstone of a strong and stable federal polity. Vertical transfers address the inadequacy of subnational governments to meet their expenditure responsibilities and horizontal transfers seek to alleviate horizontal imbalances, the disparities in the revenue capacities of the constituent units of the federation in order that all of them may be in a position to provide basic public services to their citizens at a reasonable level. In recent decades the devolution formula has largely tilted to the fiscal capacity side. Even when the XIV Finance Commission reduced the weight of fiscal capacity it continues to be 50 per cent. Unlike the indicators used to measure the fiscal needs (population) and cost disabilities (area) in the horizontal devolution formula, the indicator of fiscal capacity, namely income is an estimate based on millions of data points. As an estimate it is built on many conventions and hence suffers from many infirmities raising serious concerns regarding the fair distribution of resources to the States.

Firstly, GSDP is subject to periodic base change which on its own can change the relative positions of states in terms of per capita GSDP. Secondly, the method of computation of the distance could be a major problem. The shares of some states could be very sensitive to whether its distance is computed from the top state or an average of two top states or three top states. Thirdly, whether the absolute distance is taken or a transformation of the income or the distance is taken would affect the shares of States. Lastly, there is the issue of how good a proxy income is for fiscal capacity in a consumption tax regime. We wish to discuss these issues to throw light on the havoc the formula has played in the award of the last Commission. At the current juncture, when population numbers twenty years old have to be used, migration has become very large and per capita incomes are clustering around two or three points far removed from each other, these infirmities are threatening the stability of the federal polity.

1. Introduction

A good starting point for the discussion of the fundamental principle of inter-governmental transfers in clear terms is the opening paragraph of the XI Finance Commission Report:

"A sound system of inter- governmental fiscal transfers constitutes the cornerstone of a strong and stable federal polity. Transfers serve a two-fold purpose: one, to address the vertical imbalance - the inadequacy of revenues of subnational governments to meet their expenditure liabilities, arising from the assignment of asymmetrical functional responsibilities and financial powers among different levels of government, and two, to alleviate horizontal imbalances, the disparities in the revenue capacities of the constituent units of the federation- States and local bodies in our case - in order that all of them may be in a position to provide basic public services to their citizens at a reasonable level" (Report of the XI Finance Commission, p.6). (Emphasis added)

The Indian Finance Commissions have largely abided by the principle of alleviating horizontal imbalances so that State governments receive funds from the divisible pool such that if each made the same effort to raise revenues from its own sources and operated at the same level of efficiency each would have the same capacity to provide services at the same standard. The revenue bases of States taken for comparison should, however, reflect the range of activities, transactions and assets the states actually tax, as such bases capture the revenue raising advantages and disadvantages (disabilities) that States face.

In recent years the devolution formulae used by the XI, XII, XIII, and XIV Finance Commissions have combined the fiscal capacity and expenditure side variables in various ways. The Eleventh Finance Commission went largely by the fiscal capacity side variables (Income Distance, Tax Effort, and Fiscal Discipline

together having a weight of 75 per cent). The next two Commissions brought it down to 65 per cent, still tilting the balance largely to the fiscal capacity side. The only expenditure side variable is area that carried 10 per cent weight. Population is anyway an essential standardizing variable thereby suggesting that the Finance Commissions have largely gone by the fiscal capacity variables. The XIV Commission reduced the weight of the fiscal variable to 50 per cent bringing a balance between fiscal capacity and fiscal need variables.

There were also some important changes in the indicators chosen. Population of the States in 2011 was taken to represent changes in population structure, and forest cover to compensate the states for their spending on preserving forests, a global public good. Till the XIV Commission the 1971 population was used as mandated by the constitutional amendment and the terms of reference. The XIV Commission used 2011 population to capture the effect of migration as movement of people for work had emerged as an important factor in recent decades and the provision of public services needs necessarily count them. Environmental and sustainability concerns of the last few decades has led the Commissions to take cognisance of forest, water and energy in their grant making since the XII Commission. The XIV Commission included it as an indicator in the devolution formula.

The XV Commission more or less continued with the balance set by its predecessor. Instead of only income distance (50% weight) to represent the fiscal capacity by the XIV Commission the XV Commission has taken two variables, namely income distance (45% weight) and tax effort (2.5% weight). On the fiscal need side, population - 2011 gets a weight of 15%, area (15% weight), and forest cover (10% weight), but a new variable has been introduced to capture demographic performance as mandated by the Terms of Reference. The inverse of the Total Fertility Rate scaled to the 1971 population carried a weight of 12.5%.

Two important developments that have come with the XV Finance Commission are the following. The Commission has ingrained the demographic performance in the devolution formula rather than consigning it to the grant making category. It is important because demographic performance is a key variable that impinges variously on population numbers, income distance and so on.

More importantly, the Commission has continued with the tradition of rewarding states for their contribution to 'global public good' like conservation of forests. The tradition of recognising the importance of forest and environmental considerations begun in a small way by the XII and XIII Finance Commissions in the form of grant making was converted into a criterion in the horizontal formula by the XIV FC. Expenditure on preserving forests, water bodies and environmentally fragile coastal zones has its opportunity cost and the States need to be compensated as very often that burden is far beyond the fiscal capacity of the State concerned. They do it for the common good – for instance, preserving the biodiversity hot spots of the Western Ghats is for the posterity. These burdens fall unequally on the States as their distribution among the States is unequal.

While the horizontal devolution formula used by the XV Finance Commission is well thought out and strives to continue with the tradition, there are some problems with the measures used to which we turn to in this paper.

Forest Cover

One of the major developments of the last three decades is the concern for sustainable development, the concern for the conservation of forests, water bodies, oceans and biodiversity hotspots. Governments the world over are committed to sustainable development goals as reflected by the adoption of Sustainable Development Goals Agenda 2030 in 2016. The Indian Finance Commissions in recent years have been sensitive

to the concerns of sustainable development. The Twelfth Finance Commission made a beginning by awarding a grant of Rs 1000 crore to States, distributed among them in accordance with the share of forest acreage in the total forest acreage of the country.

The Thirteenth Finance Commission took this argument forward by providing a higher grant amount and upholding the positive externality argument. They said that forests provide a variety of services and these services accrue beyond the boundaries of the state in which the forest lies. The Thirteenth Finance Commission brought in clarity to the principle under which the Union Government should be compensating the States: "The combination of benefit externalities and internalised costs clearly calls for federal compensation. Accordingly, a grant calibrated to share of the national forested area falling in a state, as well as economic disability on the basis of the percentage of forested area in each state, is the first of the three environmental grants provide for" (p. 210). The other two environmental grants of similar amounts were the forward looking incentive for generation of grid electricity from renewable sources and the grant provided for the purpose of incentivising states to establish an independent regulatory mechanism for the water sector and improved maintenance of irrigation networks. These are in part thrust on the Finance Commission by the Terms of Reference.

The Thirteenth Finance Commission brought in another principle in turning the criterion into a measure: At the first level the measure taken was the share of total forest area in the country falling in any particular State. At the second level this share was enhanced by taking the positive difference of the share of forest area in the total area of the State from the national average and at the third level a further enhancement was done by incorporating the share of moderately and dense forest area with progressive weights in the geographical area of the State (Report of the XIII Finance Commission, para 12.45). This is a significant contribution as the Finance Commissions for long have been

using crude measures without much refinement. However, the effort of the Thirteenth Finance Commission at refining the measure was confined to grant making and did not extend to the horizontal devolution formula for tax assignment. This lacuna has not been overcome by the Commissions till now.

The Fourteenth Finance Commission brought about a paradigm shift in federal compensation of states for conserving environment by including the environmental indicator in the horizontal devolution formula for tax assignment. The expenditure responsibility cast on the States by our international obligations is clearly stated:

"In our view, forests, a global public good, should not be seen as a handicap but as a national resource to be preserved and expanded to full potential, including afforestation in degraded forests or forests with low density cover. Maintaining a green cover, and adding to it, would also enable the nation to meet its international obligations on environment related measures. We recognise that the States have to be enabled to contribute to this national endeavour and, therefore, we are designing our approach to transfers accordingly" (Report of the XIV Finance Commission, p. 18).

The Fourteenth Finance Commission approached the issue by including forest cover in the horizontal devolution formula with a weight of 7.5% so as to reach resources proportionate to the forest area of states. The XV Finance Commission has recognised the importance of retaining the forest criterion in the horizontal devolution formula. The Commission emphasizes the criterion "as a reward for providing ecological services and to overcome the disabilities arising from areas dedicated to dense forests (areas covered by very dense and dense forests" (Report of the XV Finance Commission, p.27). The Commission uses the share of dense forest cover of the State in the total as the criterion and assigns it a higher weight of 10% as compared to

7.5% assigned by the XIV Commission. The increased weight, the Commission says, is "a recognition of the forest, a global public good, as a reason that ought to be preserved and expanded through afforestation of degraded and open forests for national benefits as well as to meet our international commitments" (Report of the XV Finance Commission, p. 27).

We are of the opinion that this is the right way to go as India is one of the votaries of Agenda 2030. The 2030 Agenda for Sustainable Development is a plan of action that seeks to build on the Millennium Development Goals and balance the three dimensions of sustainable development: the economic, social and environmental. It is a pledge, among others, to ensure the lasting protection of the planet and its resources. Inclusion of forest as a criterion in the horizontal formula is in alignment with Goal 15 of Agenda 2030 that says, " Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss"

(sustainabledevelopment.un.org/post2015/transformingourworld accessed 23 April 2024). Going by the same argument there is a need to include wetlands (Goal 15.1) as well in the formula.

The inclusion of forest area in the horizontal devolution formula is a positive step but there is need to include other dimensions of environmental conservation, such as coastal zones as well as wetlands, so that environmental sustainability takes centre stage in the developmental schema of Indian States in the years to come. Sustainability Goal 14 is to prevent and significantly reduce marine pollution of all kinds (Goal 14.1) and sustainably manage and perfect marine and coastal ecosystems to avoid significant adverse impacts (Goal 14.2). State governments with large populations in the coastal zones have to be supported to achieve these goals. Like forest area they too need to be included in the horizontal devolution formula.

Environmental concerns also must enter in other ways, such as for example balanced agriculture. In the Indian context the over emphasis on water, fertiliser, HYV for highly subsidised cereal cultivation while achieving self-sufficiency has caused serious environmental damage to crop area. There is need to change our strategy if we have to achieve Goal 2.3 that says, "ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality". In this context it may be best to quote a recent document on pulses:

"Lower usage of fertiliser, pesticide and irrigation further makes pulses an environmentally sustainable crop group. … Assessing the value of environmental services provided by pulses and devising mechanisms to reward farmers or pulse-growing areas for these ecosystem services could be one policy option. Paying individual farmers may be logically difficult, but it could be feasible to pay pulse growing areas by offering them additional resources for investment in agriculture, irrigation, or extension in the same way that the fourteenth finance commission of India has offered states incentives to maintain and increase area under forests." (Roy, Joshi and Chanda, 2017, p.88).

As the awards of the XVI Finance Commission pertain to the year from 2026-27 to 2030-31, there would not come another opportunity to make awards for taking these issues forward to achieve the SDGs by 2030.

It is not enough to include the forest area or coastal area as such and compute the share of the State. It would be a crude measure because the effort required would be different in the different States. For instance, the effort required to preserve the forest in a State where density of population per square kilometre is less

than 20 would be very different from that required to preserve the forest in a State where the density is over 1000. The crude measure may be unfair to the States with extremely high density of population. The Indian situation is one of extremes. At one end there are states where the density is only 16 and at the other end there are States where the density is over 1000. There are six States where the density is less than 150 and in 11 states the density is between 150 and 385, the national average. Two states report density above 1000. In this context the enhancement method used by the Thirteenth Finance Commission may be of a great help. That would truly reward the effort of the states.

The Thirteenth Finance Commission took the share of forest area of the State in the total and enhanced it by adding the positive difference between the share of forest area in the geographical area of the state from the national average. The variable is further enhanced by multiplying it by a weighted measure of the dense and moderately dense forest in the geographical area of the State. While the share of forest area in the geographical area in some sense indicates the importance of the forests in the State, it may not be a good measure of cost disabilities as it is not related to the population density. A better measure of enhancement could be the following. Inter se share of forest and ecology may be enhanced by using the population density. Relative population density, that is population density of the State divided by the national average (if greater than unity) may be taken to enhance the forest share of the State concerned. Without such a refinement you will be rewarding a state with very low population density on par with one with very high population density. As the costs involved in these two situations will be very different it would be an unequal treatment of states.

Suppose, there are only two states, A and B, with equal geographical area and equal population. State A has no forests and State B has 90 per cent of its geographical area under forests. Going by the weights assigned by the XV Finance Commission

for horizontal distribution -15% for geographical area and 10% for forest cover – state A will get 7.5 + 0 and state B will get 7.5 + 10 from the divisible pool. Now let us look at the cost disabilities by taking the distribution of population across the geographical area in the two states. As in state A population is distributed over the entire geographical area, it suffers large cost disabilities – reaching public services to every nook and corner is costly. In state B, population is confined to just 10 per cent of the total geographical area as 90 per cent of the area is under forests where no people live. Ideally, the cost disability amount should be distributed in the ratio of 100:10 between state A and state B. That is, 13.6 out of the 15 should go to state A and 1.4 should go to state B. Then the two together would be distributed as 13.6 to state A and 11.4 to state B and not 7.5: 17.5.

Thus, in addition to fiscal capacity and fiscal need, compensation for States to produce global public goods and funds for achieving the SDGs by 2030 needs to be considered in the devolution formula. We submit that the three sets of criteria- fiscal capacity, fiscal need, and environmental concerns - be given equal weights in the devolution formula as sustainable development cannot be reduced just to conserving forests. It must consider forests, wetlands, coastal zones, biodiversity, and environmental damage to crop area owing to unbalanced use of fertiliser and water and so on. Then a weight of 10% may be too small a part of the total and cannot do justice to our commitment to Agenda 2030. Raising its weight in the formula would mean lowering the share of fiscal capacity variables.

Cost Disabilities - Area

Population and area have been adopted by the different Commissions with varying weights as measures of fiscal need and cost disabilities. Some Commissions have added poverty ratio, index of backwardness and index of infrastructure as well to better reflect the fiscal need.

Area as a criterion was first introduced by the X Commission to accommodate differential administrative costs to provide the same level of services and the XII Commission continued with the logic but increasing the weight to 10% which continued with the XIII Commission. The XIV Commission raised the weight further to 15%. The XV Commission has continued with this practice. Geographical area share has been used as a criterion for cost disabilities. A floor has been fixed at 2 per cent where a State reporting area share below 2 per cent is set at 2 per cent and the inter se share of other States reworked accordingly. The logic seems to be that the State would incur higher cost in the provision of services if the population is spread over a larger geographical area and even for the smallest state the cost does not fall below a floor.

We submit that there are a few problems in using geographical area as an indicator of cost disability. The population of a state is not distributed over the entire geographical area as for many states the bulk of the area is under forests. The share of forest area in total area of the state varies from 3.59% in Haryana, 4.84% in Rajasthan, 6.09% in Uttar Pradesh, and 7.75% in Bihar at the bottom to 45.43% in Uttara Khand, 52% in Kerala and over 70% in Tripura, Nagaland, Mizoram, Meghalaya and Arunachal Pradesh. Taking the States with the non-forest area share of less than one per cent each of the total in the country, it may be seen that eight States- Arunachal Pradesh, Goa, Manipur, Mizoram, Meghalaya, Nagaland, Sikkim and Tripura- account for only 1.62 per cent of the total non-forest area in the country (adding Kerala takes it to 2.40 per cent). Their share in the population of the country is only 1.35 per cent (adding Kerala takes it to 4.19 per cent). But according to the devolution formula of the XV Commission, they get 16 per cent (adding Kerala makes it 18%) of the amount awarded under the head of area (15 per cent of the divisible pool). This is very unequal.

Taking total area of the State inclusive of forest area (as is done by the XV Commission) makes the measure inappropriate. Here too, eight states accounting for 6.136% of the total geographical area get 16% of the award (7.408% and 18 per cent respectively if Kerala is added). That is when 23.36 per cent of the award (26.218% if Kerala is added) for forests (10% of the divisible pool) is already received by these states for the preservation of forests. Thus, there is a problem if you include forest area and another problem if you exclude it as shown above.

Thus, taking geographical area as a measure of cost disability as is done by the past few commissions is not appropriate and best be modified. Two modifications to the area share may be considered in this context. Firstly, part of the problem arises because of the arbitrary floor of 2 per cent set for 12 states which considerably reduces the area share of the other larger states weakening the argument of largeness as a cost disability. We submit that instead of 2 per cent as a floor it may be taken as one per cent. Secondly, urbanisation may also be brought into reckoning here. The area share may be enhanced by the positive deviation of urbanisation from the all - state average, the method of enhancement to be adopted may be on the lines of the enhancement of forest area done by the XIII Finance Commission.

The reasoning for enhancement of area share is the same as that of the X Finance Commission's enhancement of population share by income distance, "The population criterion allocates the same per capita share or transfer to a state, independent of its ranking in the income scale. By itself it is not a progressive criterion. When progressivity is imparted to the allocation criterion, as in the case of the distance or the inverse income, the lower income states are allotted a higher share in per capita terms, …" (p. 23). We submit that in the absence of enhancement by urbanisation the area criterion allocates the same per capita share to a state independent of its ranking in the urbanisation scale.

Population

Population carried the largest weight (over 75%) in the horizontal devolution index up to the VI Commission. The VII Commission brought it down to 25% and used the 1971 population. The use of 1971 population continued till the XIV Finance Commission (17.5% weight) which used the 2011 population (10% weight) in addition to consider the terms of reference on change in the population structure. The XV Commission gave up 1971 population altogether, raised the share of 2011 population to 15% and introduced an indicator for demographic performance (12.5% weight).

We would like to highlight the need to consider the following while using the 2011 population numbers by the XVI Commission. It may be remembered that 2011 population is being used to make an award for the period almost twenty years from that year. These twenty years have witnessed drastic changes in fertility, massive inter-state movement of population and increase in the share of elderly in the population of many states. These are major changes which impinge on the costs of providing public services such as health and social security. Migratory movement has become large and there is a distinct regional pattern to it with labourers being sent from the North and East to the South and West. The long-term migration will be captured by the Census whenever it is carried out but the large temporary migration which affects the urban areas more than the rural will not be captured by the Census and needs to be considered in some way.

Demographic Performance

The XV Finance Commission used the Total Fertility Rate scaled to 1971 population as a measure of demographic performance which lacks a clear reasoning. As regards the demographic performance computed by the XV Commission there is a basic anomaly that is the use of current TFR to capture the

performance during the last five decades. As TFR has a lower bound, currently there is hardly any difference in TFRs of many States. The only States which still report TFRs above replacement rate are Bihar, Uttar Pradesh, Rajasthan, Chhattisgarh, Jharkhand and Madhya Pradesh. A true reflection of the trajectory of falling TFR is the changing age composition of population – the States reporting early reduction in TFR will have a higher proportion of elderly and it will be relatively lower in States where fertility reduction occurred later. Hence, a much better indicator to capture demographic performance would be distance of the proportion of 60+ in the population of a State from the lowest among the States. The larger distance stands for better performance and smaller distance stands for poor performance. Enhancing population share by the deviation of the share of elderly population from the lowest share would be a better measure of demographic performance.

Income Distance

Unlike the indicators used to measure the fiscal needs (population) and cost disabilities (area) in the horizontal devolution formula, the indicator of fiscal capacity, namely income is an estimate based on millions of data points. As an estimate it is built on many conventions and hence suffers from a large number of infirmities. It carries the largest weight in the devolution index and hence can affect the shares of the states adversely depending on the methods adopted for estimating the income and the distance. We wish to point to some of these infirmities and the harm caused to some of the states, including Karnataka, so that the XVI Finance Commission becomes sensitive to the limitations of the measure and the methods.

We wish to organise the discussion of infirmities of income distance under the following heads. Firstly, GSDP is subject to periodic base change which on its own can change the relative positions of states in terms of per capita GSDP. Such changes in

turn can affect the shares of states under this head. And as the weight of income distance is 45 per cent in the horizontal devolution index its value can also change drastically. Secondly, the method of computation of the distance could be a major problem. The shares of some states could be very sensitive to whether its distance is computed from the top state or an average of two top states or three top states. More importantly, the underlying assumptions while taking the absolute value of the distance is that changes in fiscal capacity are proportional to the changes in income. This lacks a proper theoretical foundation. Lastly, there is the issue of how good a proxy income is for fiscal capacity in a consumption tax regime. Theoretically, consumption as a share of income falls as income rises. Hence, by taking income as a proxy for fiscal capacity one is overestimating fiscal capacity of higher income states. Using consumption expenditure to scale income down would moderate this effect and make it more pragmatic.

Base Change: The GSDP estimates used by the XV Finance are the new series with 2011-12 base. Central to the GSDP estimation with 2011-12 base is the replacement of the Annual Survey of Industries database with the MCA21 database for estimating the private corporate sector's contribution. As per the 2019 MCA annual report, there were over 11.34 lakh 'active' companies – essentially companies that have filed financial returns once in the last three years. However, the data used for GVA estimation is drawn from a small set of only 3 lakh companies.

The estimates of GSDP of the states for the years 2011-12, to 2014-15 made with the change in base differ widely. While for 17 states the change in GSDP was less than 10 per cent, five states reported increases more than 15%. One notable feature of the 2011-12 series is a substantial 33% increase in GSDP of Karnataka compared to the 2004-05 series. Uttara Khand, Kerala, Sikkim, and Telangana are the other four states. This

changed the relative positions of these states in the ranking of the states.

The base change caused grave disparities between states in the allocation of shares in central taxes as can be seen in the calculations furnished in the report of the XV Finance Commission (Annex 6.4 of Vol. II, p. 273). In this table, the shares of states according to the distance of GSDP criterion with a weight of 45% are calculated. Taking the shares of four states as an example, it is seen that Uttar Pradesh has a share of 27.105%; Bihar, 16.361%; Gujarat, 2.201%; and Karnataka, 1.093%. The overall tax devolution for the period F.Y. 2021 to 2026 as estimated by the Commission is Rs.42,24,760 crores (Annex 4.3; p.249 of Vol. II). Since the Commission has assigned 45% weight to the income distance criterion, Rs.19, 01,142 crores are to be distributed among different states according to the shares worked out under this criterion.

The devolutions for the four states chosen above work out to be Rs.5,15,305 crores for Uttar Pradesh; Rs.3,11,046 crores for Bihar; Rs.41,844 crores for Gujarat; and, Rs.20,779 crores for Karnataka for the five years from 2021-26. On per capita basis, these devolutions work out to: Uttar Pradesh - Rs.22, 984 (estimated population for 2018-19, Rs.22.42 crores); Bihar- Rs.26, 204 (population: 11.87 crores); Gujarat - Rs.6, 195 (population: 6.75 crores); and Karnataka – Rs.3, 134 (population: 6.63 crores). The differences in per capita allocations are supposedly based on the disparities in the per capita GSDP of the states concerned. This assumption, however, is not validated by a comparison of the per capita GSDP of states as estimated by the Commission itself. For example, the average per capita GSDP of Karnataka for 2016-17 to 2018-19, as estimated by the Commission, is at Rs.2, 04,419. This is 3.13 times the per capita GSDP of Uttar Pradesh at Rs.65, 351; 5.12 times that of Bihar; and only 1.12 times that of Gujarat. However, the per capita devolution under the distance of income criteria to Uttar Pradesh works out to 7.33

times the allocation for Karnataka, as against the per capita GSDP disparity of 3.13 times. Similar disparities are seen in the case of Bihar at 8.36 against 5.12; and of Gujarat, 1.97 against 1.12 times. These are grave disparities partly caused by the base change.

Computation of the Distance: Income distance carrying a large weight in the devolution index, in a sense, determines the overall share of the states as the shares of states on the basis of population and area are more stable. The distance could be from one state at the top or an average of two or three at the top which then make for these differences. For example, Karnataka's share was 4.93% in the XI FC, 4.459% in the XII FC. Both these Commissions had adopted the same methodology of computing the distance of the state from the average per capita GSDP of the top three states. The XIV Finance Commission followed the same method that generated Karnataka's share as 4.713%. The XV Finance Commission used the per capita GSDP of only one state namely Haryana, to determine the distance of income of other states. This change brought Karnataka's share in the income distance criterion to mere 1.093% from above 4 per cent as determined by the previous Commissions.

Not only Karnataka but also ten other states the per capita GSDP of whom is clustered close to that of Haryana received significantly lower shares on the income distance criterion. The result is that the shares of these top eleven states together fell to just ten per cent of the total whereas they account for 42 per cent of the population. Instead of taking the distance from Haryana if an average of the incomes of the top three states, or average of Goa, Haryana and Kerala had been taken then the shares of the eleven top states would be more than 20 per cent of the total.

It is not surprising that the share of the top eleven states together falls to about 10% of the total under the head of income distance. They have tended to cluster close to each other in terms of per

capita income. And it is best to remember the words of the XI Finance Commission in this context: "in the pure version of the (income distance) formula the highest income state would not get any share because its distance measure from its own income would be zero." This points to the fact that the states clustered together in the high-income bracket with narrow differences from the per capita income of the highest income taken as reference will tend to have a very small share in the allocation of taxes. We submit that almost fifty per cent of the states being denied a fair share of the taxes because of the tyranny of income distance is a serious matter the XVI Finance Commission must ponder over.

Absolute Distance or a Transformation: The absolute income distance does not take into account the relative position of the States on the income scale. This implicitly makes an assumption that irrespective of the level of income a marginal increase in income leads to a proportional increase in fiscal capacity. This is not a realistic assumption as consumption tends to increase less than proportionately with income. Any radical transformation of the income, or the income distance does not solve this problem as transformation of the income makes it worse as distances would become smaller at the top end of the income scale. Radical transformation of the income distance would be penalising the lower income States as the higher distances would be considerably moderated by the transformation. For a solution then will have to look in the direction of consumption.

Income as a Proxy for Fiscal Capacity? Income, or income distance as an indicator in the horizontal devolution index appears as a proxy for fiscal capacity. It is a compromise as no better measure of fiscal capacity was available. Hence, the basic issue is that of the suitability of income as a measure of tax capacity. In a consumption tax regime such as GST if a suitable consumption measure were available, then there would be no need to go for a proxy. Although per capita consumption

expenditure data are readily available, the purists will argue that it misses out government consumption and investment expenditure too would attract Goods and Services Tax when input tax credit is not available. Hence, using private consumption expenditure as a measure of fiscal capacity may be problematic. But can it be used to refine the income as a better measure of fiscal capacity?

The year 2017 transformed the indirect tax regime in India irrevocably. The States sacrificed considerable autonomy in taxation and GST became their major source of revenue. GST in turn is a function of consumption and is related to private consumption in the State. Economic theory tells us that as income rises consumption will be rising less than proportionately. Thus to arrive at a proxy of fiscal capacity of the State the per capita income will have to be scaled down by a factor of consumption. A clue to the scaling factor may be obtained by looking at the per capita incomes and per capita consumption expenditure of the States together. It may be seen that the top income bears a multiple of around ten to the income at the bottom in 2021-22 whereas the multiple is only less than three for consumption. One way to compute the scaling factor is to build an index for consumption expenditure as the ratio of the value for the State divided by the lowest value. The adjusted per capita income may then be computed as per capita income divided by the index value of consumption. Such an adjusted income would address the three problems (other than base change) discussed above and may be considered as a reasonable proxy for fiscal capacity.

Conclusion

Overall, the horizontal devolution formula must consider the three dimensions, namely fiscal need, cost disability and fiscal capacity on an equal footing with comparable weights. For fiscal need, including demographic performance, population suitably enhanced by the proportion of elderly in the population may be

considered, taking due note of the absence of population census closer to the date, large migrant population in many States and urbanisation. As regards economic disabilities, geographical area may be taken as a basic indicator suitably enhanced by forest cover and other environment related variables. The most problematic indicator, namely income may suitably be scaled down by a consumption factor to make it an appropriate proxy of tax capacity. The infirmities of the income measure may be kept in mind at all times so that the States are treated fairly.

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