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# The Income Distance Paradox Devolution Conundrum for the Finance Commission

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# Abstract

We highlight two key issues of concern for the 16th Finance Commission. Declining progressivity in devolution is evident in the downward trend in the share of lower-income states in the divisible pool, as well as a paradox of declining fiscal capacity among states with rising per capita income. Neither low-income nor high-income states benefited from the income distance criterion, which had the highest weight in the devolution, assuming a positive relationship between fiscal capacity and per capita income. The study recommends adjustments to the weights of the income distance criterion and population to ensure that performers are not penalised while progressivity is maintained.

**Keywords:** Fiscal Devolution, Finance Commission, Fiscal Capacity and Fiscal Equalisation

## Introduction

The Finance Commissions (FCs) have, in many ways, been the cornerstone of India's fiscal federalism. Appointed once every five years as mandated by the Indian Constitution, they are entrusted with the responsibility of recommending how much of the Union's net tax revenue (divisible pool) is to be devolved to the States (vertical devolution) and how it is to be shared among different States (horizontal devolution). While making recommendations in line with the constitutional mandate, they have also considered the prevailing macroeconomic situation, fiscal trends, and expenditure needs of all levels of government (RBI, 2011; Mohan, 2023). Accordingly, different FCs introduced innovative changes in their approach to vertical and horizontal sharing of resources, duly considering the need, equity and efficiency while adhering to fiscal discipline, fiscal decentralisation, and addressing environmental and climate change-related issues (Gupta, 2009). The FCs, in general, have accomplished their constitutional mandate by being sensitive to inequalities at both vertical and horizontal levels, thereby working towards strengthening India's cooperative federalism and holding the country together.

Ensuring equitable provision of public services across different subnational entities at comparable costs is one of the basic mandates of the FCs. However, balancing equity and efficiency has always been a challenge in horizontal devolution. Better-performing states often perceive a sense of discrimination in the allocation by the FCs, as their higher per capita incomes are contrasted with those of less developed states (Reddy, 2023). In this study, we make a case for revisiting the income distance criteria, a measure of equity that receives the highest weight in the horizontal devolution criteria. We present the empirical evidence to show that per-capita income is not a good proxy for fiscal

capacity, and therefore, some high-income states are unduly disadvantaged.

## Horizontal Devolution and Income Distance

The theory of fiscal equalisation guides the fiscal transfer system in India and many other countries (Rangarajan & Srivastava, 2008, 2011; Srivastava et al., 2024). In the devolution of divisible pool across states, the FCs followed three criteria: need, equity, cost and efficiency.[1]  Considering the changing contexts and macroeconomic landscape, the Commission changed the indicators and weights. For instance, in the first seven FCs, an overwhelming weightage was assigned to the need base, with the weight of the population ranging from 80 to 90 per cent, and the residual weightage ranging from 10 to 20 per cent was assigned to their contribution. From the 8th FC onwards, equity considerations appeared to have gained traction, with a weight of 22.5 per cent assigned to the inverse of the per capita income of States and a 45 per cent weightage to the distance of a state's per capita income from the highest per capita income. The subsequent FCs have assigned the highest weightage to the equity criterion, measured by the income distance, which is the difference between the per capita income of a state and the average per capita income of the top three States (Table 1). Accordingly, states with lower per-capita income received higher entitlements to the divisible pool and vice versa. In the tenth FC, 60 per cent weight was assigned to the income distance criterion, which was increased to 62.5 per cent in the 11th FC. However, the increased weight-to-income distance created a political stir as it penalised better-performing states, creating a moral hazard for states to remain profligate and not improve their fiscal situation

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[1] For a detailed discussion, refer to https://fincomindia.nic.in/historical-perspective

(Reddy, 2023). Although the weight assigned to income distance criteria gradually reduced from 62.5% by 11 FC to 45% by 15 FC (Table 1), it still has the highest weight in the devolution formula.

**Table 1:** Tax distribution formula by Finance Commissions

| Indicator | X FC | XI FC | XII FC | XIII FC | XIV FC | XV FC |
|---|---|---|---|---|---|---|
| Population (1971) | 20 | 10 | 25 | 25 | 17.5 | 15# |
| Demographic change and population (2011) | | | | | 10 | |
| Demographic Performance | | | | | | 12.5 |
| Income Distance | 60 | 62.5 | 50 | 47.5 | 50 | 45 |
| Fiscal Discipline | | 7.5 | 7.5 | 17.5 | | |
| Tax effort | 10 | 5 | 7.5 | | | 2.5 |
| Area | 5 | 7.5 | 10 | 10 | 15 | 15 |
| Index of infrastructure | 5 | 7.5 | | | | |
| Forest cover | | | | | 7.5 | |
| Forest and Ecology | | | | | | 10 |

*# 2011 census*
*Source: Based on reports of X-XV Finance Commissions*

**Progressivity in Finance Commission Transfers**

In the context of declining weights to the income distance criterion, assessing its impact on the progressivity principle is important. It is often argued that reducing the weight of income distance criteria would adversely impact the low-income states and thus affect progressivity. The progressivity of FC transfers can be measured through the relative share of high-income, middle-

income, and low-income states in the inter-se share of the divisible pool.[2]

**Table 2:** Trend in the share of States in the divisible pool

| | 1995-2000 | 2000-05 | 2005-10 | 2010-15 | 2015-20 | 2020-21 | 2021--26 |
|---|---|---|---|---|---|---|---|
| **States** | **10 FC** | **11 FC** | **12 FC** | **13 FC** | **14 FC** | **15 FC** | **15 FC** |
| Andhra Pradesh | 8.465 | 7.701 | 7.356 | 6.937 | 4.305 | 4.111 | 4.047 |
| Arunachal Pradesh | 0.17 | 0.244 | 0.288 | 0.328 | 1.37 | 1.76 | 1.757 |
| Assam | 2.784 | 3.285 | 3.235 | 3.628 | 3.311 | 3.131 | 3.128 |
| Bihar | 12.861 | 14.597 | 11.028 | 10.917 | 9.665 | 10.061 | 10.058 |
| Chhattisgarh | 0 | 0 | 2.654 | 2.47 | 3.08 | 3.418 | 3.407 |
| Goa | 0.18 | 0.206 | 0.259 | 0.266 | 0.378 | 0.386 | 0.386 |
| Gujarat | 4.046 | 2.821 | 3.569 | 3.041 | 3.084 | 3.398 | 3.478 |
| Haryana | 1.238 | 0.944 | 1.075 | 1.048 | 1.084 | 1.082 | 1.093 |
| Himachal Pradesh | 0.704 | 0.683 | 0.522 | 0.781 | 0.713 | 0.799 | 0.83 |
| Jammu and Kashmir | 1.097 | 1.29 | 1.297 | 1.551 | 1.854 | 0 | 0 |
| Jharkhand | 0 | 0 | 3.361 | 2.802 | 3.139 | 3.313 | 3.307 |
| Karnataka | 5.339 | 4.93 | 4.459 | 4.328 | 4.713 | 3.646 | 3.647 |
| Kerala | 3.875 | 3.057 | 2.665 | 2.341 | 2.5 | 1.943 | 1.925 |
| Madhya Pradesh | 8.29 | 8.838 | 6.711 | 7.12 | 7.548 | 7.886 | 7.85 |
| Maharashtra | 6.126 | 4.632 | 4.997 | 5.199 | 5.521 | 6.135 | 6.317 |
| Manipur | 0.282 | 0.366 | 0.362 | 0.451 | 0.617 | 0.718 | 0.716 |
| Meghalaya | 0.283 | 0.342 | 0.371 | 0.408 | 0.642 | 0.765 | 0.767 |
| Mizoram | 0.149 | 0.198 | 0.239 | 0.269 | 0.46 | 0.506 | 0.5 |

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[2] The states are classified as high-income, middle income and low-income for each FC period based on the per-capita GSDP used in the calculation of income distance for each Commission to avoid the problems of changes in ranks of per-capita income over time.

|  | 1995-2000 | 2000-05 | 2005-10 | 2010-15 | 2015-20 | 2020-21 | 2021--26 |
|---|---|---|---|---|---|---|---|
| **States** | **10 FC** | **11 FC** | **12 FC** | **13 FC** | **14 FC** | **15 FC** | **15 FC** |
| Nagaland | 0.181 | 0.22 | 0.263 | 0.314 | 0.498 | 0.573 | 0.569 |
| Odisha | 4.495 | 5.056 | 5.161 | 4.779 | 4.642 | 4.629 | 4.528 |
| Punjab | 1.461 | 1.147 | 1.299 | 1.389 | 1.577 | 1.788 | 1.807 |
| Rajasthan | 5.551 | 5.473 | 5.609 | 5.853 | 5.495 | 5.979 | 6.026 |
| Sikkim | 0.126 | 0.184 | 0.227 | 0.239 | 0.367 | 0.388 | 0.388 |
| Tamil Nadu | 6.637 | 5.385 | 5.305 | 4.969 | 4.023 | 4.189 | 4.079 |
| Telangana | 0 | 0 | 0 | 0 | 2.437 | 2.133 | 2.102 |
| Tripura | 0.378 | 0.487 | 0.428 | 0.511 | 0.642 | 0.709 | 0.708 |
| Uttar Pradesh | 17.811 | 19.798 | 19.264 | 19.677 | 17.959 | 17.931 | 17.939 |
| Uttarakhand | 0 | 0 | 0.939 | 1.12 | 1.052 | 1.104 | 1.118 |
| West Bengal | 7.471 | 8.116 | 7.057 | 7.264 | 7.234 | 7.519 | 7.523 |
| **High-Income States** | 22.776 | 20.984 | 23.078 | 20.291 | 19.412 | 17.964 | 17.928 |
| **Middle-Income States** | 11.175 | 13.146 | 12.48 | 20.09 | 22.661 | 22.665 | 22.849 |
| **Low-Income States** | 66.049 | 65.87 | 64.442 | 59.619 | 57.927 | 59.371 | 59.223 |

*Source: Based on reports of X-XV Finance Commissions*

The transfers are progressive when low-income states account for a larger share of union taxes, followed by middle-income and high-income states. However, until the 14th Finance Commission, although the low-income states accounted for the largest share, high-income states accounted for a larger share than middle-income states, marginally deviating from the progressivity.

Since the 10th FC, the tax share of middle-income states increased by 11.6 percentage points, while that of high-income and low-income states declined by 4.8 and 6.8 percentage points, respectively (Table 2). This trend indicates a decline in progressivity over time, with low-income states experiencing the highest reduction in their tax share. Notably, the reduction in the

weight assigned to the income distance criterion has not provided the anticipated benefits to high-income states. Instead, middle-income states have emerged as the primary beneficiaries of this shift, with its implications for fiscal equalisation.

**Table 3:** SOTR GSDP ratio across Indian States (1995-2023) in %

| State | 1995-2002 | 2003-2012 | 2013-2023 |
|---|---|---|---|
| **Andhra Pradesh** | 6.85 | 7.53 | 6.69 |
| **Arunachal Pradesh** | 1.03 | 2.12 | 4.62 |
| **Assam** | 3.85 | 5.12 | 4.95 |
| **Bihar** | 4.06 | 4.72 | 5.83 |
| **Chhattisgarh** | | 7.11 | 7.06 |
| **Goa** | 7.41 | 6.96 | 7.31 |
| **Gujarat** | 7.33 | 6.67 | 5.62 |
| **Haryana** | 7.00 | 7.24 | 6.24 |
| **Himachal Pradesh** | 5.03 | 5.50 | 5.52 |
| **Jharkhand** | | 4.83 | 5.61 |
| **Karnataka** | 8.51 | 9.14 | 6.80 |
| **Kerala** | 8.31 | 7.67 | 6.66 |
| **Madhya Pradesh** | 5.88 | 7.45 | 6.57 |
| **Maharashtra** | 7.18 | 7.04 | 6.94 |
| **Manipur** | 1.45 | 2.21 | 4.03 |
| **Meghalaya** | 3.08 | 3.49 | 5.39 |
| **Mizoram** | 0.80 | 2.03 | 2.89 |
| **Nagaland** | 1.43 | 1.77 | 3.19 |
| **Orissa** | 4.75 | 5.61 | 6.26 |
| **Punjab** | 6.35 | 7.05 | 6.50 |
| **Rajasthan** | 5.93 | 6.44 | 6.31 |
| **Sikkim** | 5.09 | 5.68 | 3.34 |

| | | | |
|---|---|---|---|
| **Tamil Nadu** | 8.60 | 8.46 | 6.05 |
| **Telangana** | | | 6.84 |
| **Tripura** | 2.29 | 3.41 | 3.85 |
| **Uttar Pradesh** | 5.20 | 6.59 | 7.65 |
| **Uttarakhand** | | 5.60 | 5.25 |
| **West Bengal** | 4.46 | 4.61 | 5.33 |
| **All States** | 6.15 | 6.55 | 6.35 |

*Source: Authors' estimation based on the EPWRF data*

### The Income Distance Paradox

As indicated earlier, the income distance is measured by the distance between a state's per capita income and the average per capita income of the top three States. The presumption is that the states with higher per capita income will have a higher fiscal capacity as measured by the States' Own Tax Revenue (SOTR) to GSDP ratio, indicating their ability to mobilise the needed revenue to provide their citizens with essential minimum public goods (Courchene, 1984). However, many empirical studies have shown a paradox of declining SOTR-to-GSDP ratio with rising per capita income across the Indian States (Mohan & Shyjan, 2021; RBI, 2024). The SOTR GSDP ratio is downward in high-income states such as Gujarat, Haryana, Karnataka, Kerala and Tamil Nadu. At the same time, low-income states such as Uttar Pradesh, Bihar, Odisha, etc., have steadily increased their SOTR-to-GSDP ratio (Table 3). The trend becomes clear when comparing the tax revenue performance of high-income, middle-income, and low-income states based on per capita income. The SOTR-GSDP ratio of high-income states stood at 8.2 per cent in 1995 and declined continuously to 6.4 per cent by 2022-23. The middle-income states also experienced a decline from 2000 onwards, except for a recent rise from 2020 (Figure 1). However,

in the case of low-income states, the ratio increased consistently from 4.4% in 1995-96 to 6.4% in 2022-23.



Figure 1: Trend in State's own tax to GSDP ratio

The preliminary evidence thus suggests that higher per capita income does not necessarily yield higher tax revenue. To probe further, we estimated a two-way fixed effects panel regression model to determine the relationship between per-capita GSDP and tax effort from 1995 to 2022. In our model, the dependent variable is the state's own tax revenue as a percentage of GSDP, and the independent variable is the log of per-capita GSDP (LNPCI) at constant prices. The coefficient of the log of per-capita GDP is negative and statistically significant at the 1% level. The value of the estimated coefficient indicates that, on average, with a one per cent increase in per capita income, the SOTR-to-GDP ratio decreases by 2.67%, holding other factors constant (Table 4, Model 1). To check the robustness of the result, we estimated the model only for the general category states (Table 4, Model 2). The value of the estimated coefficient is negative and statistically significant, thus confirming the strong negative relation between per-capita GSDP and the fiscal capacity of the States.

**Table 4:** Two-way Fixed Effects Regression model

| | (1) | (2) |
|---|---|---|
| | All States | Major States |
| Dependent variable: State's own revenue (% GSDP) | | |
| | | |
| LNPCI | -2.665*** | -2.087** |
| | (0.346) | (0.817) |
| Constant | 31.28*** | 26.32*** |
| | (3.213) | (7.597) |
| | | |
| Observations | 784 | 473 |
| R-squared | 0.749 | 0.482 |
| State FE | YES | YES |
| Year FE | YES | YES |

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

From the empirical analysis, it is evident that there is an apparent paradox of a declining tax base alongside an increase in per capita income, and that high-income states face a double whammy. The states with higher per-capita income are confronted with declining fiscal capacity. The OTR to GSDP ratio reduced from 8.6 per cent in 1995-2002 to 6.05 per cent in 2013-2023 in the case of Tamil Nadu. Similarly, Karnataka and Kerala experienced a 1.71% and 1.65% decline in their fiscal capacity during the period under consideration (Table 3). At the same time, their share in the divisible pool also declined due to their higher per-capita income. For example, from 1995 to 2022, the share of Tamil Nadu, Kerala, and Karnataka in the divisible pool declined by 2.55%, 1.95%, and 1.6%, respectively (see Table 2) due to the continuous improvement in their per-capita GSDP rank. Our results clearly

indicate that per capita income is not a reliable measure of fiscal capacity.

**Behind the Paradox**

The paradox of the negative relationship between per capita income and fiscal capacity is an issue that warrants a detailed exploration. In India, the tax rate varies across different products, and that also varied across States before the introduction of GST. While most manufacturers are subject to tax, agricultural products are generally exempt from taxation. The service sector is a mixed bag; while some, such as telecommunication services, are taxed, others, like health and education, are not. Hence, there is reason to believe that structural change in the state's economy will likely affect the tax effort. Further, the division of taxing powers between the Union and the States could also play a role. Our preliminary inquiry focuses on the observed state-level structural change in the economy.

The growth of the Indian economy after the economic reforms has been mainly contributed to by the services sector. The relative contribution of the service sector to GSDP and its growth varies across States. From 1990-94 to 2016-20, the share of services in GSDP increased by 25 per cent in Karnataka, 19 per cent in Kerala, and 17.3 per cent in Haryana. Concomitantly, Karnataka experienced the highest decline (2.9%) in its own tax-to-GSDP ratio, followed by Kerala (2.8%) and Haryana (1.7%) (Table 3). Similarly, Madhya Pradesh and Orissa showed the lowest increase in the share of services, 1.1 per cent and 3 per cent, and their own tax to GSDP ratio increased by 1 per cent and 1.7 per cent, respectively.

Figure 2 presents the change in the average share of the service sector in the total GSDP and the SOTR to GSDP ratio of Indian states during the five years ending 1995 and the five years ending 2029. Evidently, States that experienced a higher decline in the tax-to-GSDP ratio have the highest increase in the share of service sector GSDP. Service sector-driven States have a higher per-capita GSDP without a concomitant increase in their fiscal capacity (Thomas, 2017).

**Figure 2:** Change in own tax revenue and change in service sector contribution in GSDP (in%)
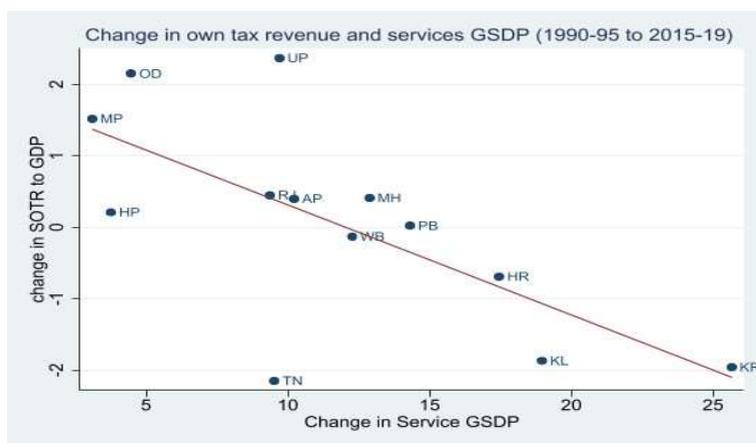


*Source: Author's own estimation*

The observed paradox can also be viewed in consideration of the division of taxing powers between the Union and the States. According to the Finance Act 1994, which extends to all states

except the State of Jammu and Kashmir, the constitutional right to levy service tax has been vested in the Union Government. This, in turn, worked towards depriving state governments of their potential tax revenue from the growing service sector until the Goods and Services Tax was implemented in 2017. The introduction of GST appears not to have resolved the issue, as major services such as health, education, and public administration are exempt from GST. Furthermore, much of the service sector operates in the informal sector, which contributes to the GSDP but not to the GST.  In the case of Kerala, it has been shown that the service sector contributes 64 per cent of GSDP and accounts for only 17 per cent of total GST revenue collection (Singh & Ramalingam, 2020).

**Income distance criteria: Call for a revisit**

In the horizontal devolution of resources, the FCs are guided by the need to ensure the equitable provision of public services across different subnational entities at comparable costs. The prevailing practice of assigning the highest weight to the income distance criterion for horizontal devolution assumes that per capita income correlates positively with fiscal capacity. Given the empirical evidence of declining fiscal capacity with rising per capita income, the income distance criterion penalises the high-income States with a reduced share in the divisible pool. At the same time, we also present evidence of a declining share of low-income states in the divisible pool. The 16th Finance Commission may consider introducing measures that capture fiscal capacity more precisely or reduce the weight of the income distance criterion in favour of need-based criteria. Such adjustments need to ensure an equitable distribution of resources so that performers are not penalised while helping the laggards.

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