A Critical Analysis of Finance Commission Formulas Since 2000-01

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Abstract: ***Like other federations worldwide, India too faces the problem of fiscal imbalances. Most broad based taxes are assigned to the centre whereas states are responsible for most major expenditure. This gives rise to Vertical fiscal imbalance. On the other hand, developmental differences between the states gives rise to horizontal imbalance. The Finance Commission, established in 1951 based on Article 280, plays a key role in intergovernmental transfers. Its primary function is to recommend how the central government should share tax revenue with the states. This ensures that all states have the financial means to provide a comparable standard of public services to their citizens, regardless of their own revenue generation capacity. The funds received by the states are to be divided between the states on the basis of the formula/ criteria. These criteria have been changing over the time keeping the role of various factors into consideration, population, area, income distance, tax effort and fiscal discipline being the major ones.***

Keywords: Fiscal Imbalance, Finance Commission, Tax Devolution, Tax Effort. Fiscal Discipline.

1. Introduction

In India's federal system, some states like Gujarat and Maharashtra have more resources to raise their own revenue, while others like Bihar and Odisha have fewer. This creates fiscal imbalances, both between states (horizontal) and between the central government and states (vertical). The Indian Constitution aims to bridge this gap through intergovernmental transfers. The Finance Commission, established in 1951 based on Article 280, plays a key role in these transfers. Its primary function is to recommend how the central government should share tax revenue with the states. This ensures that all states have the financial means to provide a comparable standard of public services to their citizens, regardless of their own revenue generation capacity.

The Finance Commission's main goal has been to:
- Promote cooperation between the central and state governments (cooperative federalism).
- Ensure better quality spending of public funds.
- Maintain financial stability for both central and state governments.

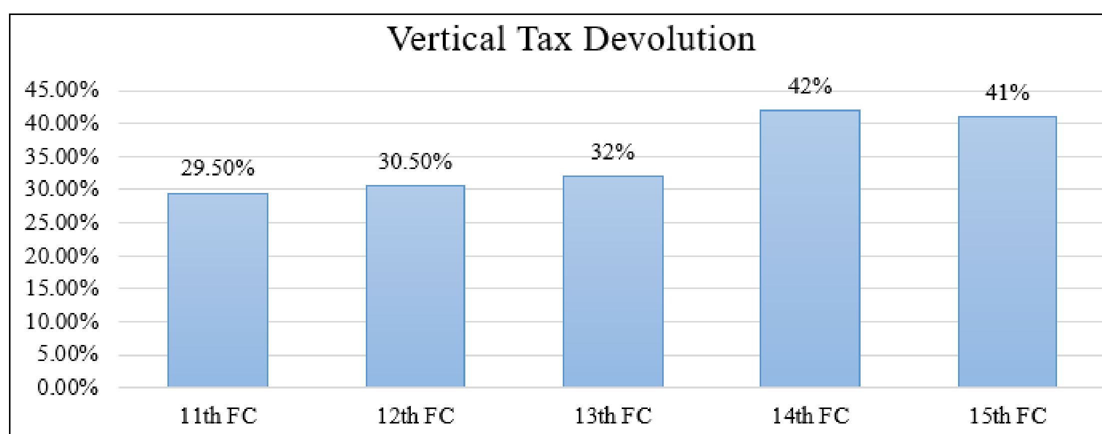
The central government has typically accepted the Finance Commission's recommendations, except for the third commission. Over the past 60 years, India's public finances have changed significantly. To reflect these changes, the Commission's responsibilities have expanded to address new issues.

2. Vertical Devolution

Article 280 of the Indian Constitution gives the Finance Commission (FC) a powerful role in shaping how tax money is shared. The FC can recommend how much of the total tax revenue collected by the central government should be distributed to individual states (vertical devolution). This ensures states get a fair share of the national tax pool.

The FC can also recommend how this shared tax money should be divided amongst different states (horizontal devolution). This helps address imbalances between states with high and low revenue generation capacity. In essence, the FC acts as a facilitator under the Constitution to determine financial relations between the central government and individual states.

The following chart gives the vertical devolution, which is percent share of states in net proceeds of shareable taxes of the central government.



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3. Horizontal Devolution

The funds received by the states are to be divided between the states on the basis of the formula/ criteria. This criteria is subject to change with evolving time. Every FC decides on the criteria to be adopted during the tenure of its commission. States views are being considered while formulating this formula.

The transfers disbursed by the central government to individual states is not a flat amount. Instead, a formula is used to determine each state's share. This formula isn't fixed - each Finance Commission gets to decide what criteria to use during its term in office. These criteria consider factors that change over time, and the Commission also takes state input into account when developing the formula.

Eleventh Finance Commission

The Eleventh Finance Commission considered two key principles when dividing central tax revenue among states: fairness (equity) and effectiveness (efficiency).

- Equity: This principle aims to address the issue of states with limited resources. It ensures that these states receive additional support to help them meet their needs.
- Efficiency: This principle encourages states to improve their own revenue generation and deliver services efficiently.

The concern is that focusing solely on equity could create a disincentive for states to develop their own resources. To address this, the Finance Commission also considers efficiency when distributing funds. This rewards states that take steps to improve their financial situation and manage their resources effectively.

The Eleventh Finance Commission (FC) consulted with Indian states to determine how to allocate central tax revenue. Here's a breakdown of what states recommended:

- **Population:** Most states favored keeping population as a factor, with weights varying between 20% and 70%. This suggests states with larger populations generally wanted a bigger share of the tax pool. For example, several states proposed a 20% weight, while Tamil Nadu even suggested a 40% weight for population and a separate 20% weight for population control efforts.
- **Area:** Many states also advocated for continuing to consider a state's physical size. Their recommendations ranged from 5% to 20% weight for the "Area" factor. The reasoning behind this is that states with large areas and low population density face higher costs for providing basic infrastructure compared to states with similar - sized areas but higher population density. The FC ultimately assigned a weight of 7.5% to this factor.

Several states, including Bihar, Orissa, and Tripura, pushed for a more progressive approach to distributing funds. They suggested using factors that take into account a state's relative economic well - being. These factors included:

- **Distance from the highest per capita income:** This would give more money to states with lower per capita income compared to the national average.
- **Inverse of per capita income:** Similar to the "distance" criterion, this would prioritize states with lower per capita income.
- **Composite index of backwardness:** This would consider a broader range of factors beyond just income to identify and support the most disadvantaged states.

These states proposed weights ranging from 10% to 60% for these "progressive indices, " with Uttar Pradesh advocating for a particularly high weight (50%) on the "composite index of backwardness. "

Several states, including Karnataka, Maharashtra, Madhya Pradesh, Rajasthan, Orissa, and Tamil Nadu, emphasized the importance of **infrastructure.** They argued for continuing to use an "infrastructure index" as a factor in determining funding allocation. These states proposed weights ranging from 5% to 40% for this criterion. The rationale behind this suggestion is that good infrastructure attracts investment and helps a state develop economically. States with poor infrastructure would therefore receive additional funds to improve their infrastructure and catch up with others. The Eleventh Finance Commission ultimately assigned a weight of 7.5% to the infrastructure index, acknowledging its importance but also considering other factors.

The Eleventh Finance Commission also considered rewarding states for responsible financial management. This concept, known as "tax effort" or "fiscal discipline, " was proposed by several states with weights ranging from 5% to 20%. The idea is to use a specific index that measures a state's improvement in managing its finances. This index would track the ratio of a state's own revenue collection compared to its total spending over time. By comparing this ratio between a base period (1990 - 91 to 1992 - 93) and a reference period (1996 - 97 to 1998 - 99), the Commission could assess how well a state is managing its finances. States that show improvement in this ratio, either by collecting more revenue or spending less, would be rewarded with a larger share of central tax funds. The Commission assigned a combined weight of 12.5% to this concept, acknowledging the importance of responsible financial management by states.

A major focus of the Eleventh Finance Commission was ensuring a larger share of central tax revenue went to states with lower per capita income. This approach aims to reduce financial imbalances between states.

Previous Finance Commissions used two main formulas to achieve this:

- **Distance formula:** This allocates more funds to states with a larger gap between their per capita income and the national average.
- **Inverse income formula:** This directly prioritizes states with lower per capita income by giving them a higher weight in the allocation process.

Recognizing the importance of this focus on equity, many states supported these formulas. The Eleventh Finance Commission assigned a significant weight of 62.5% to this criterion, reflecting its importance in achieving a fairer distribution of resources.

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Considering the above mentioned points, share of states in tax devolution are determined by the following formula.

Table 1: Criteria for Horizontal Devolution (11th FC)

Criteria	Weightage
Population	10%
Income (Distance method)	62.5%
Area	7.5%
Index of infrastructure	7.5%
Tax Effort	5%
Fiscal Discipline	7.5%

Twelfth Finance Commission

The Twelfth Finance Commission reviewed the criteria used by the Eleventh Commission and made some key changes:

i) Population

Population is a fundamental indicator of a state's need for public services like education, healthcare, and infrastructure. By giving more weight to population (25%), the Twelfth Commission aimed to ensure a more equal distribution of resources on a per capita basis across states.

ii) Per Capita Income Distance

The Twelfth Finance Commission (FC) used a method called the Income Distance Criterion to help distribute central tax revenue. This method gave significant weight (50%) to supporting states with lower per capita income. The FC calculated the "distance" between each state's per capita income and the average per capita income of the top three states with the highest income. It then multiplied this distance by each state's population. To avoid giving undue weight to any one year, the FC used a three - year average of a state's GSDP to calculate per capita income. By using this method, the Twelfth Finance Commission aimed to target resources towards states that were lagging behind economically, helping to close the gap between rich and poor states.

iii) Area

Larger states face higher costs to deliver the same level of public services to their citizens, but this cost increase slows down as the state gets bigger. Even small states have some unavoidable basic administrative expenses. Eleventh FC addressed the area issue by setting a minimum weight of 2% and a maximum weight of 10% for the 'Area' criterion. Whereas Twelfth FC kept the minimum weight of 2% for states whose area share would be less than 2% under the normal calculation. However, they removed the fixed upper limit because only one state (Rajasthan) slightly exceeds the 10% threshold. This translates to a minimum guaranteed share of 2% of central tax funds for twelve smaller states: Goa, Haryana, Kerala, Himachal Pradesh, Manipur, Mizoram, Meghalaya, Nagaland, Sikkim, Tripura, Punjab, and Uttarakhand. Additionally, the Twelfth Finance Commission assigned a weight of 10% to the overall "Area" criterion in its formula for distributing funds.

iv) Tax Effort

Twelfth FC considered a state's "Tax Effort" when distributing central tax revenue. Tax Effort refers to the ratio of a state's own tax revenue per person compared to its overall income per person. The FC wanted to reward states that make a strong effort to collect their own taxes, but they also recognized the challenge faced by states with weaker tax bases (fewer sources of tax revenue). To encourage responsible financial management, the weight given to the overall Tax Effort criterion was increased.

v) Fiscal Discipline

The Commission rewarded states that were taking steps to be financially responsible. The criterion was given 7.5% weight.

Hence, different criteria used by Twelfth FC are given in the below table.

Table 2: Criteria for Horizontal Devolution (12th FC)

Criteria	Weightage
Population	25%
Income (Distance Method)	50%
Area	10%
Tax Effort	7.5%
Fiscal Discipline	7.5%

Thirteenth Finance Commission

The Thirteenth Finance Commission (FC) built upon the work of previous commissions to determine a formula for distributing central tax revenue among states.

i) Population

The Thirteenth FC recognized population as a key factor in determining a state's need for public services. They maintained the weight of 25% for this criterion, consistent with the previous commission. This means that states with larger populations continue to receive a larger share of central tax funds, based on population figures from the 1997 census.

ii) Area

The Thirteenth FC assigned a weight of 10% to the "Area" criterion, acknowledging the challenges faced by larger states in providing public services. Unlike the Twelfth Finance Commission, there's no fixed maximum weight for area. Also, to ensure some level of funding for all states, regardless of size, no state will receive less than 2% of the total allocation based solely on area.

iii) Fiscal Capacity Distance

The Thirteenth FC used a concept called "Fiscal Distance" to determine how much money each state should receive based on its relative wealth. Here's how it worked:

Haryana was chosen as the reference point because it has the second - highest estimated per capita revenue (after Goa). For each state (except Haryana and Goa), "distance" between that state's estimated per capita revenue and Haryana's per capita revenue was calculated. Based on this distance calculation, each state (except Haryana and Goa) received a specific "entitlement" which translates to how much per capita revenue they should ideally receive. Haryana and Goa, as the top two states in terms of per capita revenue, were assigned a fixed entitlement of Rs.100 per capita. To account for state size, the Commission multiplied each state's per capita entitlement by their population figures from the 1971 census. This gives a total amount of transfer each state is entitled to receive. The Commission assigned a significant weight of 47.5% to this entire "Fiscal Capacity Distance" criterion

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within their overall formula for distributing central tax revenue.

In essence, the Commission aimed to provide more money to states with lower per capita revenue, helping to narrow the gap between rich and poor states.

iv) Fiscal Discipline

The Thirteenth Finance Commission (FC) continued the practice of using "Fiscal Discipline" as a factor to encourage states to manage their finances responsibly. This criterion received a weight of 17.5%, which is more than double what previous commissions (Eleventh and Twelfth) assigned (7.5%).

The rationale behind merging "Tax Effort" with "Fiscal Discipline" is that the Commission likely felt a state's efforts to collect taxes are inherently tied to its overall financial responsibility. By placing a higher weight on this combined criterion, the Thirteenth Finance Commission aimed to strongly incentivize states to prioritize sound financial management.

Various formula adopted by Thirteenth FC are summarized in the following table:

Table 3: Criteria for Horizontal Devolution (13th FC)

Criteria	Weightage
Population	25%
Area	10%
Fiscal Capacity Distance	47.5%
Fiscal Distance	17.5%

Fourteenth Finance Commission

The Fourteenth Finance Commission (FC) proposed a significant change in how central tax revenue is distributed to states. Rising the share of central tax revenue to 42% of the total pool of divisible taxes would give states more unrestricted financial resources. This would allow them greater flexibility in meeting their own spending needs. Further, it would leave "proper fiscal space" for the center to continue providing specific grants to states for particular projects. However, it's important to note that the Fourteenth Finance Commission did not recommend a minimum guaranteed level of devolution for individual states. Five criteria used by the Commission are as follows -

i) Population and Demographic Change

The Fourteenth FC acknowledged that relying solely on outdated population data (1971) wouldn't accurately reflect the current needs of states. However, they also recognized the challenges of incorporating frequent population updates. Hence, the Commission assigned a weight of 17.5% to the 1971 population data as a baseline indicator of state needs. After which a separate indicator for 'demographic change' was introduced with a weight of 10% to account for population changes since 1971. This factor likely considers changes in population due to migration and shifts in age demographics of each state. By doing so, the Commission acknowledged the impact of recent demographic changes on state funding needs.

ii) Area

The Fourteenth Finance Commission (FC) recognized that larger states face higher costs to deliver public services to their citizens, but these costs don't increase proportionally to size. A weight of 15% was assigned to this criteria in the funding formula, with a maximum capping and a 2% floor for smaller states.

iii) Forest Cover

A large forest cover has significant environment benefits, and it also bears opportunity cost in the sense that forest cover area becomes unavailable for other economic activities, serving as a hindrance of 'fiscal disability'. Hence, a weight of 7.5% has been assigned to this criteria.

iv) Income Distance

This metric calculates the gap between a state's per capita income and the national average (or the average of the top few states). The larger the gap (i. e., the poorer the state), the higher the income distance. The Commission assigned a significant weight of 50% to this "Income Distance" criterion within their overall formula.

The following table summarizes various criteria adopted by Fourteenth FC:

Table 4: Criteria for Horizontal Devolution

Criteria	Weightage
Population	17.5%
Demographic Change	10%
Income Distance	50%
Area	15%
Forest Cover	7.5%

Fifteenth Finance Commission

The Fifteenth Finance Commission emphasized the importance of tax devolution as a way to distribute central government resources to states, as it is based on a clear formula, promotes fair distribution of resources and generates increased revenue for states. The Fifteenth FC recommended that 41% of the net proceeds of central taxes be devolved to states. This represents a slight decrease from the previous commission's recommendation. The tax devolution criteria for the Commission is as follows:

i) Population

Some states expressed worry that relying on the old 1971 census data wouldn't reflect current needs. Using the latest population figures could disadvantage states that successfully controlled their population growth. However, all states agreed that population remains a crucial indicator of the need for public services like education, healthcare, and infrastructure. Hence, Fifteenth FC kept population as a criterion in the formula, assigning it a weight of 15%. This acknowledges that states with larger populations require more resources to provide services to their citizens.

ii) Demographic Performance

The Commission introduced a new criterion called "Demographic Performance" with a weight of 12.5%. This rewards states that have successfully reduced their population growth rate. It used a state's Total Fertility Rate (average number of children a woman bears in her lifetime) as a

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measure of demographic performance. The lower the TFR, the better a state's score.

iii) Forest and Ecology

The Fifteenth Finance Commission (FC) recognized the growing importance of environmental protection and climate change. They believed states that take action to preserve the environment deserve greater recognition and support. The Commission significantly increased the weight given to the "Forest Cover" criterion (to 10%) compared to previous commissions. This emphasizes the value of forests in providing ecological benefits to the entire nation.

iv) Tax Effort

The Fifteenth Finance Commission (FC) revisited the idea of including "Tax Effort" as a factor in distributing central tax revenue. States that collect taxes more effectively would receive a slight financial advantage. This incentivizes other states to improve their own tax collection processes. The Commission assigned a modest weight of 2.5% to this criterion, acknowledging its importance but also recognizing that other factors like population and income levels play a more significant role in determining a state's funding needs.

v) Area

The Fifteenth FC recognized that states with vast areas face a challenge: delivering the same level of public services requires more funding due to the greater distances involved. Thus, 'Area' has been kept as a factor in the funding formula, assigning it a weight of 15%. This ensures that larger states receive a higher share of central tax devolution to compensate for the additional costs associated with their size.

vi) Income Distance

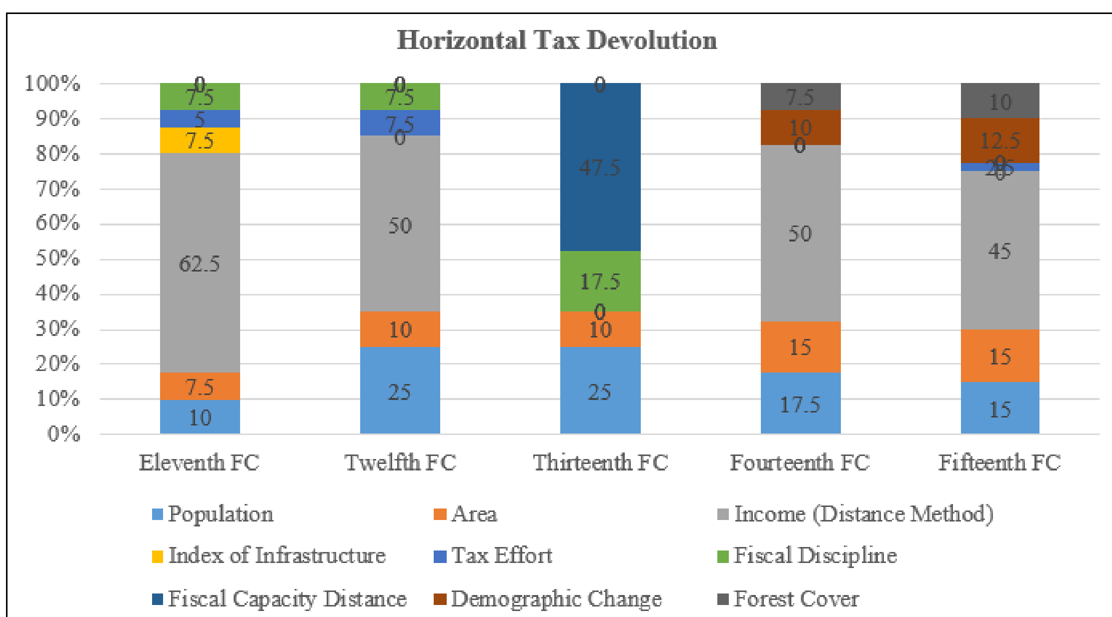
This criterion is considered progressive because it provides a larger share of funds to states with lower per capita income (i. e., poorer states). This helps to narrow the gap between rich and poor states. The Commission assigned a significant weight of 45% to "Income Distance" within their overall formula.

Different criteria and their respective weights adopted by the Fifteenth FC are summarized in the following table:

Table 5: Criteria for Horizontal Devolution

Criteria	Weightage
Population	15%
Demographic Performance	12.5%
Area	15%
Forest and Ecology	10%
Income Distance	45%
Tax Effort	2.5%

The following chart gives criteria for horizontal tax devolution of the Finance Commissions since the year 2000.



4. Summary

The Finance Commission plays a crucial role in India by determining how central tax revenue gets distributed among states. Over time, the criteria used to make these allocations have evolved to reflect changing priorities and needs. Early commissions prioritized factors like population size, geographic distance, and measures of economic disadvantage (like poverty or "backwardness"). The idea was to ensure states with larger populations, greater geographical challenges, or higher poverty levels received more resources to meet basic needs. The Tenth Finance Commission introduced "Tax Effort" as a factor, rewarding states that collected taxes efficiently. The Eleventh, Twelfth, and Thirteenth Commissions added "Fiscal Discipline" to the mix, encouraging states to manage their finances responsibly. The Fourteenth and Fifteenth Commissions embraced environmental factors like "Forest Cover" to incentivize states protecting ecological resources. The Fifteenth Commission included a "Demographic Performance" criterion, rewarding states that achieved lower population growth rates.

The Fifteenth FC faced a unique challenge – their term coincided with the unprecedented global COVID - 19 pandemic. This public health crisis caused widespread panic and uncertainty, making it difficult for policymakers to

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predict the future. The Commission issued two separate reports for their term. The first covered 2020 - 21, a period of immediate crisis response. The second report, titled "Finance Commission in Covid Times, " addressed the longer - term financial needs of states from 2021 - 26. The Sixteenth Finance Commission has now been established, following the process outlined in Article 280 of the Indian Constitution. They are expected to submit their report by October 31, 2025, covering the period from April 1, 2026 onwards.

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