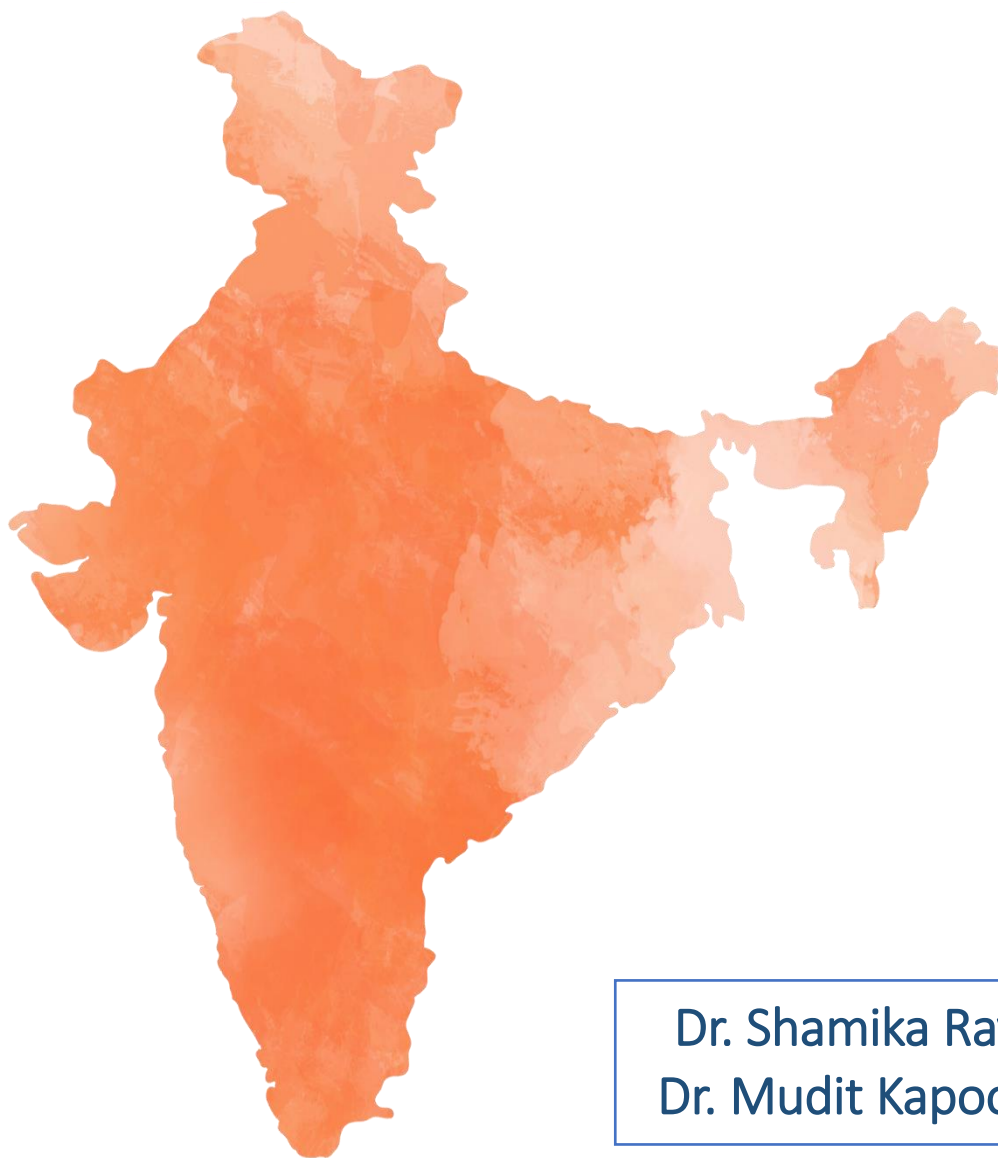


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State Budgets in India: Observational Time Trend Analysis from 1990 to 2020



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I. Introduction

State budgets reflect the state government's social and economic priorities beyond the political rhetoric in the media. Analyzing time trends and the composition of the revenue, expenditure, and capital outlay can provide valuable insights into how these priorities have evolved for different states in the last thirty years. We compare state budgets across different economic development phases by examining revenue, expenditure, and capital outlay on a per capita basis and in terms of the Net State Domestic Product (NSDP). Moreover, we analyze trends in *real terms*, allowing for comparisons over time that account for inflation and economic changes. Our focus is on *per-capita levels* as the state budget is for the people, and this approach helps make comparisons across states differing in population size. While examining expenditures, we focus on development and non-development expenditures of the states, such as interest payments & debt servicing, pension, and administrative services. Non-development expenditures reflect, to some extent, the state's capacity and efficiency in serving social and economic priorities. Our primary objective in analyzing state budgets in this way is to help the policymakers better understand the tradeoffs involved in setting priorities and making spending decisions. They can also identify areas where improvements in efficiency or capacity-building may be needed to better serve the people's needs.

The findings from this study have important lessons for the following:

- (i) Next Finance Commission to assess long-term financial viability and welfare implications of specific public programs and schemes; with immediate and urgent attention to be paid to state pension programs and the structure and servicing of public debt.
- (ii) NITI Aayog as a pivotal platform for states to share best practices in financial management, administrative efficiency and structuring of capital outlays which determine long term productivity gains and state's economic growth.

II. Data and Statistical Analysis

The data on the analysis of the state budget from the fiscal year 1990-91 to 2020-21 comes from the Reserve Bank of India's (RBI) report on the State Finances: A Study of the State Budgets 2022–23.¹ For each fiscal year (from 1990-91 to 2020-21) and the state/Union Territories (UTs), we exploit the detailed data on the budget on Revenues, Expenditures, Capital Disbursements (excluding Public accounts), and Capital Outlay for Developmental purposes. The details of these are presented in charts 1 to 4.

¹<https://rbi.org.in/Scripts/AnnualPublications.aspx?head=State%20Finances%20:%20A%20Study%20of%20Budgets>

Data on state/UTs' Net State Domestic Product (NSDP) and population from 1990-91 to 2020-21 are from the RBIs Handbook of Statistics on the Indian Economy.² We use data on the Net State Domestic Product (NSDP) at factor cost in terms of constant and current prices, with 2011-12 as the base year. The NSDP data series is also available on a per capita basis. To compute the population data for each state/UT from 1990 to 2020, we divide the NSDP in constant prices with per-capita NSDP in constant prices for each year. Given that we have data on NSDP in current prices for each state/UT and year, we divide the NSDP in current prices with NSDP in constant prices to get the price deflators, with the base year as 2011-12. We use the population and the price deflator data for each state/UT to compute the various components of the budget data, such as revenue, expenditures, and capital outlay, in real terms and per capita. For example, for each state/UT, we divide the expenditure data by the price deflator to compute the expenditure data on a constant price basis with the base year as 2011-12, and this constant series is then divided by the population data to arrive at the per-capita level.

Next, we use data on per-capita NSDP in constant prices, and for each state/UT, run an Ordinary Least regression of the logarithm of per-capita NSDP in constant prices on the year variable. The coefficient on the year variable reflects the average growth rate. *We classify states into large and small states in terms of population, and all results are shown in the rank ordering of states by their growth rates over the last 20 years.* The results are presented in Table 1.

The results in Table 1 have the following highlights:

- There was a structural break in the year 2000
- Significant variations across states with interesting patterns were emerging. For example, Punjab and Haryana had similar growth rates in 1990-99 but diverged significantly from 2000 onwards. Bihar stands out as the only state in India with a negative growth rate over a decade. The real per capita income of Bihar remained unchanged from 1990 until 2005.

The rest of the paper associates growth with revenue, expenditure and capital outlay of states.

² <https://dbie.rbi.org.in/DBIE/dbie.rbi?site=publications#!2>

Table 1: Average growth rates of per-capita Net State Domestic Product (NSDP) across States from 1990-2019 (Constant prices, Base Year = 2011-12)

States	Average growth rate [1990-2019]	Average growth rate [1990-1999]	Average growth rate [2000-2019]
India	4.5%	3.9%	4.9%
<i>Large States</i>			
Telangana*	7.0%		7.0%
Gujarat	6.3%	5.9%	8.0%
Tamil Nadu	6.1%	5.2%	7.2%
Kerala	5.7%	4.7%	6.3%
Haryana	5.5%	2.2%	6.6%
Karnataka	5.4%	5.2%	6.1%
Maharashtra	5.3%	4.6%	6.2%
Andhra Pradesh	5.2%	3.7%	5.8%
NCT Delhi	5.2%	4.7%	6.0%
West Bengal	4.5%	4.9%	4.4%
Odisha	4.5%	2.4%	5.5%
Rajasthan	4.2%	3.9%	5.3%
Chhattisgarh*	4.0%		4.0%
Madhya Pradesh	3.9%	3.3%	5.4%
Bihar	3.9%	-0.4%	5.3%
Jharkhand*	3.8%		3.8%
Punjab	3.5%	2.4%	4.2%
Uttar Pradesh	3.0%	1.3%	4.1%
Assam	2.9%	0.3%	4.2%
<i>Small States/UTs</i>			
Sikkim	8.4%	3.3%	10.3%
Uttarakhand*	7.2%		7.2%
Mizoram*	7.0%		7.3%
Tripura	6.9%	5.3%	7.2%
Himachal Pradesh	5.4%	4.3%	5.7%
Goa	4.6%	6.5%	4.9%
Arunachal Pradesh	4.2%	2.1%	4.7%
Meghalaya	3.6%	2.7%	3.2%
Nagaland	3.5%	1.0%	4.6%
Manipur	2.7%	2.3%	3.1%
Puducherry*	5.6%		5.6%
Jammu and Kashmir	3.0%	2.0%	3.8%

Note: The growth rates are based on per capita Net State Domestic Product (NSDP) at constant price and the base year 2011-12. The average growth rates were computed by running a linear regression of the logarithm of per capita NSDP on year. The coefficient on the year variable was interpreted as the average growth rate. *These are states for which the budget data was available after 1999. Therefore, the overall average growth rate is that of the period post-2000. Data for Delhi was available from 1993 onwards, for Uttarakhand and Chhattisgarh from 2000 onwards, for Jharkhand from 2001 onwards, for Mizoram from 1999 onwards, for Puducherry from 2005 onwards, and for Telangana from 2014 onwards.

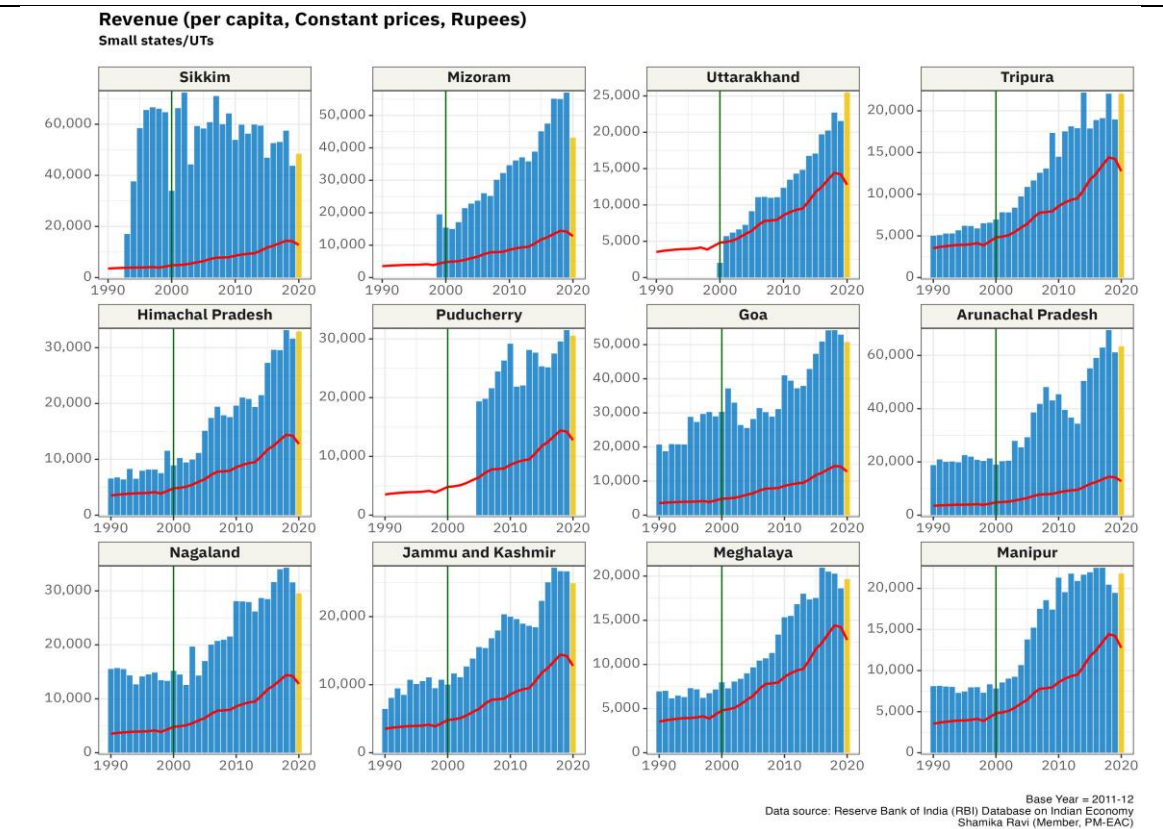
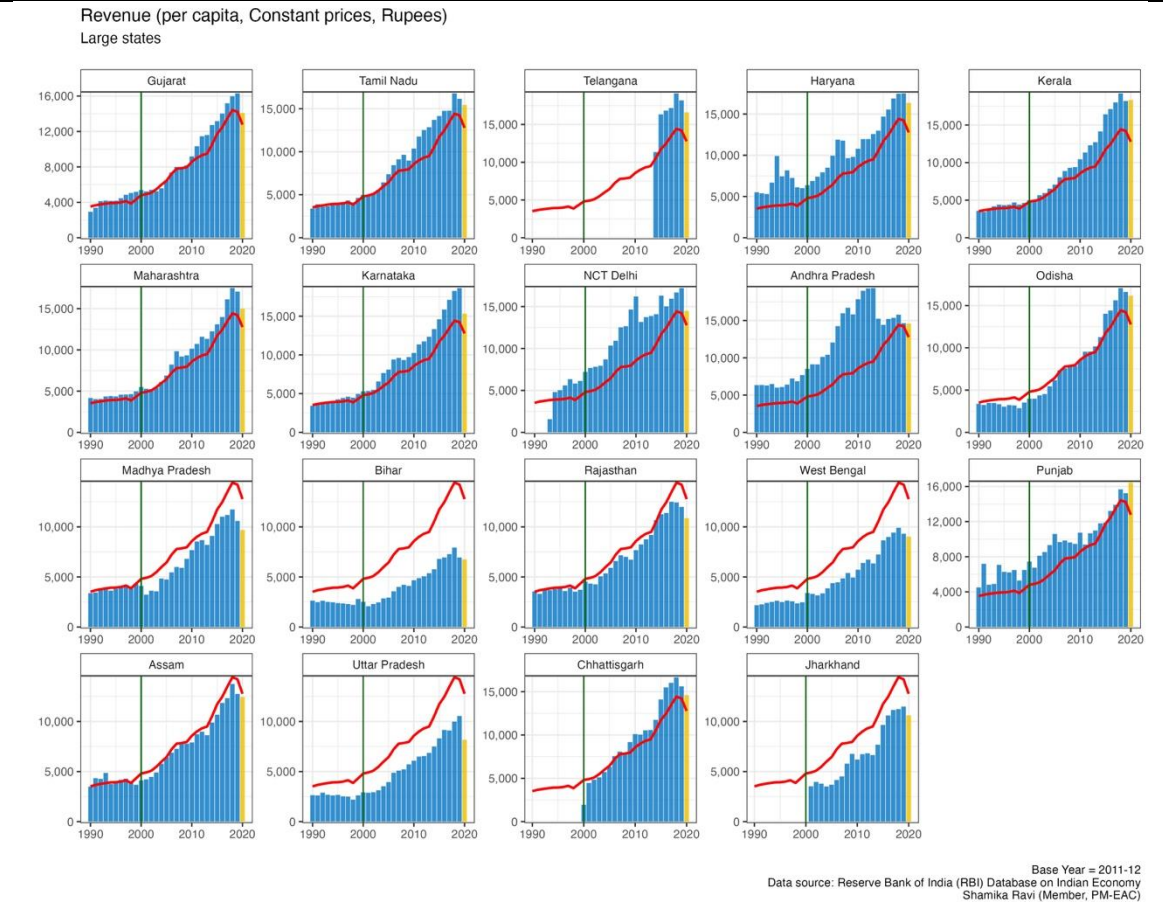
III. Results and Key Highlights

Result 1: Revenue of the State/UTs

Our first set of results relates to states' revenues and how they changed over thirty years. We present results on a per capita basis and as a percentage of the NSDP.

- First, data for all the states and UTs combined reflect that revenue per capita increased significantly post-2000. There is, therefore, a structural break in the year 2000. For example, for all states/UTs, the per capita revenue was 3,520 in the fiscal year 1990–91; by 2020–21, it had risen to 12773.
- Revenue per capita was much higher (than average for all states combined) in the high-growth states such as Gujarat, Tamil Nadu, Telangana, Haryana, Kerala, Maharashtra, Karnataka, Delhi and Andhra Pradesh. Punjab is the outlier, which saw higher revenue per capita despite below-average economic growth in the thirty years. We also find that post-2015 revenue per capita increased significantly in Odisha and Chhattisgarh, possibly because they are mining states.
- Low-growth states, on the other hand, had significantly lower revenue per capita than the national average for all states combined. States such as Madhya Pradesh, Bihar, Rajasthan, Jharkhand, West Bengal, Assam, and Uttar Pradesh had revenue per capita much lower than average for all-states combined.
- It is worth noting that in the fiscal year 1990–91, revenue per capita in high-growth states such as Gujarat, Tamil Nadu, and Karnataka was lower than the all-India level, at 2931, 3391, and 3422, respectively; however, by 2020-21 it had risen to 14080, 15442, and 15331, respectively – each of them significantly higher than the all-India average at 12773. Moreover, in these states, much of the rise in revenue per capita happened post-2000. These results are reported in Figure 1.
- Small states and Union Territories (UTs) have much higher revenue per capita than the all-India average. For example, in 2020-21, northeastern states of Arunachal Pradesh, Meghalaya, Manipur, Mizoram, Nagaland, Tripura, and Sikkim, revenue per capita was 63413, 19665, 21820, 43177, 29568, 22054, and 48436, respectively, *which was significantly higher than any of the high-growth large states*. Furthermore, Jammu & Kashmir had a higher per capita revenue in 2020–21 at 24900 compared to the all-India level of 12773. These results are reported in Figure 1a.

Figure 1a: Revenue (per capita, Constant prices, Rupees)



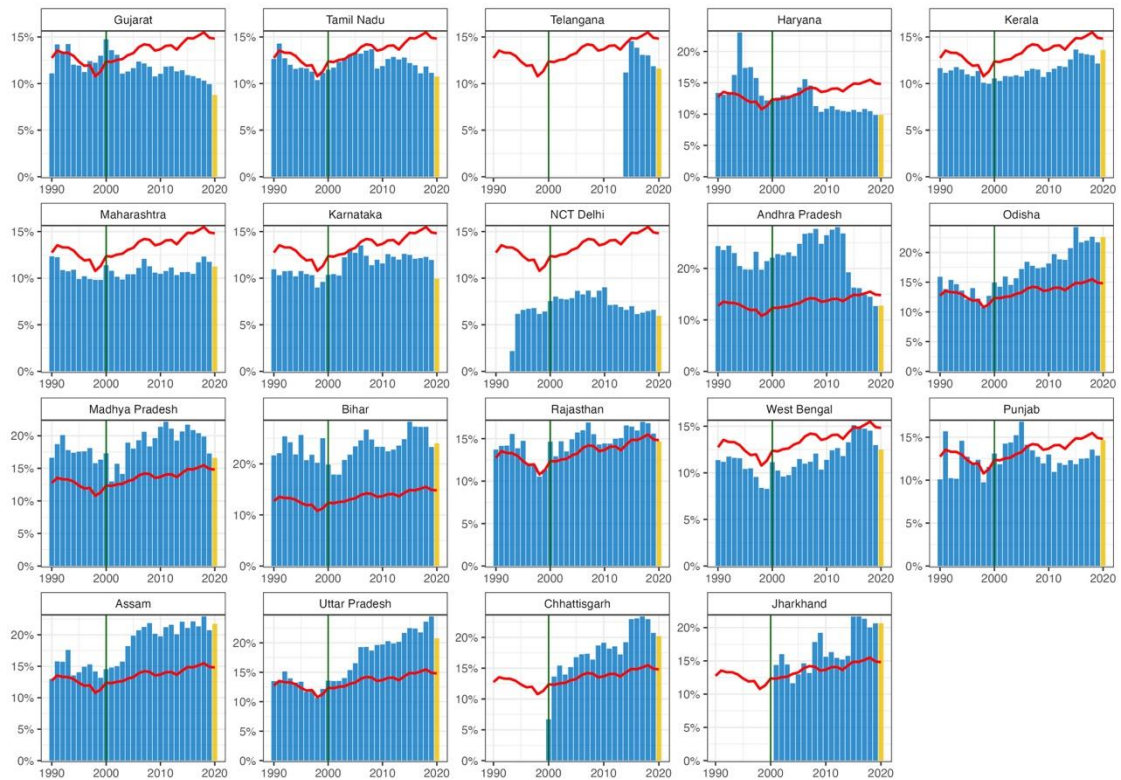
Note: The red line is the combined data for all states and UTs. The states have been ordered based on the growth of real per capita NSDP from the highest to the lowest.

Next, we explore the trends in revenue as a percentage of the state NSDP. These are reported in Figure 1b below.

- In large high-growth states, such as Gujarat, Tamil Nadu, Telangana, Haryana, Kerala, Maharashtra, and Karnataka, revenue as a percentage of NSDP was less than that at an all-India level. Whereas in low-growth states and states with low per capita NSDP, such as Assam, Uttar Pradesh, Chhattisgarh, Jharkhand, Bihar, Madhya Pradesh, Rajasthan, and Odisha, revenue as a percentage of NSDP was significantly higher than the all-India level.
- These results, combined with the previous result, suggest that in high-growth large states, per capita revenue growth was slower than the overall economic growth. In contrast, the reverse was true for low-growth and low per-capita states. These results are presented in Figure 2.
- For small states and UTs, except for Sikkim and Uttarakhand, we found that revenue as a percentage of NSDP was higher than the all-India level. For some states and UTs such as Arunachal Pradesh, Mizoram, Meghalaya, Manipur, Nagaland, and Jammu and Kashmir, it has been over 30%, whereas the all-India level is at approximately 15%. These results are presented in Figure 2.

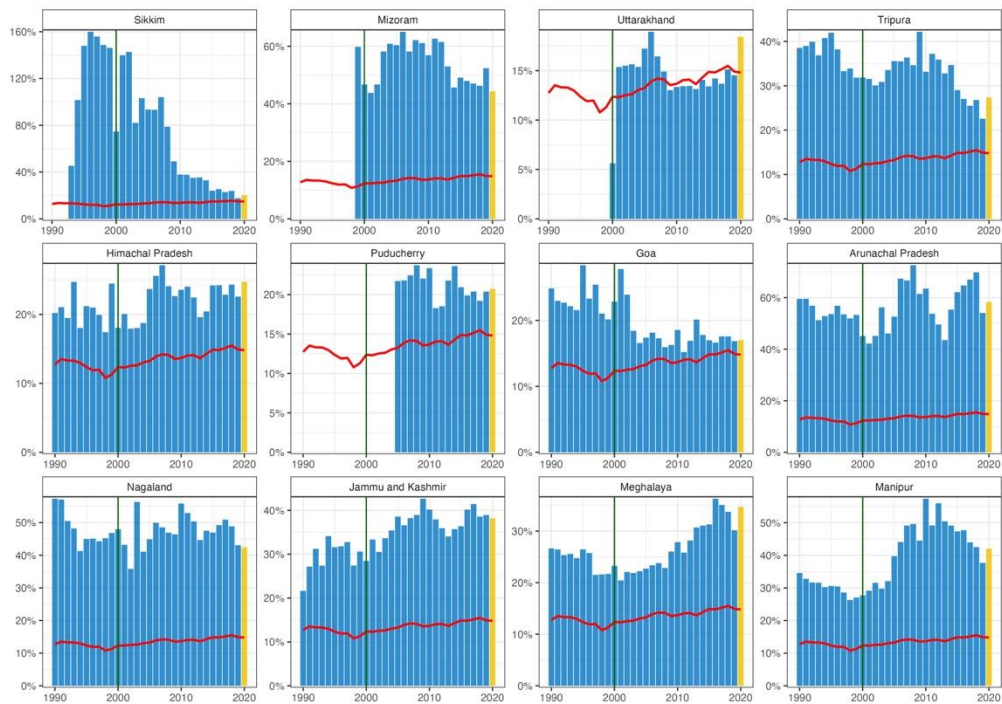
Figure 1b: Revenue as % of NSDP

Revenue (as % of Net State Domestic Product*)
Large states states



*Constant Prices, Base Year = 2011-12
Data source: Reserve Bank of India (RBI) Database on Indian Economy
Shamika Ravi (Member, PM-EAC)

Revenue (as % of Net State Domestic Product*)
Small states/UTs states



*Constant Prices, Base Year = 2011-12
Data source: Reserve Bank of India (RBI) Database on Indian Economy
Shamika Ravi (Member, PM-EAC)

Note: The red line is the combined data for all states and UTs. The states have been ordered based on the growth of real per capita NSDP from the highest to the lowest.

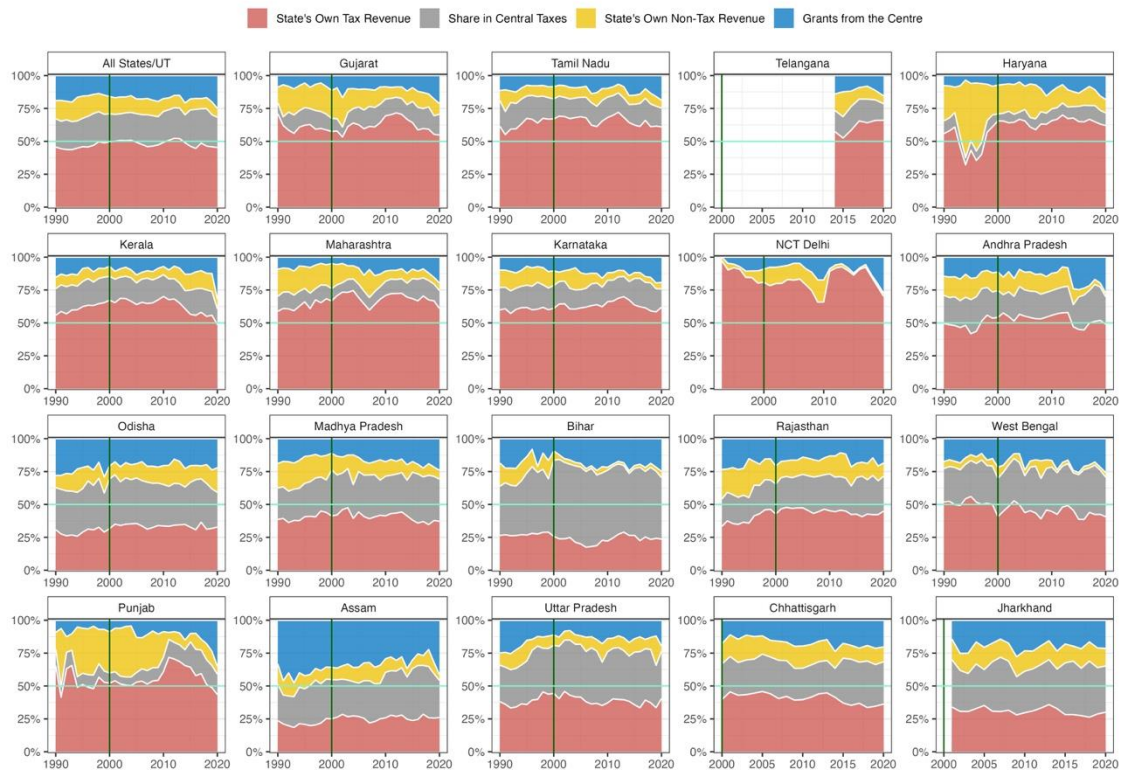
Result 2(a): Composition of Revenue of States

We also looked at the revenue composition and how that has evolved from 1990 to 2020 across states. See Chart 1 for the break-up of the revenue components.

- More than 50% of the revenue of high-growth states comes from their tax revenue. We found that for large high-growth states, such as Gujarat, Tamil Nadu, Haryana, Maharashtra, Karnataka, and Delhi, states' own tax revenue has remained greater than 50% of the total revenue of the state. In comparison, at the all-India level, it is approximately 45%.
- For low-growth states, there is greater reliance on shares in central taxes or grants from the Centre. States such as Odisha, Madhya Pradesh, Bihar, Rajasthan, West Bengal, Assam, Uttar Pradesh, Chhattisgarh, and Jharkhand own tax revenue is well below 40%. Their reliance on the share of central government taxes is significantly higher than high-growth states.
- In the case of Punjab, we observe an interesting pattern, the share of the state's own tax revenue was more or less greater than 50% till 2008 and rose sharply to 60% in 2010; however, since then, there has been a dramatic decline in this share. In recent years, the percentage of grants from the Centre has risen sharply for Punjab. Perhaps, this reflects the changing economic environment in the states.
- For small states and UTs, except for Uttarakhand and Goa, grants from the Centre remain the state's most critical revenue source.
- In all the northeastern states, the state's own tax revenue is less than 20% of the state's overall revenue, while grants from the Centre are significantly greater than 40% of the share of the revenue. However, since 2014 there has been a change in the composition of revenue, with an increase in the proportion of the share of central taxes. So these states rely heavily on the Centre for their revenues, either in the form of Grants or sharable tax. There is a very low level of economic activity in these states to generate their own tax revenues. These results are presented in Figure 2a.

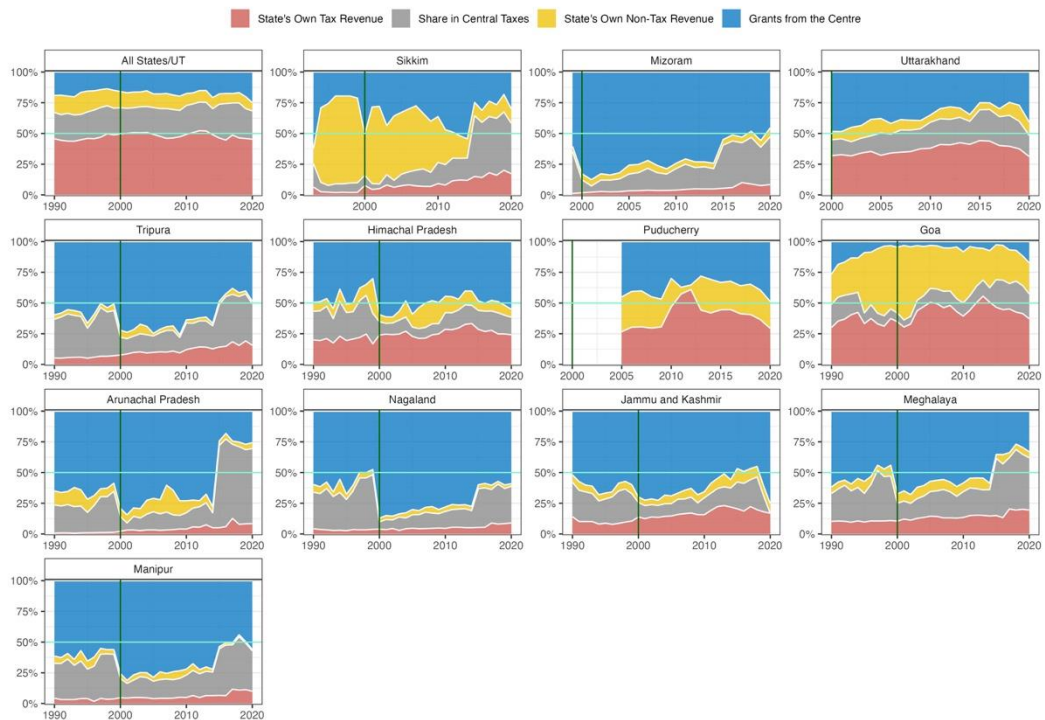
Figure 2a: Revenue Composition

Revenue Composition
Large states



Base Year = 2011-12
Data source: Reserve Bank of India (RBI) Database on Indian Economy
Shamika Ravi (Member, PM-EAC)

Revenue Composition
Small states/UTs

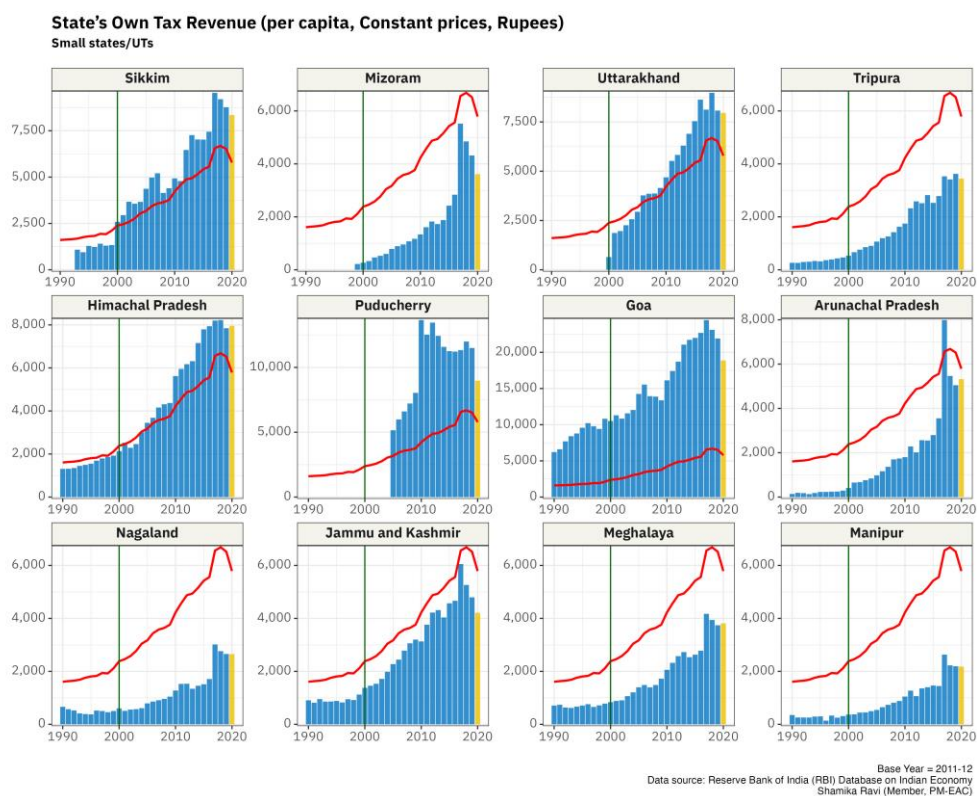
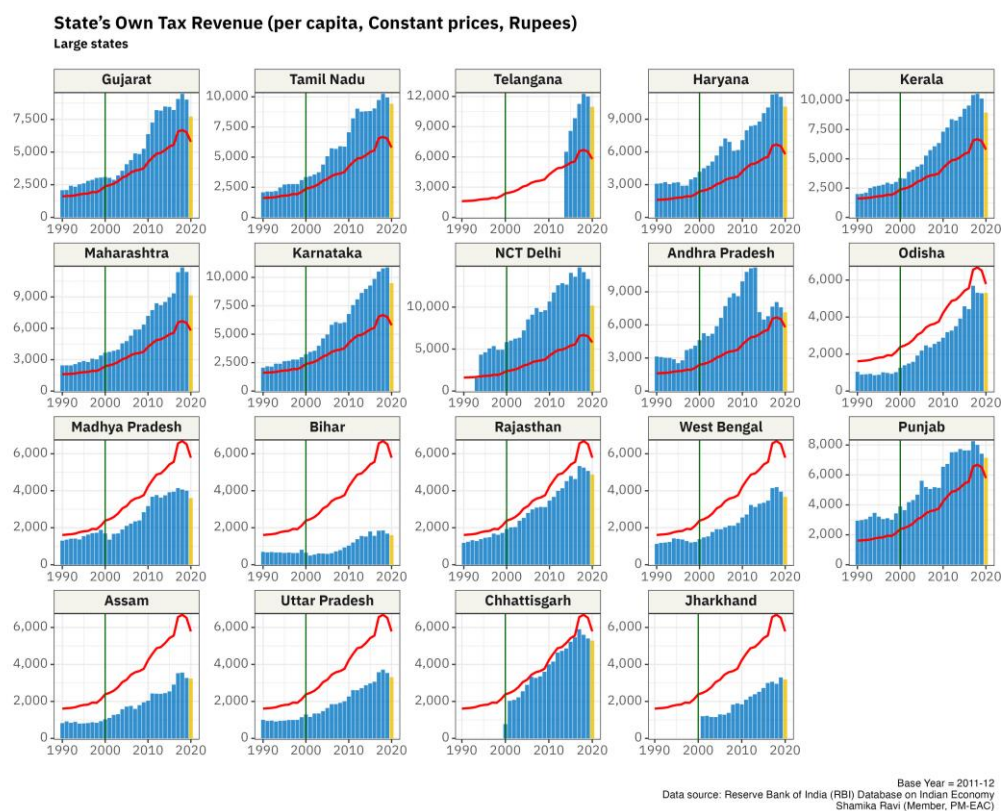


Base Year = 2011-12
Data source: Reserve Bank of India (RBI) Database on Indian Economy
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Result 2(b): State's Own Tax Revenues

- High-growth states have significantly increased their capacity to generate their own tax revenues, while low-growth states are lagging. This can be seen in the major structural break in the state's own tax revenue per capita around 2000.
- High-growth states have significantly higher own tax revenue per capita than the all-India average – which is rising much faster. As a result, the gap between their own tax revenue and the all-India average is also growing.
- Small states and UTs are a mixed bag – while Himachal, Goa, Uttarakhand and Sikkim are raising significant own tax revenues per capita, this is not the case everywhere.
- Northeastern states, except Sikkim, are lagging significantly in their ability to raise their own revenues.

Figure 2b: State's Own Tax Revenue



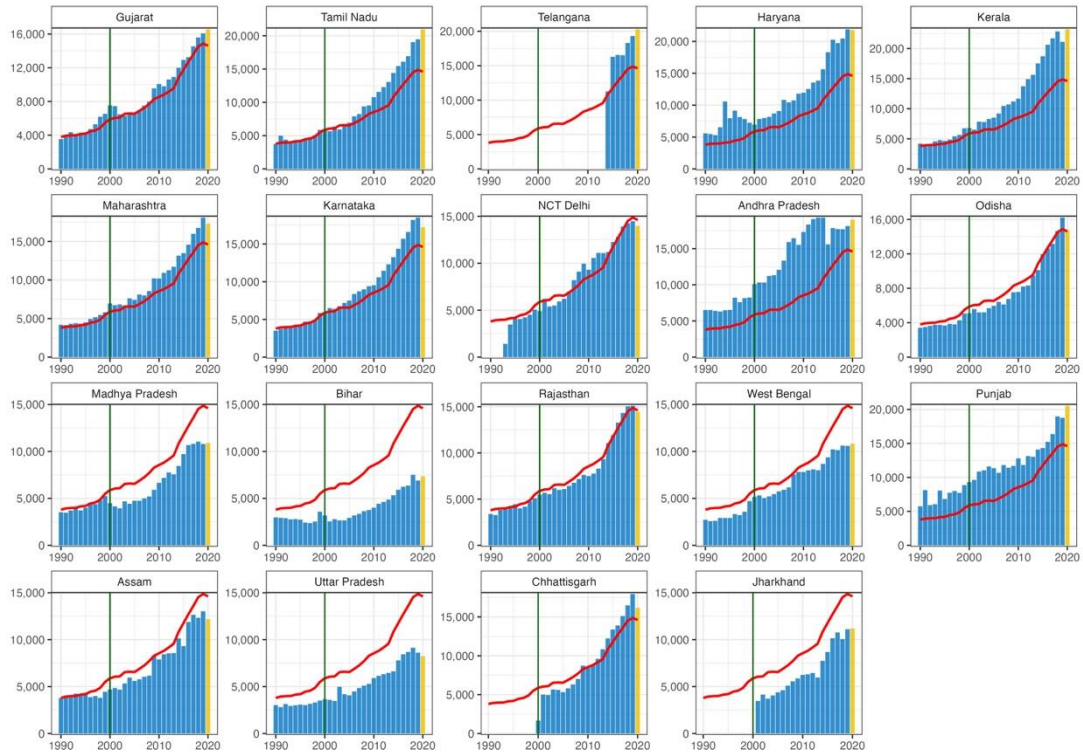
Result 3: Expenditure of States

Next, we explore, in detail, the evolution of expenditures in the state budgets from 1990 to 2020. See Chart 2 for details on expenditures. Our first set of results relates to expenditure per capita. This is shown in Figure 3a below.

- In large states such as Gujarat, Tamil Nadu, Telangana, Haryana, Kerala, Maharashtra, Karnataka, Delhi, Andhra Pradesh, and Punjab, typically, expenditure per capita exceeds the all-India level. Since 2013, it is worth noting that in Chhattisgarh, expenditure per capita exceeded the all-India level.
- It is significantly below the all-India level in Bihar, West Bengal, Uttar Pradesh and Jharkhand. In small states and UTs, expenditure per capita is a multiple of the all-India level. For example, if in the fiscal year 2020-21, we were to contrast Arunachal Pradesh with Uttar Pradesh, the expenditure per capita is 48467 in the former and 8246 in the latter, while the all-India level was at 14606. These results are presented in Figure 4.
- When we compare states in terms of expenditure as a percentage of the NSDP, we find that large high-growth states such as Gujarat, Tamil Nadu, Telangana, Haryana, Maharashtra, Karnataka, and Delhi, expenditure as a percentage of the NSDP remains below the all-India level at 17%. This suggests that in these states, growth in expenditure is less than the overall economic growth.
- For the northeastern states, the expenditure as a percentage of the NSDP was more significant than the all-India level; in particular, it exceeds 30%, except for Sikkim and Tripura. These results are presented in Figure 3b.

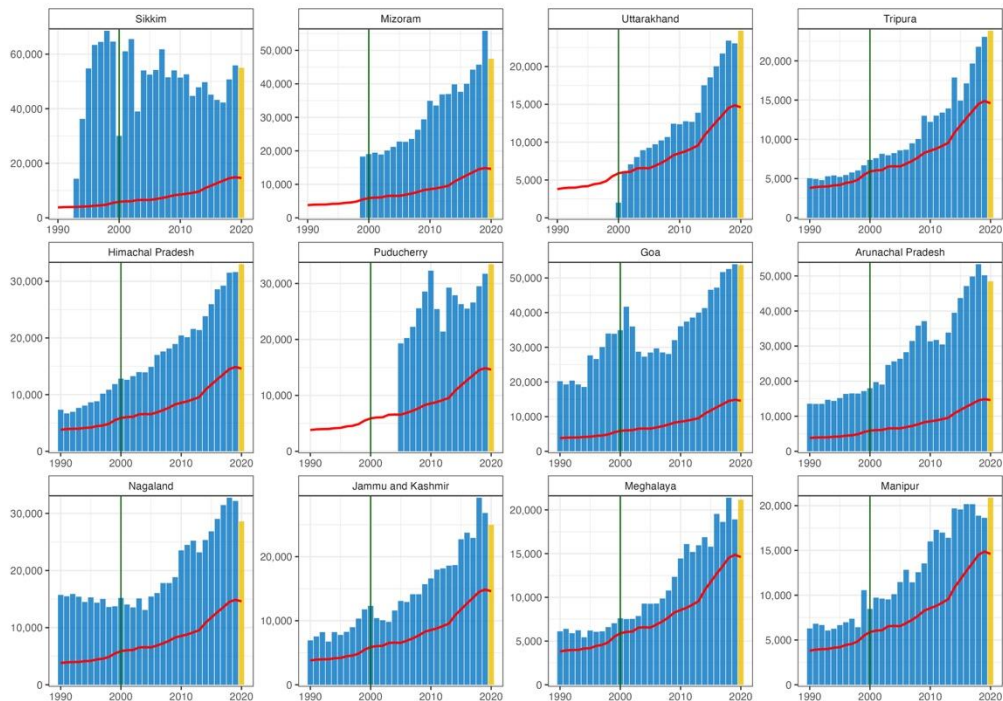
Figure 3a: Expenditure (per capita, Constant Prices)

Expenditure (per capita, Constant prices, Rupees)
Large states



Base Year = 2011-12
Data source: Reserve Bank of India (RBI) Database on Indian Economy
Shamika Ravi (Member, PM-EAC)

Expenditure (per capita, Constant prices, Rupees)
Small states/UTs



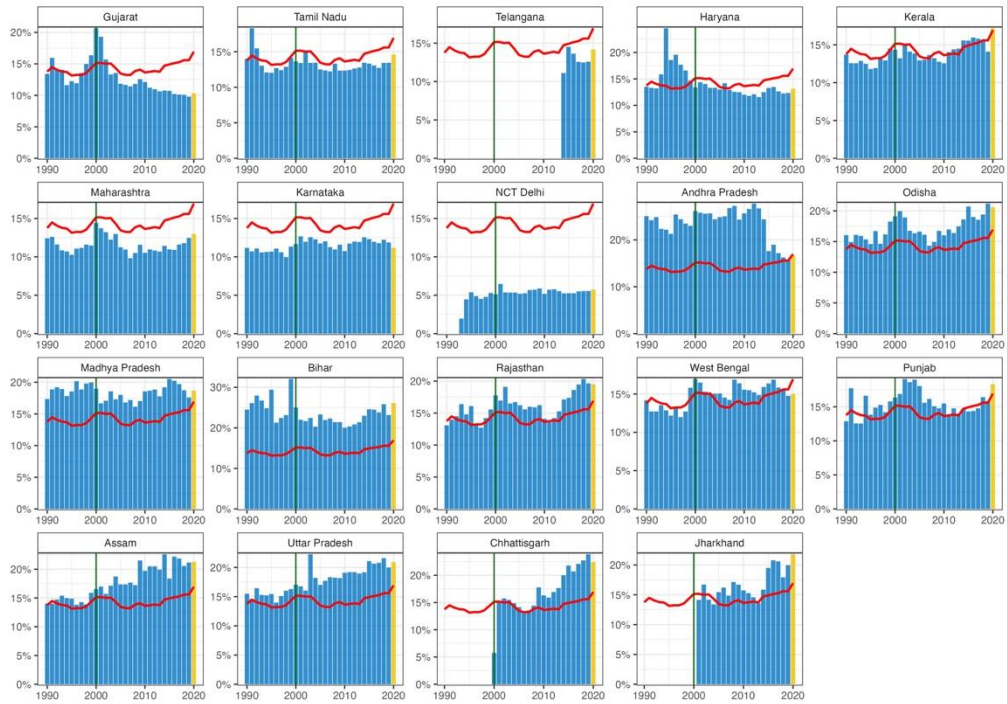
Base Year = 2011-12
Data source: Reserve Bank of India (RBI) Database on Indian Economy
Shamika Ravi (Member, PM-EAC)

Note: The red line is the combined data for all states and UTs. The states have been ordered based on the growth of real per capita NSDP from the highest to the lowest.

Figure 3b: Expenditure (as % of NSDP)

Expenditure (as % of Net State Domestic Product*)

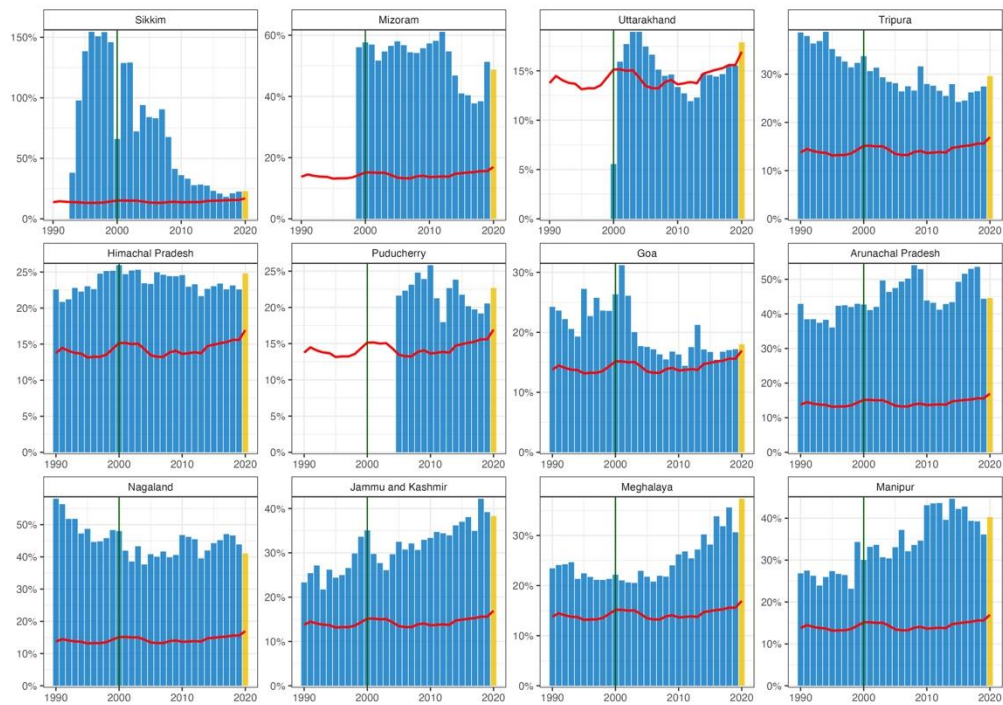
Large states



*Constant Prices, Base Year = 2011-12
Data source: Reserve Bank of India (RBI) Database on Indian Economy
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Expenditure (as % of Net State Domestic Product*)

Small states/UTs



*Constant Prices, Base Year = 2011-12
Data source: Reserve Bank of India (RBI) Database on Indian Economy
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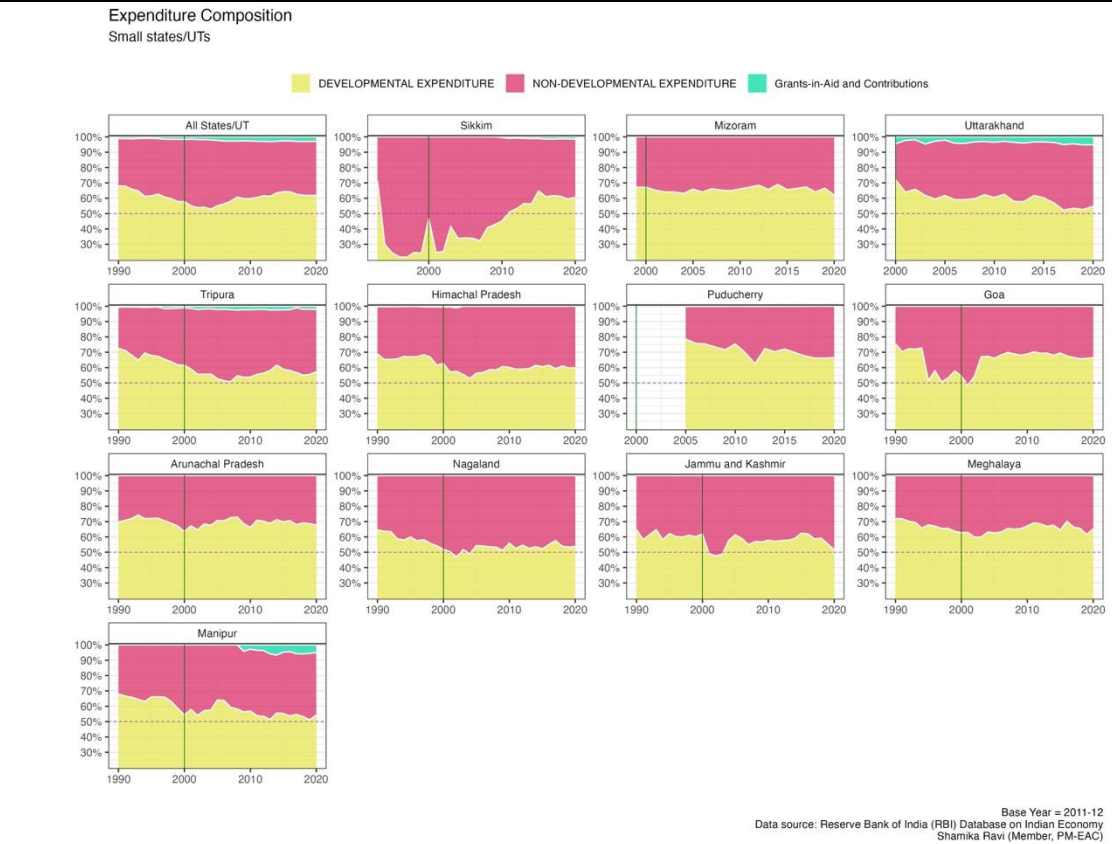
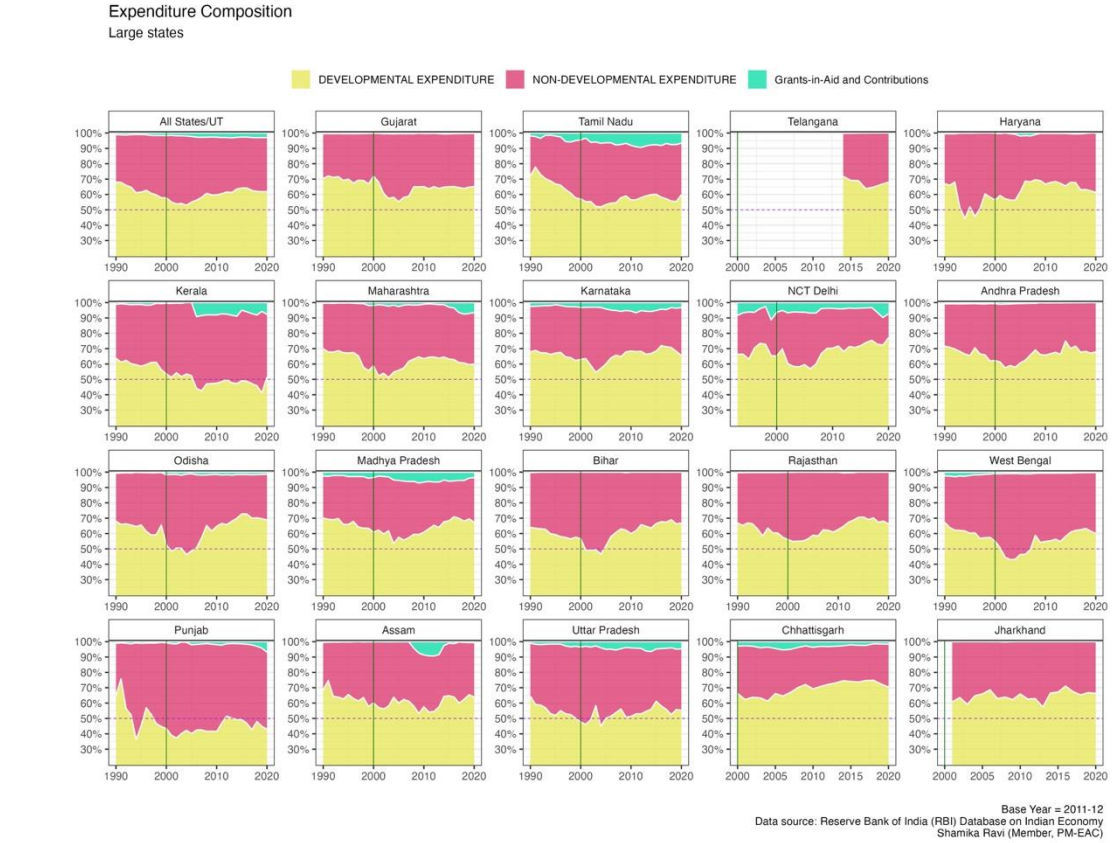
Note: The red line is the combined data for all states and UTs. The states have been ordered based on the growth of real per capita NSDP from the highest to the lowest.

Result 4: Composition of Expenditure – Development Vs. Non-Development

Next, we look at the composition of expenditure. Development expenditure is primarily on (a) social services, such as health and education; and (b) economic services, which relate to rural and urban development and infrastructure. Non-development expenditure is primarily for administrative services, interest payments and debt servicing, and pensions.

- For the combined data, the share of development expenditure reduced from approximately 70% in 1990 to around 60% in 2020. The composition for each state is presented in Figure 4 below.
- While the share of development expenditure remains more than 50% for all large states, except for Punjab and Kerala, where it was less than 50%.
- It is worth noting that while in West Bengal and Uttar Pradesh, the share of development expenditure has declined from 1990 to 2020, in Delhi, it has increased from 65% in 1993 to 75% in 2020.
- For small states and UTs, we find that in Sikkim, the share of development expenditure in overall expenditure had fallen to less than 25% in the mid-1990s and then rose to approximately 60% in 2020.
- In the other north-eastern states, there was variation in the changing share of development expenditure from 1990 to 2020. For example, for Tripura, it declined from approximately 70% to less than 60%; for Nagaland, it dropped from 65% to 55%; for Manipur, it slipped from around 70% to 55%.

Figure 4: Expenditure composition

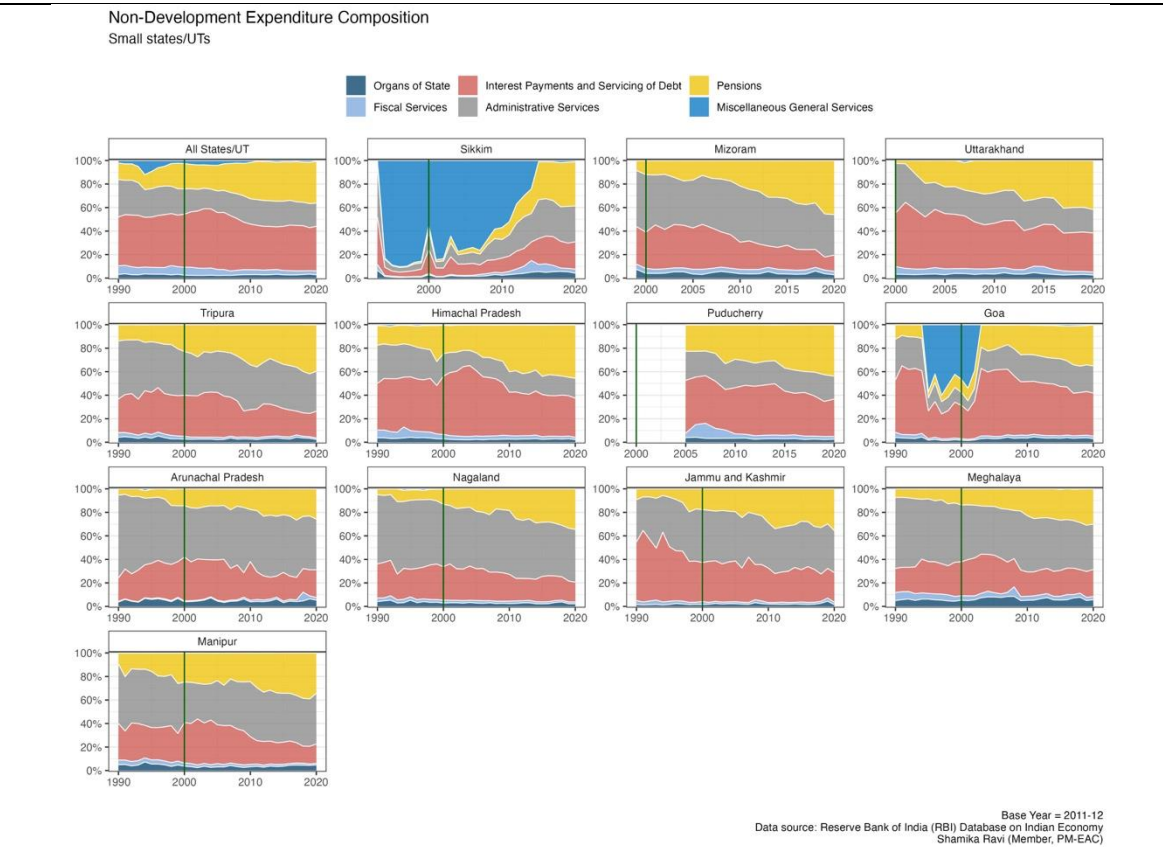
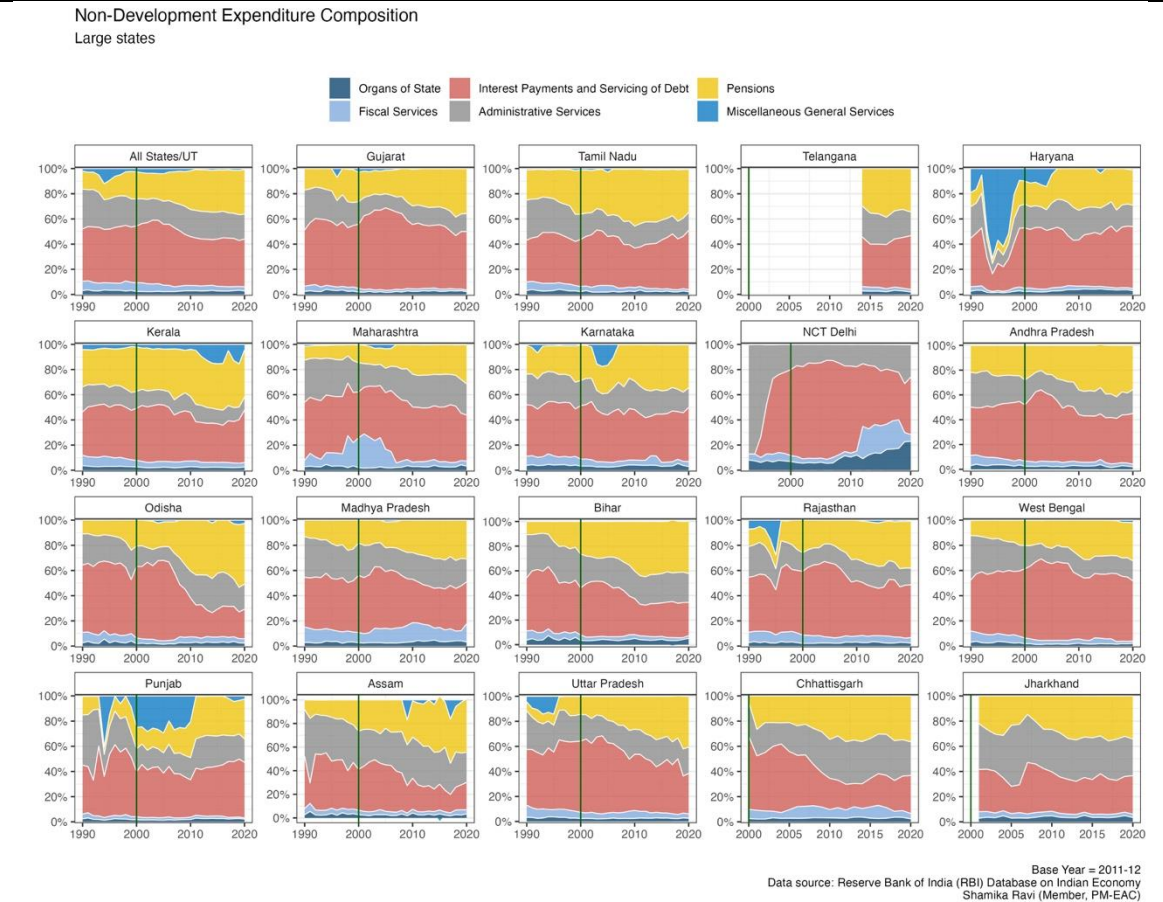


Result 5: Non-Development Expenditures

Our next set of results for expenditures relates to the evolution of the composition of non-development across states (See Chart 2 for details on expenditures). The three main components of states' non-development expenditures are interest payments and debt servicing, pensions and administrative expenditures. The evolution of these three components over 30 years provides important insights. These results are reported in Figure 5.

- For combined data for all states and UTs, the share of interest payments and debt servicing rose from 1990-91 to the mid-2000s and then declined by 2020-21.
- We also observed that the percentage of administrative services in non-development expenditure declined consistently over time from 1990-91 to 2021-21.
- There is a sharp increase in the share of pensions in non-development spending, it was less than 20% in 1990-91, but it increased to more than 35% in 2020-21.
- There is significant variation across states in pension burden. For example, in Uttar Pradesh, Bihar, Assam, and Odisha, the share of pensions in non-development expenditure was less than 10% in 1990-91, and it rose sharply to more than 40% in 2020-21.
- We also observed variations across states in the share of administrative services. For example, in Gujarat, Tamil Nadu, Karnataka, Madhya Pradesh, and West Bengal, it declined over time, but in states such as Bihar, Jharkhand, Chhattisgarh, and Assam, it has either remained high or has increased over time. However, for the northeastern states, the share of administrative services in non-development expenditure has remained high, between 30% to 40%, over time.

Figure 5: Non-Development Expenditure Composition



Result 6: Three Main Components of Non-Development Expenditure

Next, we study the three main components of the non-development expenditures of states in detail. We study the following three components: (a) interest payments and debt servicing, (b) administrative expenditures and (c) pension expenditures.

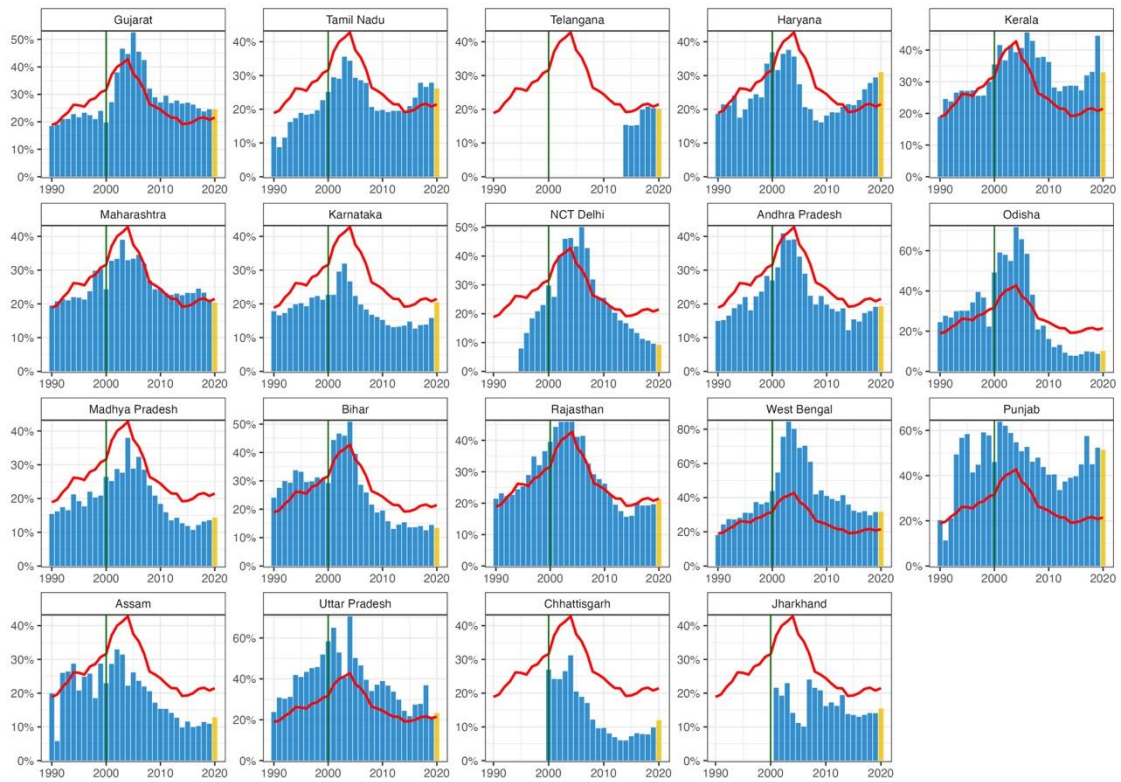
We contrast each of the above three components with the development expenditures of the state over time. This is an important metric to understand the nature of tradeoffs that face state governments concerning their fiscal decisions for long-term economic growth and development. These results are presented in Figure 6a below.

Result 6a: Interest payments and servicing of debt

- Looking at the combined data for all states and UTs, we found that interest payments and debt servicing as a percentage of development expenditure rose from 20% in 1990-91 to more than 40% in 2004-05 and declined to around 20% in 2020-21.
- This trend perhaps explains why the share of development expenditure declined between 1990-91 and 2004-05.
- There is variation across states. For example, in Gujarat, it rose from less than 20% in 2000-01 to more than 50% in 2005-06; then it declined sharply to around 20% in 2020-21. A similar pattern was observed in Delhi, where the decline was even higher; by 2020-21, it had reduced to less than 10%.
- However, in the states of Kerala and Punjab, there seems to be a reversal in trend since 2011-12, where the share of interest payments and debt servicing has risen. For Kerala, it has risen from approximately 25% to more than 30%, but in Punjab, it has increased from 30% to more than 40%. In both these states, we have observed a decline in development expenditure.
- It is also worth noting that in West Bengal, the share of interest payments and debt servicing to development expenditure has been higher than the all-India level.

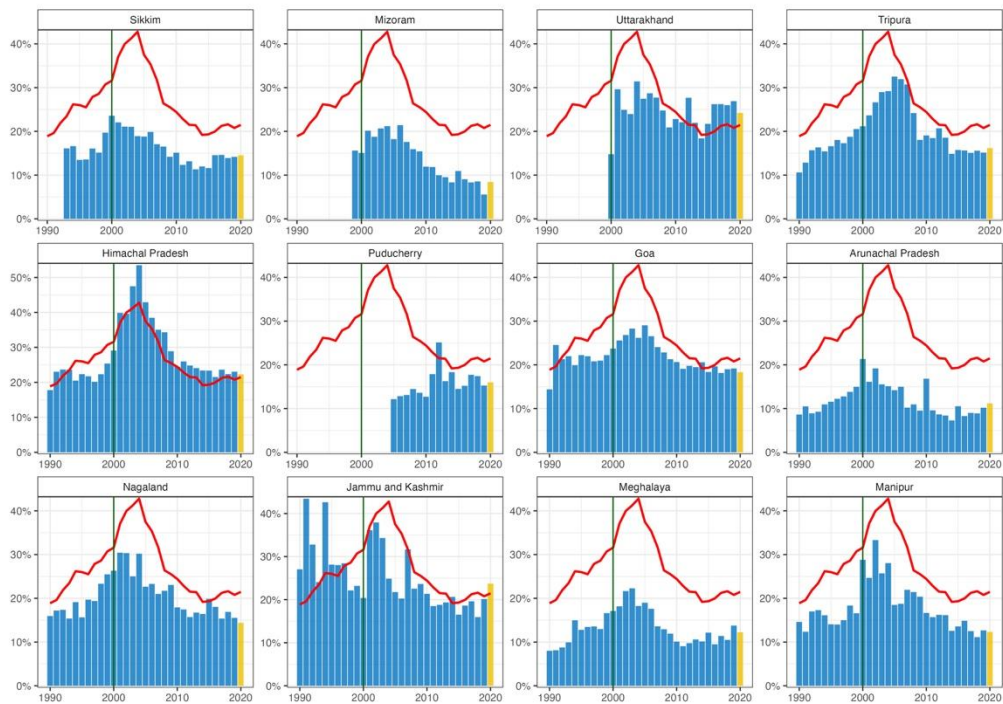
Figure 6a: Interest payments and Servicing of Debt (as % of Development Expenditure)

Interest Payments and Servicing of Debt (as % of Development expenditure)
Large states



Base Year = 2011-12
Data source: Reserve Bank of India (RBI) Database on Indian Economy
Shamika Ravi (Member, PM-EAC)

Interest Payments and Servicing of Debt (as % of Development expenditure)
Small states/UTs



Base Year = 2011-12
Data source: Reserve Bank of India (RBI) Database on Indian Economy
Shamika Ravi (Member, PM-EAC)

Note: The red line is the combined data for all states and UTs. The states have been ordered based on the growth of real per capita NSDP from the highest to the lowest.

Result 6b: Administrative services expenditures

Here we focus on the state expenditure related to administrative services, which is one of the significant components of non-development expenditure and a good measure of the *efficiency of state administration*. For the state to function and perform its primary duties of administration, governance, and security (maintenance of law and order), it must incur related expenditures. There is very little in economic theory or a consensus on the optimal state expenditure related to administration. It could vary from state to state depending on geography, size of the population, social and political conditions, etc.

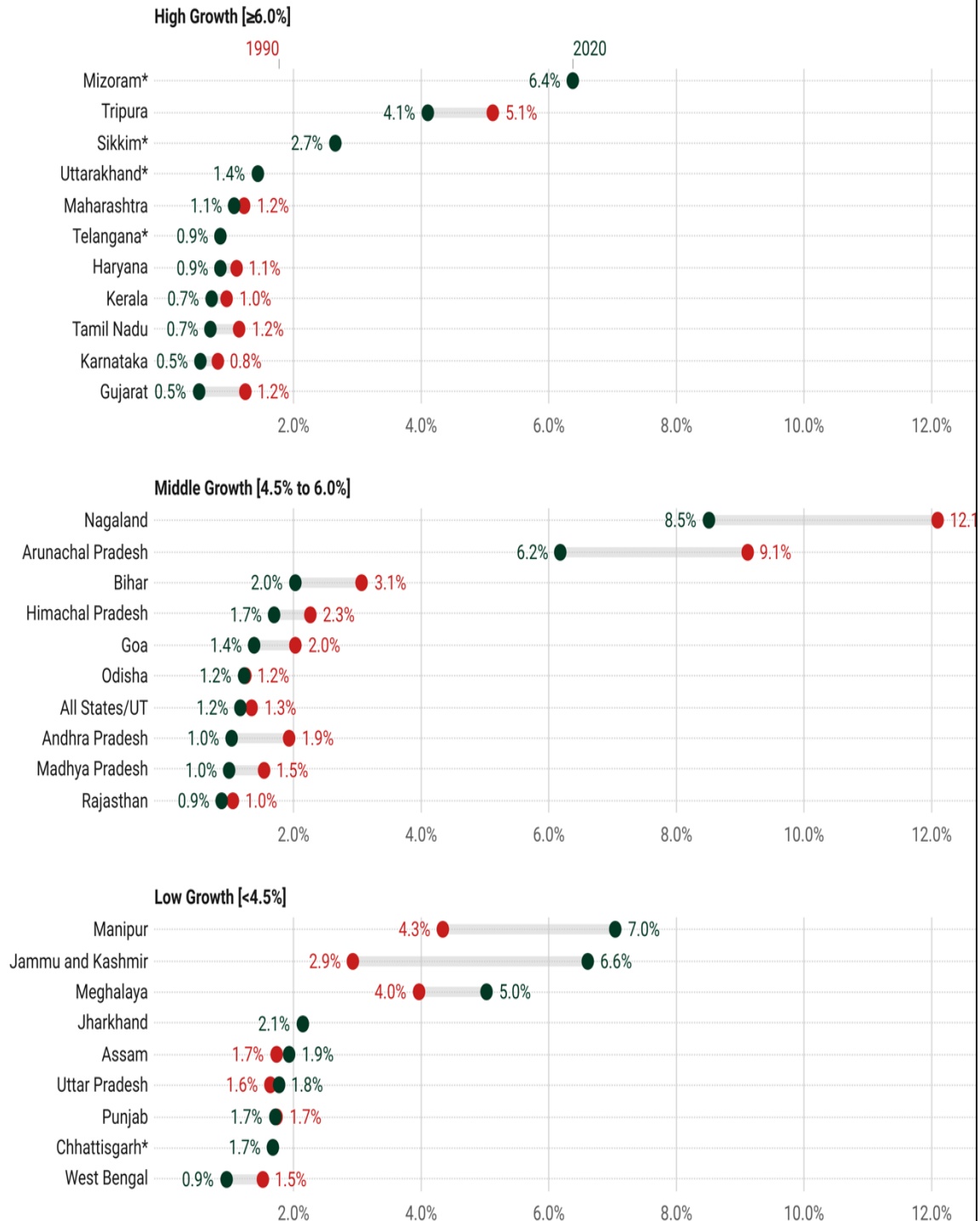
To compare across states and over time, first, we compute the ratio of the expenditure related to administrative services and the Net State Domestic Product (NSDP) at current prices with 2011–12 as the base year. Defining the expenditure related to administrative services is crucial. It is classified into five components, (a) Secretariat – General Services, (b) District Administration, (c) Police, (d) Public Works, and (e) Others.

To further enrich the inter-state comparative analysis, we divide the states into three categories based on average per-capita growth for the period 2000 to 2019; (i) high-growth states with per-capita growth $\geq 6\%$, (ii) middle growth states with per-capita growth between 4.5% and 6%, and (iii) low growth states with per capita growth $< 4.5\%$. The results are presented in Figure 6b.

- The per-capita growth for each state was computed by running a linear regression of the logarithm of NSDP at constant prices with 2011–12 as the base year on the year variable, and the coefficient on the year variable was used as the average per-capita growth for the state. We focus on the growth computation from 2000 to 2019, as data for most states is available post-2000. The budget and NSDP data for the states were from the Reserve Bank of India database on the Indian Economy and the state budget report (2023).
- The results reflect enormous inter-state variations. For example, in 2020, among the large states, Gujarat and Karnataka had the lowest ratio of expenditure related to administrative services to NSDP, at 0.5%, respectively.
- This was more than three times higher in states such as Punjab, Assam, Chhattisgarh, Uttar Pradesh, Jharkhand, and Bihar at more than 1.7%.
- Compared to larger states, smaller states typically had a higher ratio of expenditure related to administrative services to NSDP, perhaps reflecting fixed costs associated with administration.
- However, there was significant variation among the smaller states; for example, in 2020, Nagaland had the highest ratio at 8.5%, followed by Manipur at 7%, while for Sikkim, Uttarakhand, and Himachal Pradesh, it was 2.7%, 1.4%, and 1.7%, respectively.
- Comparing broad changes from 1990 to 2020, we observe interesting patterns across states with varying growth rates. Across all high and middle-growth states, the ratio of expenditure related to administrative services to NSDP has declined. For example, Gujarat has lowered it from 1.2% in 1990 (when it was similar to other states) to an impressive 0.5% in 2020, the lowest in the country. In sharp contrast, in low-growth states, the ratio of expenditure related to administrative services to NSDP has increased for most states!

Figure 6b(i): Administrative Services Expenditure as % of State Domestic Product

Administrative Services Expenditure as % of Net State Domestic Product (NSDP)



*For these states the 1990 data does not exist either because the data does not exist or the state was not formed then.

The growth rates are computed as a coefficient of a linear regression of logarithm of per capita NSDP at constant prices (Base year 2011–12) on time variable. The growth rates are based on data from year 2000 to 2019.

Chart: Shamika Ravi (Member, PM–EAC) • Source: State Budgets Report (RBI) • Created with Datawrapper

While the above analysis looks at economic growth and state spending on administrative expenditures, it is essential that we also study this as a percentage of development expenditure to appreciate the tradeoffs involved fully. The results are presented in Figure 6b (ii) below.

- We found that at the all-India level, it declined from approximately 15% in the 1990s to about 11% in 2020-21.
- It is worth noting that for Gujarat, Karnataka, and Rajasthan, it was lower than 7.5% in 2020-21. However, for Punjab, it has consistently remained at more than 20%.
- The pattern is interesting for smaller states and UTs, except for Himachal Pradesh, Puducherry, and Goa, administrative services as a percentage of development expenditure have been much higher than the all-India level.
- Among the northeastern states: For Nagaland, it has consistently remained high at more than 30%; for Manipur, it has increased from the lows of 20% in the mid-2000s to more than 30% in 2020-21. In Meghalaya, Tripura, Mizoram, and Arunachal Pradesh, it has consistently remained more than 20%, twice that of the all-India level.

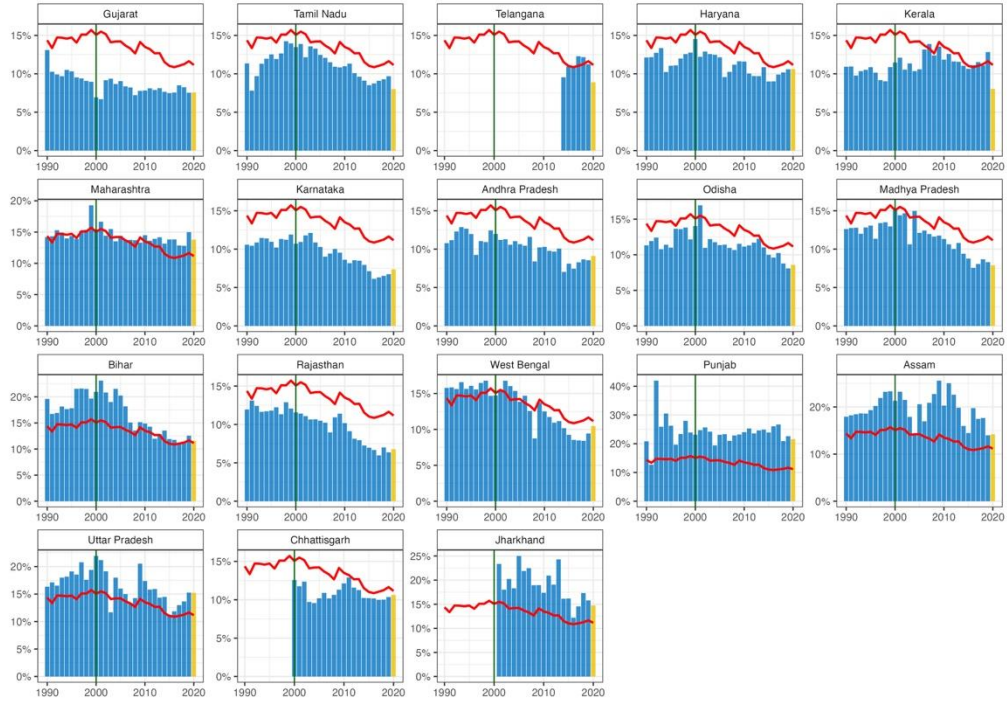
Administrative Efficiency: Policy Recommendation

- For India to become a developed country by 2047, we must create a knowledge-sharing platform where states with high administrative efficiency can disseminate the best practices to lagging states. NITI Aayog could serve this critical role. The primary focus should be to document the incremental and micro changes that states have initiated to gain greater efficiency such that other states can learn and adapt to their conditions. It would be critical to understand how Gujarat and Karnataka have achieved such high levels of efficiency in state administration. With increased emphasis on digitizing administrative services and the Digital India initiative, real-time knowledge sharing across states is a practical possibility and a financial necessity.
- Second, conflicts are costly. States with ongoing (or past conflict) have a much higher ratio of expenditure related to administrative services to NSDP. Conflicts necessitate higher spending on security, such as police, and simultaneously lower the level of NSDP. Hence, the most significant dividend from conflict resolution is greater resources for development. States such as Punjab, which have successfully resolved past conflicts, continue to incur high levels of police expenditure, perhaps reflecting the persistence in government expenditure. Therefore, history matters.

Figure 6b (ii): Administrative services (as % of Development Expenditure)

Administrative Services (as % of Development expenditure)

Large states



Base Year = 2011-12
Data source: Reserve Bank of India (RBI) Database on Indian Economy
Shamika Ravi (Member, PM-EAC)

Administrative Services (as % of Development expenditure)

Small states/UTs



Base Year = 2011-12
Data source: Reserve Bank of India (RBI) Database on Indian Economy
Shamika Ravi (Member, PM-EAC)

Note: The red line is the combined data for all states and UTs. The states have been ordered based on the growth of real per capita NSDP from the highest to the lowest.

Result 6c: Pension Expenditures

Last, we look at pensions as a percentage of development expenditure. The results are presented in Figure 6c below. The first point relates to the tradeoff within the state budget between development and non-development expenditure.

- From 1990–91 to 2004–05, all the states witnessed a dramatic decline in the development-to-non-development expenditure ratio - from approximately 221% to 118%.
- There were significant variations across states, where West Bengal showed the worst deterioration (from 224% to 77%), while in Gujarat, it declined from 228% to 141%.
- This shift from development to non-development expenditure was primarily driven by an exponential increase in state spending on pensions, interest payments & debt servicing.
- For example, when we look at the ratio of spending on pensions to development expenditure, it rose about three times from around 6.4% in 1990 to 17.3% in 2004. It varied from state to state; for example, in Bihar, this ratio rose from about 6% in 1990 to 34% in 2004.
- It is also worth mentioning that the increase in the ratio of pensions to expenditure on economic services was significantly more pronounced than the increase in the proportion of pensions to social services. In plain language, the heightened pension burden is at the expense of economic services, which are critical components for raising productivity and the longer-term economic growth of the state.
- *A fundamental lesson from this analysis was the tradeoff between pension and development expenditure of the states.* The pension reforms were hence a watershed moment for the states. One of the most far-sighted reforms in India was the Pension reform implemented by the NDA government in 2003–04, called the New Pension Scheme (NPS). The key feature of the NPS was a move towards a broad-based and sustainable contributory pension system and away from the old pension scheme (OPS), where the government was obliged to pay pre-determined benefits to public employees post-retirement. Under the OPS, public employees did not contribute to their retirement.
- Over time, as public employees' life expectancy increased, the state's fiscal burden under the OPS began to rise exponentially, necessitating pension reforms. This is evident in Figure 6c in the sharply rising trend from 1990–2003 and a milder rise after the pension reforms. This is true for every state in India, as shown in the figure.
- There was a paradoxical situation in India. While more than 80% of the labour force works in the informal sector with practically no job security and old-age financial support, the 5% to 6% of the workforce that worked for the government enjoyed job security and very generous post-retirement benefits.
- In recent times, however, while some state governments have already reversed the pension reform and returned to the financially burdensome and fiscally non-viable OPS, in other states, there is a growing political clamour to reinstate the OPS. In this

analysis, I wish to go beyond the OPS's fiscal burden and financial viability and focus on the economic tradeoffs that the state governments would have to reckon with, particularly its impact on the poor and the vulnerable. An objective analysis of state budgets of thirty years from 1990 to 2020 highlights two points that merit consideration.

- (i) Reversing to the OPS would, therefore, result in a reallocation of resources away from the state's development expenditure which benefits the poor, and towards a much smaller group of people who have benefitted from a secured and privileged job throughout their working life. Given that economic services such as infrastructure and rural and urban development were affected more severely than social services, it would reduce the productivity of the poor, further diminishing their future economic prospects. In brief, going back to the OPS will worsen inequality and lower economic growth in the states.
- (ii) The second tradeoff emerges from the financing of the state budgets. Two avenues were available to finance the increased non-development expenditure related to pensions. One way was to raise revenues primarily through taxes, and the other was to finance the deficits by borrowing. Our analysis revealed that from 1990 to 2004, the state's revenues did not match the state's increased expenditure. Therefore, the deficit of the state governments increased exponentially. To better understand this, we computed, for each state, the real per capita gross fiscal deficit (GFD) from the state budgets, allowing us to make comparisons over time and across states. The real value was computed by deflating the nominal values with the yearly price deflator for each state. Time series on state-level price deflators were calculated from RBI annual time series data on the Net State Domestic Product (NSDP) at factor cost in constant and current prices, with 2011–12 as the base year.
- Analysis of the state budgets revealed that on a per-capita basis, the real GFD for all the states more than doubled from rupees 995 in 1990 to 2129 in 2003. In terms of the ratio of GFD to the NSDP, it worsened from 3.6% in 1990 to 4.9% in 2003. The GFD was financed primarily by borrowing from the markets, National Small Savings Fund (NSSF), and loans from the Centre. The fundamental tradeoff, therefore, was that increased state borrowing to finance non-development expenditure was effectively *crowding out* private investment. Resources that would otherwise have been available to the private sector for investment and fostering growth were now being spent for the consumption benefits of the few privileged retired public sector employees.

Pensions: Policy Recommendations

With an ageing population and increased life expectancy, government employees' pensions has become a major political issue. For example, France is witnessing violent protests against government reforms attempting to raise the retirement age from 62 to 64. The Indian government, in 2003–04, had the political will and far-sightedness to introduce pension reforms to make the state budgets sustainable. *The data clearly shows the structural break post the reforms. The real beneficiaries of the Indian pension reforms were the poor and vulnerable, including women and children; the state resources that went to them otherwise would have been crowded out by the privileged and the organized few.* The analysis suggests that state governments, over and above the financial feasibility of the OPS,

would need to think hard about its impact on the poor and vulnerable, particularly women and children. *This could perhaps become one of the key mandates for the next Finance Commission – to determine the long-term economic viability (financial +welfare) of public pension programs in India.*

In states like Himachal Pradesh and Punjab, pensions as a percentage of development spending already account for a whopping 37% and 31% and are among the highest anywhere. So for these states, the reversal to the old pension scheme will most certainly have a catastrophic impact on their poor populations. The reversal will deprive the poor of essential services such as health and education. It also prevents them from participating in growth opportunities when resources are reallocated from the infrastructure needs of the poor to the excessive consumption of the privileged few.

Figure 6c: Pensions (as % of Development Expenditure)

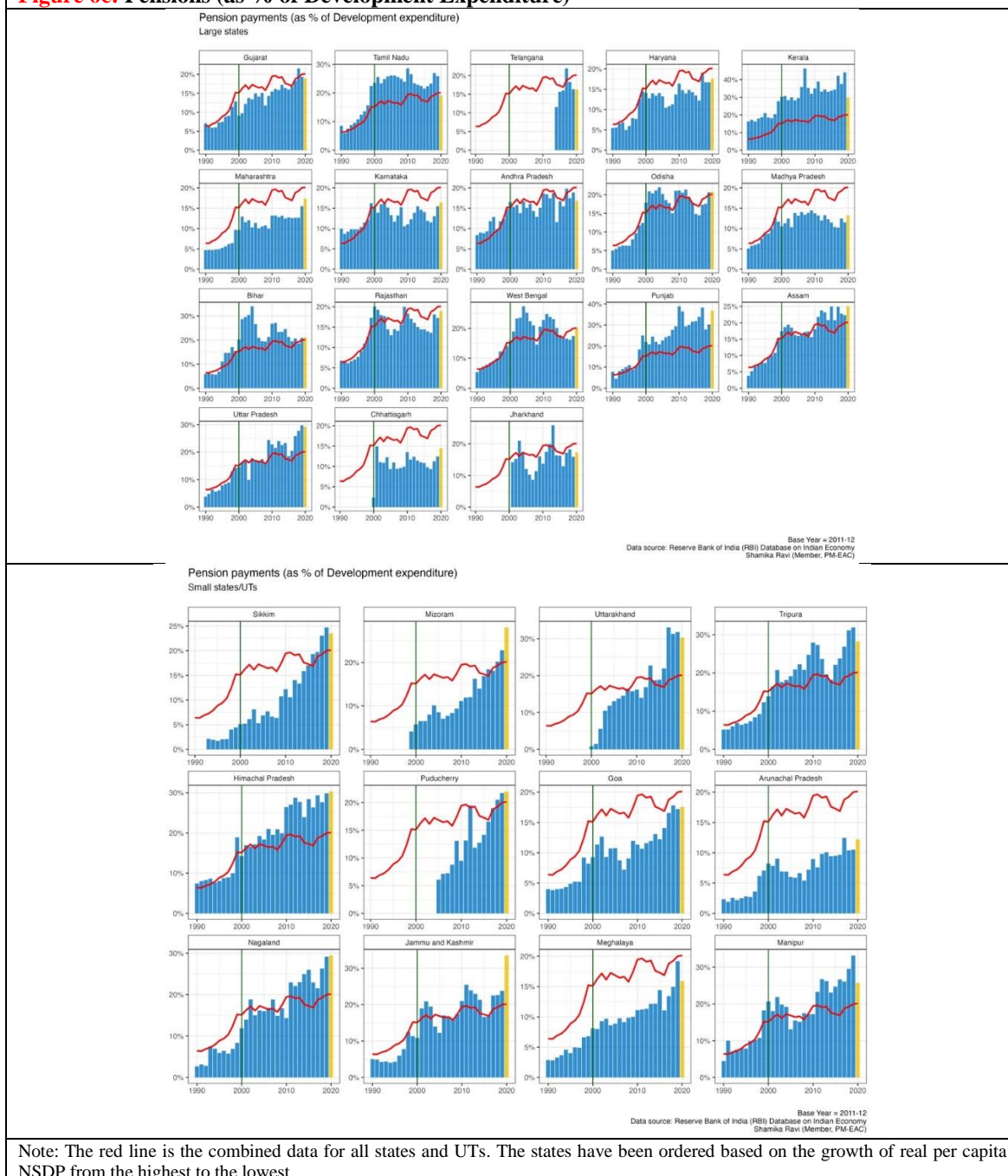
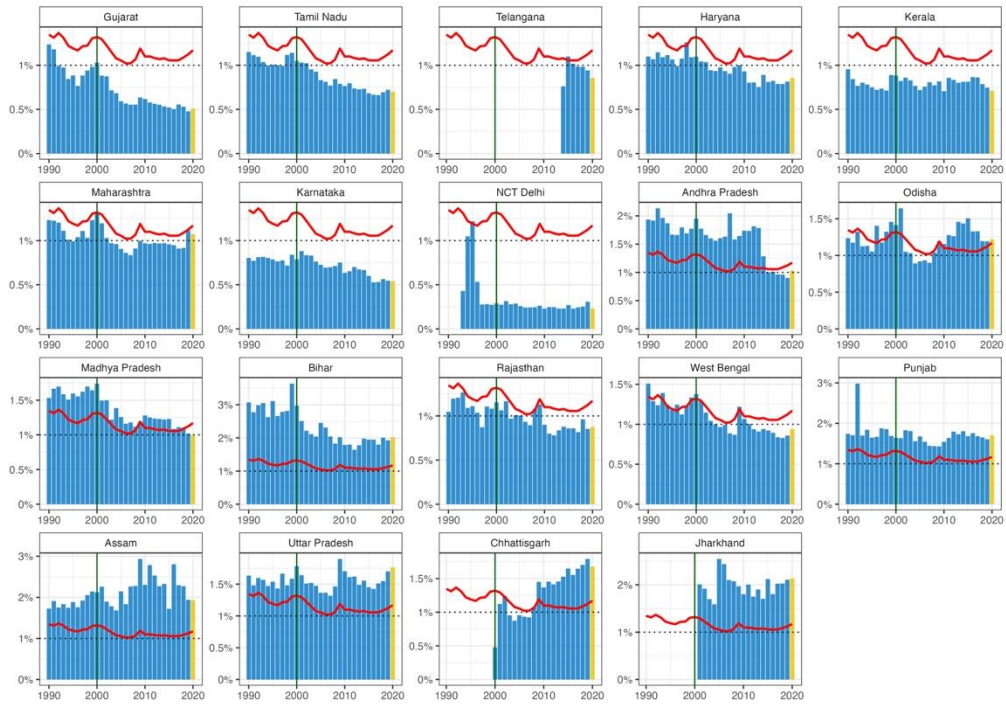


Figure 7d: Expenditure on Administrative services (as % of NSDP)

Expenditure on Administrative Services (as % of Net State Domestic Product*)

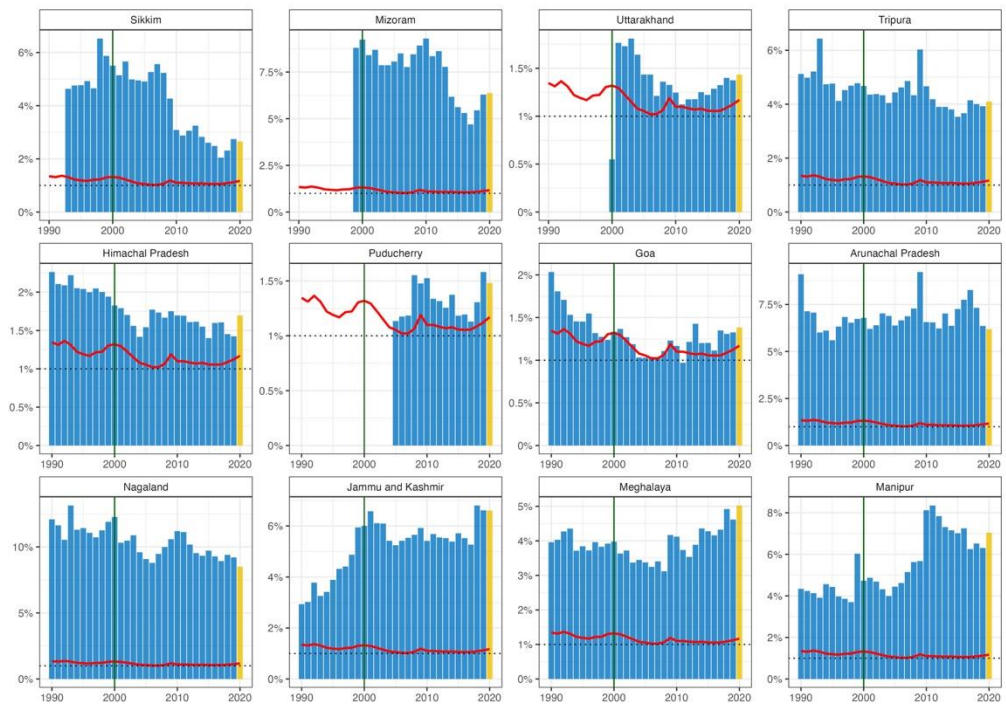
Large states



*Constant Prices, Base Year = 2011-12
Data source: Reserve Bank of India (RBI) Database on Indian Economy
Shamika Ravi (Member, PM-EAC)

Expenditure on Administrative Services (as % of Net State Domestic Product*)

Small states/UTs



*Constant Prices, Base Year = 2011-12
Data source: Reserve Bank of India (RBI) Database on Indian Economy
Shamika Ravi (Member, PM-EAC)

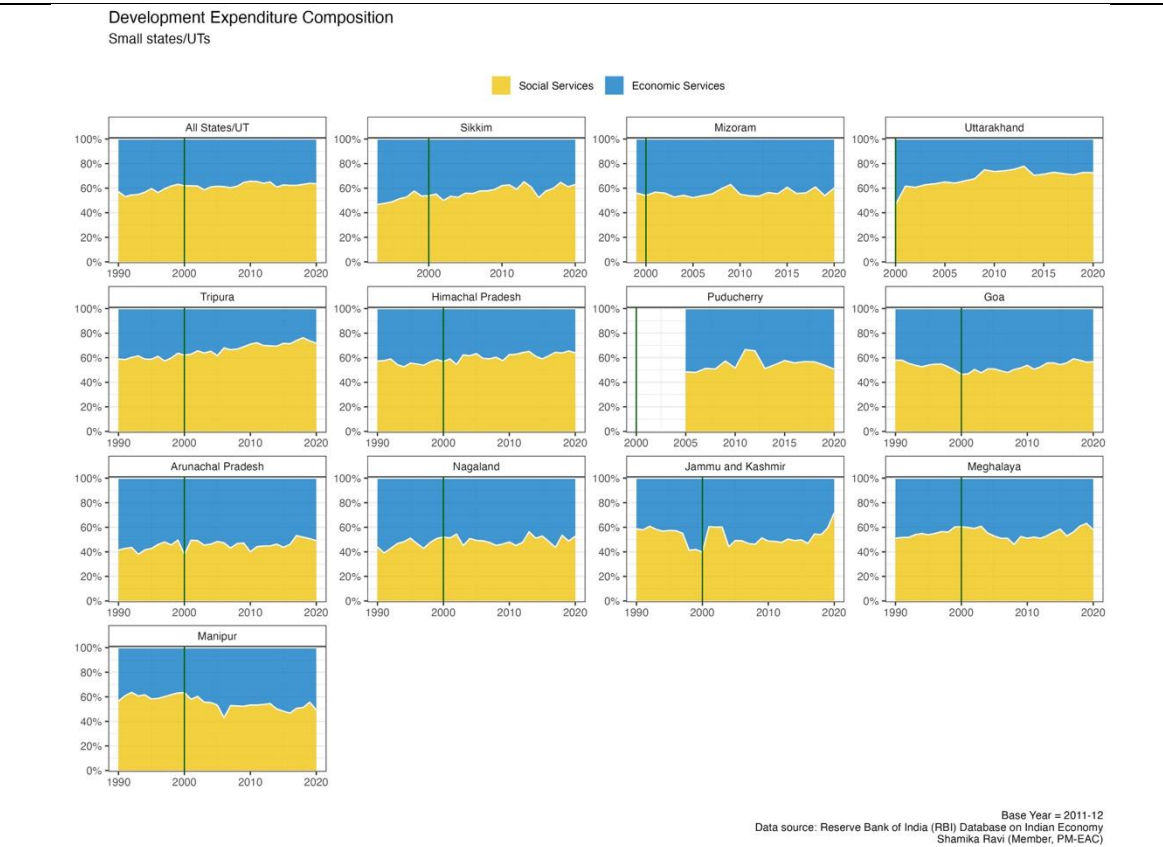
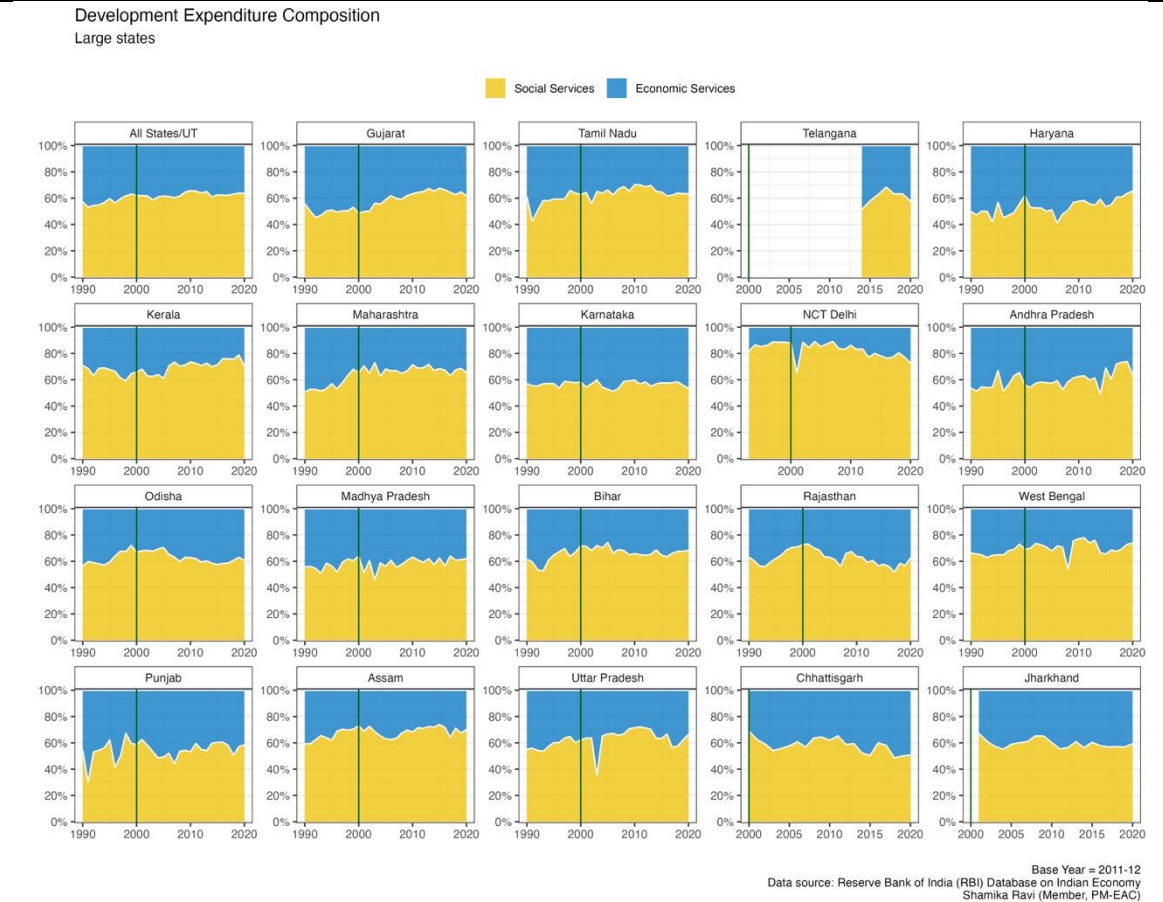
Note: The red line is the combined data for all states and UTs. The states have been ordered based on the growth of real per capita NSDP from the highest to the lowest.

Result 7: Development Expenditure

Development expenditure is subdivided into two categories: (a) Social services, which includes Education, Health, Family Welfare, Water and Sanitation, Housing, Urban Development, Welfare of Scheduled Castes (SCs), Scheduled Tribes (STs) and Other Backward Classes (OBC), Social Security and Welfare, Nutrition, etc. primarily. (b) Economic services, which includes Agriculture and Allied Activities, Rural Development, Special Area Programmes, Irrigation and Flood control, Energy, Transport and Communications, Industry and Minerals, Science Technology and Environment, and General Economic Services. The detailed descriptions of development expenditures are presented in Chart 1.

- When we look at development expenditure into the two categories of social and economic services, we observe that the share of social services is between 50% to 60% of the total development expenditure.
- It remains relatively stable over time and across states, except for Delhi, Uttarakhand, West Bengal, and Tripura, where it was over 70%. The results are reported in Figure 7 below.

Figure 7: Development Expenditure Composition



Result 7a: Development Expenditure - Social Services

We also looked at the composition of development expenditure for social services. Across states and over time, the dominant share of the expenditure in social services was for (i) Education, Sports, Arts and Culture, and (ii) Medical and Public Health.

- However, there are variations across states in other social services expenditures across time. For example, in Gujarat, since 2004-05, we observed a significant expansion in urban development.
- We followed a similar pattern for Maharashtra and Haryana, and in Jharkhand, urban development share increased significantly post-2010-11.
- Tamil Nadu, Haryana, Kerala, Karnataka, Delhi, Andhra Pradesh, Odisha, Bihar, Rajasthan, West Bengal, Punjab, Uttar Pradesh, Jharkhand, Tripura, Puducherry, and Goa have experienced a significant increase in social security and welfare over time, in particular post-2000.
- Notably, in Chhattisgarh, the share of expenditure related to the Welfare of SC/STs and OBCs reduced significantly post-2015.

Figure 7a: Development Expenditure Composition: Social Services

Development Expenditure Composition: Social Services
Large states



Development Expenditure Composition: Social Services
Small states/UTs

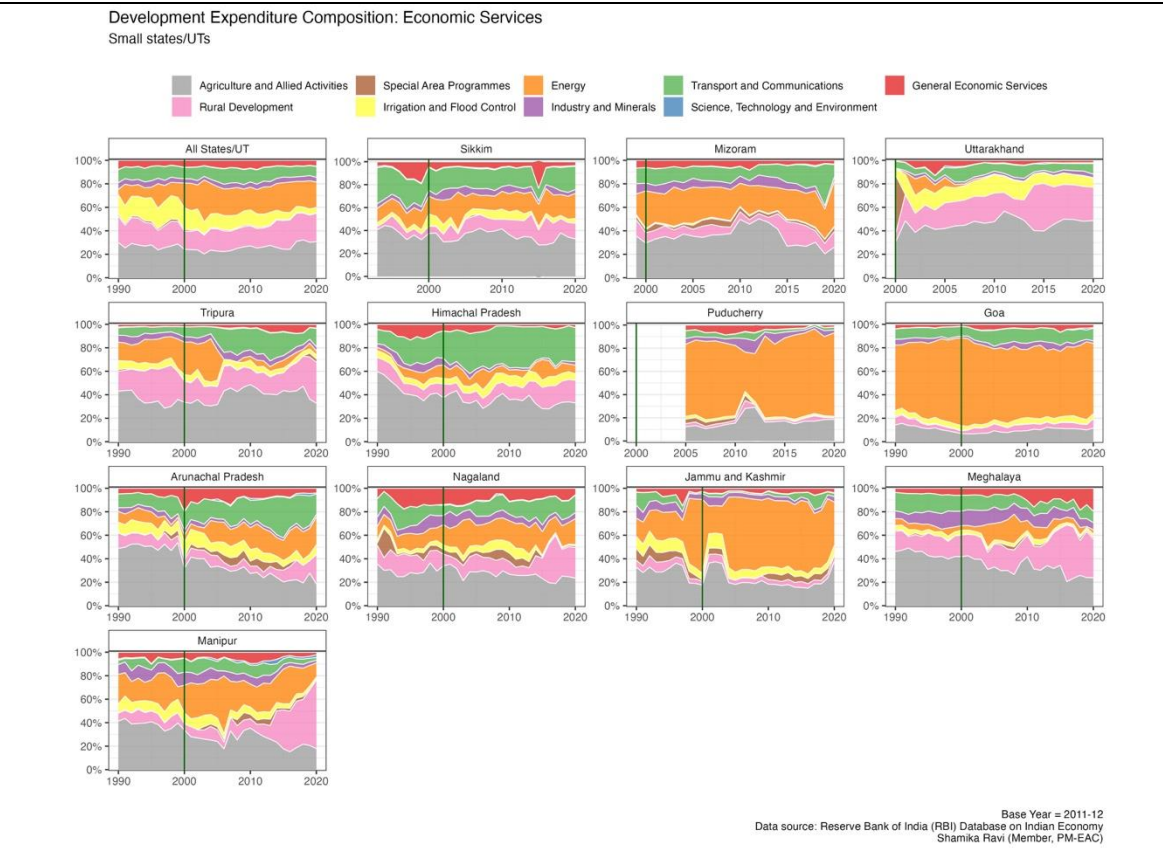
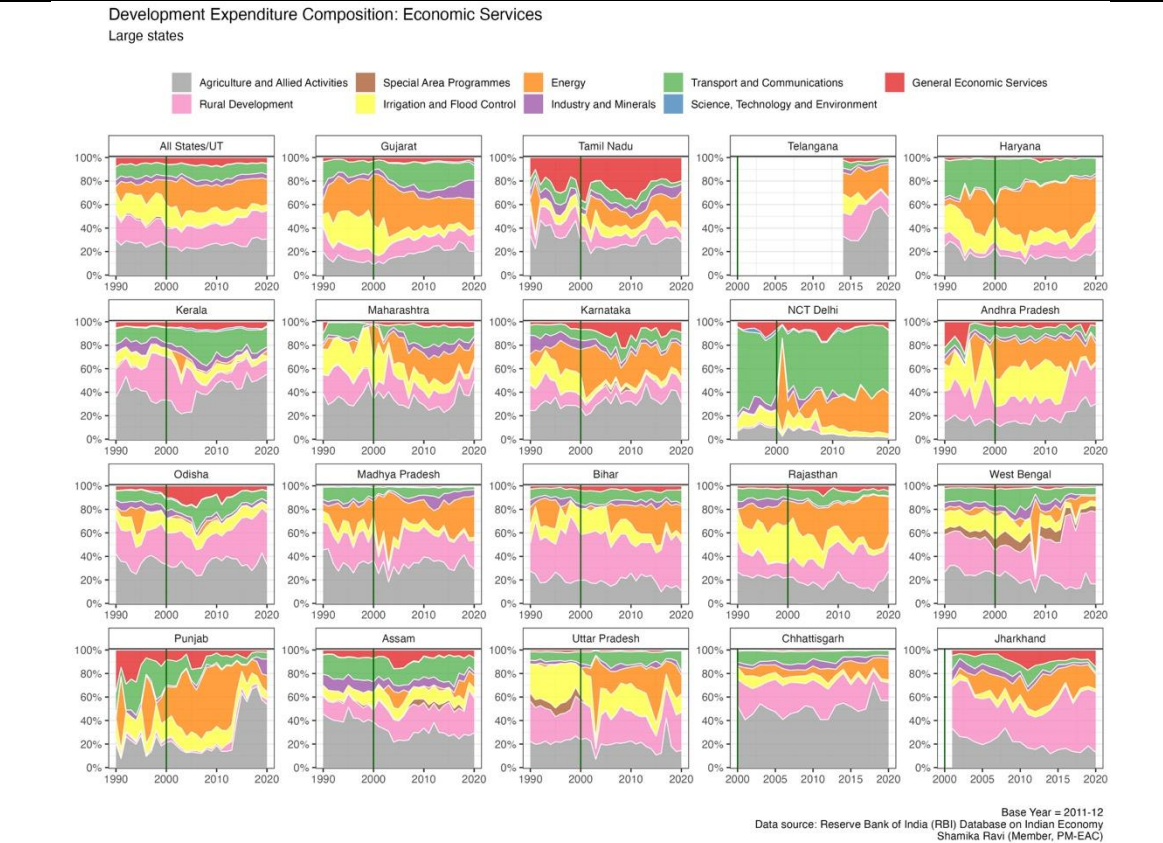


Result 7b. Development Expenditure - Economic services

Concerning economic development expenditure, the results are presented in Figure 7b.

- We observed at the all-India level a significant increase in energy-related expenditure post-2000s, with a decline in expenditure related to irrigation and flood control.
- However, there is considerable variation across states. In Gujarat, post-2000, there is a shift in spending towards energy, industry, transport and communications.
- In Haryana, rural development and energy have experienced a sizeable increase in expenditure.
- In Punjab, the share of energy expenditure increased significantly till 2014, post which the share of agriculture and allied activities expenditures became dominant.
- Among the large states, this sizeable increase in the percentage of agriculture and allied activities in expenditures was unique to Punjab.
- It is also worth noting that since 2010, the share of rural development in development expenditures has increased significantly in Nagaland, Meghalaya, and Manipur. These results are reported in Figure 7b.

Figure 7b: Development Expenditure Composition: Economic Services



Result 8: Capital Outlay for Development

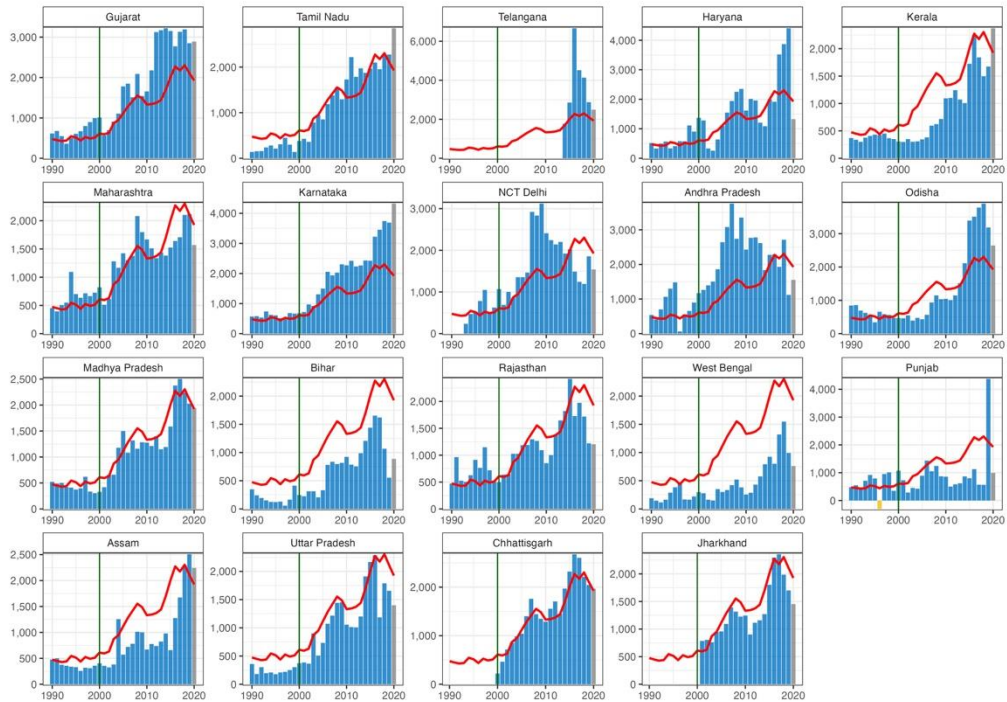
This section looks at total capital disbursements (excluding public accounts), particularly emphasizing capital outlay for developmental purposes. (See Charts 3 and 4 for a detailed description of capital disbursements and capital outlay for development purposes). This is a significant determinant of long-term economic growth and improving productivity of state economies. For details on social and economic services, see the data section. The results are presented in Figure 8 below.

- The first set of results relates to total capital outlay for developmental purposes. We observed that for all the states and UTs combined, the per-capita total capital outlay for development (in constant 2011-12 prices) increased from 475 in 1990-91 to 511 in 1999-00. It grew from 611 in 2000-01 to 1553 in 2008-09, declining to 1332 in 2010-11 and then rising to 1926 in 2020-21.
- However, there is variation across states and over time. For example, in Gujarat, since 2004-05, the per-capita total capital outlay for development purposes has been higher than that of combined data for all states and UTs.
- We observed a similar pattern for Tamil Nadu and Karnataka.
- It is worth noting that for the states of Bihar, West Bengal and Punjab, per capita total capital outlay for development has been significantly lower than that of combined data for states and UTs.
- Since 2012-13, Odisha has seen a significant increase compared to the combined data for all states and UTs.
- For small states, particularly the northeastern states, per-capita capital outlay for development has been much higher than that for all states and UTs combined.

Figure 8: Total Capital Outlay for Development (per capita, Constant Prices)

Development Capital Outlay (per capita, Constant prices, Rupees)

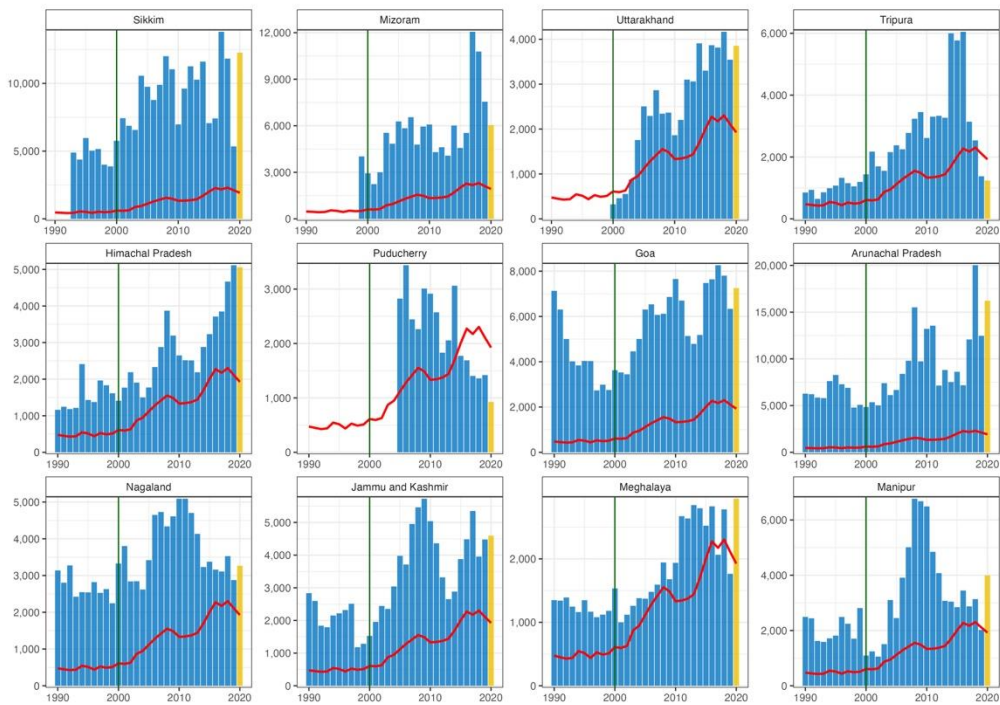
Large states



Base Year = 2011-12
Data source: Reserve Bank of India (RBI) Database on Indian Economy
Shamika Ravi (Member, PM-EAC)

Development Capital Outlay (per capita, Constant prices, Rupees)

Small states/UTs



Base Year = 2011-12
Data source: Reserve Bank of India (RBI) Database on Indian Economy
Shamika Ravi (Member, PM-EAC)

Note: The red line is the combined data for all states and UTs. The states have been ordered based on the growth of real per capita NSDP from the highest to the lowest.

Result 8a: Composition of Capital Disbursements and Capital Outlay for Development

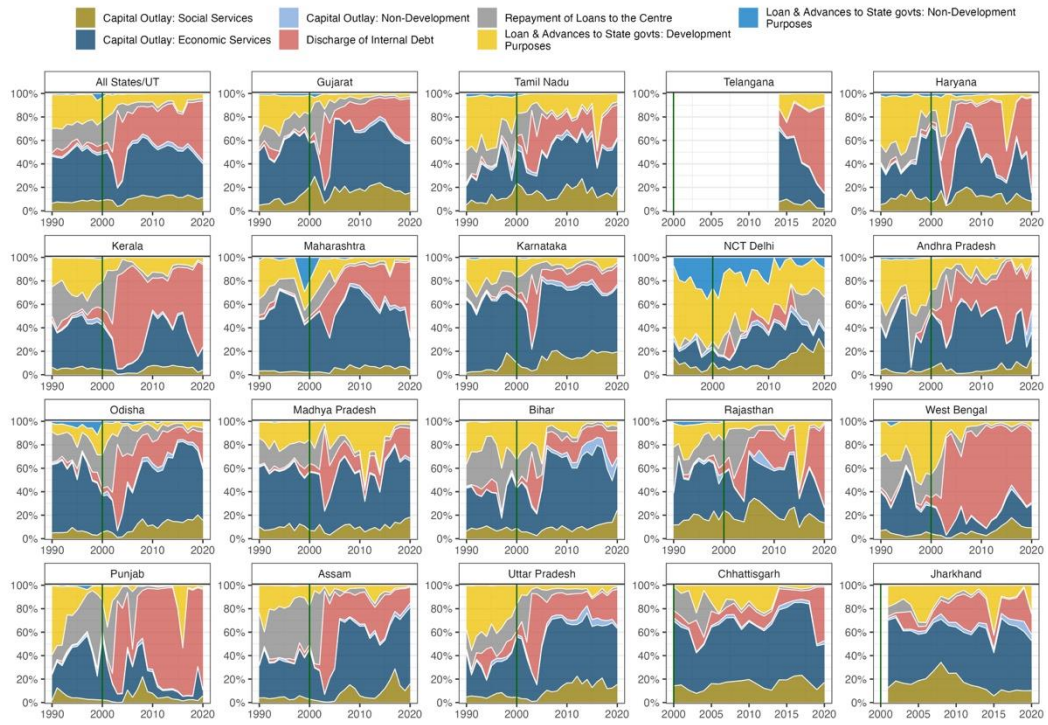
Next, we look at the evolution of the composition of the total capital disbursements (excluding public accounts) and capital outlay for developmental purposes (see charts 3 and 4 for a detailed description). We primarily focus on (a) Social Services and (b) Economic Services, which we further subdivide into; (i) Agriculture, (ii) Industries, (iii) Infrastructure, (iv) Science, Technology, and Environment, and (v) General Economic Services. These are presented in Figure 8a below.

- For combined data for all states and UTs, we observed that the share of discharge of internal debt has increased significantly over time, particularly after the mid-2000s.
- This has primarily come at the expense of capital outlay for economic services.
- However, there are variations across states. First, we observe that for West Bengal and Punjab, the share of discharge of internal debt has increased significantly since 2000, over 60%.
- We also observed similar patterns for Mizoram, Uttarakhand, Tripura, Himachal Pradesh, Goa, Nagaland, and Manipur.

Figure 8a: Composition of Total Capital Disbursements (excluding Public Accounts)

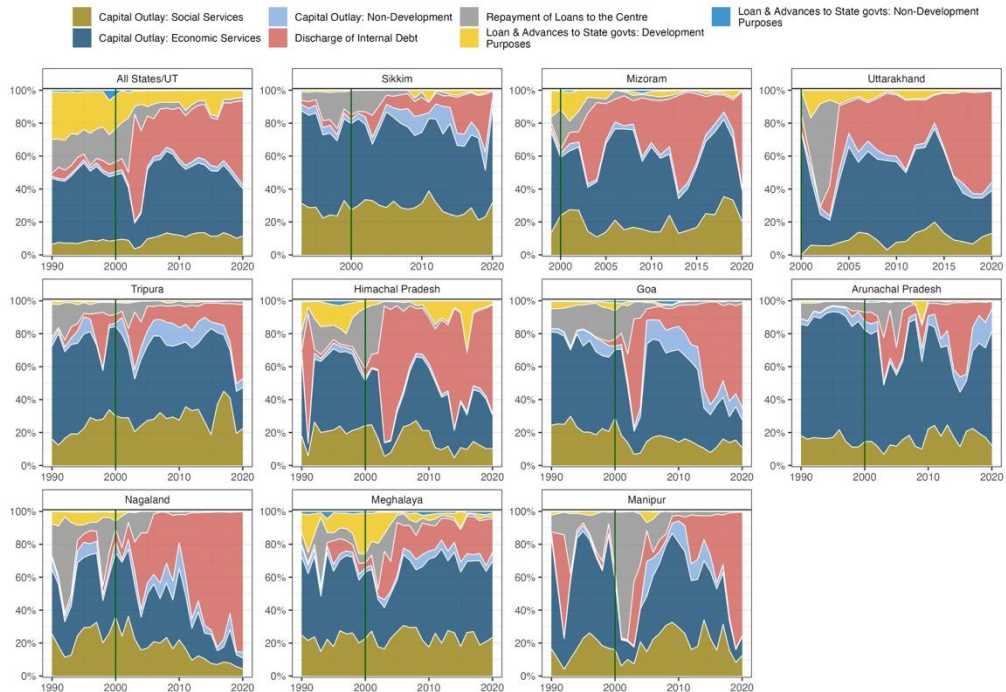
Total Capital Disbursements (excluding Public Accounts)

Large states



Total Capital Disbursements (excluding Public Accounts)

Small states



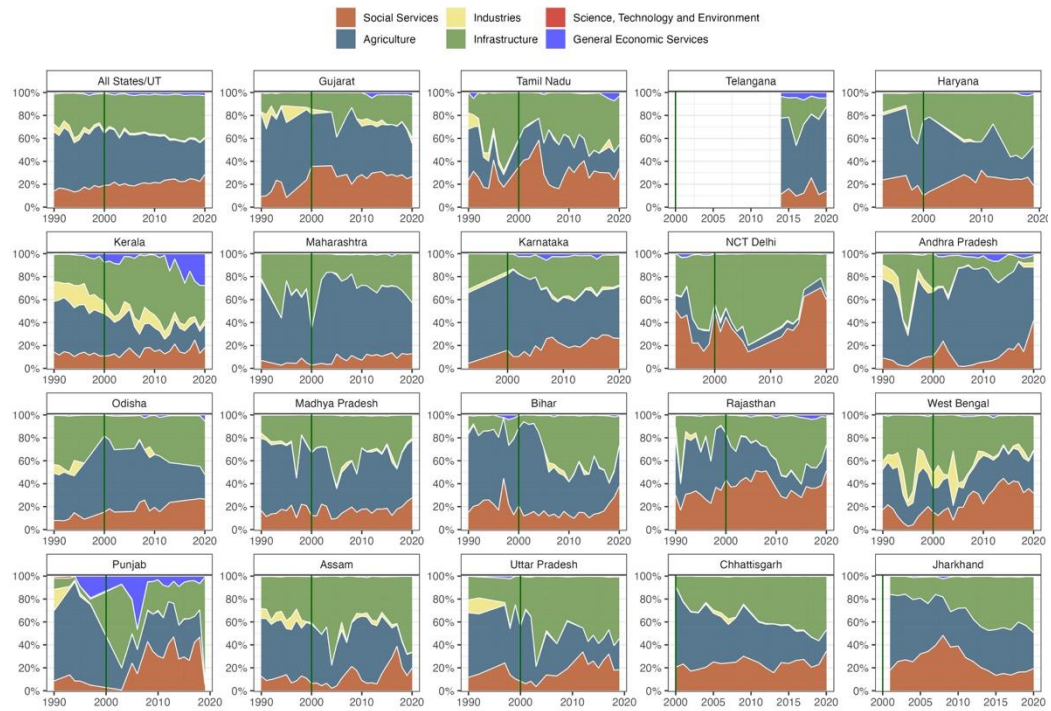
Result 8b: Composition of Total Capital Outlay for Developmental Purposes

There are interesting trends across states when we look at the composition of total capital outlay for development purposes. The results are presented in Figure 8b below.

- We observe that combined data for all the states and UTs shows a shift in capital outlay from agriculture to infrastructure and social services.
- Interestingly, in Delhi, since 2014-15, there has been a shift in capital outlay from infrastructure to social services (which includes education and health).
- In sharp contrast, in Jharkhand, there is a shift from social services to infrastructure.
- In Uttarakhand, Tripura and Manipur, there is a shift from infrastructure to agriculture and social services.

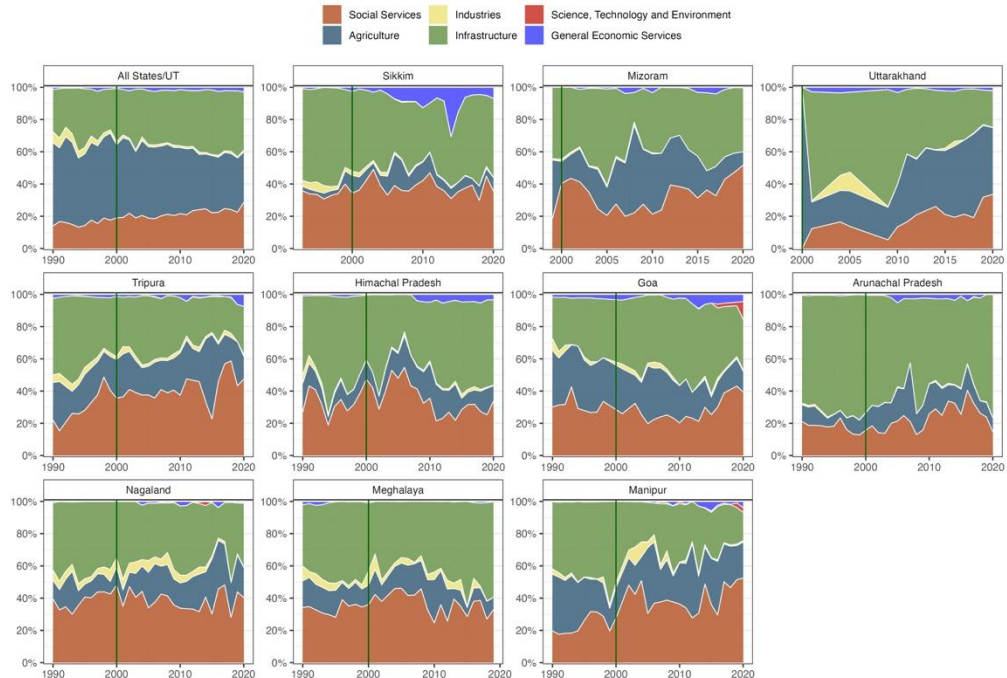
Figure 8b: Composition of Total Capital Outlay for Developmental Purposes

Composition of Capital Outlay for Developmental Purposes
Large states



*This excludes Public Accounts.
Base Year = 2011-12
Data source: Reserve Bank of India (RBI) Database on Indian Economy
Shamika Ravi (Member, PM-EAC)

Composition of Capital Outlay for Developmental Purposes
Small states/UTs



*This excludes Public Accounts.
Base Year = 2011-12
Data source: Reserve Bank of India (RBI) Database on Indian Economy
Shamika Ravi (Member, PM-EAC)

IV. Discussion and Conclusion

Whether the state should focus on providing free basic consumption goods or economic goods that enhance productivity is complex and multifaceted. Three critical considerations merit attention.

- First, it is beyond doubt that the state must provide a basic minimum of food, health, education, and security that preserves the dignity of an individual. Unfortunately, one cannot be guided by theory on what this basic minimum should be. For all practical purposes, it primarily depends on the state's economic capacity and, to some extent, on the social and political context.
- Second, any state provisions beyond the basic minimum could have three potential distortionary effects, (a) it could make the individual over-dependent on the state and, therefore, less likely to exert an optimal effort, (b) given the over-dependence of the individual on the state, there is a high possibility of corruption and rent-seeking activities by the state functionaries, and (c) it could divert resources from long-term productivity-enhancing expenditure such as infrastructure.
- The third is to go beyond the rhetoric and look at states' actual resource allocation on developmental activities regarding expenditure and capital outlay. The tradeoff the states face vis-à-vis development and non-development expenditure such as pensions, interest rates & debt servicing, and expenditures related to administrative services.

This report goes beyond the rhetoric, focuses on the third perspective, and thoroughly explores the state budgets. It highlights the resource tradeoff of the states in different economic development phases, which go beyond the electoral and political pronouncements. Furthermore, we have taken a historical perspective and analyzed the state budgets from 1990 to 2020, as critical lessons from the past should guide the future.

State budgets reflect the priorities and commitments of the state towards the short and long-term well-being and development of people. Therefore, it becomes imperative to look at the evolution of the different compositions of the budgets, such as revenue, expenditure, and capital disbursements, particularly emphasizing the components that relate to the development. To make comparisons across states and over time, we look at the budget in *real per-capita terms* by using a price deflator and dividing it by the population for each state.

Our first general observation concerns the states' revenue. High growth rates, such as Gujarat, Tamil Nadu, Haryana, Kerala, Karnataka, and Maharashtra, have much higher real revenue per capita than the combined data for all states and UTs. In contrast, low-growth states like Bihar, West Bengal, Uttar Pradesh, and Jharkhand have much lower real per-capita revenue. This relationship between growth and revenue is much lower for smaller and mainly north-eastern states of Manipur, Mizoram, Nagaland, and Meghalaya. These north-eastern states have significantly higher revenue per capita than large, high-growth states. For example, in the fiscal year 2020-21, Gujarat had a real per-capita revenue of 14,000, while for Mizoram, it was approximately three times at 43,000. However, the critical difference between high-growth and low-growth states, including the northeastern states, is in the revenue composition. High-growth states generate more than 50% of their revenues from their own taxes.

In contrast, low-growth states depend primarily on sharable taxes from the Centre, and the northeastern states (including Jammu & Kashmir) rely heavily on grants from the Centre. For the north-eastern states, the share of own taxes revenues is less than 20% of the total revenues. This reflects low levels of economic activity and heavy reliance on the Central government for their development needs.

When we looked at expenditures, we found a similar pattern to what we saw for revenues. High-growth states spend much more on a per capita basis than low-growth large states. This pattern is true for expenditure and capital outlay for development purposes. However, in northeastern states, irrespective of low growth, per capita expenditure for development and per capita capital outlay is significantly higher than in high-growth large states. For example, in 2020-21, Arunachal Pradesh spent approximately 16000 on per-capita bases on capital outlay for development purposes, while Gujarat and Tamil Nadu, high-growth states, spent about 2800 rupees, respectively. *It remains a puzzle that despite higher per-capita spending on capital outlay for development, from 1990 to 2020, the north-eastern states, except for Sikkim and Tripura, have not been able to generate a real per capita growth higher than the national average of 4.7% during the period 2000 to 2019, while high growth states have had an average growth rate over 7% during the same period.*

It is also worth mentioning that Punjab and West Bengal, which lag behind the national average in real per-capita growth, have invested the least in capital outlay for development. Perhaps this reflects the significant capital disbursement towards the discharging of internal debt. This leaves practically no room for capital outlay for development, which could be why these states are lagging in growth.

Recent debates on pensions, particularly the politics of reviving the old pension scheme in the states, compelled us to look at the *tradeoff between pension and development expenditure*. We computed the ratio of pension to development expenditure. For all states and UTs, we observed that pensions were approximately 5% of the development expenditure in 1990, and it rose three times to about 15% in 1999. However, the pension reforms in the early 2000s stalled this dramatic rise, and from 2000 onwards, pension as a percentage of development expenditure rose from 15% to approximately 20%. This suggests that if the pension reforms had not been initiated, the states would have been overburdened with pension expenditure at the expense of development expenditure. *Therefore, while it might be politically tempting to revive the old pension scheme, the state governments should be aware of the economic costs of the tradeoffs between pension and development expenditure.*

Our final set of results relates to the size of the government, where the Prime Minister has committed himself to "Minimum Government and Maximum Governance." Beyond the sloganeering, we looked at the evolution of the size of the government from state budgets, mainly the expenditure related to administrative services as a percentage of the Net State Domestic Product (NSDP). Data reveals that for all the states and UTs combined, it ranged between 1% and 1.25% from 1990-2020. However, for high-growth states such as Gujarat, expenditure related to administrative services decreased significantly, particularly post-2000, from 1% to less than 0.5% of the state NSDP, similarly for Tamil Nadu, Haryana, and Karnataka. However, for low-growth large states, such as Bihar, Punjab, Assam, Uttar Pradesh, Jharkhand, and Chhattisgarh, it ranges between 1.5% to 2% of the states' NSDP. This pattern seems to suggest that high growth is also associated with the smaller size of the government relative to the economy. However, for north-eastern states such as Arunachal Pradesh, Mizoram, Manipur, and Nagaland, expenditure related to administrative services as a percentage of NSDP has been more than 5%. Similar-sized states, such as Himachal

Pradesh and Uttarakhand, in sharp contrast to the northeastern states, are much lower, at less than 2%. *Based on this comparative analysis, it is essential to discuss the optimal size of the government to deliver efficient governance, which leads to prosperity and well-being.*

Our broad learning from the state budget analysis is that growth is associated with higher per capita expenditure and capital outlay for development. Growth makes the states more self-reliant in terms of their own tax revenues. It is also associated with an efficient size of the government relative to the economy. Furthermore, the debate on pensions would need to consider the tradeoffs states would face concerning development expenditure. The worst affected would be the poor, particularly in low-growth states, who depend on state development expenditure for their basic minimum needs to lead a dignified life.

The main results that emerge from the long term structural trends of state finances have important lessons for the next Finance Commission - to assess financial viability and welfare implications (as well as likely distortions) of specific public programs and schemes. Among other concerns, there is a need for immediate and urgent attention to focus on state pension programs and the structure and servicing of public debt in states. The lessons from the study also highlight that there should be regular sharing of lessons among states on best practices in financial management, administrative efficiency as well structuring of capital outlays for enhancing their productivity and long-term growth. NITI Aayog could serve as this pivotal platform.

Chart 1: Revenues

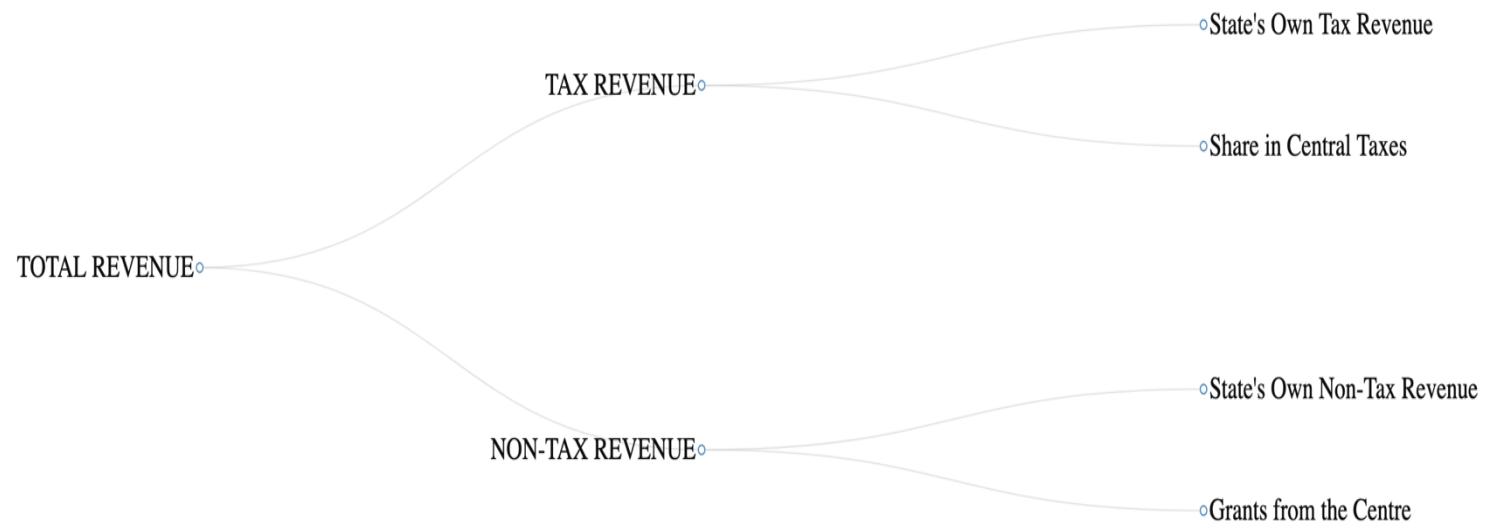


Chart 2: Expenditures

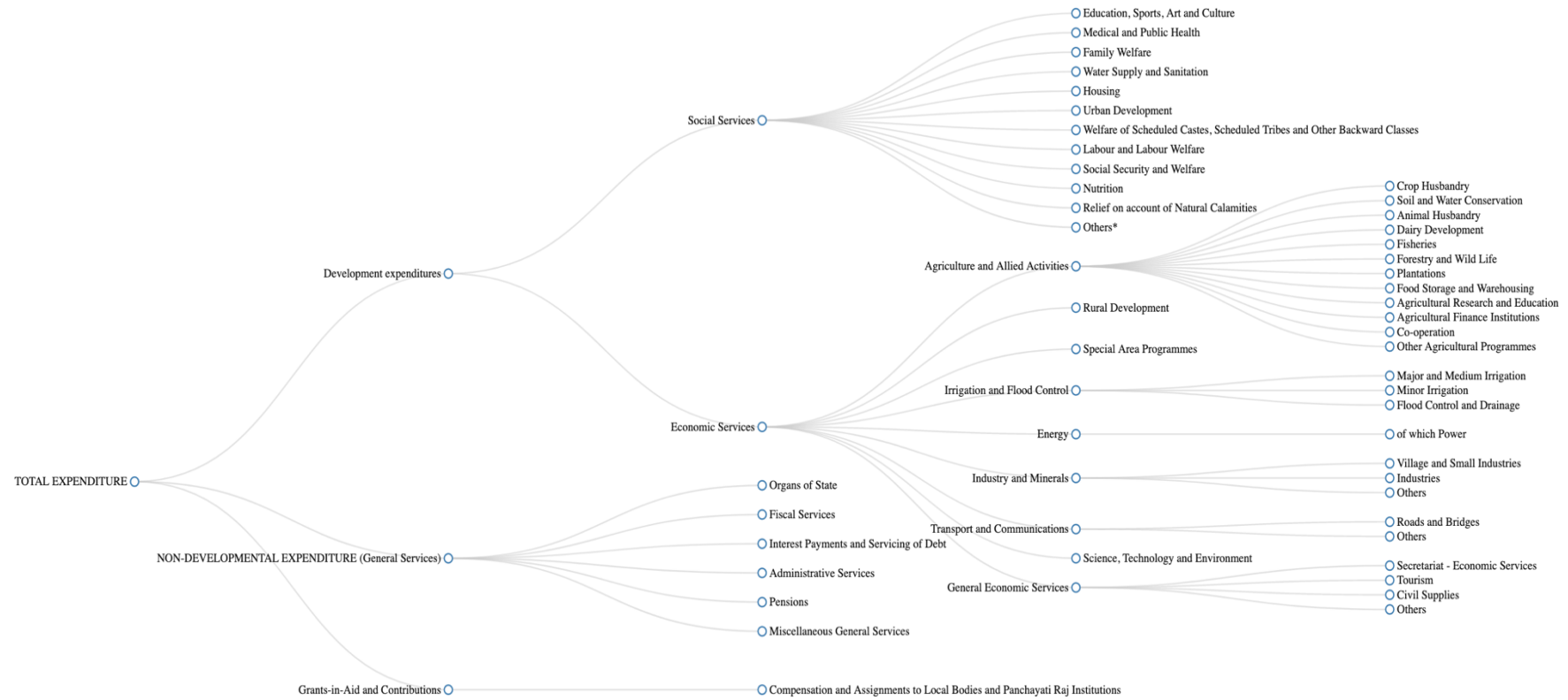


Chart 3: Capital Disbursements (excluding Public Accounts)

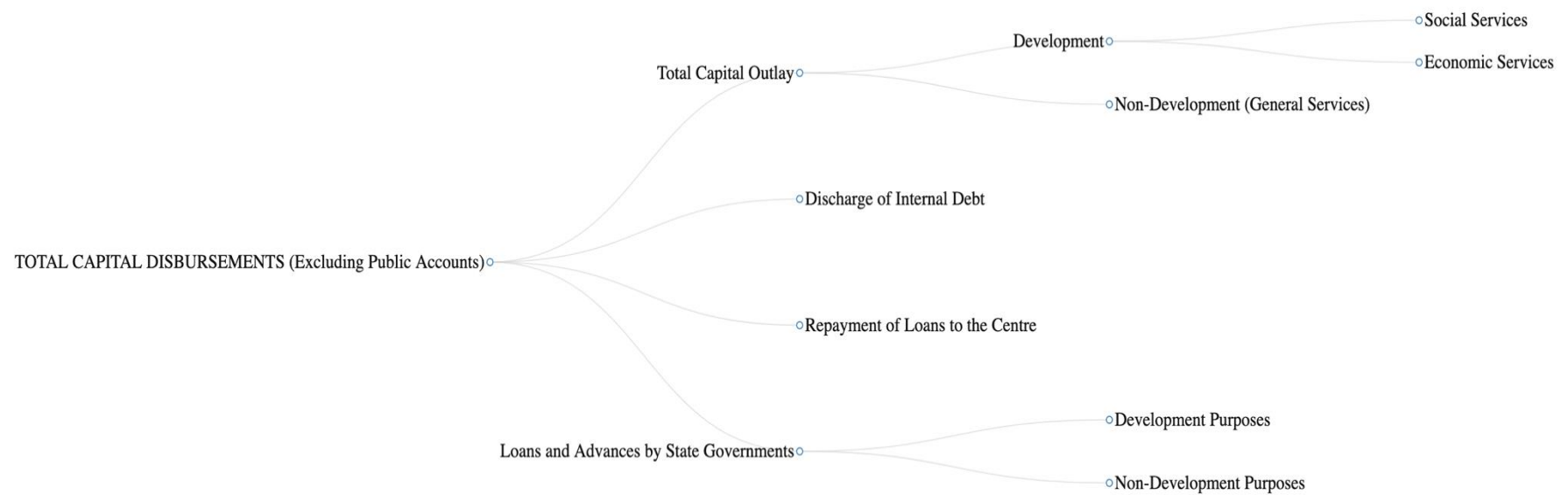


Chart 4: Capital Outlay: Development

