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Fiscal federalism: The Kerala story

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Introduction

The first-generation theory (FGT) of fiscal federalism classifies the functions of a government as allocative, distributive, and stabilization. Following the principles of comparative advantage, the distributive and stabilization function is to be allotted to the national government. In contrast, the sub-national government must have a resource allocation function. It also adds that fiscal decentralization is associated with expenditure decentralization and revenue centralization for achieving equity and efficiency. Since there is a mismatch between revenue and expenditure, FGT suggests intergovernmental transfers as a solution to this problem. Second Generation Theory emphasizes the decentralization of revenue responsibilities to sub-national governments as a step towards efficient decentralization. Second-generation theory thus emphasized market-preserving federalism.

Adhering to the principles of comparative advantage, the Union government of India was endorsed with the functions of stabilization and redistribution, for which they were vested with a majority of revenue collection powers. The state governments were made responsible for resource allocation, i.e., public expenditure.

Imbalances: A critical federal problem

The difference in the allocation of power and expenditure will be accompanied by an inevitable result of a vertical imbalance among the two tiers of government. In addition to the vertical imbalance, there exists wide disparity among the Indian states (for instance, in 20-21, while the per capita GSDP of Bihar was as low as 28,127, the per capita GSDP of Haryana was 2 1,65,617). This difference resulted in widespread imbalances among the states, termed horizontal imbalance. These imbalances were vital as the lower per capita GSDP would result in lower per capita revenue and lower taxation possibilities that might cause reductions in public expenditure. This vicious circle of low income resulted in disparities in delivering public services and, thus, inequalities in living conditions.

To address the issues of imbalances, The Indian Constitution, under Article 280, provides for the appointment of the Finance Commission by the President of India every five years. The Finance Commission, based on certain evaluation methods (Term of Reference), recommends that the portion of the divisible pool to be devolved to the states. In addition, they also make recommendations on each state's share of the devolved amount. Besides the tax devolution, which is all fully formulaic and unconditional, grants-in-aid are mostly specific(conditional) and gap-filling of an ad hoc nature. Comparison between conditional vs. unconditional transfers in ensuring the convergence effect (poor States "catching up" in growth with the richer States in India) has always been a matter of debate and discussion.

For instance, While the 12th Finance Commission believed that "grants are the more effective transfer instrument for State specific and purpose-specific targeting" (12th FC Report, p.14), the 14th Finance Commission avoided making any specific recommendations. Post recommendations of the 14th Finance Commission, the concerned Central Ministries covered all specific purpose transfers (Rao, Govinda. ,2018). Keeping aside the battle between the general and conditional transfers to be the best mechanism to ensure equity, it is necessary to have an ideal mix of general and specific transfers. This is because while general transfers ensure fiscal space availability to states, general purpose transfers are necessary to ensure minimum standards of services for those considered meritorious or those services with significant inter-state spillovers. Besides these theoretical concerns, the real-world practises of intergovernmental transfers offer further problems to discuss. Successive Finance Commissions have recommended increasing the state's share in the aggregate divisible pool.

Though the Central Government has accepted and implemented these recommendations, there has been a constant effort from the Central Government to reduce the size of the divisible pool by introducing cesses and surcharges that fall out of the divisible pool. Similarly, it is commonly observed that though there is an increase in the general-purpose transfers, the effective increase is much less due to the increase(decrease) in States' (Union

governments') contribution to centrally sponsored schemes (Chakraborty, Pinaki et al., 2018). Another significant transgression is the violation of the seventh schedule by the Union government. A large part of the revenue expenditure of the Central government is spent on State and Concurrent list subjects, with a corresponding decline in expenditure on Union List subjects (Chakraborty, Pinaki et al., 2018). Besides this, the Central government has intruded into states' finances by transferring funds through the state implementing agencies. In this context, with the help of descriptive statistics, this paper attempts to trace the pattern and composition of federal transfers to Kerala from 2010.

Kerala and its economy: A status check

The state is located at the country's southern end, sharing borders with Tamil Nadu and Karnataka. Geographically, Kerala is ranked 22nd in the country, with an area of 38,863 sq. km. The state has a population of 3.56 crore (14th in the country) and is ranked as the fifth most densely populated state with a density of 860 persons per sq. km. The decadal population growth rate was 6.05 percent (3.35 crore in 2011 to 3.56 crore in 2021), the second lowest among Indian states. The literacy rate of Kerala (94 percent) is the highest among the Indian states. The Gross State Domestic Product (GSDP) in 2020-21 of the state at current prices was 7,58,942 Cr. (Audit report 2022, The Comptroller and Auditor General of India).

3.1 Revenue and Expenditure

The state's receipts, including revenue receipts, capital receipts, and public account receipts, are dominated by revenue receipts, including tax and non-tax sources, the share of devolution, and grants in aid. The expenditure usually happens at three heads: revenue, capital, and disbursement of loans and advances (Table 1).

Tal	Table 1. Growth of revenue and expenditure											
	Particulars											
		2011-12 to	2019-20	2015-16 to	2019-20	2019-20 t	o 2020-21					
(Compounded Annual Growth Rate	General Category States	Kerala	General Category States	Kerala	General Category States	Kerala					
a.	Revenue Receipts	11.61	11.41	9.32	6.92	-4.56	8.19					
b.	Own Tax Revenue	9.88	8.75	8.74	6.58	-4.43	-5.29					
c.	Non-Tax Revenue	13.20	21.44	13.88	9.84	-35.6	-40.26					
d.	Total Expenditure	12.18	10.65	8.91	7.07	4.54	21.42					
e.	Capital Expenditure	10.10	9.00	1.12	3.75	-2.36	59.73					
f.	Revenue Expenditure on Education	11.15	8.77	9.65	6.99	-1.32	-11.04					
g.	Revenue Expenditure on Health	15.33	12.82	13.09	12.51	14.65	16.34					
h.	Salaries and Wages	10.18	9.25	10.01	8.52	2.27	-12.67					
I.	Pension	13.31	10.30	14.09	9.91	6.02	-0.64					
Sou	rce: Information furnished i	by the Econom	ic Adviser, (O/o the $\overline{C\&AG}$	of India, Ne	w Delhi.						

4. Intergovernmental transfers and Kerala

The revenue receipt of the state is primarily separated under three heads: own tax revenue, non-own tax revenue, and central transfers. Though the own tax revenue has been the primary source of income, it has been showing an unstable trend; on the other hand, the share of transfers (to GSDP) from the Centre has been increasing over the period (table 2). As usually seen, the share of Central transfers has always been higher than the share of non-own tax revenue

Table 2: Own rev	Table 2: Own revenue and Central transfers (as a percent of GSDP)											
Particulars	2010- 11	2011- 12	2012- 13	2013- 14	2014- 15	2015- 16	2016- 17	2017- 18	2018- 19	2019- 20	2020- 21	
Own Tax revenue/ GSDP	7.8	6.9	7.3	7.9	6.9	6.9	6.64	6.62	6.41	5.59	6.28	
Own non- Tax revenue/ GSDP	0.7	1.2	1	1.4	1.4	1.5	1.53	1.60	1.49	1.44	0.97	
Central Transfers/GSDP	2.6	2.5	2.4	2.9	3.0	3.8	3.74	3.61	3.85	3.23	5.62	
Source: Ministry	of Statist	tics and	Progra	mme In	ıplemen	tation						

Breaking the components of the total Central transfers reveals that among the two, the tax devolved has made the highest contribution to the state (except in the year 2020-21). 2015-16 shows changes in the many trends and patterns visible before (Table 3).

Though the tax transfers and grants in aid from the Central government have been increasing steadily in absolute numbers, this is different in terms of the proportion of revenue receipts of Kerala. The share of tax transfers in total central transfers has declined steadily from 2010-2015. Tax transfers, which constituted 19% of revenue receipts of Kerala in 2010-11, declined to 14% in 2014-15. To quote differently, the share of tax transfers to total transfers declined from 67.5% in 2010-11 to 51.4% in 2014-15. However, from 2015-16, the share of tax transfers in total transfers has increased consistently till 2017-18. However, it failed to breach the levels of tax transfers observed during the decade's first half. In 2018, there was a decline in the share of tax transfers again.

Contrary to the tax transfers, the share of grants in total transfers increased. For instance, the share of grants in aid in total transfers increased from 32.6% in 2010-11 to 48.7% in 2014-15. From 2015-16 to 2018-19, there has been a steady decline in the share of grants in aid. Grants in aid constituted 73% of total transfers and 32 % of revenue receipts of Kerala during the pandemic year.

The significant changes from 2015-16 should be read along with the recommendations of the 14th Finance Commission to increase the devolution share to 42 % of the divisible pool and to avoid making any specific grants.

Table 3 Transfers and Revenue receipts (Rs in cr													
Particulars	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21		
Revenue Receipts(A)	21107	38010	44137	49177	57950	69033	75611.72	83020.14	92854.47	90224.67	97616.83		
State's share in Union taxes and duties(B)	4502	5990	6841	7469	7926	12691	15225.02	16833.08	19038.17	16401.05	11560.4		
Grants in aid from GOI (C)	2176	3709	3021	4138	7508	8921	8510.35	8527.84	11388.96	11235.26	31068.28		
Total transfers(B+/C)	6678	9699	9862	11607	15434	21612	23735.37	25360.92	30427.13	27636.31	42628.68		
B/A	19%	16%	15%	15%	14%	18%	20%	20%	20%	18%	12%		
C/A	10%	10%	7%	9%	13%	13%	11%	10%	12%	12%	32%		
Share of tax transfers in total transfers	67.5%	61.8%	69.4%	64.4%	51.4%	58.8%	64.2%	66.4%	62.6%	59.4%	27.2%		
Share of grants in total transfers	32.6%	38.3%	30.7%	35.7%	48.7%	41.3%	35.9%	33.7%	37.5%	40.7%	72.9%		

Source: Audit report, The Comptroller and Auditor General of India

4.1 Finance Commission and Kerala

During the analysis period, i.e., between 2010 and 2021, three finance commissions were constituted (13th, 14th and 15th). Significant changes have been in the terms of reference used by these three finance commissions (table 4). The Thirteenth Finance Commission was constituted to make recommendations for the period 2010--2015. The Commission recommended devolving 32% of the divisible pool for the award period. The XIV Finance Commission recommended increasing the state's share to 42 percent from 32 percent. Kerala's share in the net proceeds of Central tax and Service tax was fixed at 2.500 percent and 2.526 percent, respectively, by the XIV FC for the award period 2015-20(Audit report, The Comptroller and Auditor General of India). The XV Finance Commission recommended a share of 41 percent to be devolved from the divisible pool in the year 2020-21. As recommended by the Commission, the Inter se share of Kerala in the net proceeds of the taxes (divisible pool) is 1.943 percent (Audit report, The Comptroller and Auditor General of India). These figures are to be read along with the fact that the share of Kerala during the 10th Finance Commission was 3.875% (Audit report, The Comptroller and Auditor General of India).

Table 4: Horizontal Devolution Formula of three Finance Commissions									
		Weights accorded							
Variables	13 th	14 th	15 th						
Population (1971)	25	17.5	0						
Population (2011	0	10	15						
Fiscal capacity/Income distance	47.5	50	45						
Area	10	15	15						
Forest Cover	0	7.5	0						
Fiscal discipline	17.5	0	0						
Forest and ecology	0	0	10						
Demographic performance	0	0	12.5						
Tax effort	0	0	2.5						
Total	100	100	100						
Kerala's share in divisible pool	2.30%	2.50%	1.93%						
Source: Reports of the XIII-FC, XIV-FC, XV-FC									

Though the devolution is formulaic, there has been a vast difference between the actual projections made by The Finance Commission and the devolution made by the central government (Table 5). This difference has also increased with the increase in devolved amounts. From 2459 Cr in 2010-11, the difference increased to 29468 Cr in 2019-20

Table 5: Tax devolution (Rs in crore)									
Year	Finance Commission projections	Projections in FCR	Actual tax devolution	Difference					
2010-11		5601	5142	459					
2011-12	32 percent of net proceeds of all shareable	6569	5990	579					
2012-13	taxes excluding service tax and 2.341 percent of net proceeds of sharable service	7749	6841	908					
2013-14	tax (As per recommendations of XIII FC)	9140	7469	1671					
2014-15		10781	7926	2855					
2015-16		14482	12691	1791					
2016-17	42 percent of net proceeds of all shareable taxes excluding service tax and 2.526	16711	15225	1486					
2017-18	percent of net proceeds of shareable	19308	16833	2475					
2018-19	service tax (As per recommendations of XIV FC)	22336	19038	3298					
2019-20	Anvie,	25869	16401	9468					
20-21	41 percent of net proceeds of union taxes(As per recommendations of XV FC)	16616.07	11560.4	5055.67					
Source: Repo	rts of the XIII-FC, XIV-FC, XV-FC and Finance Ac	ecounts		1					

4.2 Components of taxes

In the case of tax transfers, a significant contribution has always come from direct taxes, primarily charged on wealth and income (Table 6). Another essential trend was the change associated with indirect tax post-introduction of GST. While the states ultimately receive SGCT, CGST is shared according to the recommendation made by the Finance Commission.

- The share of GST in total tax transfers has been increasing steadily since its introduction.
- In 2015-16, the tax transfers increased by 60.12 percent.
- The last two years (2019-20 and 2020-21) witnessed a reduction in the share of taxes.

Table 6: Components of taxes (Rs	in crore)						
Head	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	
Direct taxes							
Corporation Tax	4001	4885.98	5156.64	621.02	5592.06	3546.02	
Taxes on Income other than Corporation Tax	2783	3395.7	4354.4	4876.1	4381.76	3642.7	
Taxes on Wealth	1	11.18	0	2.44	0.25	0	
Total of Direct Taxes (A)	6785	8292.93	9511.04	11499.56	9973.82	7188.72	
Indirect taxes							
Central Goods and Services Tax (CGST)	0	0	239.9	4699.1	4654.19	3325.63	
Integrated Goods and	0	0	1699.96	375	0	0	
Services Tax (IGST)		, and the second	10,9,1,90	0.0	Ü		
Customs	2032	2101.76	1699.4	1349.57	1039.6	591.59	
Union Excise Duties	1689	2400	1776	897	722.8	380.78	
Service Tax	2176	2430.25	1906.55	174	0	62.54	
Other Taxes	9	0.05	0	44.31	10.39	11.14	
Total of Indirect Taxes (B)	5906	6932.09	7322.19	7538.61	6426.98	4371.68	
Central Tax transfers (A+B)	12691	15225.02	16833.23	19038.17	16401.05	11560.4	
Percentage of increase over the previous year	60.12	20	10.56	13.1	(-)13.85	(-)29.51	
Source: Finance Accounts of respective	ve years						

4.3 Grants in aid

Before the abolition of the Planning Commission in 2014, it had the power to allot grants to cover the plan requirements of states. This restricted the Finance Commission to address only the non-plan requirements of the states. The 14th Finance Commission bridged the discontinuity that might have been raised with the abolition of the Planning Commission by making recommendations to cover both the plan and non-plan requirements of the state. As a part of structural reforms from 2018, the Union Government replaced the following method of classifying grants as non-plan and plan grants (for both centre and state schemes). From

2018, these grants were replaced by new sub-major heads like grants for Centrally Sponsored Schemes, Finance Commission grants, and other grants to the state. Finance commission grants are further divided into revenue deficit grants, local self-government grants, and disaster management grants. Other grants to the state include assistance given under Article 275(1) of the Constitution, grants for externally aided projects, etc.

As the trends in grants were discussed earlier, the next step is to analyze components of grants in aid (Table 7). Looking at the case before 2018, a significant increase has happened in the case of non-plan grants. For instance, the share of non-plan grants as a percent of total transfers increased from 38 percent (in 2010-11) to 85 percent (in 2016-17). This increase is primarily because of the increase in Post Devolution Revenue Deficit Grant made by the 14th Finance Commission. Nevertheless, a fact to be noticed is that the share of grants for Centrally Sponsored Plan Schemes in total transfers has decreased from 35% (in 2010-11) to a mere 5% (in 2016-17).

Interestingly, the share of Centrally Sponsored Plan Schemes has decreased to a single-digit number from 2014. From 2017-18, the Grants for Centrally Sponsored Schemes have been declining steadily. This means the Central government has decreased its contribution towards Centrally Sponsored Schemes. On the other hand, rants for State Plan schemes increased by 65.6% in 2014-15 because of the release of central funds through the State budget from 2014-15, released directly to state implementing agencies until 2013-14.

Table 7: Grants in aid	from GOI (Rs	in crore)								
Head	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Non-Plan Grants	1433 (38.06*%)	657 21.7%)	1679 (40%)	1984 (26.4%)	5178 (58%)	5250.3 (61%)				
Grants for State Plan Schemes	904 (24.3) %	1163 (38.4%)	1154 (27.8%)	4929 (65.6%)	3406 (38.17%)	2726.9 (32%)				
Grants for Central Plan Schemes*	74 (2%)	60 (1.9%)	87 (2.1%)	158 (2.1%)	170 (1.9%)	71.31 (0.8%)				
Grants for Centrally Sponsored Plan Schemes	1298 (35%)	1141 (37.7%)	1218 (29.4%)	437 (5.8%)	167 (1.87%)	461.75 (5.4%)	(-)0.47	(-)0.97		
Grants for Centrally Sponsored Schemes					_		3213.5 (38%)	3771.0 (33%)	3262.6 (29%)	5141.9 (16.5%)
Finance Commission Grants					_		3182.4 (37%)	1646.2 (14%)	2343.1 (21%)	18048. (58%)
Other transfers/Grants to States/Union Territories with Legislature					_		2133.6 (25%)	5972.6 (52%)	5629.6 (50%)	7877.5 (25%)
Total	3709	3021	4138	7508	8921	8510.35	8527.84	11388.96	11235.26	31068.28
Percentage of increase over the previous year		(-) 18.5	37	81	18.82	(-) 4.61	0.21	33.65	(-)1.35	176.52

Source: CAG report various years
*The figures in the bracket show the share of a particular item to the total transfer of the particular year

5 Finance Commission

As the period from 2010- 2021 witnessed three Finance Commissions, it would be interesting to compare them. Such a comparison is presented below.

5.1 Thirteenth Finance Commission

The Commission recommended an amount of 2 6700.72 crore for the award period 2010-11 to 2014-15, which included 2 6371.50 crore towards grants-in-aid (for the implementation of 21 approved schemes under seven sectors) and 2329.22 crore towards interest relief for the loan taken from National Small Savings Fund.

Against the grant-in-aid of 2 6371.50 crore recommended, the Government of India released an amount of 2 5235.04 crore (82 percent) from 2010-2015.

In addition, the state had received 241.26 crore (This includes Local bodies (forfeited share of non-performing states) - 2167.07 crore, local bodies basic grant (over and above the award amount) - 23.31 crore, incentive grant for renewable energy capacity addition - 212.50 crore, an incentive for reduction of infant mortality rate -238.38 crore)

Kerala also received an additional 2792.06 crore towards the performance grant as it fulfilled the nine conditions specified for releasing the performance grant to local bodies.

5.2 Fourteenth Finance Commission

The Fourteenth Finance Commission recommended an amount of ☑17966.71cr for Kerala from 2015-16 to 2019-20(Table 8).

Against the recommended amount, the state received (2 17297.52 cr. This shortfall was mainly due to the non-release of Performance Grant (PG) to LSGIs by GoI during the period 2018-19 (285.94 crore) and 2019-20 (374.42 crore). The State Government remarked that though Ministry of Panchayati Raj (MoPR) and National Institute of Urban Affairs (NIUA) has recommended to the Ministry of Finance for release of PG to Rural Local Bodies (RLBs) and Urban Local Bodies (ULBs) respectively for the years 2018-19 and 2019-20, the same has not been released till date and that no reasons were attributed for non-releases (Audit report, The comptroller and auditor general of India, 2022).

Tab	Table 8: Grants recommended by XIV FC and actually received by State Government (₹ in crore)										
Sl no	Particulars	Award amount for 2015-20	Actual release for 2015-20	shortfall/excess							
1	Revenue deficit grant	7681.96	7012.02	(-)669.94							
2	Grants to Local Bodies	765.75	766.5	(+)0.75							
3	Disaster Management Grants	9519	9519	_							
	Total	17966.71	17297.52	-669.19							
First	report of XV-FC for the year 2020-21	,		1							

5.3 Fifteenth Finance Commission

According to the first report submitted by the Fifteenth Finance Commission, the Grants-in-aid for the State of Kerala under Article 275 of the Constitution of India for 2020-21 amounted to 218,049 crore. During the award period 2020-21(table 9), the State received the entire amount of 218,049 crore recommended by the Fifteenth Finance Commission

Table 9	: Grants recommended by XV FC for 2020-21	(₹ in crore)
Sly no	Particulars	Award amount for 2020-21
1	Revenue deficit grant	15323
2	Grants to Local Bodies	2412
3	Disaster Management Grants	314
	Total	18049
First repe	ort of XV-FC for the year 2020-21	

6 Transfers through state implementing agencies

The Government of India has been transferring substantial funds for implementing various schemes and programs directly to the State Implementing Agencies, bypassing the State government. Since these funds are not routed through the State Budget, they are not reflected in the Accounts of the State Government. In 2014, based on the Expert Committee on Efficient Management of Public Expenditure recommendation, it was decided that all the

grants would be transferred through the State governments. Further, as per the decision of the Union government (February 2015), all assistance to Centrally Sponsored Schemes (CSS) and Additional Central Assistance (ACA) under various schemes would be released to the State Government and not directly to the Implementing Agencies and hence, these funds would be routed through the State budget from the year 2015-16 onwards. However, these decisions were implemented partially. For instance, in Kerala, the funds under Mahatma Gandhi National Rural Employment Guarantee Programme, a Centrally Sponsored Scheme, were released directly to State Implementing Agencies without routing it through the State budget.

Similarly, 21214.98 crore was allotted to Food subsidy for the decentralized procurement of food grains under NFSA. An amount of 27,507.33 crore was directly transferred by GoI to the State Implementing Agencies during 2019-20, registering a substantial increase of 22,547.22 crore (51.35 percent) over the previous year, which was the highest during the five years. During 2020-21, GoI transferred 27,000.76 crore directly to the SIAs implementing various Central Schemes / Programmes (Audit Report (various years), The comptroller and auditor general of India.)

Table 10: Funds transferred directly to State Implementing Agencies during 2015-16 to 2019-20												
(Rs. in crore												
Years 2015-16 2016-17 2017-18 2018-19 2019-20 2020-21												
Funds transferred by GOI to agencies	2511.70	3722.96	5242.39	4960.11	7507.33	7000.76						
growth	43.65	48.22	40.81	-5.38	51.35	-6.7						
Source: Finan	Source: Finance Accounts of respective years											

Conclusion

Though India has a well-developed structure of intergovernmental transfer system on paper, the real-world application points out many inefficiencies. Though Central transfers to Kerala usually contribute between 3 percent to 3.5 percent of the GSDP, there have been significant changes in the constituents. Though the 14th Finance Commission's recommendations revived the falling share of taxes in total transfers, it has not increased beyond the average level of the first half of this decade. An important point to be considered is that the Union Government's technique to mobilize resources through cesses and surcharges has reduced the size of the divisible pool. Similarly, the continuous decline of Kerala's share in the divisible pool has raised questions regarding the terms of reference used by the Finance commissions. This decline leaves an impression that states might get penalized (in the form of reducing transfers) for their developmental activities. The intrusion of the central government into state subjects through state implementing agencies and replacing the Union government's share with the state government's share is a pure violation of the seventh schedule of the Constitution. Actions of such kind question not only the financial autonomy of the states but also threaten the political autonomy of the states. Since the needs and wants of any economy are always effectively catered by the nearest point of governance, devolution of resources and power is necessary for a sustaining and efficient fiscal framework. Since a decentralized system of governance offers more chances for ensuring people's participation in the development process and efficient utilization of resources, there must be an active effort from the higher governments to devolve states the funds they deserve.

References

- Federalism In India An Appraisal An Appraisal. https://www.nipfp.org.in/media/medialibrary/2013/12/wp03_nipfp_002.pdf
- Chakraborty, Pinaki (2019). *Fiscal federalism in India*, The India Forum, April 2019. https://www.theindiaforum.in/article/fiscal-federalism-india
- Chakraborty, Lekha and Pinaki Chakraborty, 2018. "Federalism, fiscal asymmetries and economic convergence: evidence from Indian States," Asia-Pacific Journal of Regional Science (2018-04- 01) 2: 83-113, Springer. https://link.springer.com/article/10.1007%2Fs41685-018-0087-z

Chakraborty, Lekha S (2019). *Indian Fiscal Federalism at the Crossroads*: Some reflections.

Darshini, J.S (2020). "Fiscal responsiveness of states to federal transfers in India"

Joseph K J & Kumary A L (2023) . *India's GST Paradigm and the Trajectory of Fiscal Federalism: An analysis with Reference to Kerala*, The Indian Economic Journal, 71(1) 187-203, 2023 ,SAGE

Rao, Govinda. (2018). *Central transfers to states in India rewarding performance while ensuring equity* (Final Report of a Study Submitted to NITI Aayog) Central Transfers to States in India: Rewarding Performance While Ensuring Equity. 10.13140/RG.2.2.26441.80489

Comptroller and Auditor General of India, State Finances Audit Report, various issues

Finance Commission India, *The Finance Commission reports*, various years

Reserve Bank of India, State Finances: A study of Budgets, various years

Government of India, Budget documents, various years