

Revenue Shortfall and GST Compensation: An Assessment

No. 356

08-October-2021

Sacchidananda Mukherjee



**National Institute of Public Finance and Policy
New Delhi**

Revenue Shortfall and GST Compensation: An Assessment Sacchidananda Mukherjee*

* Associate Professor, National Institute of Public Finance and Policy (NIPFP), 18/2, Satsang Vihar Marg, Special Institutional Area, New Delhi – 110 067, INDIA. E-mail: sacchidananda.mukherjee@nipfp.org.in

Abstract

Shortfalls in GST compensation cess collection vis-à-vis GST compensation requirements of states for the Fiscal Years 2020-21 and 2021-22 are concerns for the Union as well as State governments. During 2020-21, the Union government borrowed Rs. 1.10 lakh crore against Government of India securities to provide compensation to the States. The Union government has also committed to borrowing 1.59 lakh crore during 2021-22 from the market (as back-to-back loans) to provide compensation to the States. As the GST compensation cess will be extended to pay interest and principal payment liabilities of the debt incurred by the Government of India, in this paper, we estimate whether GST compensation cess collections at the current rate will be sufficient to service the debt cost. We also rank States and their relative dependence on GST compensation for 2018-19 and 2019-20. We find that the economic structure (origin versus consuming state) of a state is an important factor affecting revenues and thereby the level of compensation requirement.

Key Words: Goods and Services Tax (GST), GST Compensation, GST Transition Period, Revenue Protection, India.

JEL Codes: H20, E62, H26

Acknowledgement: I am grateful to Dr. Pinaki Chakraborty for detailed comments and suggestions on earlier drafts of the paper. Usual disclaimers nevertheless apply.

1. Introduction

In the 41st meeting of the GST Council held on 27 August 2020, the demand for GST compensation by States is projected to be Rs. 3 lakh crore in 2020-21. Against the projected GST compensation cess collection of Rs. 65,000 crore, the shortfall in GST compensation fund is expected to be Rs. 2.35 lakh crore in 2020-21. Out of total projected shortfall of Rs. 2.35 lakh crore in the GST compensation fund, the shortfall arising out of GST implementation is estimated to be Rs. 97,000 crore and the rest of the amount (i.e., Rs. 1.38 lakh crore) is attributed to the COVID-19 pandemic. After the 41st meeting of the GST Council, the Union government agreed to borrow the revenue shortfall on account of GST implementation as a back-to-back loan against Government of India (GoI) securities under a special window. The interest on the borrowing under the special window will be paid from the GST Compensation Cess collections as and when it arises until the end of the GST transition period (July 2017 to June 2022).¹ After the transition period, principal and interest will be paid from the proceeds of the Cess, by extending the Cess collection beyond the transition period for such period as may be required.

To compensate States for the shortfall in State GST collection (including IGST settlement on SGST account) vis-à-vis projected SGST collection in 2020-21, the Union government has borrowed (as back-to-back loan) Rs. 1,10,208 crore against GoI securities of 5-year and 3-year tenures.² The borrowed amount is passed on to States and UTs with legislature as a special borrowing scheme and it will be serviced by the Union government from the revenue that will be generated by extending GST compensation cess collection beyond the GST transition period. During 2020-21, states have received Rs. 70,000 crore as GST compensation from the GST Compensation Fund and Rs. 1,10,208 crore under the special borrowing scheme.³ The balance amount of compensation to States and UTs with legislature for 2020-21 is Rs. 81,179 crore and it will be paid in instalments after the GST transition period.⁴ Total GST compensation cess collection during 2020-21 was Rs. 85,193 crore.⁵ During 2020-21, GST compensation of Rs. 70,000 crore is released from the GST compensation fund in two tranches (April-May 2020 of Rs. 40,000 crore and on 27 March 2021 of Rs. 30,000 crore).

Prior to 2020-21, states received GST compensation from the GST compensation fund. The demand for GST compensation is rising over the years (Table 1) and a part of the rise is attributed to reductions of GST rates for several commodities over the period of GST

¹ PIB Press release on *Borrowing of money to meet GST revenue shortfall*, 20 September 2020, as available at: <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1656927> (last accessed on 27 September 2021)

² The total amount of Rs.1,10,208 crore has been borrowed by the Central Government through the special borrowing window at an weighted average interest rate of 4.8473%.

³ GST Newsletter, Issue 24, March 2021, GST Council Secretariat, New Delhi.

⁴ Lok Sabha Un-starred Question No.207 answered on 19 July 2021 and Lok Sabha Un-starred Question No. 1154, answered on 19 September 2020

⁵ According to Monthly Account (July 2021) of Controller General of Accounts (CGA)

introduction. This has resulted in reduction of effective tax rate of GST vis-à-vis desired rate required to achieve revenue neutrality.

Table 1: GST Compensation Cess Collection and GST Compensation Payment to States/ UTs
(Rs. Crore)

	2017-18	2018-19	2019-20	2020-21
GST Compensation Released (A)	41,146.00	69,275.00	120,498.29	70,000.00
GST Compensation Cess Collection (B)	62,611.59	95,080.71	95,551.00	85,193.00
Balance (B-A)	21,465.59	25,805.71	-24,947.29	15,193.00

Source: Rajya Sabha Starred Question No.-15, answered on 2 February 2021, CAG's Monthly Accounts (July 2021) and Press Releases of the Department of Revenue, MoF, GoI.

Like State GST collection (including IGST settlement), it is obvious that Central GST collection (including IGST settlement) has also fallen during 2020-21. In the present design of GST, there is no provision for revenue compensation for the Union government. Therefore, the Union government bears the entire revenue risk associated with GST reform during the GST transition period (July 2017 to June 2022). Aggregate GST collection during April-July of 2021-22 shows 8.93 percent growth over the same period of 2019-20 and 16.37 percent growth during the same period of 2018-19. In 2020-21, largest fall in GST collection observed during April-May due to enforcement of pan India lockdown to contain the spread of the COVID-19 infection.⁶ Keeping in view the uncertainty due to COVID-19 pandemic, in the 43rd meeting of the GST Council held on 28 May 2021, the council proposed an amount of Rs. 1.59 lakh crore to be borrowed from the market by the Union government during 2021-22 to give special GST compensation to States.⁷ The Union government has projected GST compensation requirement of Rs. 2.7 lakh crore for the fiscal year 2021-22. The GST compensation cess collection is expected to be Rs. 1.1 lakh crore and it will finance 41 percent of GST compensation requirement of 2021-22 and the rest will be borrowed from the market as back-to-back loans. In July 2021, the Union government has borrowed Rs. 75,000 crore as back-to-back loans against GoI securities of 5-year and 2-year tenures and released the amount to States and UTs with legislature.⁸ The balance amount of Rs. 84,000 crore of special GST compensation is expected to be released in the second half of 2021-22 in instalments. Therefore, at the end of 2021-22, there will be accumulated market borrowing of Rs. 2.68 lakh crore (excluding market interest liability on account of Rs. 1.10 lakh crore borrowed in 2020-21). Any possibility of further market borrowing to give GST compensation to States

⁶ Comparing performance of GST collection in 2020-21 with 2020-21 may not present the true picture of GST collection, as growth rates in GST collections during Q1 and Q2 of 2020-21 fall by 41 per cent and 7.8 per cent respectively vis-à-vis 2019-20 (Mukherjee 2020a).

⁷ As reported in the Business Standard (https://www.business-standard.com/article/economy-policy/gst-council-meet-govt-to-borrow-rs-1-58-trn-for-compensation-shortfall-121052900074_1.html).

⁸ Out of total borrowing of Rs. 75,000 crore as back-to-back loans, Rs. 68,500 crore (i.e., 91.33%) is borrowed against 5-year Government of India securities at a weighted average yield of 5.6 per cent and Rs. 6,500 crore (i.e., 8.67%) is borrowed against 2-year GoI securities of weighted average yield of 4.25 per cent.

may arise till the end of GST transition period (i.e., Q1 of 2022-23) depending on pace of revival of economic growth, revenue and containment of the COVID-19 pandemic. GST compensation cess will be extended beyond the GST transition period and the revenue from the cess will be used to service the accumulated market borrowings. It requires assessment whether prospective GST compensation cess collection after June 2022 would be enough to service the accumulated market borrowings (including interest liabilities) of the Union government under special window.

Any possibility of extension of GST compensation beyond the GST transition period will depend on the availability of balance in the GST compensation cess collection after servicing the accumulated market borrowings.

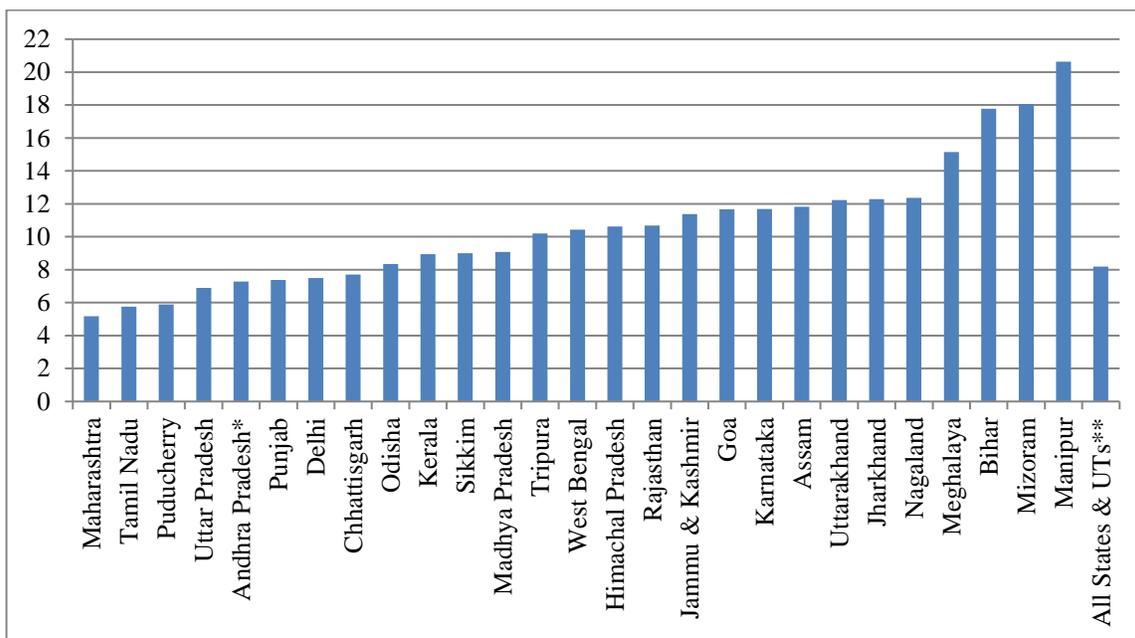
For pre-GST period (2014-15 to 2016-17) we consider state-wise average annual growth rate in revenue collection of subsumed taxes in GST. For post-GST period (2017-18 to 2019-20), we consider average annual growth rate in state GST collection (including IGST settlement). The objective of this exercise is to identify states where maximum revenue impact is expected if GST collection does not improve in coming years. We also compare pre- and post-GST tax buoyancy (GST) of states to understand possible impact that states may face if they cannot improve tax buoyancy. Next, we assess the likely revenue requirement in servicing the accumulated special market borrowings taken up by the Union government to provide GST compensation to States. Availability of additional revenue in GST compensation cess collection after servicing the accumulated market borrowings is estimated in this paper.

2. Whether revenue impact of GST differs across States?

Average annual growth rate of revenue corresponding to taxes subsumed in GST was 8.2 per cent during 2013-14 to 2016-17 (Figure 1). Except Arunachal Pradesh, Gujarat and Haryana, revenue corresponding to subsumed taxes in GST is available for all States and UTs with legislature for the period 2012-13 to 2017-18 (till 30 June 2017).⁹ Figure 1 shows that except Meghalaya, Bihar, Mizoram and Manipur, average annual growth rate in revenue corresponding to subsumed taxes in GST was lower than 14 per cent during 2013-17. Therefore, 14 per cent annual growth rate in projected state GST revenue (including IGST settlement) assured under the GST Compensation Act was too generous (Gupta and Rajaraman 2020).

⁹ Available at https://tutorial.gst.gov.in/offlineutilities/gst_statistics/Yearwise-Pre-GST-revenue.pdf (last accessed on 5 October 2021).

Figure 1: Average Annual Growth Rate of Revenue from Taxes Subsumed in GST during 2012-13 to 2016-17 (%)#



Notes: #- Data of pre-GST revenue is not available for Arunachal Pradesh, Gujarat and Haryana. *-Undivided Andhra Pradesh, ** - Average annual growth rate of revenue from taxes subsumed in GST for all states (excluding Arunachal Pradesh, Gujarat and Haryana) and UTs with legislature.

Source: Computed by author based on GSTN Online Database

Except Maharashtra, Tamil Nadu and Uttar Pradesh, for other general States average annual growth rate in GST collection has declined in the post-GST regime (2017-20) as compared to growth rate in subsumed taxes into GST in the pre-GST regime (2014-17) (Table 2). Andhra Pradesh shows a rise in the growth rate in GST collection in the post-GST regime and it is mainly due to separation of public finance accounts of undivided Andhra Pradesh into Andhra Pradesh and Telangana since 2 June 2014. Average growth rate of undivided Andhra Pradesh shows a marginal fall in the post-GST regime as compared to the pre-GST regime (as shown in the last row of Table 2). In the post-GST regime, none of the general states achieved growth rate of 14 per cent in GST collection. However, in the pre-GST regime, average annual growth rate of Bihar was higher than 14 per cent, besides Meghalaya, Manipur and Mizoram. In the post-GST regime, Manipur, Mizoram, Nagaland and Sikkim achieved on average more than 14 percent growth rate in GST collection. The GST transition period will be ending on June 2022 and thereafter States may not receive GST compensation. However, it is expected that States will receive pending GST compensation payments for 2020-21 (i.e., Rs. 81,179 crore) and

2021-22 (if anything that arises over and above the release of GST compensation – both regular as well as special) post the GST compensation period in tranches. Therefore, depending on growth in state GST collection (including IGST settlement on SGST account) different States may face different levels of revenue shortfall post the GST compensation period. Though it is known to States about the expected revenue shock, given the experience of growth rate in SGST collection (including IGST settlement) over the last four years of GST introduction, managing the revenue shock may be painful for some States. This will be especially the case for States where post-GST growth rate is substantially lower than pre-GST growth rate in GST collection, e.g., Punjab, Uttarakhand, Bihar, Jharkhand, Goa, Karnataka, Chhattisgarh, Odisha. Growth rate in GST collection also depends on growth rate in consumption expenditure on goods and services in a state. In absence of consumption expenditure data at state level, we consider Gross State Value Added (GSVA at basic prices, 2011-12 series) at current prices as tax base of GST in a State and estimate tax buoyancy for pre- and post-GST regimes (Table 2). Table 2 shows that besides Mizoram, Nagaland, Sikkim, tax buoyancy has improved for Maharashtra and Uttar Pradesh in the post-GST regime, Improvement in tax buoyancy of Andhra Pradesh is again attributed to separation of Telangana from undivided Andhra Pradesh. Tax buoyancy of undivided Andhra Pradesh shows marginal improvement in the post-GST regime whereas it has gone up substantially for Andhra Pradesh in the post-GST regime. For majority of Indian States average annual tax buoyancy has declined during the post-GST period as compared to the pre-GST period. This implies that reviving growth rate in consumption (or GSVA) is important for States to improve GST collection. Improving tax compliance and tax efficiency are the other aspects which could help in mobilizing more GST, given the growth rate in the tax base.

Table 2: State-wise Average Annual Growth Rate in GST Collection and Tax Buoyancy*

State	Average Annual Growth Rate in GST Collection (%)**			Average Annual Tax Buoyancy		
	Average of 3 Years: Pre-GST (2014-15 to 2016-17)	Average of 3Years: Post-GST (2017-18 to 2019-20)	% Change	Average of 3 Years: Pre-GST (2014-15 to 2016-17)	Average of 3Years: Post-GST (2017-18 to 2019-20)	Change
Andhra Pradesh	-12.24	8.72	21.0	-0.82	0.79	1.61
Assam	12.70	8.21	-4.5	1.07	0.74	-0.33
Bihar	15.76	2.91	-12.8	1.64	0.24	-1.40
Chhattisgarh	7.44	-0.20	-7.6	1.62	0.16	-1.47
Goa	9.90	0.79	-9.1	0.60	0.30	-0.29
Himachal Pradesh	11.15	0.16	-11.0	1.17	-0.08	-1.25
Jharkhand	13.32	1.54	-11.8	0.77	0.15	-0.62
Karnataka	11.00	2.36	-8.6	0.83	0.19	-0.64
Kerala	8.67	3.47	-5.2	0.87	0.20	-0.66

State	Average Annual Growth Rate in GST Collection (%)**			Average Annual Tax Buoyancy		
	Average of 3 Years: Pre-GST (2014-15 to 2016-17)	Average of 3Years: Post-GST (2017-18 to 2019-20)	% Change	Average of 3 Years: Pre-GST (2014-15 to 2016-17)	Average of 3Years: Post-GST (2017-18 to 2019-20)	Change
Madhya Pradesh	10.18	5.63	-4.5	0.78	0.44	-0.34
Maharashtra	6.07	7.13	1.1	0.63	0.80	0.17
Manipur	11.98	23.19	11.2	1.28	0.95	-0.33
Mizoram	15.99	51.57	35.6	1.21	4.06	2.85
Nagaland	19.40	33.22	13.8	2.34	2.86	0.53
Odisha	8.22	1.38	-6.8	1.04	0.19	-0.85
Punjab	5.47	-10.88	-16.4	0.52	-1.22	-1.74
Rajasthan	10.88	8.08	-2.8	0.97	0.82	-0.15
Sikkim	1.93	25.61	23.7	0.04	1.09	1.05
Tamil Nadu	6.56	7.23	0.7	0.65	0.61	-0.04
Telangana	--	7.16	--	--	0.54	--
Tripura	10.39	7.52	-2.9	0.70	0.61	-0.09
Uttar Pradesh	8.85	10.51	1.7	0.89	0.99	0.10
Uttarakhand	11.14	-3.39	-14.5	1.23	-0.21	-1.44
West Bengal	7.99	6.65	-1.3	1.06	0.61	-0.45
Andhra Pradesh#	7.84	7.83	-0.01	0.60	0.66	0.06

Notes: *-Except for 2015-16, revenue corresponding taxes subsumed into GST is not available for Arunachal Pradesh, Gujarat and Haryana. For Meghalaya, revenue collection corresponding to taxes subsumed into GST is not available for Q1 of 2017-18, so we have dropped Meghalaya from the analysis.

**-For Pre-GST, we have considered revenue corresponding to taxes subsumed into GST. For Post-GST, we have considered SGST collection (including IGST settlement). Revenue corresponding to taxes subsumed into GST corresponding to Q1 of 2017-18 is merged with SGST collection (including IGST settlement) of 2017-18.

#-Undivided Andhra Pradesh

Source: https://tutorial.gst.gov.in/offlineutilities/gst_statistics/Yearwise-Pre-GST-revenue.pdf (last accessed on 11 August 2021). Figures of state-wise SGST collection (including IGST settlement) for 2017-18 and 2018-19 are taken from Finance Accounts of respective State Government. For 2019-20, GST collection figures are corresponding to Actual of 2019-20 as reported in State Budget Documents.

Though audited statements of State Finance Accounts are yet to be released for 2020-21, available evidence shows that states have faced severe revenue shortfall on account of GST collection (Mukherjee and Badola 2021). During 2020-21, States (including UTs with legislature) have received total GST compensation of Rs. 1,80,208 crore (Rs. 70,000 crore

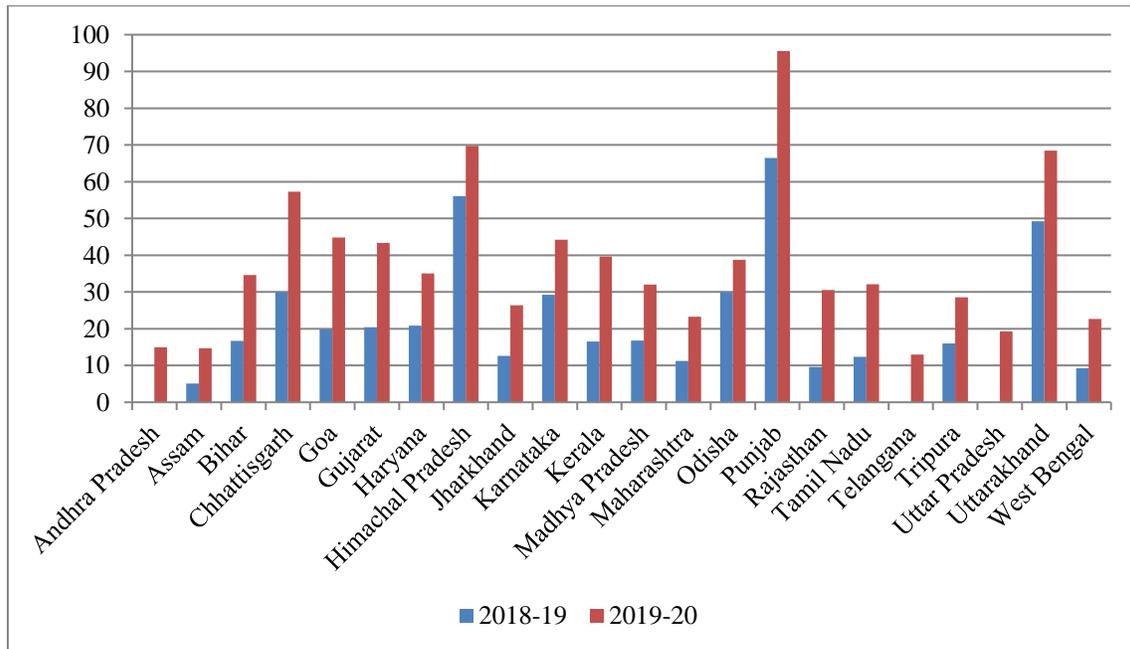
from the GST Compensation Fund and Rs. 1,10,208 crore from the Special Borrowing Programme as back-to-back loan) and still Rs. 81,179 crore of GST compensation is pending. Therefore, together states (including UTs with legislature) have faced shortfall in state GST collection (including IGST settlement) of Rs. 261,387 crore against the aggregate revenue under protection for 2020-21 of Rs. 765,034 crore.¹⁰ States have received GST compensation during 2017-18 (July 2017 to March 2018) to 2019-20 and annual growth rate in GST compensation receipt was 74 per cent in 2019-20 (Rs. 69,275 crore in 2018-19 to Rs. 120,498.29 crore in 2019-20). If we consider total GST compensation requirement of 2020-21, the growth rate stands at 117 per cent (Rs. 120,498.29 crore in 2019-20 to Rs. 261,387 crore in 2020-21). This shows that states have already faced revenue shock in terms of GST collection in 2019-20. Therefore, with falling GST collection in 2019-20 and 2020-21, dependence on GST compensation has increased. Therefore, reviving the economic growth and taking all possible measures to rein in revenue leakages could help States to stop further fall in GST collections. Containing the spread of COVID-19 infection is another important aspect which requires Centre-state cooperation and coordination.

3. Why some states are more dependent on GST compensation?

Dependence on GST compensation differs across States. In Figure 2 we present the GST compensation received by States in 2018-19 and 2019-20 as percentage of State GST revenue (SGST including IGST settlement, excluding GST compensation receipts). It shows that dependence on GST compensation has gone up in 2019-20 as compared to 2018-19. Dependence of seven States was 40 percent and above (Chhattisgarh, Goa, Gujarat, Himachal Pradesh, Karnataka, Punjab and Uttarakhand) in 2019-20. In 2018-19, dependence of only three States was 40 per cent and above (Himachal Pradesh, Punjab and Uttarakhand). Some States are persistently facing revenue shortfall in GST collection (Himachal Pradesh, Punjab and Uttarakhand) and they may face substantial revenue impact post the GST transition period. Dependence of seven States was between 30 to 40 per cent in 2019-20 (Bihar, Haryana, Kerala, Madhya Pradesh, Odisha, Rajasthan and Tamil Nadu). There are four States where dependence on GST compensation was between 20 to 30 per cent (Jharkhand, Maharashtra, Tripura, and West Bengal). Dependence of Andhra Pradesh, Assam, Telangana and Uttar Pradesh was lower than 20 per cent.

¹⁰ The revenue under protection (RUP) for 2020-21 is estimated by using state-wise base year (2015-16) revenue of taxes subsumed into GST and 14 per cent Year-to-Year growth since 2015-16. The figure includes revenue corresponding to undivided Jammu and Kashmir.

Figure 2: Dependence on GST Compensation for Major States*



Note: *-Dependence on GST Compensation (in %) = GST Compensation Received / State GST Revenue (SGST including IGST Settlement)*100

Source: State Finance Accounts, State Budget and Lok Sabha Un-starred Question no. 54, answered on 14 September 2020.

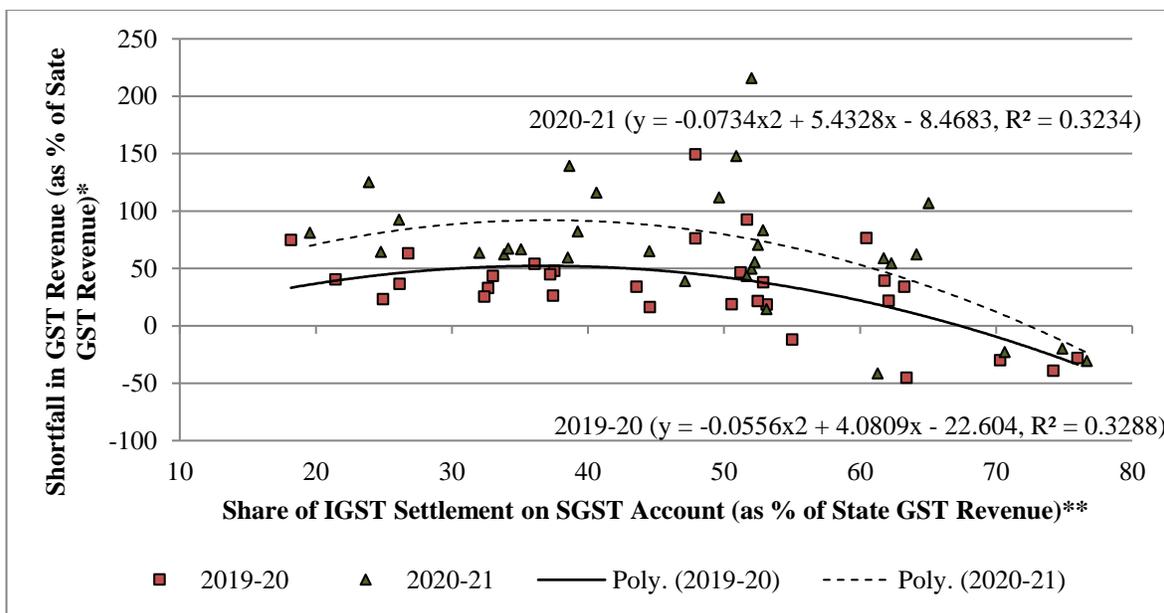
Being a destination based tax, it is expected that GST will benefit consuming States to generate more revenue. In the GST regime, IGST credit flows from origin State to consuming (destination) State to settle tax liabilities arising in the downstream of the value chain. If we construct an indicator by measuring state-wise IGST settlement on SGST account as percentage of State GST collection (including IGST settlement), the indicator depicts whether a State is predominantly a consuming or producing State.¹¹ It is expected that for a predominantly consuming State, the value of the indicator will be higher as compared to predominantly an origin State. As a measure of revenue shortfall of a State, we consider revenue under protection (RUP)¹² as the desired revenue and measure the difference between RUP and actual revenue (SGST collection including IGST settlement) as revenue

¹¹ IGST Settlement on SGST Account (regular) = SGST Liability Paid by using IGST Credit – IGST Liability Paid by using SGST Credit

¹² Please refer footnote 10.

shortfall and presented as percentage of State GST collection (SGST including IGST settlement). For this analysis we have relied on GSTN online database. However, GSTN data is not free from shortcomings. First of all, GSTN data does not capture ad hoc IGST settlements. Secondly, coverage of GST revenue for a State is partial in the GSTN database as it does not capture revenue mobilization under the GST which are outside the GSTN platform (e.g., realization of tax arrears on account of taxes subsumed into GST, recovery of revenue on account of amnesty scheme). Given the data limitations, the analysis may be considered as preliminary evidence which require in-depth analysis based on audited statement of State Finance Accounts. We find that there is an owing-to-falling relationship between the two indicators (Figure 3). As share of IGST settlement on SGST account increases revenue shortfall increases and after reaching a point (point of inflection) revenue shortfall reduces. For 2019-20 the point of inflection arrives at 37 per cent whereas for 2020-21 it is 39 per cent.¹³ Given the data limitations, the result shows that economic structure of a State influences GST collection, given the levels of tax effort and tax compliance. Similar conclusions are also drawn by studies estimating GST revenue capacity and tax efficiency of States in India (Mukherjee 2020b).

Figure 3: Why Revenue Shortfall varies across Consuming and Manufacturing States?



Notes: *-Shortfall in GST revenue (as % of State GST revenue) = [Revenue Under Protection (RUP) in GST – Actual State GST Collection (including IGST Settlement) Collection] / State GST Collection (including IGST Settlement) *100

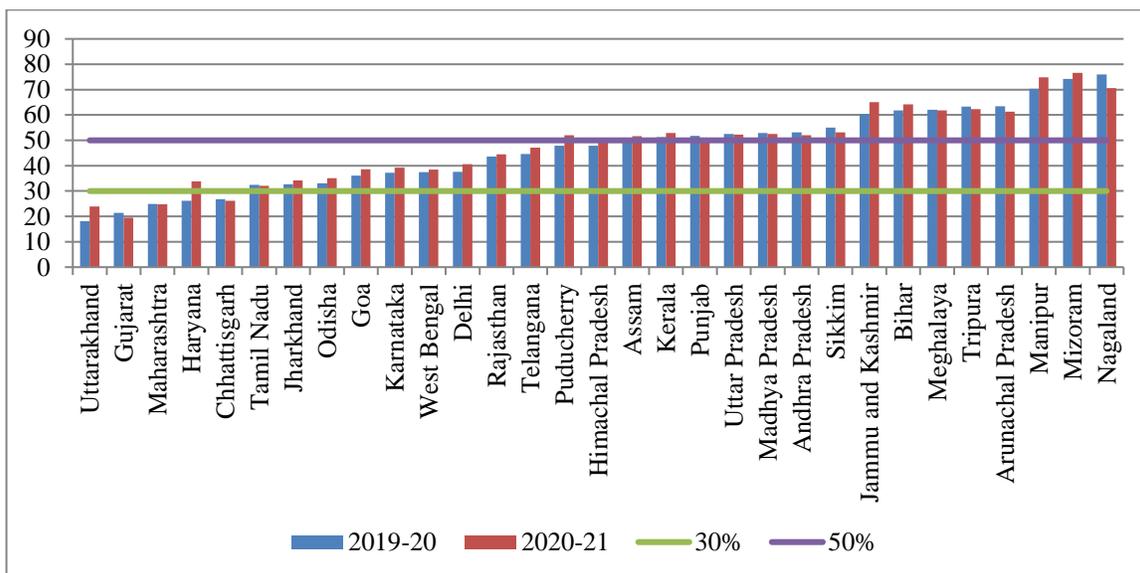
** - Share of IGST Settlement on SGST Account (as % of State GST Revenue) = IGST Settlement on SGST Account / State GST Collection (including IGST Settlement) *100

Source: Computed by author based on GSTN Online Database

¹³ Tipping point is derived by the first order maximization of estimated equation (relationship between the series) as presented in Figure 2.

A close look at Figures 3 and 4 will show that majority of States having lower share of IGST settlement on SGST account (as % of SGST collection including IGST settlement) are States having higher share of manufacturing in GSVa (e.g., Gujarat, Maharashtra, Tamil Nadu) and also their average per capita income is comparatively higher than other States. If we construct a band by taking 10 per cent above and below the point of inflection (i.e., approximately 40%), we will see that majority of States having indicator value higher than 50 per cent are predominantly consuming states (e.g., Bihar, North Eastern and Himalayan States) (Figure 4). Similarly, States having indicator value less than 30 per cent are states (e.g., Gujarat, Maharashtra, Haryana) having higher share of manufacturing in GSDP (Figure 4). Therefore, States having the indicator value falling between 30 to 50 per cent are facing the maximum revenue shortfall. These States have both in-bound as well as out-bound movements of goods higher than other States. Therefore, close monitoring of movements of goods is important for these States to rein in revenue leakages, if any. Effective monitoring of E-Way Bills is important to identify any possibility of revenue leakages.

Figure 4: Share of IGST Settlement on SGST Account (as % of State GST Revenue)



Source: Computed by author based on GSTN Online Database

4. Whether there will be adequate fiscal space to accommodate extension of GST compensation beyond June 2022?

Many States are demanding extension of GST compensation beyond June 2022 to cope up with the ongoing shortfall in GST collection as well as revenue shock caused by the COVID-19 pandemic. It is likely that any decision on extension of the GST compensation to States beyond

the GST transition period (July 2017 to June 2022) will be taken by the GST Council based on availability of adequate revenue from GST compensation cess collection. However, it is not clear whether there will be adequate revenue left after servicing accumulated market borrowings from the proceeds of the GST compensation cess post GST compensation period. Even if there is any balance left, will that be adequate to provide GST compensation to States (and UTs with legislature) at the present level of compensation. Whether any compensation lower than the present level of compensation will be acceptable to States? If States do not receive any GST compensation beyond the GST transition period what will be the revenue impact on State finances? If the Union government allows GST compensation to States beyond June 2022, what will be the possible revenue impact on the Union finances? If the GST compensation cess collection falls short of demand for GST compensation, whether the Union government will be compelled to borrow from the market to compensate the States? Whether the continuation of GST compensation cess forever is desirable? Whether the rationalization of GST rate structure could generate adequate resources for the Union and state governments, given the ongoing slowdown of the economy and level of tax compliance? Is there any possibility to enlarge the scope of GST compensation by bringing more goods and services under GST compensation cess? It may not possible to answer such questions at present, given the uncertainties surrounding GST collection posed by the pandemic and limitations of data available in the public domain. In the present paper we have tried to address some of the questions with support of empirical analysis.

The Union government has borrowed Rs. 110,208 crore by issuing Government of India (GoI) securities of 5-Year and 3-Year tenure in 20 weekly tranches during 2020-21 (Table 3). Yields of the special borrowings vary across tranches and also across tenures. The weighted average interest for aggregate borrowing is 4.8473 per cent. However, given available information in the public domain, composition of aggregate borrowing by tenure cannot be ascertained. In our analysis (as presented in Table 4), we assume that half of the total borrowing during 2020-21 comprises of 5-Year tenure and the rest half of 3-Year tenure. Depending on different assumptions on tenure composition of the borrowing and corresponding interest rates, servicing obligations (interest and principal payment liabilities) of market borrowings will be different. In 2021-22, so far an amount of Rs. 75,000 crore has been borrowed against GoI securities to compensate States (and UTs with legislature) for shortfall in projected GST cess collection vis-à-vis projected demand for GST compensation requirement. Out of Rs. 75,000 crore, Rs. 6,500 crore (i.e., 8.67%) has been borrowed against GoI securities of 2-Year tenure at a weighted average interest rate of 4.25 per cent (Table 3). Rest of the amount has been borrowed against GoI securities of 5-Year tenure at a weighted average interest rate of 5.60 per cent. Since the balance amount of Rs. 84,000 crore of special GST compensation for 2021-22 is expected to be released in the second half of 2021-22, we assume that composition of tenure as well as yield of the borrowing would be similar to the recent borrowings of the government. Therefore, by the end of 2021-22 cumulative market borrowing liability of Rs. 269,208 crore will be serviced by using proceeds of the GST compensation cess collection. During the GST transition period, only the interest on special market borrowing will be paid from the proceeds of the GST compensation cess and after the GST transition period both

interest and principal payments will be financed by using the proceeds of the GST compensation cess. In Table 4, we present interest and principal payment obligations for the duration of the market borrowing, i.e., 2021-22 to 2026-27. It is to be noted that interest payment liabilities are calculated on annual reducing balance. To service the special borrowing liabilities of the government by using proceeds of the GST compensation cess collection, the cess collection must reach Rs. 91,322 crore in 2022-23 and Rs. 87,400 crore in 2023-24. Thereafter, GST cess collection may exceed the amount required to service the interest as well as principal payment liabilities corresponding to special market borrowing. Taking cue from the experience of GST cess collection in last four years, it seems that meeting revenue targets in GST cess collections may not be an issue in the post-GST transition period to service the special market borrowings (Figure 5). However, after servicing the liabilities there will not be enough revenue (balance) left to provide GST compensation to states at least during first two years after GST transition period, i.e., 2022-23 and 2023-24. Therefore, any discussion on extension of GST compensation period beyond June 2022 may arise post 2023-24. Even after 2023-24, the proceeds of GST compensation cess may not be adequate to give GST compensation to States at the present level. Therefore, any discussion on GST compensation to States needs to address this issue as well. Post 2026-27, casting a design of additional tax in lieu of GST compensation cess on some demerit or sin goods either as a concurrent tax between the Union and States or as the Union tax may help States to mobilize additional resources (Mukherjee 2020c). If the GST Council agrees to any of the designs (Concurrent or the Union tax), it will be an example of cooperative federalism and help in stabilization of the GST system in India. Under alternative design of additional tax on top of GST rates alternative set of States will benefit. States receive higher share in tax devolution, according to the award of the Finance Commission, will benefit the most if the additional tax is placed as the Union tax (Mukherjee 2020c).

Table 3: Special Borrowing of the Union Government for GST Compensation

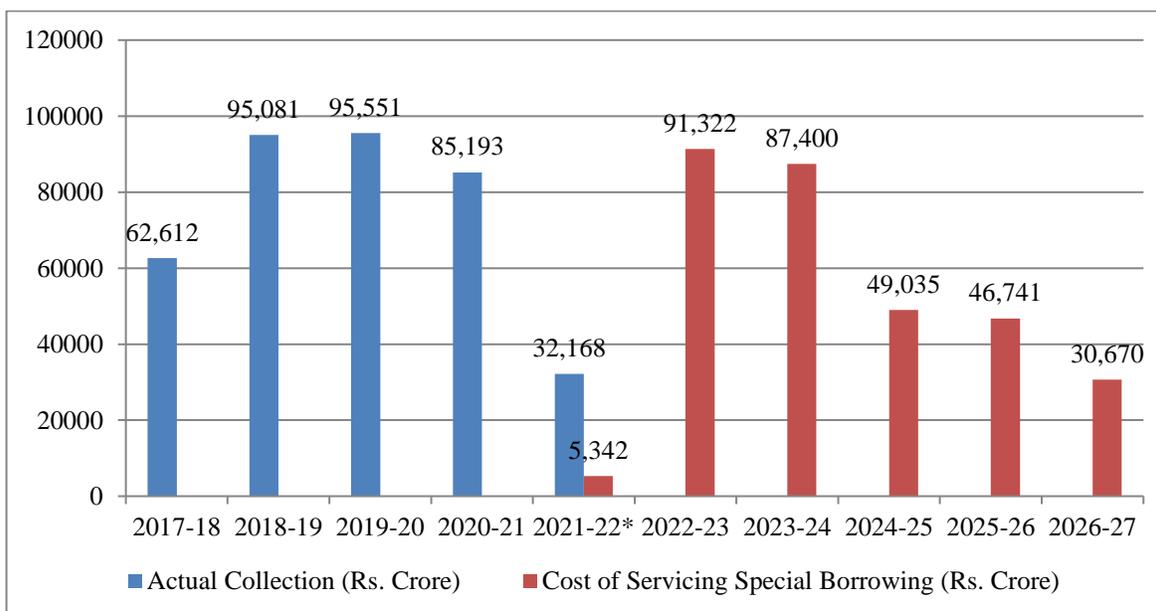
Date of Borrowing	Borrowing (Rs. Crore)	Interest Rate (%)	Weighted Average Interest Rate on Cumulative Borrowing till Date (%)	Cumulative Borrowing till Date (Rs. Crore)
2020-21				
1) 23/10/2020	6,000	5.19	5.19	6,000
2) 02/11/2020	6,000	4.42	*	12,000
3) 09/11/2020	6,000	*	*	18,000
4) 23/11/2020	6,000	*	*	24,000
5) 01/12/2020	6,000	*	*	30,000
6) 07/12/2020	6,000	4.2089	4.7106	36,000
7) 14/12/2020	6,000	5.1348	4.7712	42,000
8) 21/12/2020	6,000	4.1902	4.6986	48,000
9) 28/12/2020	6,000	5.1508	4.7488	54,000
10) 04/01/2021	6,000	4.1526	4.6892	60,000

Date of Borrowing	Borrowing (Rs. Crore)	Interest Rate (%)	Weighted Average Interest Rate on Cumulative Borrowing till Date (%)	Cumulative Borrowing till Date (Rs. Crore)
11) 11/01/2021	6,000	5.1057	4.7271	66,000
12) 18/01/2021	6,000	4.4315	4.7024	72,000
15) 12/02/2021	6,000	5.5288	4.7921	90,000
17) 20/02/2021	5,000	5.5924	4.8307	100,000
19) 09/03/2021	2,104	5.8594	4.8842	106,104
20) 15/03/2021	4,104	4.9288	4.8473	110,208
2021-22				
1) 15/07/2021	6,500 (in 2-Year GoI Securities)		4.25	116,708
	68,500 (in 5-Year GoI Securities)		5.60	185,208

Note: *-Not Available.

Source: Compiled by author based on Press releases of Ministry of Finance, Government of India.

Figure 5: Actual Collection and Expected Targets of GST Compensation Cess Collection (Rs. Crore)



Note: *- actual GST compensation cess collection till July 2021

Source: Computed by Author

Table 4: Interest and Principal Payment Liabilities of Special Market Borrowings (Rs. Crore)

Total Market Borrowing Principal Amount (Rs. Crore)	Tenure (Years)	Average Interest Rate (%)	Market Borrowing by Tenure (Rs. Crore)	Year of Borrowing	Liability (Rs. Crore)	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	Total	
110,208	3	4.8473	55,104	2020-21	Principal Payment		27,552	27,552				55,104	
					Interest Payment	2,671	2,671	1,336			4,007		
					Total Payment	2,671	30,223	28,888			59,111		
	5	4.8473	55,104		Principal Payment		13,776	13,776	13,776	13,776		55,104	
					Interest Payment	2,671	2,671	2,003	1,336	668		6,678	
					Total Payment	2,671	16,447	15,779	15,112	14,444		61,782	
159,000	2	4.25	13,780	2021-22	Principal Payment		6,890	6,890				13,780	
					Interest Payment		586	293				878	
					Total Payment		7,476	7,183				14,658	
	5	5.60	145,220		Principal Payment		29,044	29,044	29,044	29,044	29,044		145,220
					Interest Payment		8,132	6,506	4,879	3,253	1,626	24,397	
					Total Payment		37,176	35,550	33,923	32,297	30,670	169,617	
Re-payment Liability (Principal & Interest) (Rs. Crore)						5,342	91,322	87,400	49,035	46,741	30,670	305,168	

Source: Computed by author

5. Summary and Conclusions

Our analysis shows that growth rate of SGST (including IGST settlement on SGT account) for the period from 2017-18 to 2019-20 remained lower than the average annual growth rate of taxes subsumed in GST for the period 2014-15 to 2016-17. Exceptions were Maharashtra, Tamil Nadu, Uttar Pradesh and a few North Eastern States. We measured States' dependence on GST compensation by estimating the amount of GST compensation received as percentage of State GST revenue (SGST including IGST settlement, excluding GST compensation receipts). Our analysis showed that dependence on GST compensation had gone up in 2019-20 as compared to 2018-19. Dependence of seven States was 40 percent and above (Chhattisgarh, Goa, Gujarat, Himachal Pradesh, Karnataka, Punjab and Uttarakhand) in 2019-20. Dependence of seven States was between 30 and 40 per cent during 2019-20 (Bihar, Haryana, Kerala, Madhya Pradesh, Odisha, Rajasthan and Tamil Nadu). There were four states where dependence on GST compensation was between 20 and 30 per cent (Jharkhand, Maharashtra, Tripura, and West Bengal). Dependence of Andhra Pradesh, Assam, Telangana and Uttar Pradesh was less than 20 per cent.

Being a destination-based tax, it was expected that GST will benefit consuming states. We constructed an indicator by measuring state-wise IGST settlement on SGST account as percentage of state GST collection (including IGST settlement). This indicator depicted whether a State was predominantly a consuming or producing State. It was expected that for a predominantly consuming State, the value of the indicator would be higher as compared to a producing State. Our results showed that economic structure of a State influenced GST collection, given the levels of tax effort and tax compliance.

Majority of States having lower share of IGST settlement on SGST account (as % of state GST collection including IGST settlement) were also the States having higher share of manufacturing in GSVA (e.g., Gujarat, Maharashtra, Tamil Nadu) and also ranked higher in per capita income. We observed that majority of States having IGST settlement on SGST account (as % of SGST collection, including IGST settlement) (mentioned as indicator value) higher than 50 per cent were consuming States (e.g., Bihar, North Eastern States). Similarly, States having indicator value less than 30 per cent were predominantly manufacturing States. States having the indicator value between 30 and 50 per cent were facing maximum revenue shortfalls. As these States have significantly large in-bound as well as out-bound movements of goods, intensive monitoring of inbound and outbound flows of goods is critical to improve revenue compliance.

References

- Gupta, Manish and Indira Rajaraman (2020), "Is the 14% Revenue Guarantee to States Justified?", *Economic and Political Weekly*, 55(47):18-21.
- Mukherjee, S. (2020b), "Goods and Services Tax efficiency across Indian States: panel stochastic frontier analysis", *Indian Economic Review*, 55(2):225-251.
- Mukherjee, S. (2020c), "*Possible Impact of Withdrawal of GST Compensation Post GST Compensation Period on Indian State Finances*", NIPFP Working Paper No. 291. New Delhi: National Institute of Public Finance and Policy (NIPFP), January 2020.
- Mukherjee, S. and S. Badola (2021), "*Public Finance Management in India in the time of COVID-19 Pandemic*", NIPFP Working Paper No. 337. New Delhi: National Institute of Public Finance and Policy (NIPFP), May 2021.

MORE IN THE SERIES

- Jacob, J. F., and Chakraborty, L., (2021). [COVID-19 and Public Investment for Children: The case of Indian State of Karnataka](#), W.P. No. 355 (October).
- Tandon, Suranjali., (2021). [In search of a solution to tax digital economy](#), W.P. No. 354 (October).
- Patnaik, Ila and Sengupta, R., (2021). [Analysing India's Exchange Rate Regime](#), W.P. No. 353 (September).

Sacchidananda Mukherjee, is Associate Professor, NIPFP
Email: sacchidananda.mukherjee@nipfp.org.in



National Institute of Public Finance and Policy,
18/2, Satsang Vihar Marg, Special Institutional
Area (Near JNU), New Delhi 110067
Tel. No. 26569303, 26569780, 26569784
Fax: 91-11-26852548
www.nipfp.org.in