

# **Revenue Assessment of Goods and Services Tax (GST) in India**

No. 385

06-July-2022

Sacchidananda Mukherjee



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

## Revenue Assessment of Goods and Services Tax (GST) in India

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: sach.s.mse@gmail.com

### Abstract

Indian GST completes five years on 30 June 2022. Revenue assessment is important to assess the success of GST in protecting revenues of the Union as well as state governments. By compiling comparable revenue streams for pre- and post-GST regime, we compare the revenue performance of GST for the period 2005-06 to 2021-22RE. Our analysis shows that both the Union and state governments could not reap the benefits of GST in terms of higher revenue mobilization yet. By increasing revenue mobilization from “Non-Shareable Duties” and “Cesses on Commodities” under Union Excise Duties, the Union government could manage the revenue shortfall in GST. The GST compensation (both from the GST compensation fund as well as back-to-back loans from the Centre) helped states to sustain the revenue stream as prevalent prior to introduction of GST. In the post GST compensation regime, some states may face revenue stress. States where dependence on GST compensation (as measured by the share of GST compensation in SGST) as well as the share of SGST in own tax revenue are higher (e.g., Goa, Punjab and Chhattisgarh), they may face relatively higher revenue stress than other states.

**Key Words:** Revenue assessment, Goods and Services Tax (GST), Revenue protection, GST Compensation, India.

**JEL Codes:** H20, E62, H26

## 1. Introduction

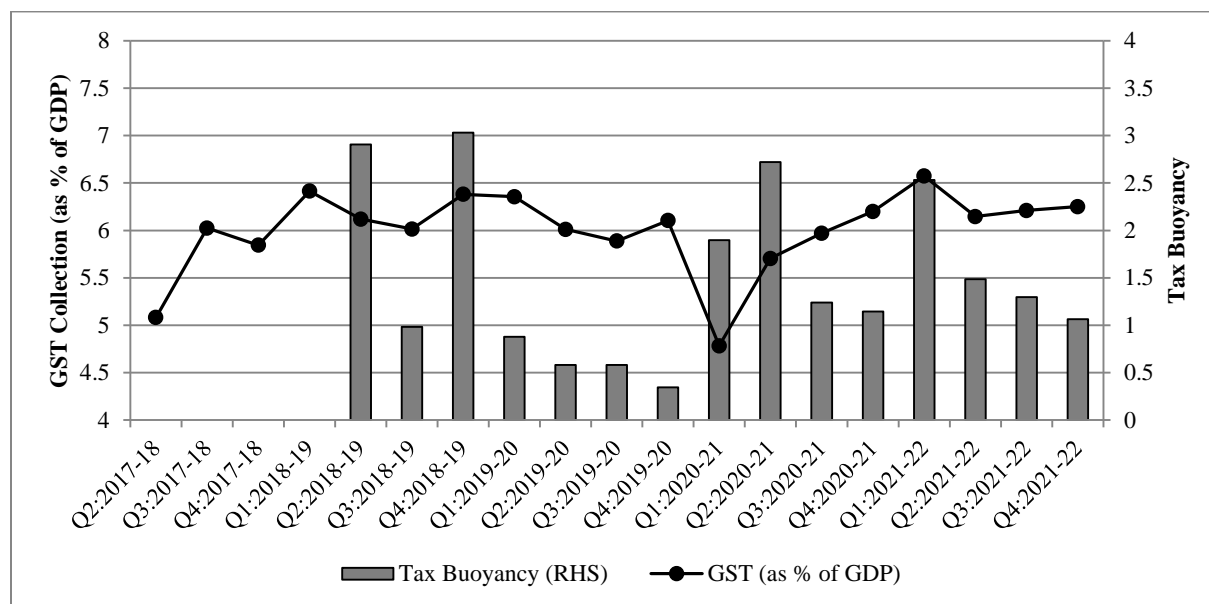
Goods and Services Tax (GST) in India completes five years on 30 June 2022. GST subsumes many taxes from the Union as well as State tax bases. Revenue assessment of the GST with reference to revenue that is subsumed into GST is important to assess the success of the GST in terms of revenue protection for the Union as well as state governments. One of the stated objectives of GST is to widen the tax base by expanding the coverage of economic activities under GST and cutting down exemptions (Government of India 2015). It was also envisaged that GST will help in achieving better tax compliance through mitigation of tax cascading, double (multiple) taxation and by lowering tax burden. Harmonization in design, structure and administration of GST is also expecting to facilitate emergence of nationwide integrated market for goods and services and therefore improve economic efficiency. Being a destination-based tax system with seamless flow of input tax credit (ITC) across tax jurisdictions, it was expected that GST will reduce transaction costs associated with inter-state supplies and therefore improve economic efficiency and attract investments. Revenue uncertainty associated with any tax reform is a major concern for all participating governments and therefore the assurance of revenue protection given by the Union government to states helped to achieve broad consensus in favor of GST (Mukherjee 2021a). However, there is no provision in GST to protect revenue of the Union government for shortfall in GST collection vis-à-vis the Union revenue that is subsumed into GST. States receive GST compensation from the GST compensation fund in case State GST (SGST including Integrated GST settlement) collection falls short of projected SGST collection. Proceeds from GST compensation cess constitute the GST compensation fund. In the face of shortfalls in GST compensation cess collection vis-à-vis GST compensation requirements of states during 2020-22, the Union government has borrowed Rs. 1.10 trillion in 2020-21 and Rs. 1.59 trillion in 2021-22 from the market (as back-to-back loans) to provide GST compensation to states. To pay pending GST compensation arrears (if any) to states, interests and servicing the back-to-back loans, the GST compensation cess collection has been extended till 31 March 2026.

A broad assessment of revenue performance of GST shows that GST collection is hovering between 5.5 to 6.5% of GDP,<sup>1</sup> except during Q1 of 2020-21 due to COVID-19 pandemic related economic restrictions (Figure 1). So far the highest tax buoyancy in GST observed in Q4 of 2018-19. Except during 2019-20, tax buoyancy remains at least 1 during Q2 of 2018-19 to Q4 of 2021-22. Volatility in tax buoyancy of GST is the result of volatility in growth rates of GDP as well as GST collections. Stabilization of GST compliance system will be important to achieve the stabilization in GST.

---

<sup>1</sup> GDP at market prices (current prices, 2011-12 series).

Figure 1: Revenue Performance of GST



Source: Computed by Author based on Monthly Press Releases of the Department of Revenue, Government of India and EPWRF India Time Series Database.

In our knowledge, literature on comprehensive revenue assessment of GST for the Union and state governments is sparse in India. Therefore the present study contributes to the literature. The objective of this paper is to assess the revenue performance of GST for the Union and state governments with reference to revenue that is subsumed into GST and /or revenue from selected taxes which are either partially or fully subsumed into GST. For this analysis we have relied on audited statements of accounts of the Union and state governments, as available from the Union and state finance accounts. We have also used state budget documents to assess the revenue profile of states for recent years. In the next section we assess the GST revenue of the Union government and it is followed by GST revenue assessment of states. We draw our conclusion in section three.

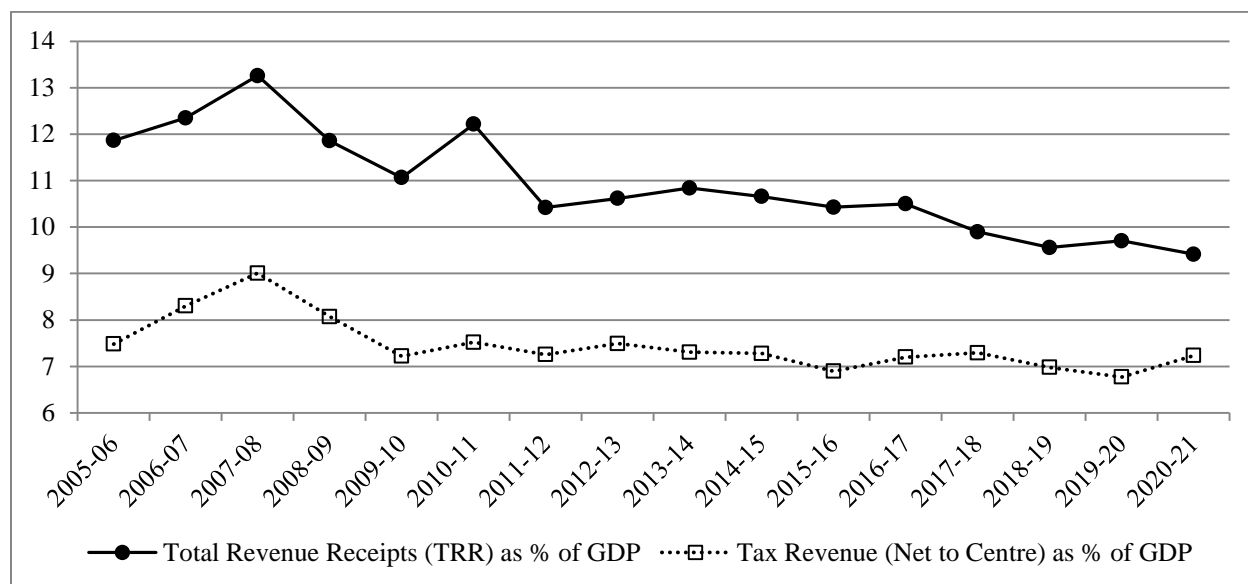
## 2. Revenue Assessment of GST

### 2.1 Revenue Assessment of GST for the Union Government

Before discussing on GST revenue of the Union government, we present the trends in Total Revenue Receipts (TRR) and Tax Revenue (TR, Net to Centre) during 2005-06 to 2020-21. Figure 2 shows an increasing trend in TRR (as % of GDP) during 2005-08, and thereafter it falls in two consecutive years (i.e., 2008-10) due to global financial crisis (GFC) (Mukherjee 2019). Post-GFC it improves in 2010-11 and thereafter it remains stable during 2011-17. A

mild falling trend in TRR is again observed after 2016-17. Post-GFC net tax revenue of the Union government remains stable at 7% of GDP. Given the state of revenue mobilization, it will be important to assess the revenue impact of GST on the Union finances.

Figure 2: Total Revenue Receipts and Tax Revenue (Net to Centre) of the Union Government (as % of GDP)\*



Note: \*-GDP at market prices (current prices, 2011-12 series)

Source: Computed by Author based on data accessed from the Union Finance Account and EPWRF India Time Series Database

To assess the revenue impact of GST, we need pre-GST revenue stream of the Union taxes which are subsumed into GST. Revenue corresponding to the Union taxes which is subsumed into GST cannot be ascertained based on information available in the public domain (Mukherjee and Rao 2019). To overcome this data constraint, we have selected a broad set of taxes which are either fully or partially subsumed into GST. For example, we consider services tax which is fully subsumed into GST and also Union Excise Duty (UED) which is partially subsumed into GST. UED continues for three petroleum products (petrol, diesel, ATF), natural gas (compressed), crude petroleum, and tobacco products. To make the revenue stream comparable across pre- and post-GST regime, we have considered the Union taxes for the period 2005-06 to 2020-21 (as presented in Table 1). We have not considered GST compensation cess (GSTCC) collection as the Union government revenue, as the proceeds of GSTCC constitutes GST compensation fund and it is utilized to make GST compensation payments to states. In sharable taxes, we have taken net tax (Net to Centre) accrued to the Union government for both the pre- and post-GST regime.

Table 1: Selected Union Taxes

Major Head	Description	Taxes Subsumed into GST
0005	Central Goods and Services Tax (CGST)	Central GST Component
0007	Union Territory Goods and Services Tax (UT GST)	United Territory (UT) GST
0008	Integrated Goods and Services Tax (IGST)*	IGST is levied on inter-state supplies and imports
0023	Hotel Receipts Tax (HRT)	Full
0037	Customs	Partial <ul style="list-style-type: none"> <li>• Additional Customs Duty commonly known as Countervailing Duty (or CVD)</li> <li>• Special Additional Duty of Customs (or SAD)</li> <li>• Cesses and surcharges</li> </ul>
0038	Union Excise Duties (UED)	Partial <ul style="list-style-type: none"> <li>• Union Excise Duty (except petrol, diesel, ATF, crude petroleum, natural gas, tobacco)</li> <li>• Additional Excise Duty</li> <li>• Excise Duty levied under the Medicinal and Toilet Preparations (Excise Duties) Act, 1955</li> <li>• Cesses and surcharges</li> </ul>
0040	Taxes on sales, trade etc.	Partial <ul style="list-style-type: none"> <li>• Except petrol, diesel, ATF, natural gas, crude petroleum and alcoholic beverages for human consumption</li> </ul>
0042	Tax on goods and passengers	Partial <ul style="list-style-type: none"> <li>• Tax on entry of goods into Local Areas (0042-106)</li> </ul>
0044	Services tax	Full
0045	Other taxes & duties on commodities & services	Partial <p>E.g.,</p> <ul style="list-style-type: none"> <li>• Entertainment Tax</li> <li>• Luxury Tax</li> <li>• Tax on Railway passenger fares</li> <li>• Receipts under the Water (Prevention and Control of Pollution) Cess Act</li> </ul>

Note: \*- during 2017-18 and 2018-19, settlement of IGST was based on Finance Commission's tax devolution formula instead of place of supply (POS) rule-based settlement of the integrated GST (IGST) (CAG, 2019).

Source: Computed by author

Table 2 shows that average TRR (as % GDP) falls by 1.13% in between 2005-10 to 2010-15. During 2010-15 to 2015-17, it further falls by 0.49% and in between 2015-17 to 2017-19 it

falls by 0.74%. During 2017-19 to 2019-21 TRR falls by 0.17%. Therefore, in between 2005-10 to 2019-21, TRR falls by 2.52% of GDP. During the same period Tax Revenue (Net to Centre) falls by 1.02% of GDP. There is a falling trend in TRR (as % of GDP) and in the GST regime we do not observe any improvement. We also do not observe any substantial improvement in Tax Revenue of the Union government post-GST regime.

The share of selected taxes in TRR falls during first two years of introduction of GST (i.e., 2017-18 to 2018-19) and thereafter it improves during 2019-21. The share of selected taxes in tax revenue (Net to Centre) improves marginally during 2017-19 and thereafter it falls during 2019-21. However, it is to be noted that any change in the share does not necessarily imply that tax collection from the selected taxes has improved or fallen. The share may increase (or fall) due to fall (or rise) in the collection of other taxes (other than selected taxes within the Union tax base) also. Therefore, to ascertain the revenue impact of selected taxes in the Union finances, we have presented the share of selected taxes in GDP in Table 2. It shows that during first two years of GST introduction, the tax collection from selected taxes falls by 0.56% of GDP and thereafter it improves by 0.36% of GDP during 2019-21. The increase in the share of selected taxes in GDP cannot be attributed to increase in GST collection alone, as selected taxes also include UED collection from excisable commodities and other taxes which are not subsumed into GST (e.g., Basic Customs Duty). Average share of selected taxes in GDP during 2019-21 is lower by 0.21% of GDP as compared to average tax collection from selected taxes observed during 2015-17. This shows that the Union government yet to gain from the GST in terms of higher revenue mobilization.

In the next step, we subtract revenue collections on account of “Non-shareable duties (NSD)” and “Cesses on commodities (COC)” under Union Excise Duty (UED) from the revenue stream of selected taxes. The objective of this exercise is to assess the revenue impact of GST without taxes which accrued to the Union government on account of NSD and COC. Table 2 shows that the share of adjusted selected taxes in TRR and Tax Revenue also falls during 2019-21. The share of adjusted selected taxes in GDP also falls in 2019-21. Though the revenue from the Union taxes subsumed into GST is not available for the pre-GST regime, our analysis shows that there is no sign of improvement in tax collection in the Union taxes till 2020-21 after introduction of GST.

Unlike state governments, the Union government is depriving of revenue compensation on account of shortfall in GST collection vis-à-vis revenue that is subsumed into GST. Like state governments, the Union government has also faced shortfall in GST collection over the last five years. The Union government has raised revenue collections on account of “Non-shareable duties (NSD)” and “Cesses on commodities (COC)” under UED to moderate the revenue impact of shortfall in GST collection. Except a few years, annual growth rate in combined revenue collection from NSD and COC remains higher than annual growth rate of UED collection without NSD and COC during 2005-06 to 2020-21 (Figure 3). Also over the years the share of combined NSD and COC collection in tax revenue (Net to Centre) has increased whereas the share of UED collection without NSD and COC has declined (Figure 4). Major fall in the share of UED (without NSD & COC) in tax revenue observed during 2017-21. This shows that the Union government exercised the option of increasing non-

shareable taxes and cesses on existing excisable goods in the GST regime to cope up with the revenue shortfall in GST collection. Perhaps keeping a provision of GST compensation for the Union government at the design stage of GST would have been an equitable approach for big tax reform like GST in a federal setup.

Table 2: Revenue Assessment of GST for the Union Government

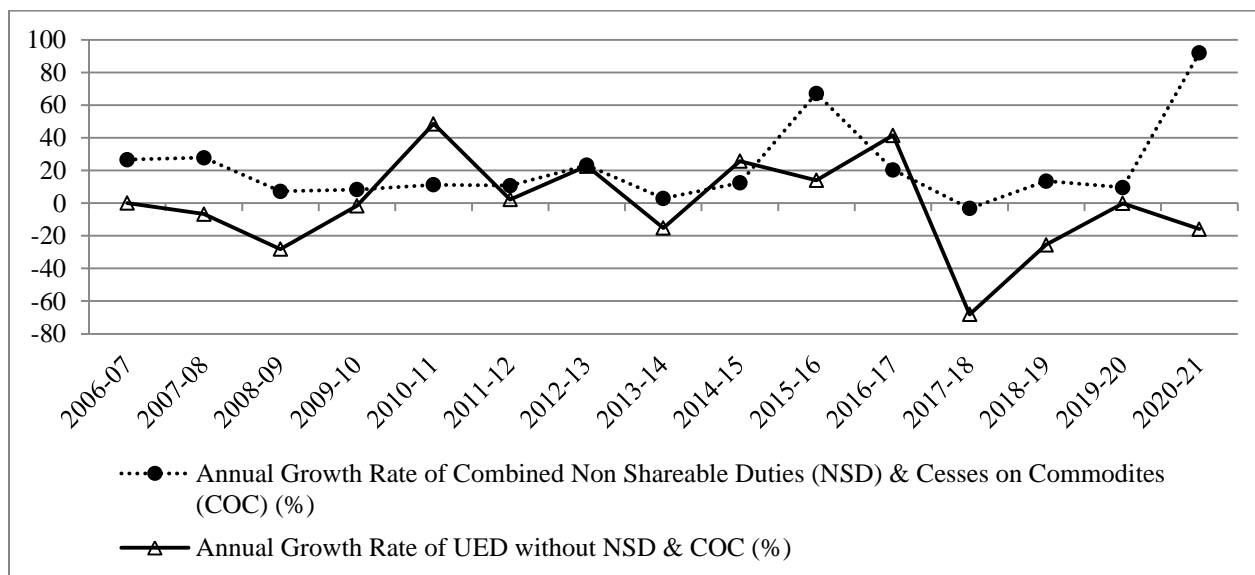
Description	Average of					B-A	C-B	D-C	E-D
	2005-06 to 2009-10 (A)	2010-11 to 2014-15 (B)	2015-16 to 2016-17 (C)	2017-18 to 2018-19 (D)	2019-20 to 2020-21 (E)				
Total Revenue Receipts (TRR) as % of GDP	12.08	10.95	10.46	9.73	9.56	-1.13	-0.49	-0.74	-0.17
Tax Revenue (TR, Net to Centre) as % of GDP	8.02	7.37	7.05	7.14	7.00	-0.65	-0.32	0.09	-0.13
Selected Taxes as % of Total Revenue Receipts (TRR)	31.76	30.77	34.83	31.71	36.11	-0.99	4.06	-3.12	<b>4.39</b>
Selected Taxes as % of Tax Revenue (TR, Net to Centre)	47.95	45.57	51.69	43.23	49.06	-2.38	6.12	-8.47	<b>5.83</b>
Selected Taxes as % of GDP at Market Prices	3.85	3.36	3.65	3.09	3.44	-0.49	0.29	-0.56	<b>0.36</b>
Adjusted Selected Taxes as % of TRR*	26.17	25.25	25.96	22.97	22.35	-0.92	0.71	-2.98	<b>-0.62</b>
Adjusted Selected Taxes as % of TR*	39.53	37.40	38.52	31.31	30.54	-2.13	1.12	-7.21	<b>-0.76</b>
Adjusted Selected Taxes as % of GDP*	3.17	2.76	2.72	2.24	2.14	-0.42	-0.04	-0.48	<b>-0.10</b>

Note: \*-Adjustment is done by subtracting “Non-shareable duties (NSD)” and “Cesses on commodities (COC)” under Union Excise Duty (UED) from the revenue stream of selected taxes.

Source: Computed by Author based on data accessed from Union Finance Accounts

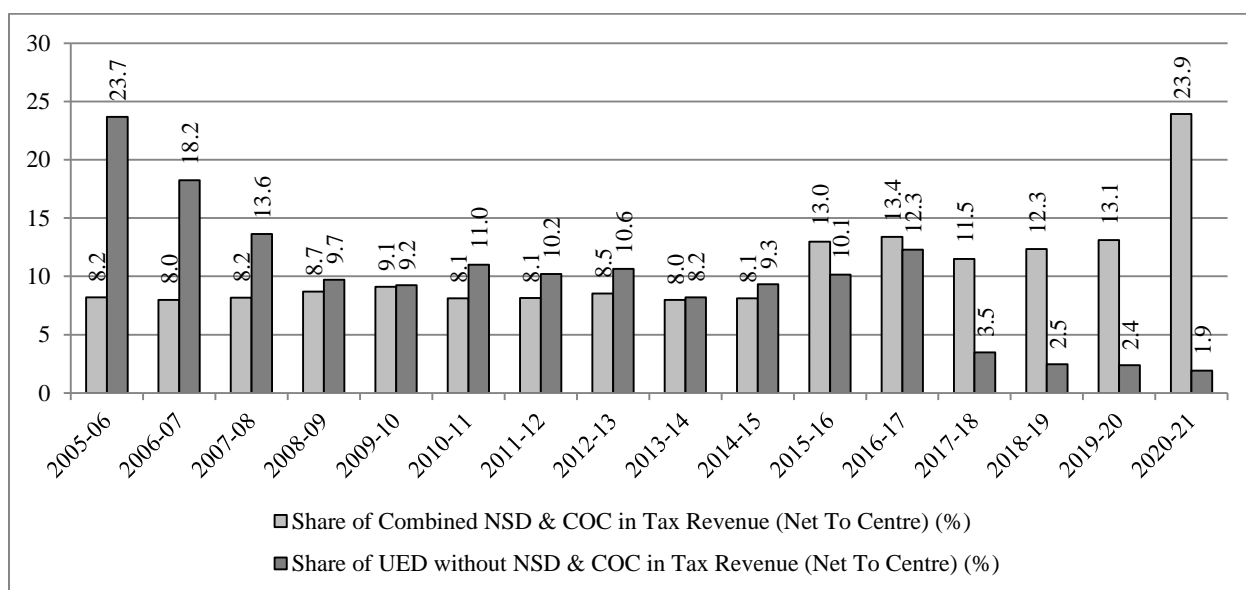


Figure 3: Annual Growth Rates of Combined CSD & COC Collection and UED Collection without NSD & COC (%)



Source: Computed by Author based on data accessed from Union Finance Accounts

Figure 4: Shares of Combined CSD & COC Collection and UED without NSD & COC in Tax Revenue (Net to Centre) (%)



Source: Computed by Author based on data accessed from Union Finance Accounts

## 2.2 Revenue Assessment of GST for State Governments

Revenue from taxes subsumed into GST is available for Indian states for the period 2012-13 to 2017-18 (upto 30 June 2017).<sup>2</sup> However, the information is not available for two major states, Gujarat and Haryana, except for 2015-16. To overcome this data constraint, we have also considered a broad set of taxes, which are either partially or fully subsumed into GST (Table 3). Please note that this is an additional exercise apart from analyzing the revenue stream corresponding to taxes subsumed into GST available for states for the period 2012-13 to 2017-18 (upto 30 June 2017). In Table 3, we also include state's share in Central taxes (corresponding to the Union taxes which are either partially or fully subsumed into GST). The objective behind this exercise is to capture any increase in the revenue receipts by the Union government post-GST introduction and corresponding increase in tax devolution to states.

We analyze data for 18 major states as well as four minor states (Assam, Himachal Pradesh, Tripura and Uttarakhand) for the period 2005-06 to 2022-23BE.<sup>3</sup> We observe a mild upward trend in average TRR (as % of GSDP) for major states (Figure 5). For minor states, we observe a declining trend in average TRR. States faced revenue shock during global financial crisis (i.e., 2008-10) and again faced relatively stronger revenue shock due to COVID-19 pandemic in 2020-21. It is to be highlighted that in 2019-20, minor states faced revenue shock whereas in 2020-21 their revenue mobilization improved. This is an aggregate analysis of major and selected minor states and experience of individual state may differ from the analysis presented here. We present state-specific analysis in Appendix Tables A1 and A2.

Average tax revenue (combined own tax revenue and share in Central taxes) of major states shows a mild upward trend till 2018-19; thereafter it falls in two consecutive years (2019-21) (Figure 6). Major states faced revenue shock during 2008-10 due to global financial crisis and thereafter a moderate shock during 2013-15. During 2019-21, major states faced revenue shock stronger than the shock experienced during GFC. However, a sign of improvement observed in 2021-22RE. Prior to introduction of GST, average tax revenue remains stable during 2015-17 for major states. We have not observed any significant improvement in tax collection for major states after GST introduction. The gap between major and minor states in average tax revenue (as % of GSDP) has narrowed down over the years and during 2015-16 to 2020-21, average tax revenue (as % of GSDP)

---

<sup>2</sup> [https://tutorial.gst.gov.in/offlineutilities/gst\\_statistics/Yearwise-Pre-GST-revenue.pdf](https://tutorial.gst.gov.in/offlineutilities/gst_statistics/Yearwise-Pre-GST-revenue.pdf) (last accessed on 28 June 2022).

<sup>3</sup> Except Punjab, we have compiled data of recent years from the State Budget of 2022-23. Punjab is yet to present State Budget of 2022-23. Since other minor states are mostly meeting the projected revenue targets in GST, we avoid discussing their revenue performance in the present paper.

of minor states lies either above or coincides with the major states. Minor states faced major setback in tax revenue in 2021-22, besides strong revenue shock during 2019-21 (Figure 6). Prior to introduction of GST, share of average tax revenue improves in 2016-17 for minor states. An improvement in average tax revenue also observed for minor states in 2018-19.

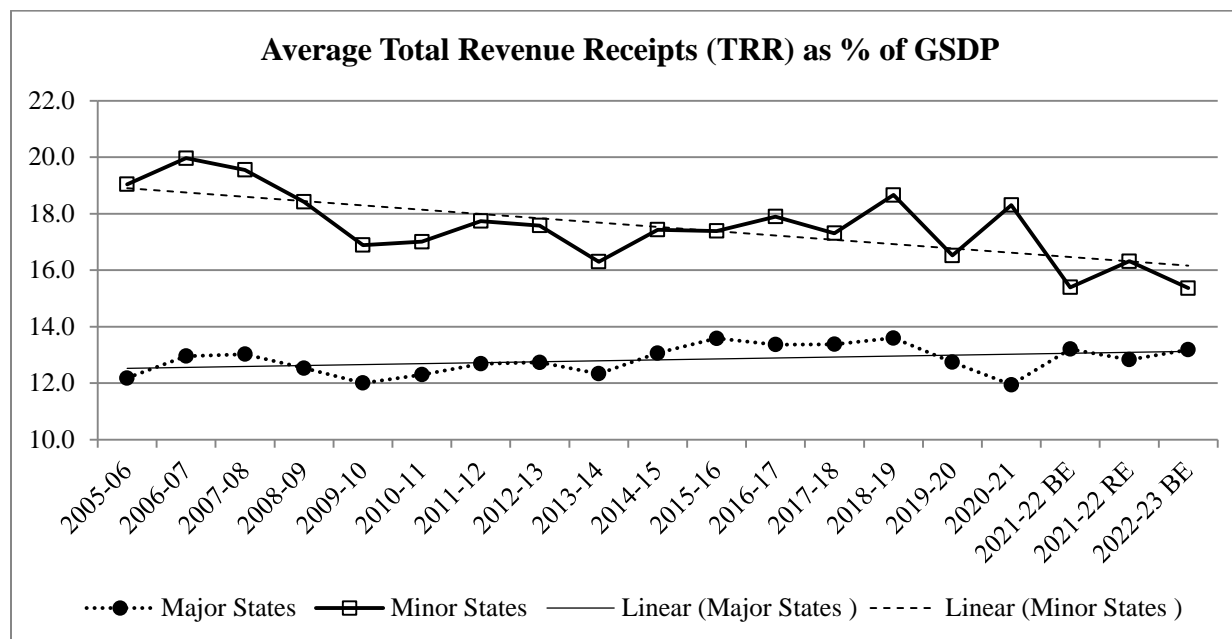
Table 3: Selected State Taxes

Major Head and Description	Taxes Subsumed into GST
0005- Share in Central Goods and Services Tax (CGST)	Central GST Component
0006- State Goods and Services Tax (SGST)	State GST Component
0008- Share in Integrated Goods and Services Tax (IGST)*	State's Share in IGST
0023- Hotel Receipts Tax	Full
0037- Share in Customs	Partial (only CVD and SAD Parts)
0038- Share in Union Excise Duties	Partial
0040- Taxes on Sales, Trade etc.	Partial <ul style="list-style-type: none"> <li>• State Value Added Tax/Sales Tax (except taxes on petrol, diesel, ATF, natural gas, crude petroleum and alcoholic beverages for human consumption)</li> <li>• Central Sales Tax</li> </ul>
0042- Taxes on Goods and Passengers	Partial <ul style="list-style-type: none"> <li>• Tax on entry of goods into Local Areas (0042-106)</li> </ul>
0044- Share in Service Tax	Full
0045- Other Tax and Duties on Commodities and Services (including share received from the Union Government)	Partial <ul style="list-style-type: none"> <li>• Entertainment Tax (other than the tax levied by the local bodies)</li> <li>• Purchase Tax</li> <li>• Luxury tax</li> <li>• Taxes on lottery, betting and gambling</li> </ul>

Note: \*-during 2017-18 and 2018-19, states receive settlement of IGST based on finance commission's tax devolution formula instead of place of supply (POS) rule-based settlement of the integrated GST (IGST) across the states.

Source: Computed by Author

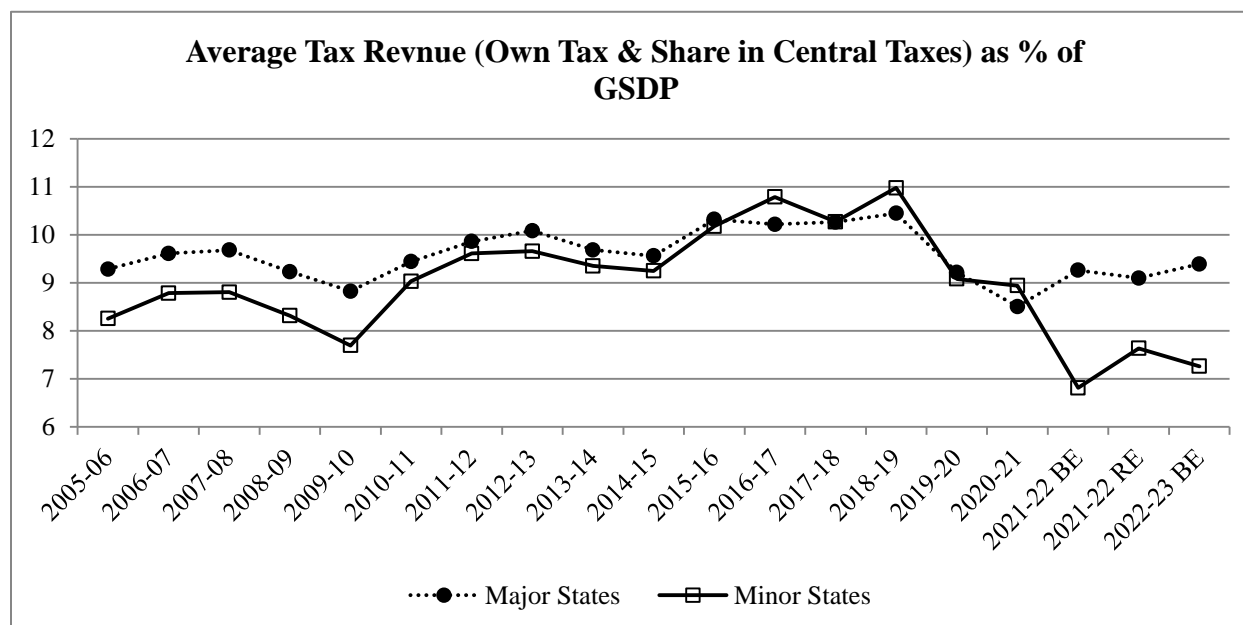
Figure 5: Average Total Revenue Receipts of States (as % of GSDP)\*



Note: \*-Aggregate GSDP at market prices (current prices, 2011-12 series)

Source: Computed by Author based on data from State Finance Accounts and State Budget Documents

Figure 6: Average Tax Revenue (Own Tax & Share in Central Taxes) of States (as % of GSDP)



Source: Computed by Author based on data from State Finance Accounts and State Budget Documents

For major states, average share of selected taxes in TRR falls by 1.5% during 2017-19 and by 4.9% during 2019-21 as compared to average share observed during 2015-17 (Table 4). Except Andhra Pradesh (AP), Maharashtra (MH), Tamil Nadu (TN) and Telangana (TL) average share of selected taxes in TRR falls for all major states during 2017-19 as compared to 2015-17. It is to be noted that during 2014-15 Telangana was separated from Andhra Pradesh and became a state. Due to this development improvement in the share of selected taxes in TRR observed both for AP and TL. During first two years of GST (i.e., 2017-19), both MH and TN show improvement in the share of selected taxes in TRR. However, during 2019-21 average share of selected taxes in TRR falls for all states as compared to 2015-17. A marginal improvement in the share is again observed during 2021-22RE vis-a-vis 2019-21 and it is driven by only improvement in five states - Gujarat (GJ), Haryana (HR), Uttar Pradesh (UP), MH, and Madhya Pradesh (MP). As compared to average share observed prior to introduction of GST, the share of selected taxes in TRR is lagging behind by 4% in the post-GST regime. The experience of minor states is similar to major states, except that fall in the share is much higher for minor states and there is no sign of improvement even in 2021-22. This is to be noted that TRR includes GST compensation received by states from the GST compensation fund, as it is booked by states under "Grants-in-Aid from the Centre" (under the head 1601-08-114).<sup>4</sup> However, selected taxes do not include GST compensation received from the GST compensation fund.

For aggregate of 18 major states, average share of selected taxes in GSDP falls by 0.2% during 2017-19 and 1.1% during 2019-21 as compared to average share observed prior to introduction of GST, i.e., 2015-17 (Table 5). Except MH, the average share falls for all major states during 2017-19. The largest fall is observed in Jharkhand (1.2%), followed by MP (1.1%) and Bihar (1%). During 2019-21, except MH all major states recorded fall in the share. The largest fall is observed in Bihar (3.1%), followed by MP (2.2%) and Goa (2%). For major states, during first four years of GST introduction, average share of selected taxes in GSDP has fallen by 1.1% as compared to average share observed during 2015-17. A marginal improvement in the share is observed in 2021-22RE vis-a-vis 2019-21. However, four states recorded fall in the share even in 2021-22RE - AP (0.1%), Karnataka (KR, 0.4%), TN (0.1%) and West Bengal (WB, 0.1%). The experience of minor states is similar to major states. Aggregate average share of minor states (selected) has declined by 1.6% of GSDP during first four years of GST introduction. The largest fall is observed in Tripura (TR, 2%) and it is followed by Uttarakhand (UK, 1.9%) and Assam (AS, 1.7%). The aggregate average share of selected minor states has also declined during 2021-22RE with reference to average share of 2019-21. The largest fall is observed for UK (4.1%). The analysis shows that states are yet to reap the revenue benefits of GST. It is to be highlighted that selected taxes does not include GST compensation received by states from the GST compensation fund as well as back-to-back loans from the Centre in lieu of shortfall in GST compensation cess collection during 2020-22.

---

<sup>4</sup> 1601 (Grants-in-aid from Central Government) – 08 (Other Transfer/Grants to States/Union Territories with Legislatures)- 114 (Compensation for loss of revenue arising out of implementation of GST)

Table 4: State-wise Share of Selected Taxes\* in Total Revenue Receipts (%)

State	2005-06 to 2009-10 (A)	2010-11 to 2014-15 (B)	2015-16 to 2016-17 (C)	2017-18 to 2018-19 (D)	2019-20 to 2020-21 (E)	2021-22RE (F)	D-C	E-C	E-B	F-E	B-A
Andhra Pradesh <sup>(a)</sup>	45.0	46.1	44.8	47.4	43.4	38.2	2.6	-1.3	-2.7	-5.3	1.1
Bihar	39.5	38.4	41.9	38.6	36.5	32.9	-3.3	-5.4	-1.8	-3.6	-1.1
Chhattisgarh	39.0	35.9	37.3	33.7	31.5	29.6	-3.6	-5.8	-4.5	-1.8	-3.1
Goa	44.0	39.8	44.9	41.1	40.8	34.7	-3.8	-4.1	0.9	-6.1	-4.2
Gujarat	50.2	55.7	52.1	49.2	44.3	55.4	-2.9	-7.7	-11.4	11.1	5.5
Haryana	48.1	49.9	51.5	49.0	43.9	51.9	-2.5	-7.5	-6.0	8.0	1.9
Jharkhand	43.4	39.2	40.8	36.4	35.3	33.0	-4.4	-5.5	-3.9	-2.2	-4.3
Karnataka	43.5	46.9	47.4	43.4	40.0	39.1	-4.0	-7.5	-7.0	-0.9	3.4
Kerala	55.1	56.9	53.6	52.2	47.4	46.0	-1.3	-6.2	-9.5	-1.4	1.8
Madhya Pradesh	37.9	36.2	38.7	34.7	34.4	35.8	-4.0	-4.3	-1.8	1.4	-1.7
Maharashtra	44.4	47.6	48.2	49.9	46.0	48.0	1.7	-2.2	-1.6	2.0	3.2
Odisha	39.2	37.1	37.7	36.1	31.3	28.8	-1.5	-6.4	-5.9	-2.4	-2.1
Punjab <sup>(b)</sup>	32.9	45.7	46.7	42.1	32.7		-4.6	-13.9	-13.0		12.8
Rajasthan	39.9	38.7	40.8	38.4	38.0	37.8	-2.3	-2.8	-0.7	-0.2	-1.2
Tamil Nadu	51.1	53.3	54.6	55.5	52.9	52.3	0.9	-1.7	-0.5	-0.6	2.2
Telangana <sup>(a)</sup>			48.6	51.1	48.4	40.6	2.5	-0.2		-7.9	0.0
Uttar Pradesh <sup>(c)</sup>	41.1	39.4	40.0	38.4	33.5	37.8	-1.6	-6.5	-5.9	4.3	-1.7
West Bengal	42.3	42.6	41.6	39.4	36.9	36.6	-2.2	-4.7	-5.7	-0.3	0.3
<b>Major States<sup>(d)</sup></b>	<b>43.6</b>	<b>44.8</b>	<b>45.0</b>	<b>43.6</b>	<b>40.1</b>	<b>40.9</b>	<b>-1.5</b>	<b>-4.9</b>	<b>-4.7</b>	<b>0.8</b>	<b>1.2</b>
Assam	33.1	35.9	38.2	37.0	32.7	28.4	-1.2	-5.6	-3.2	-4.3	2.8
Himachal Pradesh	18.7	27.1	26.2	24.1	22.2	24.0	-2.1	-3.9	-4.9	1.7	8.4
Tripura	14.9	18.7	28.7	28.5	27.5	22.4	-0.2	-1.2	8.9	-5.1	3.8
Uttarakhand <sup>(b)</sup>	28.9	35.6	40.9	32.5	27.8		-8.4	-13.1	-7.8		6.7
<b>Minor States<sup>(d)</sup></b>	<b>26.8</b>	<b>32.1</b>	<b>35.1</b>	<b>32.3</b>	<b>28.7</b>	<b>26.5</b>	<b>-2.7</b>	<b>-6.3</b>	<b>-3.3</b>	<b>-2.2</b>	<b>5.2</b>

Notes: \*-Please see Table 3 for list of taxes included in this analysis.

(a) On 2 June 2014, Telangana was separated from Andhra Pradesh and became a state.

(b) State Budget of 2022-23 is not yet presented in Punjab and Uttarakhand

(c) State Budget of 2022-23 is not yet presented in Uttar Pradesh, based on *Annual Financial Statement and Brief Review of Financial Position of 2022-2023*, which was presented in December 2021, we compile data for 2020-21 and 2021-22RE.

(d) This is average of states covered under either major or minor states

Source: Computed by Author based on data from Stet Finance Accounts and State Budget Documents.

Table 5: State-wise Share of Selected Taxes\* in GSDP (market prices, at current prices, 2011-12 series)

State	2005-06 to 2009-10 (A)	2010-11 to 2014-15 (B)	2015-16 to 2016-17 (C)	2017-18 to 2018-19 (D)	2019-20 to 2020-21 (E)	2021-22RE (F)	D-C	E-C	E-B	F-E	B-A
Andhra Pradesh <sup>(a)</sup>	10.7	10.7	6.5	6.3	5.0	4.9	-0.2	-1.5	-5.7	-0.1	0.0
Bihar	8.9	8.3	10.7	9.7	7.6	8.2	-1.0	-3.1	-0.7	0.6	-0.6
Chhattisgarh	6.1	6.0	7.6	7.0	5.8	6.2	-0.6	-1.9	-0.2	0.5	-0.1
Goa	6.7	6.3	6.9	6.3	4.9	6.1	-0.6	-2.0	-1.5	1.2	-0.3
Gujarat	5.1	5.6	4.9	4.5	3.7	4.6	-0.4	-1.3	-1.9	1.0	<b>0.5</b>
Haryana	5.7	4.9	4.9	4.7	3.9	5.4	-0.2	-1.0	-0.9	1.5	-0.8
Jharkhand	5.7	5.5	8.1	6.9	6.3	6.7	-1.2	-1.7	<b>0.8</b>	0.4	-0.2
Karnataka	4.9	5.2	5.3	4.8	4.0	3.6	-0.5	-1.3	-1.3	-0.4	<b>0.3</b>
Kerala	5.5	6.0	6.5	6.2	5.5	6.0	-0.3	-1.0	-0.6	0.5	<b>0.5</b>
Madhya Pradesh	6.5	6.7	7.4	6.4	5.3	5.3	-1.1	-2.2	-1.4	0.0	<b>0.3</b>
Maharashtra	4.3	4.5	4.5	5.3	4.7	5.4	<b>0.8</b>	<b>0.2</b>	<b>0.2</b>	0.8	<b>0.2</b>
Odisha	6.3	6.3	7.5	7.1	5.9	6.4	-0.4	-1.6	-0.4	0.5	<b>0.0</b>
Punjab <sup>(b)</sup>	4.2	4.9	5.1	4.9	4.0		-0.2	-1.1	-0.9		<b>0.7</b>
Rajasthan	5.6	5.3	5.9	5.8	5.2	6.0	-0.1	-0.7	-0.1	0.8	-0.3
Tamil Nadu	5.9	6.0	5.9	5.7	5.0	4.9	-0.2	-0.9	-1.0	-0.1	<b>0.1</b>
Telangana <sup>(a)</sup>		5.1	6.3	6.0	5.1	5.5	-0.2	-1.1		0.3	
Uttar Pradesh <sup>(c)</sup>	6.8	7.1	8.0	7.7	6.4	7.4	-0.3	-1.5	-0.7	1.0	<b>0.3</b>
West Bengal	4.3	4.8	5.7	5.3	4.3	4.2	-0.4	-1.4	-0.5	-0.1	<b>0.5</b>
<b>Major States<sup>(d)</sup></b>	<b>5.5</b>	<b>5.7</b>	<b>6.1</b>	<b>5.9</b>	<b>5.0</b>	<b>5.2</b>	<b>-0.2</b>	<b>-1.1</b>	<b>-0.7</b>	<b>0.3</b>	<b>0.2</b>
Assam	6.2	6.8	7.3	7.3	5.6	6.3	<b>0.1</b>	-1.6	-1.1	0.7	<b>0.6</b>
Himachal Pradesh	4.0	5.0	5.4	4.9	4.5	5.1	-0.5	-0.9	-0.5	0.6	<b>0.9</b>
Tripura	4.7	5.9	7.3	6.7	5.8	6.4	-0.5	-1.5	-0.1	0.6	<b>1.2</b>
Uttarakhand <sup>(b)</sup>	4.1	4.3	5.1	4.2	4.1	0.0	-0.9	-1.0	-0.2	-4.1	<b>0.1</b>
<b>Minor States<sup>(d)</sup></b>	<b>5.0</b>	<b>5.5</b>	<b>6.2</b>	<b>5.8</b>	<b>5.0</b>	<b>4.3</b>	<b>-0.4</b>	<b>-1.2</b>	<b>-0.5</b>	<b>-0.7</b>	<b>0.5</b>

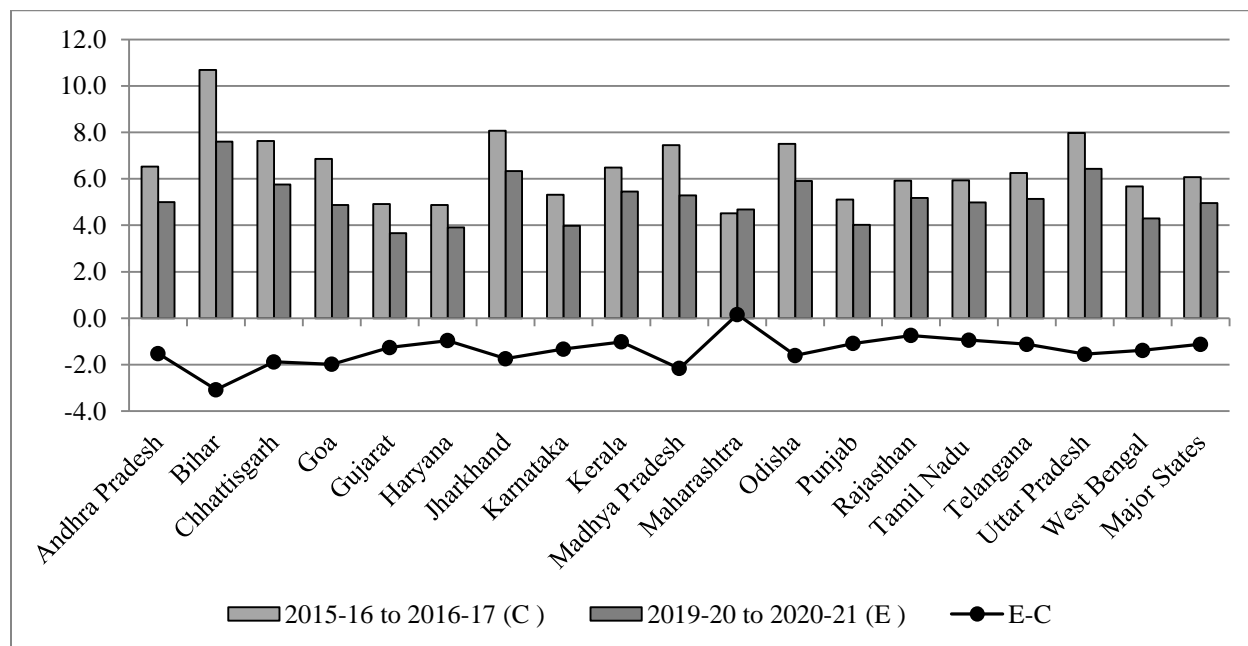
Notes: As in Table 4

Source: Computed by Author based on data from Stet Finance Accounts and State Budget Documents.



Analysis of average share of selected taxes in GSDP during pre- and post-GST regime shows that except Maharashtra, all other states have experienced fall in the share during 2019-21 as compared to 2015-17. The largest fall is observed for Bihar (3.1%), followed by MP (2.2%), Goa (2%) and Chhattisgarh (1.9%) (Figure 7).

Figure 7: State-wise Share of Selected Taxes in GSDP



Source: Computed by Author

As mentioned earlier, state-wise revenue corresponding to taxes subsumed into GST is available for the period 2012-13 to 2017-18 (upto 30 June 2017). However, for Arunachal Pradesh, Gujarat and Haryana data is available only for 2015-16. Given the data constraint, in this section we analyze trends in revenue collection from State GST (SGST, including state's share in IGST) for post-GST regime vis-à-vis revenue subsumed into GST for the pre-GST regime. It is to be noted that during 2017-18 and 2018-19, states received settlement of IGST based on finance commission's tax devolution formula instead of place of supply (POS) rule-based settlement of the integrated GST (IGST) (CAG, 2019). So, we have added states' share in IGST with SGST collection (including IGST settlement - regular as well as *ad hoc*) to get comparable stream of revenue. Average share of taxes subsumed into GST in Own Tax Revenue (OTR) used to vary between 30.9% (in Chhattisgarh) to 60.3% (in Punjab) during 2015-17 (Table 6). For many states this share has declined during 2017-19. The largest fall is observed in Punjab (16.5%), followed by Odisha (8.6%), Goa (5.6%). For some states this share has also gone up during the period, e.g., Bihar (6.8%), Chhattisgarh (5.6%), UP (4.2%). During 2019-21 this share has declined for all major states as compared to 2017-19. In 20221-22RE, the share of SGST in OTR shows improvement as compared to

average share observed during 2019-21. It is to be noted that the share of SGST in OTR may rise (or fall) according to fall (or rise) in tax collections from other own tax revenue sources (other than SGST). The analysis presented here only shows that SGST contributes a significant share of OTR for states and the share has declined over the years for some states.

Except five states - AP, CH, MH, RJ, UP and WB - average share of SGST in GSDP has declined during 2017-19 as compared to average share of revenue that is subsumed into GST in GSDP during 2015-17 (Table 7). The largest fall is observed for Punjab, followed by Odisha. During 2019-21, for all states the share of GST in GSDP has declined (Figure 8). Except Chhattisgarh, for all states the share of SGST in GSDP has declined during first four years of GST introduction as compared to the share observed during 2015-17. In Chhattisgarh, the share remains unchanged. Marginal improvement in the share observed in 2021-22RE vis-à-vis average share of 2019-21. Even during 2021-22, for four states the share has declined, viz., Jharkhand, Karnataka, MP and TN. The improvement in the share observed during 2021-22RE is also result of lower base effect observed during 2017-21. Among minor states, the share has also declined in 2019-21 vis-a-vis 2015-17. This shows that states yet to reap the revenue benefits of GST in terms of higher revenue mobilization.

Table 6: State-wise Share of State GST (SGST)\* in Own Tax Revenue (%)

Major States	2012-13 to 2014-15 (A)	2015-16 to 2016-17 (B)	2017-18 to 2018-19 (C)	2019-20 to 2020-21 (D)	2021-22(RE) (E)	B-A	C-B	D-C	D-B	E-D
Andhra Pradesh <sup>(a)</sup>	51.6	35.4	36.6	34.0	31.5	-16.2	1.2	-2.6	-1.4	-2.4
Bihar	47.5	55.5	62.2	52.6	58.8	8.0	6.8	-9.6	-2.8	6.2
Chhattisgarh	45.0	30.9	36.5	35.1	37.8	-14.0	5.6	-1.4	4.2	2.6
Goa	50.8	55.6	50.0	49.3	43.4	4.8	-5.6	-0.7	-6.2	-5.9
Gujarat <sup>(b)</sup>		46.1	38.4	42.5	47.1		-7.7	4.2	-3.5	4.5
Haryana <sup>(b)</sup>		49.2	36.1	43.8	49.8		-13.1	7.7	-5.5	6.0
Jharkhand	60.8	58.2	60.6	48.6	41.0	-2.6	2.4	-12.0	-9.6	-7.5
Karnataka	46.8	47.7	44.1	40.0	41.2	1.0	-3.7	-4.1	-7.7	1.2
Kerala	44.6	43.6	42.9	41.3	41.4	-1.0	-0.7	-1.6	-2.2	0.0
Madhya Pradesh	39.2	38.7	39.2	34.2	33.6	-0.5	0.5	-5.1	-4.6	-0.6
Maharashtra	52.5	48.6	44.4	43.1	47.4	-3.9	-4.2	-1.2	-5.4	4.3
Odisha	58.4	52.2	43.7	39.5	41.2	-6.1	-8.6	-4.2	-12.8	1.7
Punjab <sup>(c)</sup>	67.4	60.3	43.9	40.2		-7.1	-16.5	-3.7	-20.1	
Rajasthan	39.5	40.0	40.9	35.7	38.8	0.5	0.9	-5.1	-4.3	3.1
Tamil Nadu	35.2	36.7	37.0	35.7	35.3	1.5	0.3	-1.3	-1.0	-0.4
Telangana <sup>(a)</sup>		40.1	36.5	34.0	33.4		-3.6	-2.5	-6.1	-0.7
Uttar Pradesh <sup>(d)</sup>	44.1	41.8	46.0	37.1	40.4	-2.3	4.2	-8.9	-4.7	3.3
West Bengal	48.9	48.6	47.5	44.1	44.5	-0.3	-1.1	-3.4	-4.5	0.5
<b>Minor States</b>										
Assam	54.6	58.5	59.3	51.4	53.6	3.8	0.8	-7.9	-7.1	2.2
Himachal Pradesh	51.7	52.4	45.5	44.7	46.1	0.7	-6.9	-0.8	-7.7	1.3
Tripura	57.5	59.2	67.1	47.0	49.0	1.7	7.9	-20.1	-12.2	2.0
Uttarakhand <sup>(c)</sup>	58.4	53.7	40.4	42.6		-4.7	-13.3	2.2	-11.1	

Note: \*-State GST (including IGST settlement) includes State's share in IGST received from the Centre during 2017-18 and 2018-19. For pre-GST years, we have considered the revenue corresponding to taxes subsumed into GST.

(a) On 2 June 2014, Telangana was separated from Andhra Pradesh and became a state.

(b) For Gujarat and Haryana, data is available for only 2015-16. Since the revenue corresponding to taxes subsumed into GST is not available for 2017-18 (Upto 30 June 2017), average share of SGST during 2017-19 is likely to be lower, as compared to other states.

(c) For Punjab and Uttarakhand, the data corresponding to 2021-22RE is not available as State Budgets are yet to be presented.

(d) State Budget of 2022-23 is not yet presented in Uttar Pradesh, based on *Annual Financial Statement and Brief Review of Financial Position of 2022-2023*, which was presented in December 2021; we compile data for 2020-21 and 2021-22RE.

Source: Computed by Author based on data from State Finance Accounts and State Budget Documents

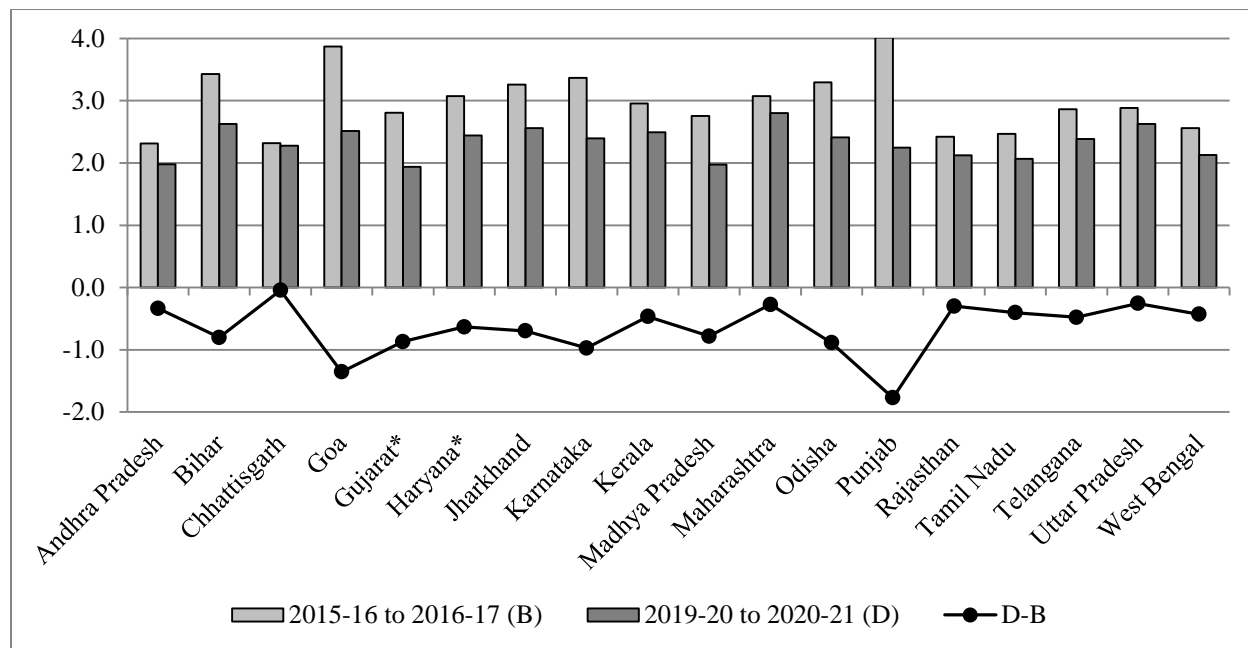
Table 7: State-wise Average Share of State GST (SGST)\* in GSDP (%)

Major States	2012-13 to 2014-15 (A)	2015-16 to 2016-17 (B)	2017-18 to 2018-19 (C)	2019-20 to 2020-21 (D)	2021-22(RE) (E)	B-A	C-B	D-C	D-B	E-D
Andhra Pradesh <sup>(a)</sup>	6.0	2.3	2.4	2.0	1.9	-3.7	0.1	-0.4	-0.3	0.0
Bihar	2.9	3.4	3.3	2.6	3.0	0.6	-0.2	-0.6	-0.8	0.4
Chhattisgarh	3.2	2.3	2.5	2.3	2.6	-0.9	0.2	-0.2	0.0	0.3
Goa	4.4	3.9	3.3	2.5	2.8	-0.5	-0.6	-0.8	-1.4	0.3
Gujarat <sup>(b)</sup>		2.8	2.1	1.9	2.5		-0.7	-0.1	-0.9	0.6
Haryana <sup>(b)</sup>		3.1	2.3	2.4	3.6		-0.8	0.2	-0.6	1.2
Jharkhand	2.9	3.3	2.8	2.6	2.3	0.3	-0.4	-0.3	-0.7	-0.2
Karnataka	3.6	3.4	2.9	2.4	2.2	-0.2	-0.5	-0.5	-1.0	-0.2
Kerala	3.1	3.0	2.8	2.5	2.7	-0.2	-0.2	-0.3	-0.5	0.2
Madhya Pradesh	3.0	2.8	2.4	2.0	1.8	-0.3	-0.3	-0.4	-0.8	-0.1
Maharashtra	3.5	3.1	3.2	2.8	3.4	-0.5	0.1	-0.4	-0.3	0.6
Odisha	3.4	3.3	2.7	2.4	2.7	-0.1	-0.6	-0.3	-0.9	0.3
Punjab <sup>(c)</sup>	4.9	4.0	2.8	2.2		-0.9	-1.2	-0.5	-1.8	
Rajasthan	2.4	2.4	2.5	2.1	2.7	0.0	0.1	-0.4	-0.3	0.6
Tamil Nadu	2.7	2.5	2.4	2.1	2.0	-0.3	-0.1	-0.3	-0.4	-0.1
Telangana <sup>(a)</sup>		2.9	2.8	2.4	2.7		-0.1	-0.4	-0.5	0.3
Uttar Pradesh <sup>(d)</sup>	3.2	2.9	3.3	2.6	3.4	-0.3	0.4	-0.7	-0.3	0.7
West Bengal	2.7	2.6	2.6	2.1	2.1	-0.1	0.0	-0.5	-0.4	0.0
<b>Minor States</b>										
Assam	2.8	2.7	2.9	2.3	2.7	-0.1	0.2	-0.6	-0.4	0.4
Himachal Pradesh	2.9	3.0	2.3	2.2	2.6	0.1	-0.7	-0.1	-0.8	0.3
Tripura	2.5	2.2	2.3	1.8	1.8	-0.3	0.1	-0.5	-0.3	0.0
Uttarakhand <sup>(c)</sup>	2.9	2.9	2.0	2.2		0.0	-0.9	0.2	-0.8	

Notes: As in Table 6

Source: Computed by Author based on data from State Finance Accounts and State Budget Documents

Figure 8: State-wise Average Share of SGST in GSDP (%)



Source: Computed by Author based on data from State Finance Accounts and State Budget Documents

States receive GST compensation from the GST compensation fund during the GST transition period (i.e., 1 July 2017 to 30 June 2022) for shortfall in State GST collection (including IGST settlement) from the projected SGST collection. The projection of SGST revenue is based on revenue that is subsumed into GST in the base year (i.e., 2015-16) and annual growth rate of 14%. The GST compensation fund is created from the proceeds of GST compensation cess and it is used to pay compensations to states (including UTs with legislature). As mentioned earlier, states book the GST compensation receipt as “Grants-in-Aids from the Centre” (under the head 1601-08-114)<sup>5</sup> and it remains outside the tax revenue of the state governments. During 2020-21 and 2021-22, states also receive back-to-back loans in lieu of shortfall in GST compensation fund. Though States have booked back-to-back loans from the Centre under ‘Loans and Advances from the Central Government’ (under the head 6004-09-101),<sup>6</sup> liabilities of interest payment and repayment of the loan lies with the Union government. The Union government extends the GST compensation cess collection till 31 March 2026 to service and repay the back-to-back loans taken from the market against Government of India securities (Mukherjee 2021b). Back-to-back loans received by states also remain outside tax revenue of states. We have added GST compensation receipts – from GST compensations fund as well as back-to-back loans from the Centre - as revenue on account of GST for states. Since the audited statements of GST compensation receipts by states are not available for 2021-22, we restrict our analysis till

<sup>5</sup> 1601 (Grants-in-aid from Central Government) – 08 (Other Transfer/Grants to States/Union Territories with Legislatures)- 114 (Compensation for loss of revenue arising out of implementation of GST)

<sup>6</sup> 6004 (Loans and Advances from the Central Government) -09 (Other Loans for States/Union Territory with Legislature Scheme)-101 (Block Loans)]

2020-21. The objective of this exercise is to see if the GST compensation payments to states helped to sustain share of SGST equivalent revenue in GSDP as it was prevalent during pre-GST period.

Table 8 shows that majority of states could sustain the share of SGST in GSDP with GST compensation. Even after adjustment of GST compensation receipts, the share of SGST in GSDP falls short of the share observed during 2015-17 for Punjab and Telangana. For all states the share of SGST in GSDP improved during 2019-21 as compared to 2015-17 (Figure 9). The largest gain in the share observed for Chhattisgarh, followed by Punjab and Kerala. It is to be noted that the gain in share with GST compensation receipts varies across states depending on shortfall in SGST collection vis-à-vis projected SGST revenue of states during the GST transition period.

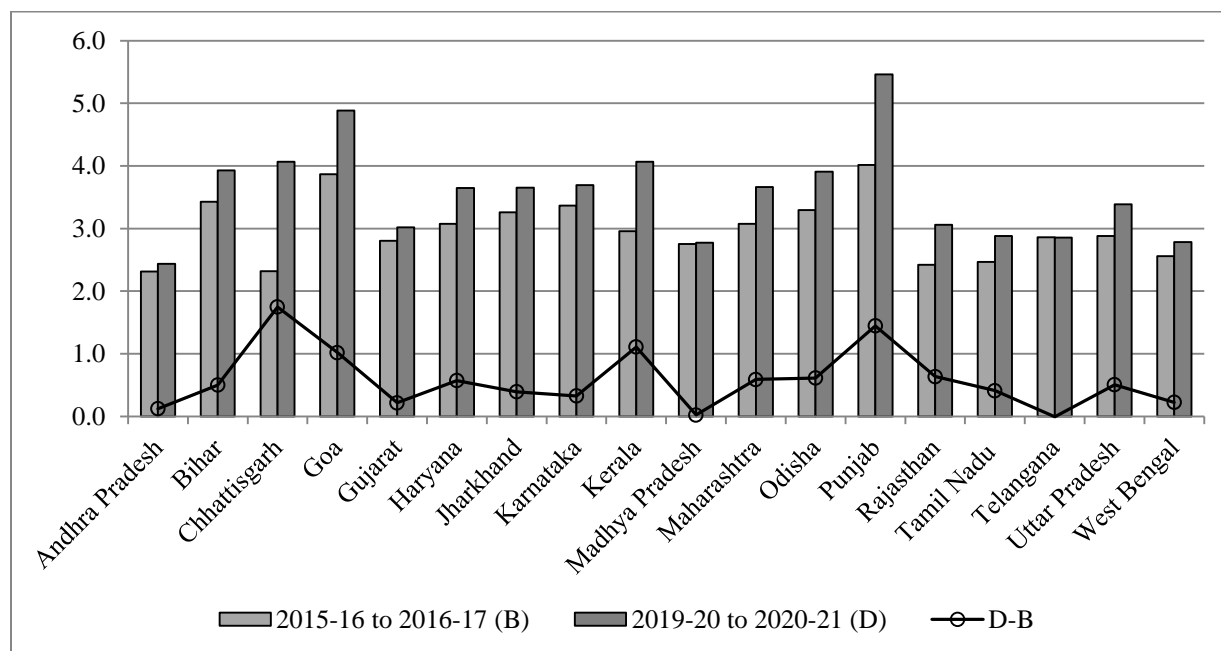
Table 8: State-wise Share of State GST (including GST Compensation) in GSDP (%)

Major States	2012-13 to 2014-15 (A)	2015-16 to 2016-17 (B)	2017-18 to 2018-19 (C)	2019-20 to 2020-21 (D)	B-A	C-B	D-C	D-B
Andhra Pradesh <sup>(a)</sup>	6.0	2.3	2.4	2.4	-3.7	0.1	0.0	0.1
Bihar	2.9	3.4	3.8	3.9	0.6	0.4	0.1	0.5
Chhattisgarh	3.2	2.3	3.1	4.1	-0.9	0.8	0.9	1.7
Goa	4.4	3.9	3.8	4.9	-0.5	0.0	1.1	1.0
Gujarat <sup>(b)</sup>		2.8	2.4	3.0		-0.4	0.6	0.2
Haryana <sup>(b)</sup>		3.1	2.5	3.6		-0.5	1.1	0.6
Jharkhand	2.9	3.3	3.2	3.7	0.3	0.0	0.4	0.4
Karnataka	3.6	3.4	3.5	3.7	-0.2	0.1	0.2	0.3
Kerala	3.1	3.0	3.1	4.1	-0.2	0.1	1.0	1.1
Madhya Pradesh	3.0	2.8	2.8	2.8	-0.3	0.0	0.0	0.0
Maharashtra	3.5	3.1	3.4	3.7	-0.5	0.3	0.3	0.6
Odisha	3.4	3.3	3.3	3.9	-0.1	0.0	0.6	0.6
Punjab <sup>(c)</sup>	4.9	4.0	3.9	5.5	-0.9	-0.1	1.6	1.4
Rajasthan	2.4	2.4	2.8	3.1	0.0	0.4	0.3	0.6
Tamil Nadu	2.7	2.5	2.5	2.9	-0.3	0.0	0.4	0.4
Telangana <sup>(a)</sup>		2.9	2.8	2.9		-0.1	0.1	0.0
Uttar Pradesh <sup>(d)</sup>	3.2	2.9	3.4	3.4	-0.3	0.5	0.0	0.5
West Bengal	2.7	2.6	2.8	2.8	-0.1	0.2	0.0	0.2
<b>Minor States</b>								
Assam	2.8	2.7	3.1	2.9	-0.1	0.4	-0.3	0.2
Himachal Pradesh	2.9	3.0	3.2	4.4	0.1	0.2	1.2	1.4
Tripura	2.5	2.2	2.6	2.6	-0.3	0.4	0.1	0.5
Uttarakhand <sup>(c)</sup>	2.9	2.9	2.7	4.3	0.0	-0.2	1.6	1.4

Notes: As in Table 6

Source: Computed by Author based on data from State Finance Accounts and State Budget Documents

Figure 9: Share of State GST (including GST compensation) in GSDP (%)



Source: Computed by Author based on data from State Finance Accounts and State Budget Documents

In some states SGST collection is consistently falling short of projected revenue. As a result dependence on GST compensation is much higher for these states than other states. For example, Punjab, Goa and Chhattisgarh are top three states in terms of average share of GST compensation in SGST collection (Table 9).<sup>7</sup> States where dependence on GST compensation (as measured by the share of GST compensation in SGST collection) as well as the share of SGST (without GST compensation) in own tax revenue (OTR) are higher (e.g., Goa, Punjab and Chhattisgarh), they may face relatively higher revenue stress than other states post GST compensation regime.

<sup>7</sup> GST compensation includes GST compensation from GST compensation fund as well as back-to-back loans from the Centre in lieu of shortfall in GST compensation fund.

Table 9: State-wise Share of GST Compensation in SGST Collection\* (%)

State	2017-18	2018-19	2019-20	2020-21	Average of 2018-21	Average SGST without GST Compensation (as % of OTR): 2018-21
Andhra Pradesh	2.10	0.00	9.10	30.94	13.35 (17)	34.87 (18)
Bihar	19.45	15.36	22.31	51.49	29.72 (10)	54.07 (1)
Chhattisgarh	22.88	26.09	39.03	79.76	48.30 (3)	36.91 (14)
Goa	15.64	18.82	33.57	127.13	59.84 (2)	50.11 (3)
Gujarat	15.79	17.39	31.22	69.78	39.46 (6)	43.07 (7)
Haryana	10.36	15.02	28.90	51.64	31.85 (8)	43.89 (5)
Jharkhand	15.60	12.55	18.20	45.99	25.58 (12)	50.92 (2)
Karnataka	16.27	25.21	34.40	69.47	43.02 (4)	41.36 (9)
Kerala	8.77	13.48	27.27	62.35	34.37 (7)	41.63 (8)
Madhya Pradesh	14.10	14.51	22.16	56.99	31.22 (9)	35.68 (16)
Maharashtra	2.00	10.01	18.18	42.03	23.41 (14)	43.55 (6)
Odisha	15.86	26.82	29.76	62.74	39.77 (5)	40.20 (11)
Punjab	29.54	52.77	69.05	156.68	92.83 (1)	41.06 (10)
Rajasthan	12.73	9.16	20.22	49.32	26.23 (11)	37.63 (13)
Tamil Nadu	1.82	8.05	23.25	44.39	25.23 (13)	36.18 (15)
Telangana	0.84	0.00	9.62	24.71	11.44 (18)	35.17 (17)
Uttar Pradesh	4.24	0.63	10.97	35.77	15.79 (16)	38.28 (12)
West Bengal	6.28	7.02	15.96	39.24	20.74 (15)	44.84 (4)

Notes: Numbers in the parenthesis show the rank.

\*-SGST collection does not include GST compensation receipts

Source: Computed by Author based on data from State Finance Accounts

### 3. Conclusions

Indian Goods and Services Tax (GST) completes five year on 30 June 2022. GST subsumes many taxes from the Union as well as State tax bases. Revenue assessment of the GST with reference to revenue that is subsumed into GST is important to assess the success of the GST in terms of revenue protection for the Union as well as state governments. Revenue uncertainty associated with any tax reform is a major concern for all participating governments and therefore the assurance of revenue protection given by the Union government to states helped to achieve broad consensus in favor of GST.

Sustaining the revenue stream at least at the level prevalent prior to GST reform is important to meet the expenditure demands of respective governments. Unlike state governments, the Union government does not enjoy revenue protection in the GST regime. However, the Union government enjoys taxation power to levy taxes to protect revenue.



Our analysis shows that in the face of shortfall in GST collection, the Union government raised “Non-shareable taxes” and “Cesses on commodities” on excisable goods under the Union Excise Duty (UED) which helped to mitigate the revenue shortfall in GST. Three petroleum products (viz., petrol/ gasoline, diesel, aviation turbine fuel), natural gas, crude petroleum and tobacco attract UED in the GST regime. This shows that in a federal setup, taxation power to levy taxes helps the federal government to cope up with the revenue shortfall associated with big tax reform like GST. However, provincial governments may not either enjoy the power of taxation as like the federal government or may not exercise the power to levy new taxes or raise additional revenue, due to political reluctance.

The provision of revenue compensation in GST helped states cope up with shortfall in GST collection. Our analysis shows that for majority of states the share of SGST collection (with GST compensation receipts) in GSDP do not show much increase during 2017-21 as compared to the share of revenue that is subsumed into GST in GSDP during 2015-17. Even the share falls in Madhya Pradesh during post-GST regime. The largest increase in the share is observed in Punjab and it is followed by Maharashtra. This shows that in absence of revenue compensation states may face revenue shock and it will impact state finances differently for different states. States where dependence on GST compensation (as measured by the share of GST compensation in SGST collection) as well as the share of SGST in own tax revenue (OTR) are higher (e.g., Goa, Punjab and Chhattisgarh), they may face relatively higher revenue stress than other states post GST compensation regime.

For states, expanding the GST base by protecting the consumption base would be important to protect revenue under GST. For example, states could rein in base erosion in GST due to tax-shopping (or cross-state purchases) due to the availability of better options/ choices in neighboring states by facilitating investment in consumer retail infrastructure. Similarly, demands for goods and services may be enlarged by providing economic opportunities to a larger group of people by investing in public infrastructure. Improving tax compliance, especially by pursuing taxpayers to file both the GST monthly returns – GSTR-1 (invoice-wise details of outward supplies) and GSTR-3B (summary of inward and outward supplies, availability of input tax credits and tax liabilities thereof) could also help the states to improve tax collection. Effective utilization of analytical tools developed by the Business Intelligence and Fraud Analytics (BIFA) unit of the GSTN depends on state-specific compliance in filing both GSTR-1 & GSTR-3B returns. A large section of taxpayers (who are either not filing any tax returns or filing any one of the mandatory tax returns, either GSTR-1 or GSTR-3B) remain outside the purview of tax administrations for the purpose of tax enforcement. Tax compliance is also a function of tax effort, therefore investing in tax administration infrastructure, especially in data analytics, fraud investigations, monitoring of inbound and outbound flows of goods may help in augmenting revenue mobilization.

## References

- Comptroller and Auditor General of India (CAG) (2019), "Report of the Comptroller and Auditor General of India for the Year Ended March 2018 for Union Government, Department of Revenue, Indirect Taxes—Goods and Services Tax," Report No 11 of 2019, the Comptroller and Auditor General of India, New Delhi
- Government of India (2015), "Report of the Select Committee on the Constitution (One Hundred & Twenty-Second Amendment) Bill, 2014", Presented to the Rajya Sabha on 22 July 2015, Rajya Sabha, Parliament of India, Government of India, New Delhi.
- Mukherjee, S. (2021a), "India: The Challenges of Implementing VAT in a Federal State", in Robert F. van Brederode (ed.), *Virtues and Fallacies of VAT: An Evaluation after 50 Years*, Chapter 22, pp. 575-602, UK: Kluwer Law International.
- Mukherjee, S. (2021b), "Revenue Shortfall and GST Compensation: An Assessment", NIPFP Working Paper No. 356, New Delhi: NIPFP.
- Mukherjee, S. (2019), "State of Public Finance and Fiscal Management in India during 2001-16", NIPFP Working Paper No. 265, New Delhi: NIPFP.
- Mukherjee, S. and R. Kavita Rao (2019), "Fiscal Implications of Introduction of Goods and Services Tax in India", Report Submitted to the Fifteenth Finance Commission (FC-XV).

**Appendix:**
**Table A1: State-wise Total Revenue Receipts (TRR) as % of GSDP (%)**

State	2005-06 to 2009-10 (A)	2010-11 to 2014-15 (B)	2015-16 to 2016-17 (C)	2017-18 to 2018-19 (D)	2019-20 to 2020-21 (E)	2021-22RE (F)	D-C	E-C	E-B	F-E	B-A
Andhra Pradesh(a)	23.8	23.0	14.6	13.2	11.5	12.8	-1.3	-3.0	<b>-11.5</b>	1.3	-0.8
Bihar	22.5	21.6	25.5	25.0	20.8	24.9	-0.5	-4.7	-0.8	4.1	<b>-0.9</b>
Chhattisgarh	15.6	16.6	20.4	20.8	18.3	21.0	<b>0.4</b>	-2.2	1.7	2.7	<b>1.0</b>
Goa	15.1	15.9	15.3	15.3	12.0	17.5	<b>0.0</b>	-3.3	<b>-3.9</b>	5.5	<b>0.8</b>
Gujarat	10.2	10.1	9.4	9.2	8.3	8.4	-0.2	-1.2	-1.8	<b>0.1</b>	-0.1
Haryana	11.9	9.7	9.5	9.6	8.9	10.3	<b>0.2</b>	-0.6	-0.8	<b>1.4</b>	-2.2
Jharkhand	13.2	14.1	19.8	19.0	17.9	20.3	-0.8	-1.8	3.8	2.4	<b>1.0</b>
Karnataka	11.4	11.2	11.2	11.1	10.0	9.3	-0.1	-1.2	-1.2	-0.7	-0.2
Kerala	10.0	10.6	12.1	11.8	11.6	13.1	-0.3	-0.5	1.0	1.5	0.6
Madhya Pradesh	17.1	18.6	19.2	18.3	15.4	14.7	-0.9	-3.9	-3.3	<b>-0.7</b>	<b>1.5</b>
Maharashtra	9.7	9.4	9.4	10.6	10.1	11.3	<b>1.2</b>	<b>0.8</b>	<b>0.8</b>	<b>1.2</b>	-0.3
Odisha	16.1	17.0	19.9	19.6	18.9	22.2	-0.3	-1.0	1.9	3.2	<b>0.9</b>
Punjab(b)	13.0	10.8	10.9	11.7	12.4		<b>0.8</b>	<b>1.4</b>	<b>1.6</b>		-2.2
Rajasthan	13.9	13.6	14.5	15.2	13.6	15.8	<b>0.7</b>	-0.9	0.1	2.2	<b>-0.4</b>
Tamil Nadu	11.6	11.2	10.9	10.3	9.4	9.4	<b>-0.5</b>	-1.4	-1.8	-0.1	-0.4
Telangana(c)			12.9	11.8	10.6	13.5	<b>-1.0</b>	-2.3		2.9	0.0
Uttar Pradesh(d)	16.5	18.1	19.9	20.1	19.3	19.6	<b>0.2</b>	-0.6	1.3	<b>0.3</b>	<b>1.5</b>
West Bengal	10.2	11.2	13.6	13.4	11.6	11.5	-0.3	-2.0	0.4	-0.2	1.0
<b>Major States (e)</b>	<b>12.5</b>	<b>12.6</b>	<b>13.5</b>	<b>13.5</b>	<b>12.3</b>	<b>12.8</b>	<b>0.0</b>	<b>-1.1</b>	<b>-0.3</b>	<b>0.5</b>	<b>0.1</b>
Assam	18.6	18.9	19.0	19.8	17.2	22.1	0.8	-1.8	-1.7	4.9	0.2
Himachal Pradesh	21.6	18.5	20.7	20.3	20.3	21.3	-0.4	-0.4	<b>1.9</b>	<b>1.0</b>	-3.1
Tripura	31.4	31.5	25.3	23.6	21.1	28.7	-1.7	-4.2	<b>-10.4</b>	7.5	0.1
Uttarakhand(f)	14.3	11.9	12.4	12.9	14.9		0.6	<b>2.5</b>	<b>2.9</b>		-2.4
<b>Minor States</b>	<b>18.8</b>	<b>17.2</b>	<b>17.6</b>	<b>18.0</b>	<b>17.4</b>	<b>16.3</b>	<b>0.3</b>	<b>-0.2</b>	<b>0.2</b>	<b>-1.1</b>	<b>-1.6</b>

Source:

**Table A2: State-wise Tax Revenue (Own & Share in Central Taxes) as % of GSDP (%)**

State	2005-06 to 2009-10 (A)	2010-11 to 2014-15 (B)	2015-16 to 2016-17 (C)	2017-18 to 2018-19 (D)	2019-20 to 2020-21 (E)	2021-22RE (F)	D-C	E-C	E-B	F-E	B-A
Andhra Pradesh(a)	17.5	17.2	10.3	10.2	8.5	8.8	-0.1	-1.8	-8.7	0.3	-0.3
Bihar	17.0	16.8	19.8	19.2	15.2	16.2	-0.7	-4.7	-1.6	1.0	-0.2
Chhattisgarh	10.9	11.0	14.5	14.3	12.3	13.2	-0.2	-2.2	1.3	0.9	0.1
Goa	9.0	9.6	10.5	10.2	7.8	10.1	-0.3	-2.7	-1.8	2.2	0.7
Gujarat	7.7	8.2	7.4	6.9	5.8	6.8	-0.4	-1.6	-2.4	1.1	<b>0.5</b>
Haryana	8.4	7.4	7.3	7.4	6.5	8.2	0.1	-0.8	-1.0	1.8	-0.9
Jharkhand	9.2	9.2	13.5	12.5	11.6	12.5	-1.0	-1.9	<b>2.4</b>	0.9	0.0
Karnataka	8.8	9.3	9.4	9.0	7.6	6.8	-0.4	-1.8	-1.7	-0.8	<b>0.5</b>
Kerala	8.3	8.7	9.1	8.9	7.8	8.4	-0.2	-1.4	-0.9	0.7	<b>0.3</b>
Madhya Pradesh	12.3	13.4	14.2	13.1	10.8	10.5	-1.1	-3.4	-2.6	-0.3	<b>1.0</b>
Maharashtra	7.3	7.7	7.8	8.8	7.8	8.6	<b>1.0</b>	<b>0.0</b>	<b>0.1</b>	0.8	<b>0.5</b>
Odisha	10.8	11.0	13.5	13.3	11.4	11.8	-0.2	-2.1	0.4	0.3	<b>0.2</b>
Punjab(b)	7.8	8.6	8.8	8.6	7.4	0.0	-0.2	-1.4	-1.1	-7.4	<b>0.8</b>
Rajasthan	10.0	9.5	10.3	10.7	9.5	10.7	0.4	-0.8	0.0	1.2	-0.6
Tamil Nadu	9.4	9.3	8.5	8.3	7.2	7.1	-0.2	-1.4	-2.2	0.0	<b>0.0</b>
Telangana(c)		7.4	9.3	9.7	8.5	9.3	0.4	-0.8		0.8	
Uttar Pradesh(d)	12.6	13.9	15.1	15.7	13.6	14.3	0.6	-1.5	-0.2	0.7	<b>1.3</b>
West Bengal	7.7	8.7	10.2	10.5	8.5	8.4	0.4	-1.6	-0.1	-0.1	<b>1.0</b>
Major States(e)	<b>9.3</b>	<b>9.7</b>	<b>10.3</b>	<b>10.4</b>	<b>8.9</b>	<b>9.1</b>	<b>0.1</b>	<b>-1.4</b>	<b>-0.9</b>	<b>0.2</b>	<b>0.4</b>
Assam	9.8	11.5	12.2	12.9	9.8	10.9	<b>0.7</b>	-2.5	-1.7	1.1	<b>1.6</b>
Himachal Pradesh	6.7	8.3	9.0	8.7	8.0	9.1	-0.4	-1.1	-0.3	1.1	<b>1.6</b>
Tripura	8.3	10.7	13.1	13.2	11.2	12.4	0.1	-1.9	0.5	1.2	<b>2.4</b>
Uttarakhand(f)	7.4	7.3	8.6	8.3	8.0	0.0	-0.3	-0.6	0.7	-8.0	<b>-0.1</b>
Minor States	<b>8.4</b>	<b>9.4</b>	<b>10.5</b>	<b>10.6</b>	<b>9.0</b>	<b>7.6</b>	<b>0.1</b>	<b>-1.5</b>	<b>-0.4</b>	<b>-1.4</b>	<b>1.0</b>

Source:

## MORE IN THE SERIES

- Rao, R. Kavita, (2022). [Income Tax data and Facets of transparency](#), W.P. No. 384 (May)
- Beyer, Robert C. M., Abhinav Narayanan and Gogol Mitra Thakur, (2021). [Natural Disasters and Economic Dynamics: Evidence from the Kerala Floods](#), WP No. 383 (April).
- Mukherjee, S., (2022). [Exploring a Design of Carbon Tax for Coal and Lignite based Thermal Power Sector in India](#), W.P. No. 382 (April).

Sacchidananda Mukherjee, is Associate Professor, NIPFP

Email:[sacchidananda.mukherjee@nipfp.org.in](mailto: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](http://www.nipfp.org.in)