The Grand Federal Bargain for Goods and Services Tax (GST) in India

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Abstract

At the time of implementation of GST in India, the Union government assured to compensate the State Governments for any revenue shortfall against a minimum rate of growth in revenue of 14 percent per annum on the basis of revenue collections in the year 2015-16. This assurance was given for a period of five years after the implementation of GST (i.e., from July 2017 to June 2022). The Union Government levied cess or surcharge on a set of demerit and luxury goods for this purpose. However, most states suffered revenue shortfall against the projected targets, necessitating compensation from the center. In this paper, we have analyzed the process of negotiations through which the 'grand bargain' for compensation was arrived at between States and the Union Government. Further, we identify the factors responsible for inter-State disparity in GST revenue collection and causes of revenue shortfall. The revenue shortfall from the protected or guaranteed revenue is higher for the States having a higher quantum of taxes subsumed under GST as a percentage of GSDP. Further, States having greater dependence on GST in their own tax revenues have a lower shortfall. States that are net suppliers of goods and services to other States have also incurred a greater shortfall since GST is a tax on consumption, so the revenue accrues to the destination States in the case of inter-State transactions. However, the main cause of the shortfall is the 'grand bargain' itself, where the states have been promised a much higher level of revenue protection than their historical revenue growth.

JEL Code: H20, H22, H25

Keywords: Goods and Services Tax (GST), Grand Bargain, Cooperative Federalism, GST Council, State – VAT, Compensation Cess, Central Sales Tax.

1.Introduction

At the time of implementation of GST in India, the Union or Central Government passed The Goods and Services Tax (Compensation to States) Act, 2017 to assure the State Governments a minimum rate of growth in revenue of 14 percent per annum on the basis of revenue collections in the year 2015-16. As per this Act, the Union Government is required to compensate the State Governments whenever the actual revenue collected by the States falls short of the protected or guaranteed revenue in any financial year. To fund the compensation, the Union Government levied compensation cess or surcharge on a set of demerit and luxury goods. The revenue collected from cess is used for providing compensation to the States if there is a loss of revenue arising due to the implementation of GST. It was stated in the Act that the Central Government would compensate the States for five years after the implementation of GST (i.e., from July 2017 to June 2022) or for such period as may be prescribed by the GST Council.

Almost all States barring Bihar, Himachal Pradesh, Jharkhand, Meghalaya, and Mizoram, experienced a growth rate of revenue collection for taxes to be subsumed under GST at less than 14 percent per annum over the period 2012-13 and 2015-16 (Gupta and Rajaraman 2020). The revenue growth under the relevant tax heads for all states during this triennium was 7.59 percent. Thus, the offer to ensure States a minimum rate of growth in revenue of 14 percent was therefore very generous. The then Union Finance Minister, Arun Jaitley made this offer so that the States agreed to the implementation of GST. So, this offer may be considered as a 'grand bargain' for the States.

In this paper, we have measured State-wise revenue shortfall from the guaranteed or protected revenue for two years, i.e., 2018-19 and 2019-20, and identified the factors responsible for inter-State disparity in GST revenue shortfall. This study is divided into the following sections: section 2 provides an account of indirect tax reforms in India, section 3 contains a brief review of the issue of revenue shortfall and compensation paid to the States, factors responsible for State-wise revenue shortfall are identified in section 4, data sources and methodology are discussed in section 5, section 6 reports the results of the regression analysis and concluding observations are made in section 7.

2. Reforms of indirect taxes in India

The structure of the indirect tax system was very complex in India during 1970s. Indirect taxes are levied by the Union Government and also by the State Governments as per the seventh schedule of the Constitution of India. Major taxes for the Union Government were central excise duty (CED) service tax, and customs duty. Central excise duty (along with additional excise duties, special additional excise duty, and cesses on specified commodities) was levied on virtually all manufactured goods (at the manufacturing stage) at rates that varied from 2 to 100 per cent. There were at least 24 rates for different product categories. Inputs were routinely taxed and credits were not allowed for taxes paid on inputs resulting in indiscriminate tax cascading. Custom duty is levied on the import of goods. Customs duty included basic customs duty and additional customs duty (i.e., countervailing duty), and special countervailing duty. The rates of customs duty used to vary from zero to over 200 per cent. The country used to follow the policy of import substitution with high customs duty on imports of agricultural products and consumer goods with tight quantitative restrictions on imports through a complex system of import licensing (Acharya, 2005).

2.1 Union Indirect Taxes

The report of the Indirect Taxation Enquiry Committee (1977-78), chaired by L.K.Jha recommended the implementation of a Value Added Tax (VAT) system (i.e., crediting of taxes paid on inputs from the tax payable on output) at the manufacturing level (MANVAT). In 1986, the then Union Finance Minister V.P.Singh implemented MODVAT (modern VAT) in excise taxation for a limited number of inputs. The Tax Reform Committee (TRC) headed by Raja J.Chelliah was constituted in 1991. Following the recommendations of TRC, MODVAT was extended to capital goods and petroleum products, for a majority of the products excise taxation was shifted from specific to ad valorem rates, and the number of exemptions was reduced drastically. In the budget for 1999-2000, 11 rates of excise duty ranging from 5 to 40 percent, were clubbed into 3 rates (8, 16 and 24 per cent). MODVAT was renamed as CENVAT. In 2000-01, three rates were merged into a single CENVAT rate of 16 percent (Bagchi et al.1994). The peak customs duty rate on imported goods was gradually reduced from over 200 percent to 10 per cent in 2007.

Service tax was introduced in 1994 for three services, namely telephone, general insurance, and stockbrokers' services. In every subsequent budget, the Union Government used to bring more services under the ambit of service tax (i.e., positive -list approach). As a result, the number of taxable services increased to 119 in 2012. In July 2012 the mode of taxation was changed to a negative-list approach where all services were brought under the service tax barring a small exemption list. The provision of claiming input tax credit (ITC) was introduced for a few services in 2002-03, and this provision was extended for all taxable services in 2003-04. CENVAT credit and ITC of service tax were made interchangeable from 2004-05.

2.2 State Indirect Taxes

The major indirect tax for the State Governments was sales tax, as this tax used to contribute more than 60 percent of States' tax revenue. States also levy taxes on agricultural incomes and wealth, excises on alcohol, taxes on motor vehicles, stamp duties, registration fees on transfer of property, and duties on electricity. Sales tax was levied at the first point of the distribution chain by all States instead of multi-point taxation for the sake of administrative convenience. As a result, the value-additions in the subsequent stages of the distribution process were outside the ambit of taxation. In order to raise more revenue apart from sales tax, States also levied surcharges and in some cases, turnover tax (TOT). The number of rate categories varied from six or seven in some States (West Bengal and Maharashtra) to as many as twenty-five (Gujarat). The rate of sales tax varied from 4 percent to 12 percent, and the rates of surcharge from 5 to 25 per cent (Rao 2019). Sales tax was levied on the sale or purchase of all commodities (except a few exempted goods) including raw materials, inputs, and capital goods. Inputs were taxed at a concessional rate, but no State allowed a full rebate of tax on all business inputs (Bagchi et al. 1994).

Apart from States sales tax, there was also central sales tax (CST). CST was levied by States on inter-State sales of goods at the rate decided by the Union Government. The revenue from CST was collected and retained by the exporting or origin States. It was observed the five high-income States accounted for 44 percent of CST paid in 1999-2000, and the five low-income States accounted for only 18 percent of CST collected in the same year. The correlation coefficient of per capita GSDP and per capita CST in 1999-2000 was 0.828, and their rank correlation was 0.922 (Rao 2003). Since CST was an origin-based tax, the producing States used to export tax burden to citizens of the consuming States. The destination (or importing) State did not allow input tax credit against CST since the CST revenue accrued to the origin State [1]. CST was, therefore a cost for inter-State dealers and manufacturers, and it often resulted in tax cascading. Apart from CST, there was also an Entry Tax levied by the recipient States on the movement of goods in order to protect their own industry. There was no common market across the country because of such tax barriers to the inter-State movement of goods.

In order to attract trade and industry, some States reduced the rates of sales tax (and also provided sales tax incentives for new investments) compared to the rates prevailing in their neighbouring States. There was “rate war” among States that resulted in trade diversion and loss of revenue for almost all States (Bagchi et al. 1994). A meeting between the Union Finance Minister and all State Finance Ministers was held on November 16 1999 to address the revenue concerns of the States. It was decided that all States must adhere to uniform floor rates from January 2000 and State-level Value Added Tax (State-VAT) would be introduced replacing the age old sales tax. An Empowered Committee (EC) of State Finance Ministers was set up for the implementation of State-VAT. The EC released a “White Paper” which provided the design of State - VAT. On April 1 2005, State-VAT was launched in 21 States of the country which was a significant reform in the tax system of the country at the sub-national level. Other States such as Gujarat, Chattisgarh, Jharkhand, Madhya Pradesh, Rajasthan, Tamil Nadu, Uttar Pradesh implemented State-VAT later. However, all States had the system of State-VAT by the year 2008.

The design of State – VAT proposed two basic rates 4 percent and 12.5 percent covering around 550 goods. The tax rate for goods considered as basic necessities was 4 percent, and the remaining commodities were taxed at the rate of 12.5 percent. Each State released the lists mentioning goods under the 4 percent category and for exempted goods. Although State-VAT could resolve the problem of multiplicity of sales tax rates in different States, but there was a lack of uniformity among States in the case of implementation of State-VAT. Same product was treated as a basic necessary item in one State (i.e., under 4 per cent category) but as a non-essential item (i.e., under 12.5 per cent category) by another State (Mukhopadhyay 2005). Some States even deviated from the rates proposed by the EC and levied State-VAT at the rate of 5 percent on basic necessities and 14.5 percent on non-essential items. As each State framed its own VAT Act., norms for threshold limit for registration, treatment of capital, claiming ITC, filing of returns, etc. varied from State to State. State-VAT was levied on a base inclusive of CENVAT, resulting in tax cascading. The tax base was also narrow since the Union Government could not tax sales or distribution of goods, and State Governments were not allowed to tax manufacturing of goods and services [2]. Moreover, there was a lack of uniformity in the revenue performance of States after the implementation of State-VAT (Das-Gupta 2005). The introduction of VAT also resulted in a fall in the tax effort across States (Mukherjee 2019). Comptroller and Auditor General (CAG) of India, in its report (2010) observed "… there was a lack of monitoring at the apex level on the developments in the States regarding implementation of VAT due to which there were wide scale differences between the basic design proposed in the White Paper and the corresponding provisions included in the different State VAT Acts and Rules."

2.3 Dual Goods and Service Tax (GST)

A task force (2004) was constituted by the Ministry of Finance and Company Affairs under the chairmanship of Vijay L. Kelkar on 'Implementation of Fiscal Responsibility and Budget Management Act', which recommended the implementation of Goods and Services Tax. Report of the task force proposed "An All-India goods and services tax (GST), on the basis of 'grand bargain' with States, whereby States will have concurrent power to tax services, subject to certain principles that will help foster a national common market" [3]. India implemented dual GST – Central GST (CGST) and State GST (SGST) on intra – State supply of goods and services on July 1, 2017. GST in India is a value-added tax levied on consumption. The Union Government was given additional power to levy GST on the sale of goods, and the State Governments were given additional power to levy GST on the manufacturing of goods and also on the supply of services. So, the tax base is now broader and common for both the Union and State Governments.

Central taxes such as central excise duty (except on petroleum products), service tax, excise duty on medical and toilet preparations etc. were subsumed in CGST and States taxes such as State – VAT, entry tax, octroi duty, luxury tax, tax on lotteries, betting and gambling etc. were merged with SGST [4]. CST was replaced by Integrated Goods and Services Tax or IGST. The IGST rate is the sum of CGST and SGST. Credit of IGST is allowed to be taken against the payment of IGST, CGST, and SGST. In the case of inter-State transactions of goods and services, the exporting or origin State is required to transfer to the Central Government the credit of SGST used against the payment of IGST. The dealer in the importing or destination State claims the credit of IGST while discharging his output tax liability in his own State. Central Government is required to transfer the credit of IGST used against the payment of SGST to the importing or destination State. The transfer is essentially between the Central and State Governments. Fund transfer from one State to another is not required. Since each State is an importer as well as an exporter, only the net sum needs to be transferred [5]. So, in the case of IGST, it is possible to have a seamless transfer of input tax credit in the chain of value addition till the final transaction of goods or services. CST was, therefore replaced by IGST since it was not possible to claim ITC by the dealer or manufacturer in the destination State in the case of CST. The revenue from CST was collected and retained by the exporting or origin States. In the case of IGST, the tax revenue accrues to the importing or destination States. As a result of the implementation of GST, taxation of goods and services has been shifted from the 'origin' to the 'destination' principle.

IGST is also levied on imports and exports of goods and services [6]. IGST is collected by the Union Government, kept in a separate account, and then distributed between the Union and States after ITC settlement based on verification of the destination of goods and services. GST Council was constituted for the implementation of GST in the country. Union Finance Minister is the Chairperson, and all State Finance Ministers are members of the Council. Almost all decisions are taken so far by consensus [7] as it functions on the principle of co-operative federalism. It is important to have mutual trust between Central and State Governments in each other's competence for the smooth functioning of VAT or GST (Bird and Gendron 2007).

3. Revenue Shortfall and Compensation to States

At present, sources of revenue in the case of GST for State Governments are SGST and IGST settlements paid by the Union Government. In the case of a shortfall of revenue from the guaranteed or protected revenue at the presumed 14 percent growth rate, States are also entitled to get a share of revenue collected from the compensation cess. In 2018-19, a year before the COVID-19 pandemic struck, the revenue collected by States (including SGST and IGST settlement) had grown at only 4.4 percent CAGR compared to 2015-16 base, requiring the compensation by the central government. As the GST system and revenue started stabilizing, the economy was hit by COVID-19 pandemic since March 2020, which impacted the GST collections. In the 41st GST Council meeting held on 27 August 2020 it was Stated that the demand for GST compensation by States was around Rs. 3 lakh crore whereas the projected GST compensation cess collection was around Rs.65,000 crore. So, the shortfall in the GST compensation fund was estimated to be around Rs.2.35 lakh crore during 2020-21. Out of the total shortfall of 2.35 lakh crore in GST compensation fund, Rs.97,000 crore was due to the implementation of GST, and the remaining Rs.1.38 lakh crore was attributed to the COVID-19 pandemic. After the 41st meeting of the GST Council, the Union Government agreed to borrow the revenue shortfall against Government of India securities under a special window. The interest on the borrowing will be paid from GST compensation cess collections until the end of the transition period, i.e. June 2022. After the transition period, principal and interest will be paid from the proceeds of the cess collection by extending the cess collection beyond the transition period as may be required (Mukherjee 2021).

The Union Government of India borrowed Rs.1.10 lakh crore against Government of India securities to provide compensation to the States. The Union Government also committed to borrowing Rs.1.59 lakh crore during 2021-22 from the market (as back -to-back loans) for the same purpose. As the GST compensation cess would be used to pay interest and principal payment liabilities of the debt incurred by the Government of India, Mukherjee (2021) observed that after servicing the debt liabilities, there would not be enough revenue (balance) left to provide GST compensation cess to States at least during first two years after GST transition period i.e., 2022-23 and 2023-24. After estimating the ratio of GST compensation received to the fiscal deficit for each State for 2020-21, Rao (2022) concluded that the end of the compensation regime could considerably affect the ability of States to maintain their spending programmes without taking recourse to expenditure compression in some way.

Thus, the requirement for GST compensation was slated to be high due to the higher level of protected revenue compared to the trends in revenue collection for State-taxes subsumed under GST. This was further aggravated by the slow-down induced by the pandemic. Given the prevailing fiscal pressures, the States are demanding for an extension of the revenue protection. All this has put to the test the 'Grand federal bargain'. In this light, a better understanding of the causes of revenue shortfall may be helpful in settling a new bargain.

As mentioned earlier, the compensation regime will come to an end in June 2022 unless it is extended by the GST Council. Some States are highly dependent on the compensation scheme (Table 1 in Appendix). The share of compensation in State GST revenue (i.e., SGST and IGST settlement) is more than 50 percent for Punjab, Himachal Pradesh, and Uttarakhand in 2019-20. On average, States have received one-fourth of their revenue from GST compensation in 2019-20. Some special – category States such as Arunachal Pradesh, Manipur, Mizoram, Nagaland, and Sikkim are not dependent on compensation cess since these States have not faced any shortfall in revenue collection. The majority of the States have experienced an increase in the dependence on compensation cess between 2019-20 and 2020-21. The General – category States will face a revenue shock if the period for the compensation scheme is not extended further.

In the 4th GST Council meeting held on 3-4 November 2016, it was decided that once the compensation period is over, then "cesses levied for compensation purpose could be subsumed into the GST tax net". It can be observed from Table 2 that among general-category States , the net compensation received (i.e., the difference between the collection of cess and cess received as compensation) is negative for Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha and Uttar Pradesh every year for which data are available. A cess of Rs. 400 per tonne is levied on coal, and coal resources are mainly located in these States except in Uttar Pradesh. If cess is subsumed into GST, SGST part of GST levied on demerit and luxury goods will accrue to net consuming States of these goods since GST is a tax on consumption.

4. Factors influencing State-wise shortfall in GST revenue

Mukherjee (2020a) estimated the tax potential of States in India for the period 2012-13 to 2019-20. Tax potential depends on tax capacity and tax effort. He used a time-variant -truncated panel Stochastic Frontier Approach (SFA) to estimate both the functions jointly. The results of his study showed that the GST capacity of States depended on gross State value added (GSVA), and structural compositions of the economy (as measured by the ratio of shares of mining, manufacturing, industry, and services in GSVA vis-à-vis share of agriculture in GSVA). States, having a higher share in mining and quarrying vis-à-vis agriculture had lower GST capacity. Shares of manufacturing as well as the industry in GSVA vis-à-vis agriculture had a positive relationship with GST capacity, but the share of services in GSVA vis-à-vis agriculture had a negative impact on GST capacity. The relationship between tax efficiency (TE) and per capita income (PCI) was found to be non-linear. As PCI increased TE declined initially, and thereafter, it increased. Mukherjee (2020b) observed that the decision to keep petroleum products out of GST had given scope for trade diversions as the CST rate of 2 percent on inter-State sales of the petroleum products was lower than the State-VAT rates. Companies prefer to purchase petroleum products inter-State in order to avoid paying State-VAT, resulting in the erosion of the tax-base of the destination States.

In the present study, we have analysed the State-wise shortfall of GST revenue as a percentage of the guaranteed or protected revenue (Short) which is our dependent variable. We explore the factors causing inter-State disparity in the collection of revenue from GST for both the general category and special-category States. At the time of implementation of GST, State Government taxes such as State-VAT, entertainment tax (unless it is levied by local bodies), taxes on lottery betting and gambling were subsumed in SGST.

State-wise revenue from taxes subsumed under SGST as a percentage of GSDP in 2015-16 (Tax_sub) is taken as an explanatory variable. It is expected that the shortfall in tax revenue is likely to be higher in States with higher values of the variable Tax_sub. We have also explored whether there exists a relationship between revenue subsumed under SGST as a percentage of total own-revenue for the State (GSTOR) and State-wise shortfall of revenue from the target. The total revenue of a State consists of tax revenue and non-tax revenue. The main constituents of a State's non-tax revenue are receipts from interests, dividends, and profits, and the recoveries from general services, economic services and social services [8]. Higher the share of revenue subsumed under GST as a percentage of total revenue of the State, the more dependent would be the States to derive their own-tax revenues on GST.

As CST revenues collected by the States on their exports were subsumed under the revenue protected, while the IGST revenues on interstate-trade are accrued to the importing States, it is expected that the States with higher values of CST revenue as a percentage of GSDP in 2015-16 are likely to incur greater shortfall of GST revenue. Each State's share of income tax to GSDP (PIT) can be taken as a proxy for the extent of formalization of the State's economy and may also indicate the development of the institutional capacity to tax. It is therefore expected that, the higher the share in the income tax revenue, the lower will be the shortfall of GST collection of the State. GST is basically a tax on the consumption of goods and services. To understand the relationship between income level and shortfall compared to the protected revenue, per capita GSDP (Gross State Domestic Product) of a State as a ratio of all States' per capita GSDP (SR_GDP) is used. The shortfall in tax revenue from the guaranteed revenue is likely to be lower for States experiencing higher growth rates in nominal GSDP (Ngro).

The majority of agricultural products are exempted under GST. So, States with a higher share of the agricultural sector in GSDP are likely to have a greater shortfall in tax revenue. On the other hand, States with a higher share of industry in GSDP and the service sector are expected to experience a lower shortfall in GST revenue from the guaranteed or protected revenue.

We have identified the following determinants for explaining the inter-State disparity in the shortfall of GST revenue from the projected or guaranteed revenue during 2018-20:

Tax_sub : Taxes subsumed under GST as a percentage of GSDP in 2015-16
SR_GSDP : Per capita GSDP as a ratio of all States' per capita GSDP
CST : CST as a percentage of GSDP during 2011-16
Tax_GSDP: Tax - GSDP ratio
PIT : personal income tax revenue as a percentage of GSDP
GSTOR: revenue subsumed under GST as percentage of total revenue for the State in 2015-16 (Higher the share more dependent would be the States to derive their own-tax revenues on GST.)
Ngro: nominal growth rate of GSDP
Agri_shr: the percentage share of the sector in GSDP
Ind_shr: the percentage share of the sector in GSDP
Serv_shr: the percentage share of the sector in GSDP
Specials : a dummy variable to find-out whether there exists a significant difference in the shortfall between the special-category States and the general-category States.
The summary statistics of these variables are given in Table 3 in Appendix.

5. Data Sources and Methodology

We have collected data on GST for all 29 States and Delhi for 2018-19 and 2019-20, i.e. two pre-COVID normal years for which full - year GST data is available. We have not considered the data pertaining to the initial nine months (July – March) of 2017-18 since GST took time to stabilize [9]. The Statewise sectoral GSVA data for agriculture, manufacturing , service are collected from the National Statistical Organization (the link http://www.mospi.gov.in/GSVA-NSVA). The data on i.e. CGST, SGST, State-wise IGST settlements are collected from the GST portal of the Ministry of Finance (https://www.gst.gov.in/download/gststatistics).

In order to measure the shortfall of the GST revenue collected by each State from the projected revenue, the data on State-wise revenue from taxes subsumed in GST for the base year (i.e., 2015-16) is collected. Then the projected revenues for the subsequent years, i.e. 2016-17, 2017-18, 2018-19, and 2019-20 are calculated following the method as mentioned in the Act (i.e., if the base year revenue is Rs.100, then the projected revenue for 2018-19 = 100 $(1+14/100)^3$). SGST revenue and revenue from IGST settlements are added up to derive GST revenue (actual) for each State. The shortfall in tax revenue for each State is measured by taking the difference between the protected or guaranteed tax revenue and actual tax revenue for every year. The shortfall as a percentage of the protected tax revenue is taken as a measure for the dependent variable.

6. Results

It is observed from Table 4 in the Appendix that among the general category States, Punjab experienced the largest shortfall in 2018-19 and 2019-20. On the other hand, the shortfall in revenue was the lowest for Andhra Pradesh in 2018-19 and Telengana in 2019-20. Among the special-category States the shortfall was the highest for Himachal Pradesh in 2018-19 and Jammu and Kashmir in 2019-20 [10]. However, five special category States such as Sikkim, Nagaland, Manipur, Arunachal Pradesh, and Mizoram, did not have any shortfall of revenue in both the years.

While the availability of the data for two-years permits the use of the fixed effect panel method, the data is for two adjacent years, which leads to much lower variation in the variable overtime. Hence, the use of the fixed effect panel method would sacrifice the cross-section variation in the explanatory variables. Further, many of the important variables are from the base-year of 2015-16 (such as taxes subsumed as a percentage of GSDP, CST as a percentage of GSDP) or time-invariant (e.g., general vs special category). Given these data limitations, we use pooled OLS regression. To account for the variation in the size of the States, we apply population weights. The results are reported in Table 5.

It can be observed that there exists a positive and significant (at 1 percent level) relationship between the quantum of taxes subsumed under GST as a percentage of GSDP in the base year and the percentage of the shortfall against the protected revenue. An increase by one percentage point in taxes subsumed under GST as a percentage of GSDP leads to a nearly 25 percent shortfall compared to the protected revenue (the mean for taxes subsumed is 2.94 percent of GSDP, while the mean for shortall is 23 percent of the protected revenue). The coefficient of GSTOR is negative and significant at 5 percent level. Hence, States that are more dependent on GST for their own tax revenue are likely to put more tax-effort to reduce the shortfall. A one percentage point greater dependence (mean 45.37 percent) reduces the shortfall by nearly 0.6 to 0.7 percentage point. The coefficient of CST is positive and significant at 10 per cent level in most of the cases. States that are net exporters of goods are likely to have incurred a greater shortfall in tax revenue as CST has been replaced by IGST. In the case of IGST, revenue accrues to the destination State since GST is a tax on consumption.

The shortfall in GST collections from the guaranteed revenue is less for the States which have experienced a higher nominal growth rate in GSDP. This inverse relationship is statistically significant at 5 per cent level. Higher nominal growth of GSDP has reduced shortfall as the tax base increases. While the coefficient is statistically significant, it is economically not very significant. Average nominal national growth rates have fallen from 12.06 percent during 2011-16 to 9.75 percent during 2017-20, partly due to the inflation targeting regime and partly due to economic slowdown. A one percentage point higher growth reduces the shortfall by nearly 0.8 to 0.85 percentage point. Thus, a nominal growth slowdown by 2.3 percentage point may contribute to around 1.85 percent shortfall compared to mean shortfall of 23.04 percent.

There also exists an inverse relationship at 1 per cent level between tax-GSDP ratio and the shortfall in GST collections. Higher tax- GSDP ratio in the current year seems to have reduced the shortfall (inverse relation is significant at 1 per cent level). The States with higher personal income tax revenue as a percentage of GSDP (PIT) have a lesser shortfall (significant at 10% level).

It seems that the shortfall of GST revenue is not influenced by any of the sectoral composition variables, i.e. Agri_shr, Ind_shr, or Serv_shr. The dummy variable (specials) is also not statistically significant. So, there is no significant difference in the shortfall of GST revenue between general and special category States after controlling for other variables.

The analysis suggests that while nominal economic slowdown (before the COVID-19 impact) had relatively less impact on the shortfall. The quantum of taxes subsumed and the net exports from the States are relatively more important determinant. However, the most important cause of the shortfall was the 'grand bargain' itself. With a historical tax growth rate of merely 7.59 percent in the pre-GST period, the promise of 14 percent growth was probably too grand (good) bargain for the States to refuse.

7. Conclusion:

Most of the States reported a shortfall in the collection of GST revenue from the guaranteed or protected revenue which was arrived at based on 'grand bargain'. The shortfall is found to be higher for States with higher guaranteed or protected GST revenue (as a percentage of GSDP) and higher CST revenue (as a percentage of GSDP). The former variable captures the size of the promise, while the latter is a proxy variable for the exports from the State. On the other hand, the shortfall is lower for the States with a higher share of revenue subsumed under GST (as a percentage of total own-tax revenue of the State), higher personal income tax collection (as a percentage of GSDP), and a higher growth rate of GSDP. These variables capture State's dependency upon GST revenues, formalization of the economy, and the expansion of the tax base respectively. These results are on expected lines when the tax regime shifts from an origin-based approach to a destination-based approach. However, a promise of a grand-bargain without corresponding improvement in the tax-buoyancy coupled with economic slowdown are the main reasons for the shortfall. A part of the shortfall may be addressed by subsuming half of the compensation cess within the SGST, which at some stage is likely to happen. Stabilization of GST administration combined with the resumption of economic activities post-COVID disruption would also help in improving the tax-buoyancy and revenues. However, these are likely to fall short of 14 percent projections, at least for the next couple of years. There is again a need for the Centre and States to come together to share the burden of the lost ground and strike another bargain.

Notes

[1] Input tax credit against CST sales was allowed.

[2] State Government could levy taxes on a few services such as entertainment tax, the passengers and goods tax, and the electricity duty. See, Rao,M.G. and Rao, R.K. (2010)

[3] https://www.indiabudget.gov.in/budget_archive/es2004-05/chapt2005/chap28.pdf

accessed on April 30, 2022 at 15: 35 hour.

[4] Octroi duty was a tax on the entry of goods into the jurisdiction of urban local bodies / municipalities.

[5] See "First Discussion Paper on GST" released by the Empowered Committee on November 10, 2009.

[6] Exporters are entitled to claim IGST paid on exports of goods and services as input tax credit.

[7] In the 38th meeting of the GST Council, the tax rate on lotteries was decided through voting. The GST Act prescribed two rates – 12 percent, if the lotteries are sold within the same State, and 28 percent, if a State sells its lottery tickets outside its jurisdiction. In the Council meeting, 21 States voted in favour of the single rate of 28 percent on lotteries, while seven voted against.

[8] See Final Report on "Mobilizing Resources Through Non -tax Sources for Plan Development" by Mahesh C. Purohit and Vishnu Kanta Purohit, Foundation for Public Economics and Policy Research.

[9] In the 15th Finance Commission Report , data for the period from July 2017 to March 2018was not considered for analysing the impact of GST on revenue collections of the Union and State Governments.

[10] Jammu and Kashmir is no longer a State. It is divided into two Union Territories(UTs), Jammu and Kashmir and Ladakh, with effect from October 31 2019. UTs are generally administered by the Union Government. At present, there are 28 States and 8 UTs in India.

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Appendix

Table 1

Share of Compensation in State GST Revenue

(Per cent)

State/UT	2019-20	2020-21	Change
Andhra Pradesh	N.A.	N.A.	
Arunachal Pradesh	0	0	Unchanged
Assam	10.31	17.16	Increased
Bihar	23.04	23.38	Increased
Chhattisgarh	40.41	20.37	Decreased
Delhi	38.74	33.40	Decreased
Goa	34.21	88.52	Increased
Gujrat	30.66	N.A.	
Haryana	28.92	50.92	Increased
Himachal Pradesh	53.89	107.37	Increased
Jammu and Kashmir	49.93	N.A.	
Jharkhand	18.80	21.23	Increased
Karnataka	34.37	59.78	Increased
Kerala	28.75	42.04	Increased
Madhya Pradesh	24.14	24.04	Decreased
Maharastra	18.10	21.17	Increased
Manipur	0.00	0	Unchanged
Meghalaya	11.48	12.13	Increased
Mizoram	0.00	0	Unchanged
Nagaland	0.00	0	Unchanged
Odisha	30.20	39.16	Increased
Punjab	69.33	79.64	Increased
Rajasthan	20.53	23.99	Increased
Sikkim	0.00	0	Unchanged
Tamil Nadu	22.23	24.01	Increased
Telangana	N.A.	N.A.	Unchanged
Tripura	17.20	34.59	Increased
Uttar Pradesh	11.16	N.A.	Unchanged
Uttarakhand	51.66	46.60	Decreased
West Bengal	16.21	23.90	Increased

Notes: Compensation data for 2020-21 are Revised Estimates
State Revenue includes SGST and IGST settlements
N.A. = Not Available
Source: State Finances and GSTN database

Table 2

GST Compensation Received (Net)

(Rs. Crore)

States	2018-19			2019-20		
	Cess Collection	Compensation Received	Net Compensation Received	Cess Collection	Compensation Received	Net Compensation Received
Andhra Pradesh	272.54	0	-272.54	1537.00	N.A.	
Arunachal Pradesh	2.09	0	-2.09	2.39	0	-2.39
Assam	468.21	466	-2.21	478.89	878.97	400.08
Bihar	1922.85	2571	648.15	2062.91	3524.78	1461.88
Chhattisgarh	6489.01	2261	-4228.01	6171.25	3081.44	-3089.81
Goa	29.09	0	-29.09	32.83	818.70	785.87
Gujarat	3975.25	6419	2443.75	4587.69	10646.52	6058.83
Haryana	3889.34	2820	-1069.34	3671.20	5453.43	1782.23
Himachal Pradesh	14.53	2037	2022.47	19.49	1877.33	1857.84
Jammu & Kashmir	41.50	1462	1420.50	42.07	2279.28	2237.20
Jharkhand	5159.89	1092.705	-4067.18	5211.19	1532.72	-3678.47
Karnataka	10079.32	10754	674.68	9445.96	14496.90	5050.95
Kerala	64.01	0	-64.01	120.35	5575.04	5454.69
Madhya Pradesh	4938.91	2866	-2072.91	5525.57	4530.78	-994.79
Maharashtra	11442.21	8330	-3112.21	11513.04	15018.13	3505.09
Manipur	1.16	0	-1.16	1.58	0	-1.58
Meghalaya	21.14	73	51.86	5.37	101.45	96.08
Mizoram	0.59	0	-0.59	0.78	0	-0.78
Nagaland	8.94	0	-8.94	10.39	0	-10.39
Odisha	5641.20	3390	-2251.20	5722.58	3928.78	-1793.80
Punjab	154.10	7129	6974.90	211.06	8804.54	8593.48
Rajasthan	1516.42	2176	659.58	1470.49	4439.53	2969.04
Sikkim	2.06	0	-2.06	1.71	0	-1.71
Tamil Nadu	7168.02	3151	-4017.02	5893.82	8922.03	3028.21
Telangana	6496.83	0	-6496.83	6500.31	N.A.	
Tripura	2.99	155	152.01	2.05	171.00	168.95
Uttarakhand	239.89	2037	1797.11	189.54	2477.38	2287.84
Uttar Pradesh	12263.83	308	-11955.83	12761.91	5179.52	-7582.39
West Bengal	3898.41	1977	-1921.41	3994.61	4358.74	364.13
Delhi	1072.36	4182	3109.64	1093.03	7436.00	6342.97

Notes : N.A. = Not Available, R.E. = Revised Estimates. Source : State Finances (various years) and GSTN database

Table 3

Summary Statistics

Variables	Observations	Mean	Std. Dev.	Min	Max
Shortfall	60	23.04	9.62	-83.15	48.05
Specials	60	0.06	0.24	0.00	1.00
Tax_sub	60	2.94	0.38	1.25	4.07
SR_GSDP	60	100.00	52.12	31.35	334.66
CST	60	0.26	0.15	0.00	0.65
Tax_GSDP	60	6.50	0.95	2.16	8.13
PIT	60	1.83	1.70	0.19	7.81
GSTOR	60	45.37	6.33	34.76	65.06
Ngro	60	11.04	2.55	5.51	18.91
Serv_shr	60	49.87	9.00	23.24	74.29
Ind_shr	60	17.94	7.30	3.67	55.68
Agri_shr	60	18.94	7.91	0.37	38.28

Notes : Variables:

Shortfall: shortfall as a percentage of the protected tax revenue

Tax_sub : Taxes subsumed under GST as percentage of GSDP in 2015-16

SR_GDP : Per capita GSDP as a ratio of all States' per capita GSDP

CST : CST as percentage of GSDP during 2011-16

Tax_GDP: Tax - GSDP ratio

PIT : personal income tax revenue as percentage of GSDP

GSTOR: revenue subsumed under GST as percentage of total revenue for the State in 2015-16 (Higher the share more dependent would be the States to derive their own-tax revenues on GST.)

Ngro: nominal growth rate of GSDP

Agri_shr: percentage share of the sector in GSDP

Ind_shr: percentage share of the sector in GSDP

Serv_shr: percentage share of the sector in GSDP

Specials: a dummy variable = 1 for General – category States
= 0 for Special -category States

Table 4

State-wise Shortfall in GST Revenue

(Per cent)

States	2018-19	States	2019-20
Punjab	47.68	Punjab	48.05
Himachal Pradesh	47.18	Jammu and Kashmir	43.30
Uttarakhand	44.58	Himachal Pradesh	43.25
Jammu and Kashmir	38.21	Uttarakhand	42.77
Chattisgarh	35.57	Chattisgarh	38.64
Odisha	35.32	Goa	35.04
Delhi	32.76	Delhi	32.30
Goa	31.85	Kerala	31.75
Karnataka	30.87	Karnataka	30.91
Bihar	29.18	Odisha	30.30
Tripura	27.31	Gujarat	28.76
Haryana	26.58	Bihar	28.22
Kerala	26.23	Madhya Pradesh	27.51
Meghalaya	25.53	Haryana	26.70
Madhya Pradesh	25.30	Rajasthan	25.40
Gujarat	25.08	Tripura	25.35
Jharkhand	24.62	Jharkhand	24.70
Rajasthan	19.15	West Bengal	20.80
West Bengal	19.04	Tamil Nadu	20.21
Uttar Pradesh	16.74	Maharashtra	18.81
Tamil Nadu	16.33	Meghalaya	17.79
Assam	16.24	Uttar Pradesh	17.70
Maharashtra	15.21	Assam	15.71
Telangana	10.28	Andhra Pradesh	15.58
Andhra Pradesh	9.70	Telangana	13.95
Sikkim	-1.04	Sikkim	-13.80
Nagaland	-12.76	Nagaland	-39.33
Manipur	-24.12	Manipur	-43.10
Arunachal Pradesh	-47.27	Mizoram	-64.36
Mizoram	-51.38	Arunachal Pradesh	-83.15

Table 5
Regression Results

VARIABLES	(1) ShorPT_	(2) ShorPT_	(3) ShorPT_	(4) ShorPT_
Specials	3.425	4.420	4.550	3.789
	(4.709)	(4.992)	(4.918)	(4.630)
Tax_sub	25.38***	25.86***	25.86***	25.53***
	(3.024)	(3.152)	(3.084)	(2.990)
SR_GSDP	0.0263	0.0187	0.0141	0.0178
	(0.0278)	(0.0234)	(0.0244)	(0.0231)
CST	11.59*	14.36	14.10*	11.26*
	(6.019)	(10.53)	(8.340)	(5.948)
Tax_GSDP	-5.577***	-5.889***	-6.023***	-5.935***
	(1.491)	(1.351)	(1.355)	(1.333)
PIT	-1.213*	-1.276*	-1.326*	-1.233*
	(0.705)	(0.716)	(0.730)	(0.699)
GSTOR	-0.600**	-0.682**	-0.713**	-0.677**
	(0.294)	(0.259)	(0.269)	(0.257)
Ngro	-0.821**	-0.852**	-0.881**	-0.852**
	(0.387)	(0.383)	(0.387)	(0.380)
Agri_shr	0.0882			
	(0.160)			
Ind_ shr		-0.0721		
		(0.201)		
Serv_ shr			0.0650	
			(0.133)	
Constant	15.66	23.38	22.08	23.96
	(23.31)	(17.88)	(18.20)	(17.66)
Observations	60	60	60	60
R-squared	0.708	0.707	0.707	0.706

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Variables: Same as Table 3