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Has GST increased debt burden of Indian states?

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Introduction

India's sub-national debt position was significantly improved during the initial phase of fiscal consolidation (i.e., 2003-04 to 2010-11), when state governments stipulated fiscal responsibility legislation and initiated various fiscal austerity measures as per the recommendations of successive Finance Commissions and other government channels. But most states failed to maintain the target after the fiscal consolidation period as the debt-deficit indicators often crossed the prescribed limits. While revenue mobilization has become a key concern in sub-national governments' debt accumulation process, a set of tax and non-tax reforms gained momentum in the recent past. Of these, the introduction of the Goods and Service Tax (GST) has played a lead role.[1]

Under the GST regime, state governments' revenue is expected to increase and be inversely proportional to the debt to GSDP (Gross State Domestic Product) ratio, ensuring debt sustainability. If GST revenue is sufficient to service the state's outstanding liabilities, the other receipts (including debt receipts) can be utilized for primary expenditure commitments. However, if it is not adequate, the state needs to borrow further to service its existing debt (i.e., Ponzi Scheme). This also implies that adequate revenue generation from its primary sources like state GST helps the state governments avoid Ponzi conditions and ensure smooth functioning of the fiscal chain (Renjith and Shanmugm, 2018).

Notably, the aggregate debt of all the states combined rose from Rs. 42924.95 billion in 2017-18 to Rs. 53430.22 billion in 2019-20. At the aggregate level, the debt to GSDP ratio reached about 27 percent in 2019-20, while the ratio varied from 17.84 % (Maharashtra) to 41.32 % (Punjab) at the disaggregate level during the period (RBI 2021). The primary

[1] See Mukharjee (2020) for details of GST framework

balance[2] of most state governments stayed negative (primary deficit) during the period. Adding fuel to the fire, the growth of GST revenue across states has been lower than expected due to its design, compliance, and administrational issues. Such a shortfall has the potential, directly or indirectly, to create revenue shocks that may lead to fiscal shocks to state finances by narrowing fiscal spaces and mounting debt burden. This has raised two critical questions in the literature: (ii) Do states hold a sustainable debt position under the GST regime? and (iii)Does GST remain a dismal factor in debt sustainability?

The present study used secondary data pertaining to 22 major states in India from 2017-18 to 2019-20 to analyze the sustainable debt position of Indian states under the GST regime. Using indicator approach, the study examines whether GST regime undermines States' sustainable debt position**.** The variables used in this study are mainly drawn from two published sources: (i) Reserve Bank of India (RBI) for major fiscal variables and (ii) GST Network for state-wise GST collection and IGST settlement for the period.

Do states hold a sustainable debt position during GST regime?

Conceptually, the public debt is 'sustainable' as long as the debt levels do not accumulate at a rate considerably exceeding the government's capacity to service it in the absence of policy adjustment, negotiation or defaulting (IMF 2011). Unsustainable debt levels can lead to major disruptions in economic activity and reorientation of priorities in an economy. As indicated, under the GST regime, state governments' revenue is expected to grow and be inversely proportional to the debt, ensuring debt sustainability. If the growth rate of GST revenue is inadequate, it will disrupt the fiscal chain indicating signs of fiscal risk. Such a situation entails higher borrowings, adding to the debt burden and questioning debt sustainability. To avoid such a situation, growth rate of GST revenue should be higher than the growth rate of Debt. In other words, the momentum in growth rate of state GST revenue must improve fiscal conditions and thereby improve states' fiscal space.

Further, state governments should have the ability to service its interest payments and repay its debt as and when they become due through current and regular sources of revenue. In other words, they should be solvent enough to avoid a ponzi condition. As a major component of states' revenue, GST collection largely explains states' solvency condition. If

[2] The primary balance is the root cause of all types of deficits. It is basically the amount of borrowings that are required to meet expenses other than the interest payments (primary deficit) or the pressure of the government on the interest commitments on previous borrowings (primary surplus).

the growth rate of GST revenue is faster than the growth rate of interest payments, the debt servicing would be smoothened ensuring sustainability in future. [3]

Most importantly, according to Fiscal Policy Response Function, the primary balance-GSDP ratio is positive and, at least, a linearly rising function of the debt-GSDP ratio. If so, the initial stock of debt equals the sum of the present discounted values of the primary surpluses. Thus, the Intertemporal Budget Constraint (IBC) [4]

is satisfied (Bohn, 1998), warranting debt sustainability.[5] Therefore, the primary balance should grow positively. Once again, GST is a crucial factor in this process. If the change in primary balance is positive over time, it grows towards primary surplus in the future. If it is negative, it will direct the state towards a huge primary deficit questioning sustainability in the long run.

Therefore, in order to ensure a sustainable debt position three conditions should be satisfied: (1) the rate of growth of debt ($\boldsymbol{d}$) should be lower than the rate of growth of state GST ($\boldsymbol{\tau}$), (2) the Interest burden defined by interest payments ($\boldsymbol{i}$) should grow lower than rate of growth of GST ($\boldsymbol{\tau}$) and (3) Primary balance ($\boldsymbol{p}$) should improve over time. In other words, a higher growth in state GST collection, a lower growth in debt servicing and a positive primary balance over time are the sufficient conditions for sustainable debt position. If a state satisfies all three conditions, then it's debt is strongly sustainable. If it satisfies at least one condition, then it's debt is weakly sustainable. The weakly sustainable condition will shift towards an unsustainable debt position if the primary balance grows negatively (i.e., towards primary deficit). In fact, primary balance is the root cause of all types of deficits and reflects in the total debt requirements. As long as a country generates the debt stabilizing primary balance[6] to cover its debt in future, then the country's current debt level is sustainable. Hence, positive growth in the primary balance over time is necessary for sustainability.

Strongly sustainable:(i) $\Delta\boldsymbol{\tau} - \Delta\boldsymbol{d} > \mathbf{0}$; $\Delta\boldsymbol{\tau} - \Delta\boldsymbol{i} > \mathbf{0}$; $\Delta\boldsymbol{p} = +\boldsymbol{ve}$

Weakly Sustainable: (i) $\Delta\boldsymbol{\tau} - \Delta\boldsymbol{d} < \mathbf{0}$; $\Delta\boldsymbol{\tau} - \Delta\boldsymbol{i} > \mathbf{0}$; $\Delta\boldsymbol{p} = +\boldsymbol{ve}$

[3] See Grainer and Fincke (2015) for details.
[4] The outstanding debt today must be equal to the present value of future primary surpluses of a government.
5 Since this test maps the response of the primary balance to change in public debt, conditional on the control variables this is often referred to as the fiscal reaction function or the fiscal policy response function in most of the literature (D'Erasmo et al., 2016).
[6] See Rangarajan and Srivastava (2005) for details

$$\textit{(ii)}\ \Delta\tau - \Delta d > 0; \Delta\tau - \Delta i < 0; \Delta p = +ve$$

$$\textit{(iii)}\ \Delta\tau - \Delta d < 0; \Delta\tau - \Delta i < 0; \Delta p = +ve$$

$$\textit{(iv)}\ \Delta\tau - \Delta d < 0; \Delta\tau - \Delta i > 0; \Delta p = -ve$$

$$\textit{(v)}\ \Delta\tau - \Delta d > 0; \Delta\tau - \Delta i < 0; \Delta p = -ve$$

$$\textit{(vi)}\ \Delta\tau - \Delta d > 0; \Delta\tau - \Delta i > 0; \Delta p = -ve$$

Not Sustainable: **(i)** $\Delta\tau - \Delta d < 0; \Delta\tau - \Delta i < 0; \Delta p = -ve$

The study compares various indicators during the GST period for each state, as illustrated in Table 1. The debt policy is strongly sustainable in the case of Assam, Bihar, Himachal Pradesh, Jharkhand and Uttarakhand (Group A) as it satisfies all three sustainability conditions. They are solvent enough to avoid the Ponzi condition. On the other hand, in the case of Andhra Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Tripura, Uttar Pradesh, and West Bengal, at least one condition is met. Therefore, these states are only weakly sustainable. Since Kerala, Maharashtra and Uttar Pradesh satisfy the necessary condition (i.e., positive growth in primary balance) of sustainability, their long-run implications are not very alarming (Group B). Notably, Kerala is the only state where primary balance has improved over time despite undesirable other conditions. The growing tendency of primary balance will minimize the debt burden, and eventually IBC will get satisfied. This also implies that debt per se is not bad for a state if its primary balance improves over time.

In contrast, the states with negative growth in primary balance (i.e., Andhra Pradesh, Karnataka, Madhya Pradesh, Odisha, Punjab, Rajasthan, Tripura, and West Bengal) may end up with an unsustainable situation in the long run (Group C). Hence the fiscal path of these 8 states is a matter of concern. Notably, states like Chhattisgarh, Goa, Gujarat, Haryana, Tamil Nadu, Telangana do not meet any sustainability conditions (Group D). Therefore, the debt policy is not sustainable in these 6 states. The major concern is these 13 states (Group C and

Group D), which failed to satisfy the necessary debt sustainability condition. Their SGST collection is inadequate and deserves policy attention.

Table 1: Sustainability Analysis-Indicators Approach

State	$\Delta\tau - \Delta d > 0$	$\Delta\tau - \Delta i > 0$	Δp (+/-)	Sustainability?
Group (A)				
Assam	4.46	4.54	+	Strongly Sustainable
Bihar	20.22	18.85	+	Strongly Sustainable
Himachal Pradesh	10.32	12.14	+	Strongly Sustainable
Jharkhand	8.35	12.29	+	Strongly Sustainable
Uttarakhand	3.87	9.14	+	Strongly Sustainable
Group (B)				
Kerala	-5.50	-7.02	+	Weakly Sustainable
Maharashtra	-0.94	6.26	+	Weakly Sustainable
Uttar Pradesh	-0.01	4.20	+	Weakly Sustainable
Group (C)				
Andhra Pradesh	-2.61	0.81	-	Weakly Sustainable
Karnataka	-2.67	0.03	-	Weakly Sustainable
Madhya Pradesh	0.30	3.67	-	Weakly Sustainable
Odisha	1.56	8.44	-	Weakly Sustainable
Punjab	-0.42	1.02	-	Weakly Sustainable
Rajasthan	0.47	2.98	-	Weakly Sustainable
Tripura	4.54	9.55	-	Weakly Sustainable
West Bengal	2.36	6.06	-	Weakly Sustainable
Group (D)				
Chhattisgarh	-10.90	-15.10	-	Not Sustainable
Goa	-1.92	-0.56	-	Not Sustainable
Gujarat	-4.18	-2.11	-	Not Sustainable
Haryana	-3.51	-3.03	-	Not Sustainable
Tamil Nadu	-4.88	-4.38	-	Not Sustainable
Telangana	-5.95	-2.85	-	Not Sustainable

Source: Author's Calculation ; Δ

Has GST aggravated States' debt position?

In order to check whether GST aggravated States' debt position or not, the study compared the findings of previous studies (Kaur et al. 2017; Renjith and Shanmugam 2018), which analyzed the debt position of Indian states during the pre-GST period. Using the Indicator approach, Kaur et al. (2017) observed the sustainable debt position of Indian states over five phases from 1981-82 to 2015-16. According to the analysis of the last phase (2012-13 to 2015-16), the study observed that states like Andhra Pradesh, Bihar, Gujarat, Madhya Pradesh, Maharashtra, Odisha, Tamil Nadu, and West Bengal are sustainable. However, in the present study, except Bihar and Maharashtra, all other sustainable states are either unsustainable or weakly sustainable without satisfying the necessary condition, during the GST period. This implies that the debt position of many Indian states got aggravated during the GST period.

Using an empirical approach, Renjith and Shanmugam (2018) observed the debt sustainability of 20 Indian states during the pre-GST period. According to them, in 12 out of 20 states, namely, Assam, Bihar, Chhattisgarh, Haryana, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Kerala, Odisha, Punjab, Tamil Nadu, and Uttarakhand, public debt is sustainable. However, as per the present study except Assam, Bihar, Himachal and Jharkhand, the remaining eight states are not strongly sustainable. Again, it supports the fact that the GST aggravated the debt position of many Indian States. Therefore, they need to take corrective action to tackle their debt situation.

Conclusion

This paper analysed the sustainable debt policies of Indian states during the GST Period. The results indicate that debt policy is sustainable during the GST regime only in 8 out of 23 states. Of these, only 5 are sustainable as well as solvent. This also implies that the observed sustainable path is not because of the sound fiscal policies of most states and GST remains an undermining factor for debt sustainability in these states during the period. Notably, the C and D category states (neither sustainable nor solvent) require urgent policy attention. This study recommends that the composition of borrowed money should be customized with correction packages for individual states instead of a one-size-fits-all approach. Therefore, the states should adopt respective revenue augmentation measures realizing their revenue potential. The state GST department should adopt effective strategies to minimize compliance and administrational issues to improve GST revenue collection and thereby debt sustainability. Furthermore, debt servicing should be strictly based on the GST dominated own revenues and not using the borrowed money. Although it is too early to commend whether GST is a successful model for debt sustainability, this study clearly indicates that many states are way off the mark. They need to take corrective actions in the future by increasing their GST collection, own revenue and the primary surplus. Despite these limitations, the empirical analyses of this study have provided meaningful and insightful results into the fiscal situations of the states under consideration.

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