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State of Public Finance and Fiscal Management in India during 2001-16

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Abstract

During 2001-16, State Finances in India have undergone significant changes in both revenue mobilization and controlling expenditures which helped states to contain deficits (revenue as well as fiscal). Introduction of Value Added Tax (VAT) helped states to augment revenue mobilization whereas adoption of Fiscal Responsibility Budget Management (FRBM) Act helped states in prudential fiscal management. During the period, the improvement in union finances was not as good as state finances. There were two significant shocks to Indian public finances during 2001-16 – firstly, introduction of pay revision for the union as well as majority of state government employees, in response to recommendations of the Sixth Central Pay Commission and secondly, global financial crisis (2008-09). States experienced revenue shocks mostly through fall in states' share in central taxes and a mild fall in own tax revenue mobilization during 2008-10. Higher pressure on revenue expenditure due to implementation of the pay commission recommendations (including revision of pensions and payment of arrears) and falling share in central taxes resulted in rise in revenue deficits for states during 2008-10. As a strategy to combat fiscal shocks, different states adopted different measures and some of the measures have inter-temporal implications. The objective of the present paper is to assess the impact of the shocks in Indian public finances and identify challenges for the times to come. Though increasing revenue ('front loading') and reducing expenditure ('back loading') are common responses to any fiscal shock, understanding inter-temporal implications of those responses with specific to changing structure of inter-governmental fiscal transfers could be an interesting exercise.

Key Words: Indian Public Finance, Indian State Finances, Fiscal spillover, Fiscal Management, Revenue mobilization, inter-governmental fiscal relationship, Revenue Deficit, Fiscal Deficit

JEL Classification Codes: H20, H12, H71, H77

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1. Introduction

Indian public finance has undergone major changes during 2001-16, which helped Indian states to contain budgetary deficits. As compared to earlier two decades (1980s and 1990s), India experienced relatively comfortable fiscal situation during 2001-16. In both revenue and expenditure fronts, major reforms are initiated during the period and most important among them are introduction of Value Added Tax (VAT) and adoption of Fiscal Responsibility and Budget Management (FRBM) Act at state level. Introduction of VAT helped majority of Indian states to augment own tax revenue mobilization whereas adoption of FRBM Act helped states in adoption of prudential fiscal management practices.[1] The period under study was not free from shocks and most prominent among them are the global financial crisis (2008-09) and pay revision to government employees followed by the recommendation of the Sixth Central Pay Commission. States experienced the shock related to global financial crisis directly in terms of lower GSDP growth rate and therefore fall in own tax revenue mobilization. States also experienced the shock indirectly in terms of lower levels of tax devolutions. Since macroeconomic stabilization is the Constitutional function of the union government, Government of India (GoI) (or the Union Government) announced fiscal stimulus package to rein in financial crisis. The revenue impact of the stimulus package was not restricted to the union finances alone, it spilled over to state finances through inter-governmental fiscal transfers. Higher pressure on revenue expenditure due to pay revision for government employees (including revision of pensions and payment of arrears) and falling share in central taxes resulted in rise in revenue deficits for states during 2008-10. As a strategy to combat fiscal shocks, different states adopted different measures and some of the measures have inter-temporal implications for state finances. Recovery from the recession was sharp for some states with higher GSDP growth in 2010-11, which helped states to mobilize larger own tax revenue. However, higher GSDP growth in some states did not result in overall higher share in central taxes as GDP growth slowed down since 2011-12. States' share in central taxes remained constant during 2010-14, whereas a falling trend in centre's grants-in-aid transfer was observed during the same period. During 2008-10, majority of Indian states could not meet the FRBM targets of containing fiscal deficit to 3 percent of GSDP and elimination of revenue deficit.

The objective of this paper is to assess the state of public finances and fiscal management in India during 2001-16 and identify future challenges. In the next section we provide a brief discussion on state of public finances and fiscal management during 1980s and 1990s. In section 3, we assess the Indian public finance and fiscal situation during 2001-16. Understanding the structure of Indian federalism and inter-governmental fiscal relationship is important; therefore we provide a brief description of Indian fiscal federalism in section 4. We provide detailed analysis of state finances of India in section 5 and union finances in section 6. In section 7, we provide state-wise analysis of fiscal management during 2001-16. In section 8, we provide public debt situation of State governments as well as the

[1] However, the introduction of VAT resulted in differential revenue impact across States and the gain from VAT was not uniform (Das-Gupta 2012).

union government. In section 9, we discuss the emerging challenges of Indian public finance and we draw our conclusions in section 10.

2. State of Public Finance and Fiscal Management in 1980s and 1990s

State finances started deteriorating from mid-1980s with falling revenue surplus (Rao 2002). States collectively registered revenue surplus during early 1980s and by 1990-91 it registered revenue deficit of 1 percent of aggregate GSDP (Table 1). Fiscal adjustment programme initiated in early 1990s helped states to contain their revenue deficit and therefore moderate revenue deficit observed till mid-1990s. Revenue deficit increased gradually after mid-1990s and it increased sharply in 1998-99, due to revision of pays to government employees. Revenue deficit reached to 2.41 percent in 2000-01.

Table 1: States' Revenues and Expenditures (as % of GSDP)*

	Description	1980-81	1985-86	1990-91	1995-96	1998-99	1999-00 RE
A.	States' Revenues (c+d)	11.33	12.02	11.69	11.32	9.83	10.74
	a. Own Tax Revenue	4.60	5.23	5.34	5.20	4.89	5.21
	b. Own Non-Tax Revenue	2.27	1.90	1.62	1.92	1.36	1.49
	c. Own Revenues (a+b)	6.87	7.14	6.96	7.12	6.25	6.70
	d. Total Transfers from the Centre	4.46	4.89	4.73	4.20	3.58	4.04
B.	States' Expenditure (e+f)	13.92	14.73	14.99	13.92	14.02	15.50
	e. Revenue Expenditure	10.30	11.79	12.62	12.05	12.36	13.68
	f. Capital Expenditure	3.62	2.94	2.37	1.87	1.67	1.81
	Revenue Deficit	-1.03	-0.23	0.90	0.74	2.50	2.78
	Fiscal Deficit			3.19	2.70	4.17	4.66

Note: * - includes all states
Source: Adopted from Rao (2002). Deficit figures are taken from *Indian Public Finance Statistics 2004-05* (Government of India 2005).

Fall in indirect tax collection since late 1980s resulted in fall in overall tax revenue collection for the union government. Introduction of Modified Value Added Tax (MODVAT) in 1986-87 and reduction of customs tariffs as a part of economic liberalization / globalization process resulted in fall in tax collection on account of central excise duty and customs duty respectively. At a low level of direct tax collection, the revenue shortfall on account of indirect taxes could not be compensated. This resulted in revenue as well as fiscal deficits. In the face of lower revenue mobilization, the union government reduced expenditures (both revenue as well as capital); however growth rate in expenditure cut was lower than fall in growth rate of revenue mobilization. The introduction of service tax in 1994-95 helped the government to moderate the impacts of fall in customs duty and union excise duty collections to some extent. In 2000-01 revenue deficit of the union government reached 4 percent of GDP and fiscal deficit was 5.6 percent of GDP (Table 2).

Table 2: State of Union Finances in 1980s and 1990s (as % of GDP)

Description	1987-88	1990-91	1995-96	2000-01
Revenue Receipts	15.41	14.40	13.74	11.76
Tax Revenue (Net of States' Share in Central Taxes)	9.52	9.12	8.15	6.29
Corporate Income Tax (CIT) & Personal Income Tax	*1.10*	*1.12*	*1.70*	*2.25*
Central Excise Duty, Customs Duty and Service Tax	*8.18*	*7.70*	*6.26*	*3.94*
Non-Tax Revenue	5.89	5.28	5.59	5.47
Total Expenditure	20.75	19.85	17.60	16.90
Revenue Expenditure	17.90	17.56	16.17	15.74
Capital Expenditure	2.86	2.28	1.43	1.17
Revenue Deficit	2.48	3.17	2.42	3.98
Fiscal Deficit	7.68	7.83	5.19	5.55

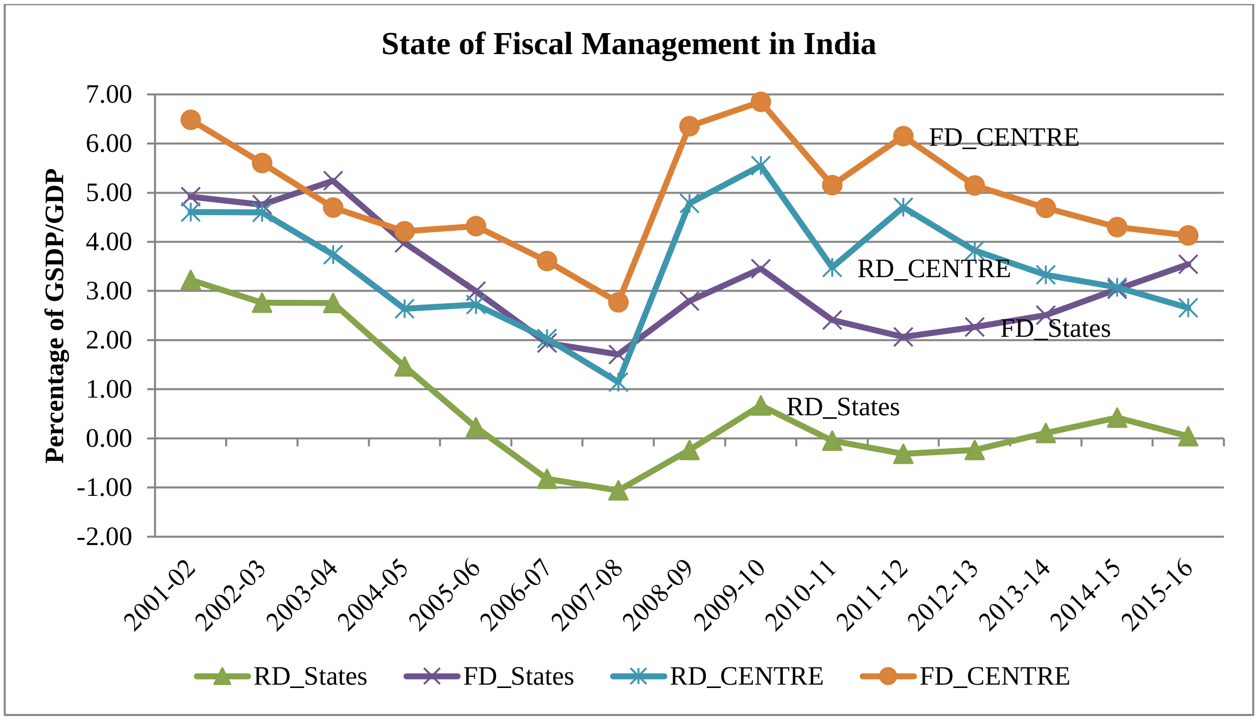
Source: Finance Accounts of the Union Government

3. State of Public Finances and Fiscal Management during 2001-16

Majority of Indian states adopted VAT and FRBM Act in 2005-06,[2] which helped them to augment own tax revenue mobilization and adopt prudential fiscal management practices respectively. Containing revenue deficit helped states to save fiscal space for possible expansion of expenditure on capital account. However, twin shocks of pay revision to government employees and recession induced by global financial crisis put hardship for state finances. Combined fiscal deficit of general category states has gone up from 1.7 percent in 2007-08 to 2.8 percent in 2008-09 and 3.5 percent in 2009-10 (Figure 1). High GSDP growth rate in 2010-11 coupled with larger tax buoyancy in own tax revenue mobilization helped states to contain fiscal deficit to 2.4 percent in 2010-11. However, a rising trend in fiscal deficit is again observed for states since 2012-13 and it is mainly attributable to general economic slowdown since 2011-12. In face of twin shocks, states were not able to adhere to FRBM targets – containing fiscal deficit to 3 percent of GSDP and eliminating revenue deficit. The impact of financial crisis was severe for union government finances as fiscal deficit went up from 2.77 percent in 2007-08 to 6.35 percent in 2008-09 and 6.85 percent in 2009-10. Central government did not adhere to FRBM targets and it seems eliminating revenue deficit and containing fiscal deficit to 3 percent of GDP have become perennial problem for the union government.

[2] For state-wise date of adoption of VAT and enactment of FRBM Act, see Economic Survey 2016-17, page no. 116 (Government of India, 2017).

Figure 1: State of Fiscal Management in India

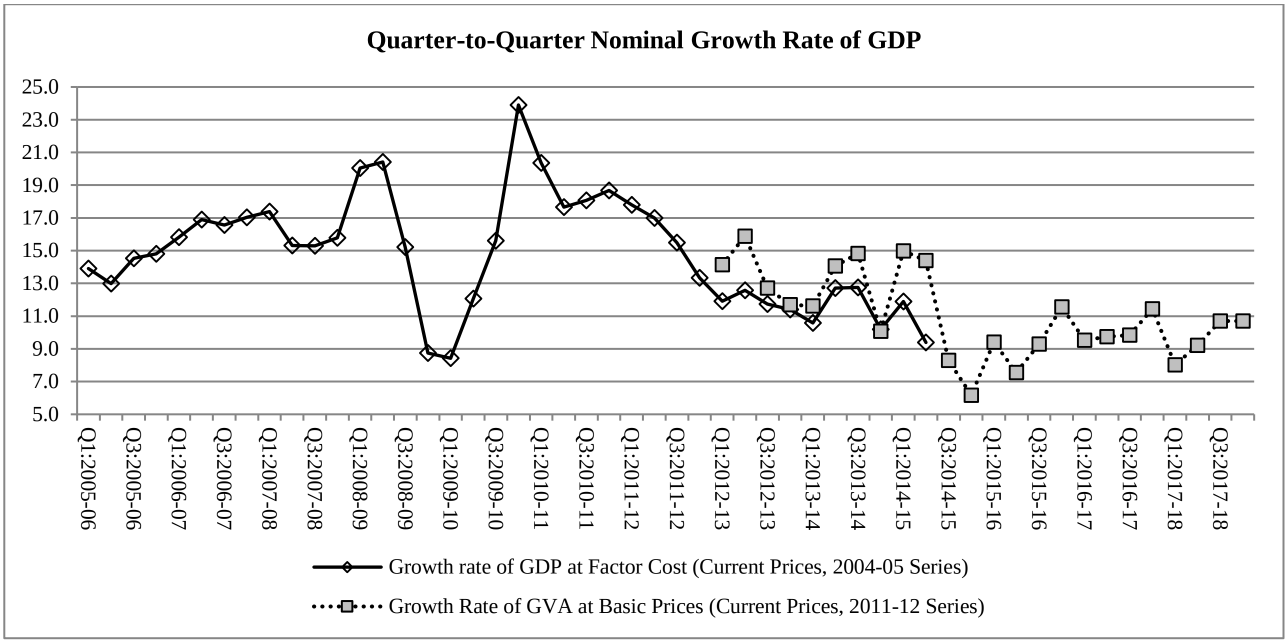


Source: Computed based on State Finance Accounts of respective state governments and Accounts at a Glance of Controller General of Accounts (CGA).[3]

To identify the impact of global financial crisis on Indian economy, we have plotted growth rate (quarter-to-quarter) of GDP at factor cost (current prices, 2004-05 series) and GVA at basic prices (current prices, 2011-12 series) in Figure 2. The impact of financial crisis on Indian economy started in the third quarter (October to December) of 2008-09, as fall in quarter-to-quarter GDP growth rate to 15.2 percent in Q3 of 2008-09 is observed. The last quarter of 2008-09 and the first quarter of 2009-10 experienced the largest impact of the financial crisis and the recovery started from Q2 of 2009-10. The recovery from the crisis was sharp but it did not last long as growth started slowing down from Q1 of 2010-11. Though 2010-11 recorded relatively higher growth than earlier years, the general economic slowdown observed since 2011-12. The impact of general economic slowdown, aftermath of global financial crisis, has severe impact on Indian public finances, especially for the union government.

[3] https://cag.gov.in/state-accounts and http://www.cga.nic.in/

Figure 2: Quarter-to-Quarter Nominal Growth Rate of GDP



Source: Computed by author based on EPWRF India Time Series Database (http://www.epwrfits.in/TypesOfNAS.aspx)

4. Fiscal Federalism in India

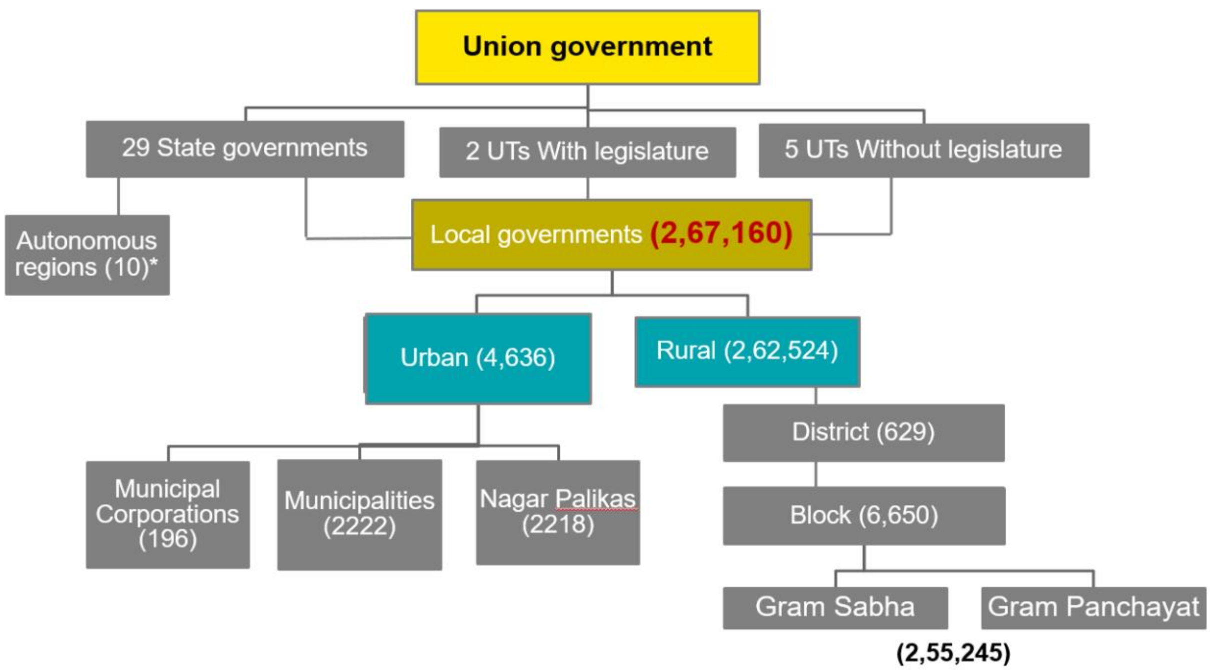
Before embarking on discussing state of Indian public finances, it is worthy to provide a brief outline of the Indian federal fiscal relationship among different tiers of governments. India is a federal union of 29 States and seven United Territories (UTs) (Figure 3). Out of 29 states, 11 hilly states in Northern and North-eastern parts of India are classified as Special Category States (SCS) and their fiscal dependence on the union government is larger than other 18 states, known as General Category States (GCS). Out of seven UTs, two have legislative assemblies (Delhi and Puducherry) and they have separate budgets. For other five UTs, there is no separate budget. There are third tier of governments in Indian federal system and they are known as Urban Local Bodies (ULBs or Municipalities/ Municipal Corporations), Rural Local Bodies (RLBs). In addition there are 16 Cantonment Boards constituted under the Cantonment Act 2006.[4] There are ten autonomous councils falling under the Sixth Schedule of the Constitution of India.[5] Indian Constitution assigns taxation powers and expenditure responsibilities between union and sub-national governments. "The constitutional provisions in India on the subject of distribution of legislative powers between the Union and the States are defined under several articles; the most important in this regard being

[4] According to section 10 of the Cantonment Act 2006, every cantonment Board shall be deemed to be Municipality under clause (e) of the article 243P of the Constitution.

[5] The Sixth Schedule was incorporated in the Constitution to protect and promote the rights, interests and traditions of the tribals by allowing them some measures of autonomy and self-governance through the institution of autonomous councils.

specifically under articles 245 & 246 of the Constitution of India. The Seventh Schedule to the Constitution of India defines and specifies allocation of powers and functions between Union & States. It contains three lists; i.e. 1) Union List, 2) States List and 3) Concurrent List."[6] Unlike the federal governments of the United States, Switzerland or Australia, in India residual powers remain with the union government, as with the Canadian federal government. The Union List or List-I is a list of items on which Parliament has exclusive power to legislate. The State List or List-II is a list of items on which State Legislative Assembly has exclusive power to legislate. The Concurrent List or List-III is a list of items on which central and state governments have power to legislate.

Figure 3: Structure of Fiscal Federalism in India



Source: Adopted from National Statistical Commission (2018)

According to Constitutional provision, Union government has power to collect taxes which are broad based and tax base is mobile – e.g., income tax (other than on agricultural income) (corporate and personal income tax), Central Excise Duty (manufacturing level tax), customs duties on imports and service tax (tax on services). Central government collects these taxes and shares the proceeds with states according to the recommendations of Finance Commission, constituted every five years.[7] In addition to tax revenue, central government receives non-tax revenue and grants-in-aid from multilateral, bilateral and international bodies. Apart from share in central taxes, union government transfers grants-in-aid to States/ UTs, ULBs and RLBs. States have taxation power to tax sales and trades of commodities,

[6] https://en.wikipedia.org/wiki/Seventh_Schedule_to_the_Constitution_of_India

[7] Finance Commission is a Constitutional Body constituted in every five years to make recommendations on Centre-State Fiscal Transfers.

production and distribution of alcoholic beverages for human consumption, stamps duty and registration fees, tax on registration of vehicles, passengers and goods tax, electricity duty and agricultural income tax. States share their revenue with RLBs, ULBs and Cantonment Boards based on recommendation of the State Finance Commissions. In addition to certain taxation power (e.g., property tax, local body tax/ Octroi/ entry tax), local governments have power to levy users fee/ charges (e.g., water charges/ fess, fee for solid waste management, toll tax).

Table 3 shows that union government generates three-fifth of total revenue receipts and retains only two-fifth of total revenue and the rest is transferred to states. States generate two-fifth of total revenue by own sources but enjoys three-fifth of total revenue receipts. There is difference in power between union and states in raising revenue, as union government enjoys larger tax base. Expenditure responsibilities almost equally shared between union and states, as both the governments spend half of total expenditures. There is not much difference in revenue expenditure and total expenditure pattern between union and states.

Table 3: Relative Share of Union and States in Combined Revenue Receipts and Expenditures (Percent)

FC Period	Revenue Receipts				Total Expenditure		Revenue Expenditure	
	Union		States**		Union	States**	Union	States**
	Revenue Receipts before transfers	Revenue Receipts after Transfers	Revenue Receipts before transfers	Revenue Receipts after Transfers				
FC-VIII (1984-89)	65.40	38.70	34.60	61.30	47.86	52.14	44.22	55.78
FC-IX (1989-95)	62.80	35.30	37.20	64.70	45.58	54.42	43.45	56.55
FC-X (1995-2000)	60.80	36.30	39.20	63.70	43.35	56.65	43.18	56.82
FC-XI (2000-2005)	58.50	33.30	41.50	66.70	43.77	56.23	44.03	55.97
FC-XII (2005-10)	63.81	38.45	36.19	61.55	46.08	53.92	47.59	52.41
FC-XIII (2010-13)*	61.08	36.44	38.91	63.55	46.64	53.36	47.16	52.84

Notes:*- Average of three years (2010-13). Direct Transfers to State Implementing Agencies are excluded. **-all states

Source: Fourteenth Finance Commission Report, Chapter 5, Table No. 5.4 & 5.5 (Government of India, 2014).

5. State Finances in India

Structure of state finances for GCS is presented in Table 4. The period of analysis covers – either partially or fully - four successive Finance Commissions' award periods. Table 4 shows that States finance half of their expenditures – revenue as well as capital (excluding loans and advances) - from their own revenue sources. Central transfers finance one-third of states' expenditure. On average states are meeting their entire revenue expenditure through own revenues and central transfers, as a result revenue deficit has gone down substantially.

However, states are not able to meet their capital expenditure fully from their available resources, as a result they incur fiscal deficit.

Table 4: Structure of State Finances for General Category States (% of GSDP)

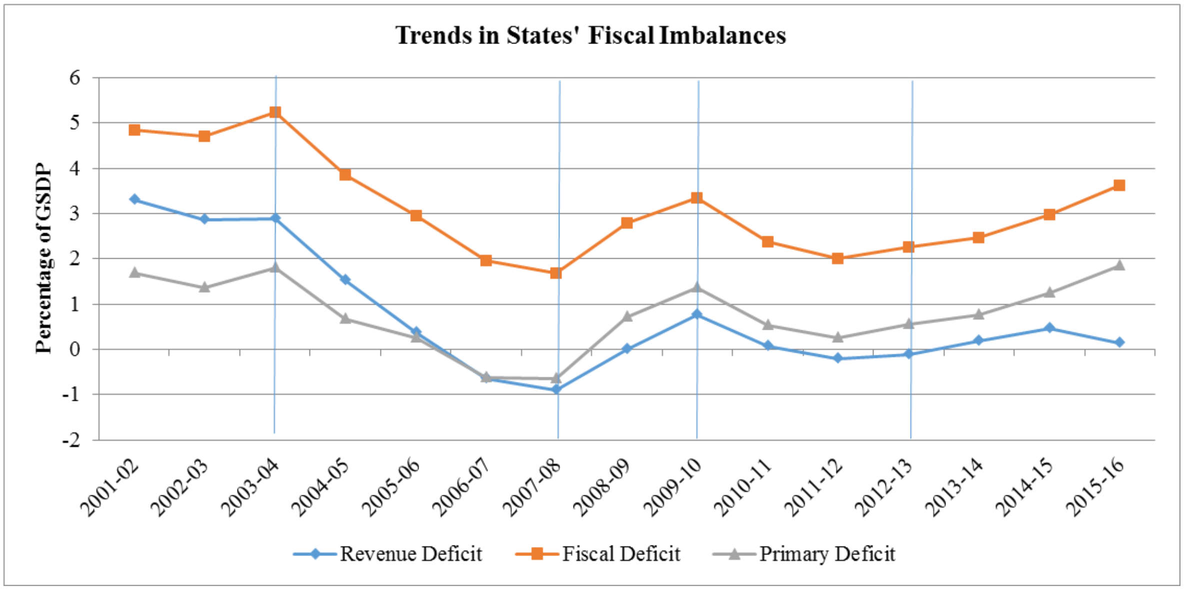
Average of	2001-05 (11th FC)	2005-10 (12th FC)	2010-15 (13th FC)	2015-16 (1st Year of 14th FC)	2001-16
Total Revenue Receipts	**12.5**	**13.6**	**13.7**	**14.8**	**13.4**
Own Sources of Revenue	**8.4**	**8.5**	**8.7**	**8.5**	**8.5**
- Own Tax Revenue	6.8	6.9	7.4	7.2	7.1
- Own Non-Tax Revenue	1.6	1.6	1.3	1.3	1.5
Central Transfers	**4.1**	**5.1**	**5.0**	**6.3**	**4.9**
- Share in Central Taxes	2.8	3.2	3.2	4.0	3.1
- Grants-in-Aid	1.3	1.9	1.8	2.3	1.7
Total Expenditure	**16.9**	**16.0**	**15.9**	**17.7**	**16.3**
- Revenue Expenditure	15.1	13.5	13.8	14.9	14.1
- Capital Expenditure*	1.8	2.5	2.2	2.7	2.2
Revenue Deficit	2.6	-0.1	0.1	0.1	0.7
Fiscal Deficit	4.7	2.5	2.4	3.6	3.1

Note: *-Excluding loans and advances

Source: Computed based on State Finance Accounts

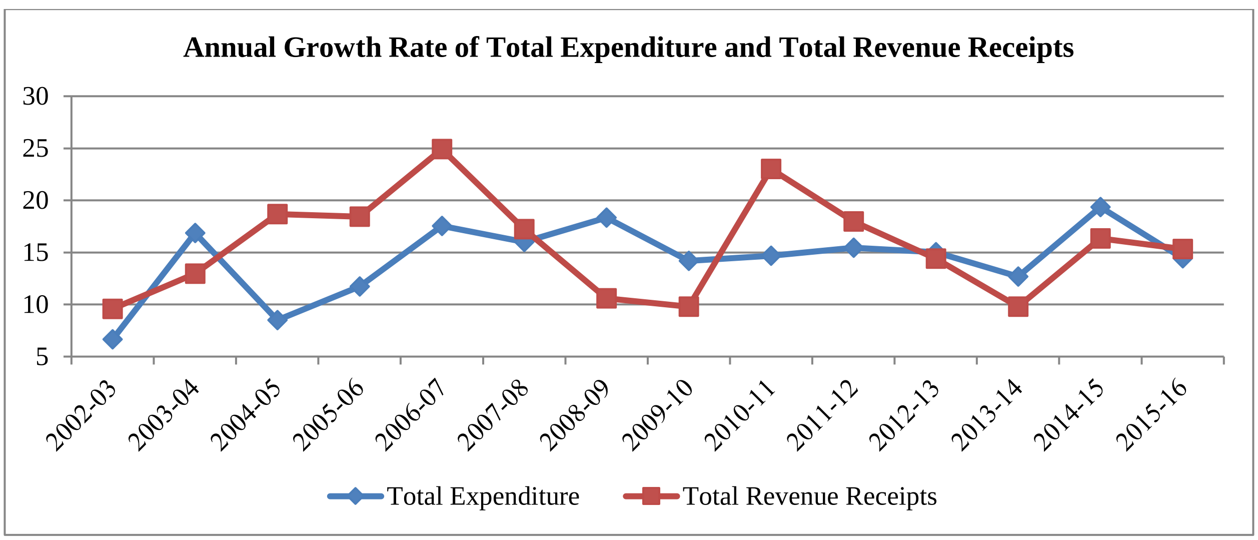
The trends in Indian State finances (for 18 general category states) can be categorized into 5 distinct phases, Phase I (2001-02 to 2003-04), Phase II (2004-05 to 2007-08), Phase III (2008-09 to 2009-10), Phase IV (2010-11 to 2012-13) and Phase V (2013-14 to 2015-16) (Figure 4). In phase I, stable trends in both the deficits (revenue as well as fiscal) could be seen. In this phase states were preparing to introduce VAT after harmonization of sales tax rates achieved in 1999-2000 (Mukherjee and Rao 2019). Growth rates of revenue and expenditure were matching so there was no additional fiscal stress for states in this phase (Figure 5). Phase II shows falling trends in deficits and it is mostly due to higher growth in revenues than expenditures. The period was also marked by high economic growth and by introduction of state VAT in 2005-06 by majority of Indian states. This period is also marked by initial years of adoption of FRBM Act at state level which disciplined fiscal management practices. Phase III shows rising trends in deficits and it is attributable to higher growth in expenditures than revenue mobilization. The financial crisis resulted in revenue shocks for state finances both directly in terms of lower own tax revenue mobilization and indirectly in terms of lower share in central taxes. Indian state finances recovered from the shocks in Phase IV with more than 13 percent increase in growth rate of revenue mobilization during 2009-10 to 2010-11. Except 2010-11, a falling trend in growth rate of revenue is observed in this phase while growth rate in expenditure remains stable. Lower growth in aggregate GSDP is observed in this phase. An in-depth assessment of revenue side is required to assess the falling trends in revenue mobilization. The last phase is marked by rising trends in deficits, except for 2015-16 and that also on account of revenue deficit. Though growth rate in revenue improved in 2014-15, it was lower than expenditure growth. Being a general election year, states were not able to contain their expenditures which resulted in rising deficits in revenue account. Falling growth in expenditure helped states to contain revenue deficit in 2015-16.

Figure 4: Trends in States' Fiscal Imbalances for General Category States



Source: Computed based on State Finance Accounts

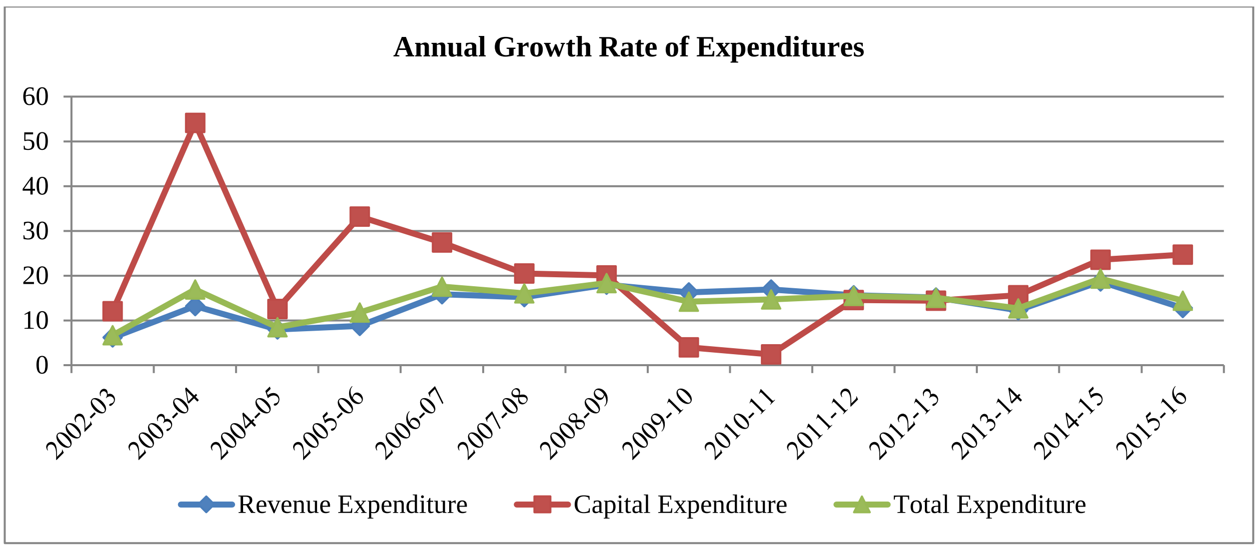
Figure 5: Annual Growth Rate of Total Expenditure and Total Revenue Receipts



Source: Computed based on State Finance Accounts

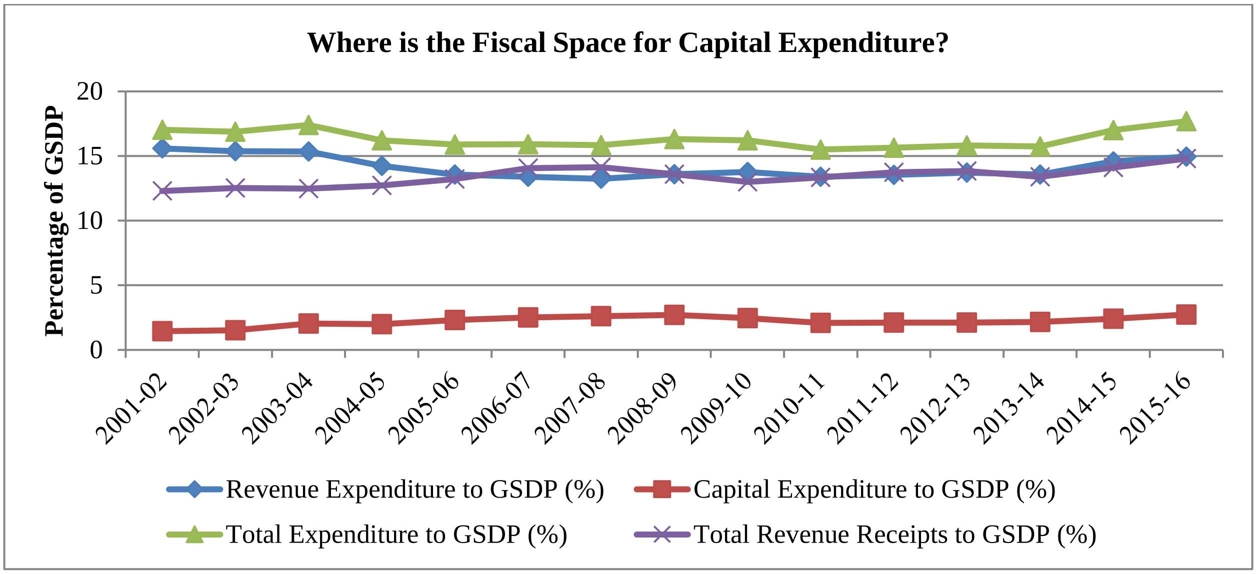
A closer look at the expenditure pattern of states shows that annual growth rate of revenue expenditure is dependent on annual growth rate of revenue receipts (Figure 6). States restrain expenditures on capital account to meet deficit targets. This shows that states run fiscal deficit mostly to spend on capital expenditures. Figure 7 shows that there is hardly any fiscal space for states to spend on capital expenditure. Politically capital expenditure is not appealing for state governments as the benefits of capital expenditures could only by reaped after the gestation period is over and there is always political uncertainty of retaining power over the election cycles. The time lag between actual investment in infrastructure and benefits that will be accrued to society makes political parties reluctant to spend revenues on capital expenditures. As a result majority of Indian states under-invest in capital expenditure which results in gap in demand and availability of public infrastructure. Lack of infrastructure constraints states' capacity to achieve potential economic growth and therefore economic development in the long run (Estache and Garsous 2012). In the absence of political acceptance, meeting huge finance gap in infrastructure would be difficult, especially after the adoption of FRBM Act.

Figure 6: Annual Growth Rate of Expenditures of States



Source: Computed based on State Finance Accounts

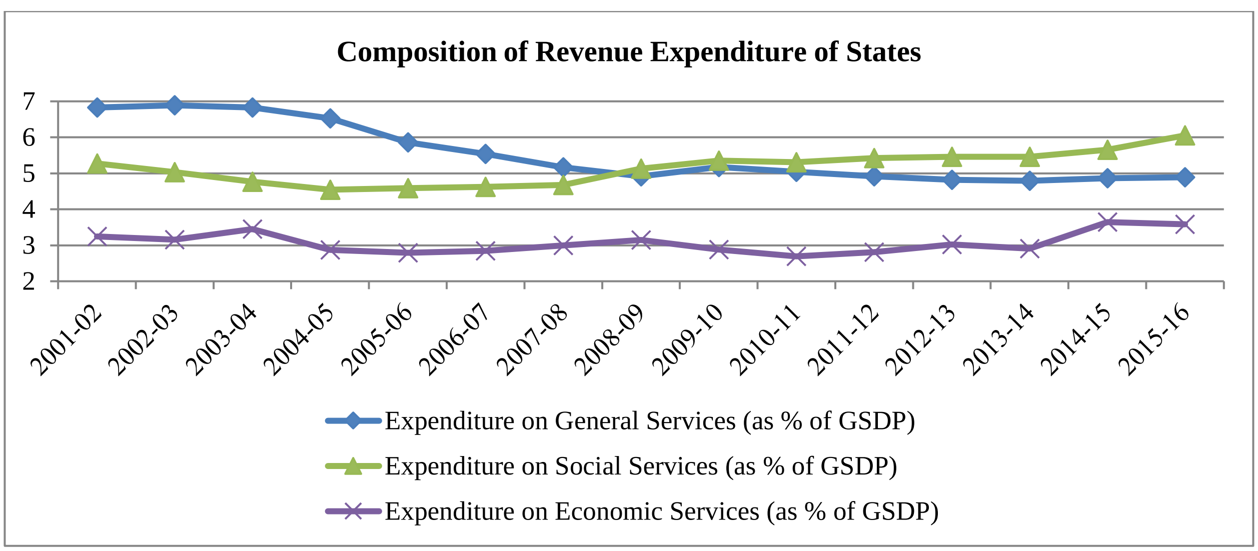
Figure 7: Where is the Fiscal Space for Capital Expenditure?



Source: Computed based on State Finance Accounts

Revenue expenditure on social services shows a mild upward trend whereas expenditure on economic services remains stable, except during last two years in Figure 8. Containing expenditure on general services, which are mainly to maintain establishments (except interest payment on borrowed fund), gives additional fiscal space which is mostly channelized to expenditures on social and economic services.

Figure 8: Composition of Revenue Expenditure of States (% of GSDP)



Source: Computed based on State Finance Accounts

Central transfers consist of States' share in central taxes and grants-in-aid and on average central transfers contribute 36 percent of states' total revenue receipts and finance 30 percent of states' total expenditure (excluding loans and advances) during 2001-16 (Table 5). On average States' generate two-third of their total revenue from own tax (contributes 53%) and own non-tax revenue (contributes 11%) and finance more than half (54%) of total expenditures. Together own revenue of states and central transfers finance upto 84 percent of total states' expenditures. Table 5 shows that the importance of non-tax revenue in state finances (in total revenue mobilization and financing total expenditure) is increasing over the years for general category states. On average general category states receive 3.1 percent of their GSDP as share in central taxes whereas for special category states it is 4.74 percent. Similarly, on average general category states receive only 1.74 percent of their GSDP as centre's grants-in-aid whereas special category states receive 13.25 percent.

Table 5: Sources of Revenue of General Category States

	2001-02	2005-06	2010-11	2015-16	Average (2001-16)
States' Own Tax Revenue					
- as % of GSDP	6.56	7.04	7.06	7.23	7.05
- as % of Total Revenue Receipts	53.39	53.31	52.92	48.84	52.63
- as % of Total Expenditure	38.53	44.30	45.51	40.87	43.25
States' Own Non-Tax Revenue					
- as % of GSDP	1.60	1.48	1.33	1.27	1.49
- as % of Total Revenue Receipts	11.31	12.54	13.30	15.47	12.91
- as % of Total Expenditure	8.17	10.42	11.44	12.95	10.66
States' Share in Central Taxes					
- as % of GSDP	2.74	3.03	3.18	4.01	3.13
- as % of Total Revenue Receipts	22.26	22.91	23.84	27.12	23.28
- as % of Total Expenditure	16.07	19.04	20.51	22.69	19.19
Centre's Grants-in-Aid to States					
- as % of GSDP	1.39	1.66	1.77	2.29	1.74
- as % of Total Revenue Receipts	11.31	12.54	13.30	15.47	12.91
- as % of Total Expenditure	8.17	10.42	11.44	12.95	10.66

Source: Computed based on State Finance Accounts

Importance of VAT in state finances is evident from the data on revenue collection. Comprehensive VAT (including Central Sales Tax or CST and Entry Tax) contributes on average 4.5 of GSDP and 63 percent of Own Tax Revenue (OTR) of the states (Table 6). VAT alone finances one-third of total expenditures (excluding loans and advances) of states. Goods and Services Tax (GST) is introduced in India from 1 July 2017 and it encompasses a significant tax base of comprehensive VAT and sales tax, except those items which are kept outside the GST (e.g., petrol, diesel, ATF, crude petroleum, natural gas, and alcoholic beverages for human consumption). These items continue to attract sales tax and CST. GST also subsumes other taxes from the states' indirect tax base, e.g., luxury tax, entertainment tax (Mukherjee 2015). As on 2015-16, 51 percent of revenue subsumed in GST is states taxes and the rest is from central taxes (Pandey 2017).[8] Importance of VAT as a single largest source of revenue for states is increasing over the years. State excise is the second largest source of OTR for states and contributes 0.87 percent of GSDP and 12 percent of OTR. State excise is levied on alcoholic beverages for human consumption and other narcotics (opium, hemp etc.). Growing urbanization and development of real estate sector contribute to collection of stamp duty and registration fee. The share of stamp duty and registration fee contributes on average 0.80 percent of GSDP and 11 percent of OTR of states. Transport taxes constitute of motor vehicle tax (it is tax on registration of motor vehicles) and taxes on passengers and goods (it is tax on transport services provided by commercial vehicles). However, we have excluded entry tax (taxes on entry of goods into local area) from transport taxes as it is an account based levy on entry of goods into a state and administered by the state commercial taxes department along with VAT. Transport taxes contribute on average 0.42 percent of GSDP and 6 percent of OTR. Together these taxes contribute 93 percent of OTR and 6.55 percent of GSDP.

Interest received on loans and advances, profits and dividends earned from state PSUs together contribute 20 percent of Own Non-Tax Revenue (ONTR) of states. The share of royalty income from petroleum (onshore exploration), coal and lignite and non-ferrous mining and metallurgical industries together contribute 23 percent of ONTR. Together these sources contribute 44 percent of total ONTR. States are also reluctant to expand the scope of NTR by levying user fees/ charges to recover costs of public services (e.g., social and economic services like education, health, irrigation services) provided by the state governments (Das-Gupta 2005).

Changing dynamics of revenue collection from VAT has impacted overall OTR mobilization of states. Recovery from fiscal shock due to global financial crisis was possible for states due to higher VAT growth rate over GSDP growth rate during 2010-13. VAT collection improved from 4.1 percent of GSDP in 2009-10 to 4.4 percent in 2010-11, 4.7 percent in 2011-12 and 4.8 percent in 2012-13 (Figure 9). During 2013-16, VAT growth rate was lower than GSDP growth rate which resulted in falling trend in OTR as percentage of GDP for states (Figure 10).

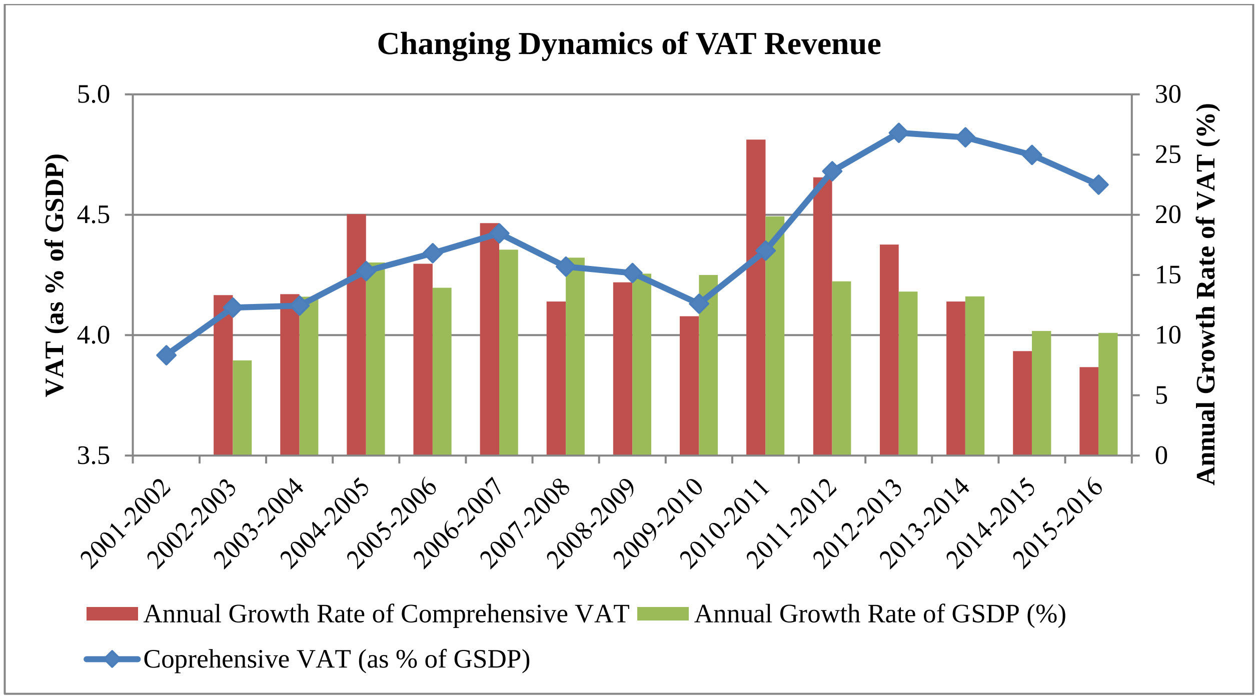
[8] The total revenue from taxes that will get subsumed into GST in 2015-16 is Rs. 8.65 lakh crore, out of which Rs. 4.25 lakh crore comes from central taxes and Rs. 4.40 lakh crore comes from the taxes of States (Pandey 2017).

Table 6: Structure of States' Own Tax and Non-Tax Revenue

	2001-02	2005-06	2010-11	2015-16	Average (2001-16)
States' Own Tax Revenue					
Value Added Tax (including CST and Entry Tax)					
- as % of GSDP	4.03	4.41	4.40	4.67	4.46
- as % of Own Tax Revenue	61.44	62.63	62.34	64.59	63.21
- as % of Total Revenue Receipts	32.80	33.39	32.99	31.54	33.27
- as % of Total Expenditure	23.67	27.75	28.37	26.40	27.36
State Excise					
- as % of GSDP	0.87	0.83	0.91	0.86	0.87
- as % of Own Tax Revenue	13.25	11.79	12.88	11.88	12.31
Stamp Duty and Registration Fee					
- as % of GSDP	0.60	0.84	0.83	0.81	0.80
- as % of Own Tax Revenue	9.11	11.95	11.77	11.24	11.33
Transport Taxes (excluding Entry Tax)					
- as % of GSDP	0.51	0.46	0.39	0.40	0.42
- as % of Own Tax Revenue	7.69	6.47	5.55	5.52	6.01
States' Own Non-Tax Revenue					
Interest Receipt, Dividends and Profits					
- as % of GSDP	0.47	0.34	0.24	0.17	0.32
- as % of Own Non-Tax Revenue	28.70	21.45	17.68	12.24	20.43
Royalty from Petroleum, Coal and Lignite and Non Ferrous Mining and metallurgical Industries					
- as % of GSDP	0.27	0.32	0.38	0.35	0.34
- as % of Own Non-Tax Revenue	17.13	21.75	28.47	27.83	23.27

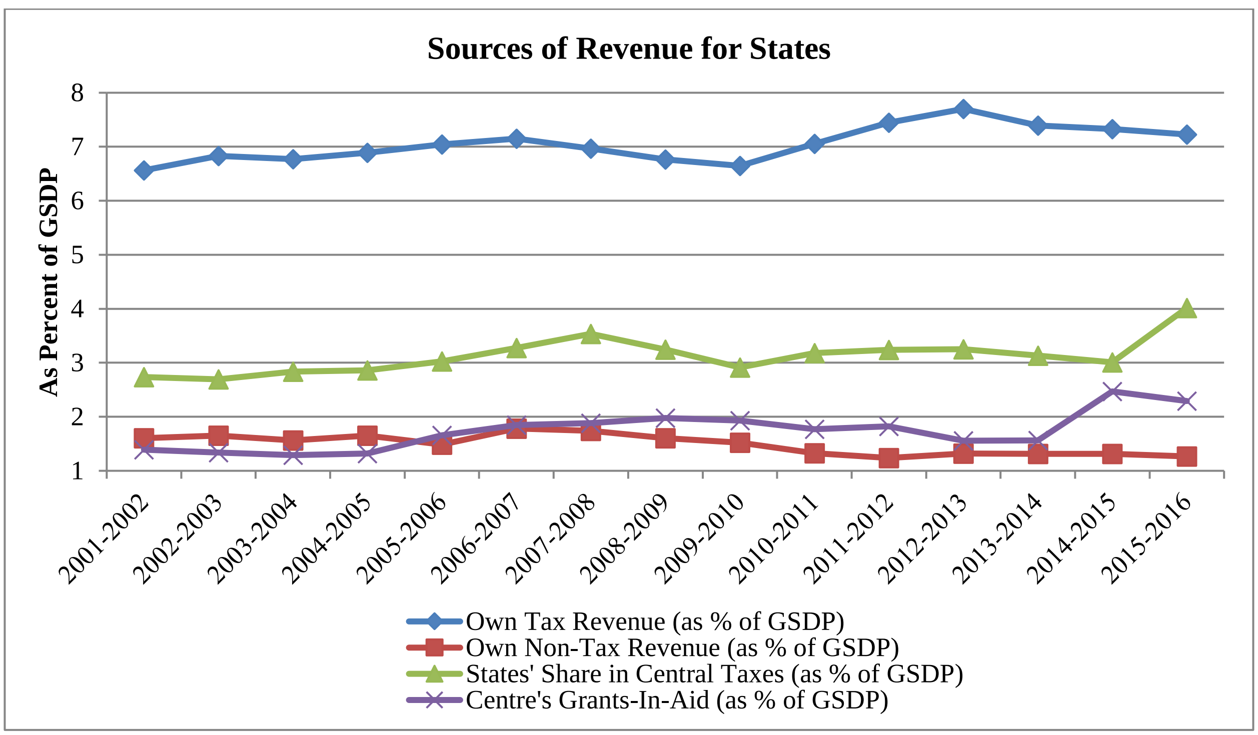
Source: Computed based on State Finance Accounts

Figure 9: Changing Dynamics of VAT Revenue of GCS



Source: Computed based on State Finance Accounts

Figure 10: Sources of Revenue for States (% of GSDP)



Source: Computed based on State Finance Accounts

6. Union Government Finances

As compared to earlier two decades, fiscal situation of the union government improved during 2001-16 (Table 7). Rising collection from CIT and PIT helped in compensating the fall in tax collection from customs duty and union excise duty. The government contained growth in expenditures which helped in reducing revenue as well as fiscal deficits.

Table 7: State of Union Finances during 2001-16 (% of GDP)

Description	2001-02	2005-06	2010-11	2015-16
Revenue Receipts	11.26	11.67	11.98	10.83
Tax Revenue (Net of States' Share in Central Taxes)	5.70	7.36	7.37	7.16
Corporate Income Tax (CIT) & Personal Income Tax	*2.01*	*3.05*	*3.94*	*3.49*
Central Excise Duty, Customs Duty and Service Tax	*3.61*	*4.05*	*3.30*	*3.57*
Non-Tax Revenue	5.56	4.31	4.61	3.67
Total Expenditure	17.27	16.16	17.04	15.52
Revenue Expenditure	15.94	14.64	15.24	13.41
Capital Expenditure	1.33	1.52	1.81	2.10
Revenue Deficit	4.68	2.97	3.26	2.59
Fiscal Deficit	6.61	4.47	4.92	4.37

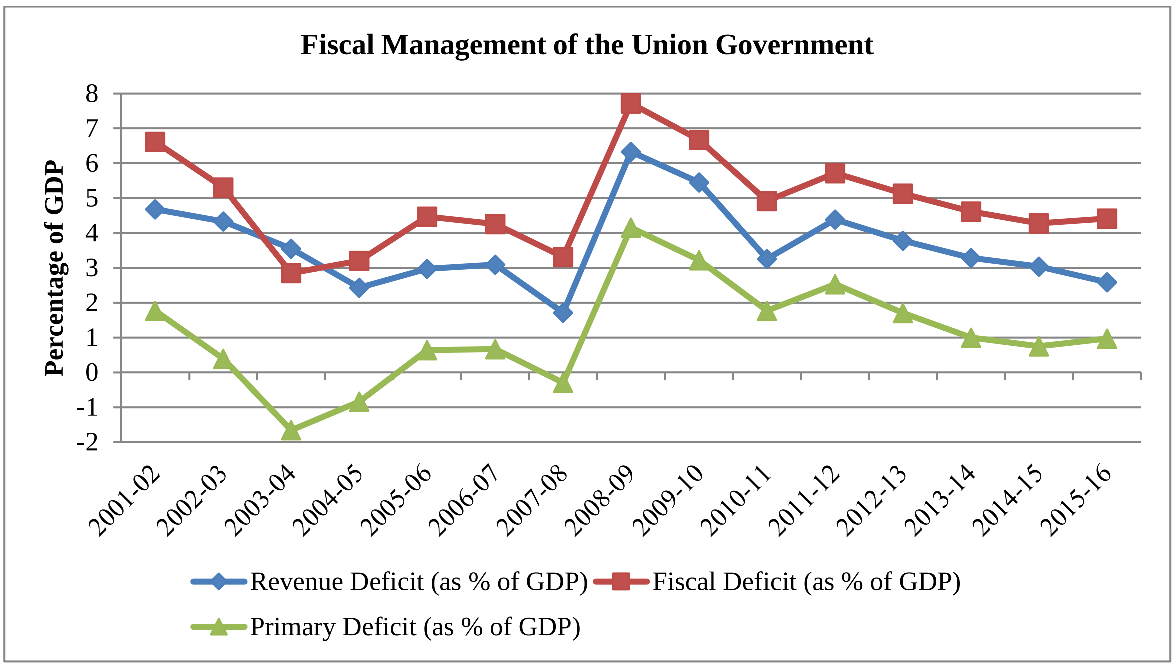
Source: Finance Accounts of the Union Government

Global financial crisis (2008-09) resulted in fiscal shock for the union government. During 2001-08, the union government was controlling deficits and mostly it was possible due to high annual growth rate of revenue receipts as compared to total expenditure (excluding loans and advances) (Figure 11 & 12). In 2008-09, the imbalance between growth rate of expenditure and revenue mobilization resulted in rise in deficits. The introduction of Sixth Pay Commission for Central Government employees and announcement of fiscal stimulus package to rein in economic recession due to global financial crisis resulted in rise in revenue expenditure and fall in tax mobilization respectively.[9] Containing expenditure and moderate rise in growth rate in revenue receipts helped union government to contain deficits in 2009-10. Substantial rise in nominal GDP growth rate in 2010-11 (20%), as compared to 2009-10 (15%), helped the union government to raise more revenue and expand fiscal space to accommodate moderate growth in expenditures. Falling growth rate in GDP in 2011-12 has left limited scope for revenue augmentation. In 2011-12, annual growth rate of revenue receipts was lower than growth rate in expenditures, which resulted in rise in deficits. Annual growth rate of revenue receipts was higher than that of expenditure during 2012-15 which helped the union government to reduce deficits. The analysis shows that union government adopted both back (expenditure reduction) and front (revenue augmentation) loading to manage the fiscal shocks over the years. During 2001-16 union government initiated several reforms in direct as well as indirect taxes (Acharya 2005, Rao and Rao 2005, Mukherjee and Rao 2019). In indirect taxes, the most important reforms were– in 2000-01, MODVAT has

[9] The stimulus package includes additional public spending (mainly in infrastructure) as well as tax cuts in Central indirect taxes. Across the board Central VAT rate is reduced by 4 percent (excluding petroleum products), service tax rate is reduced by 2 percent (from 12 to 10%) and guarantee cover for credit to micro and small enterprises was expanded (Jha 2017).

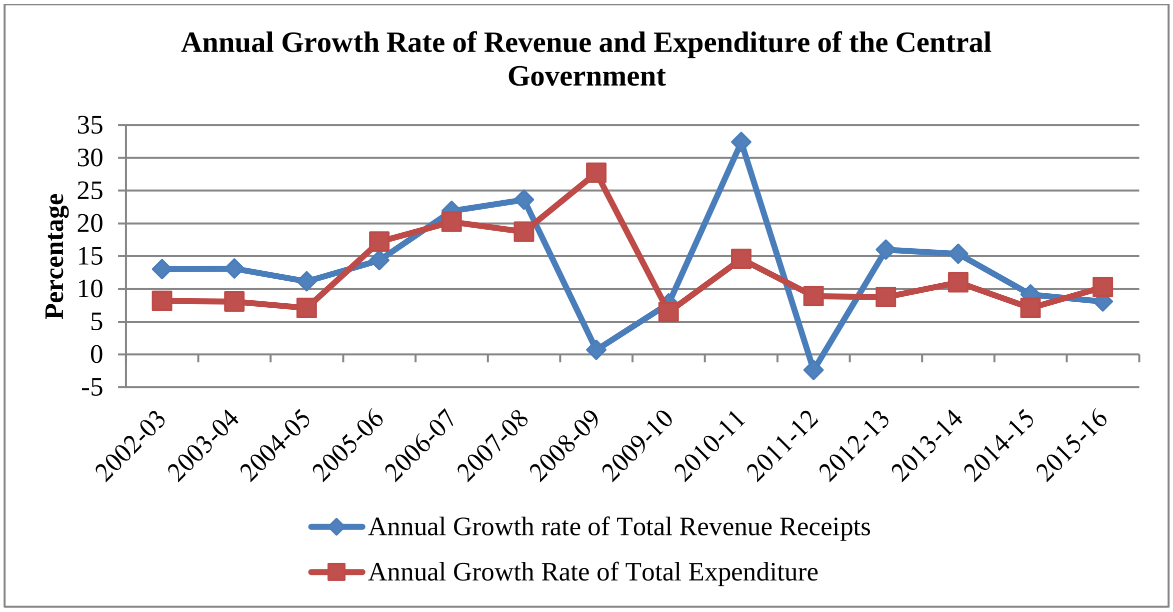
been renamed as CENVAT after consolidation of tax rates into a single CENVAT rate (standard rate) of 16 percent, reducing the list of items exempted under the CENVAT, introduction of input tax credit system for service tax (2002-04), cross-acceptance of input tax credit between CENVAT and service tax (2004-05), adoption of negative list based approach in service tax in 2012-13 (earlier it was selective list based taxation of services) (Mukherjee and Rao 2019). In direct taxes major reforms initiated during 2001-16 are introduction of transfer pricing legislation in 2001, implementations of recommendations of Kelkar Task Force (KTF) report on direct taxes (e.g., moderation in tax rates, introduction of computerization in tax administration and introduction of TDS, TCS and AIR systems during 2003-04) (Government of India, 2002), introduction of banking cash transaction tax in 2005, fringe benefit tax in 2005, introduction of sunset clauses in tax exemptions under CIT, introduction of security transaction tax in 2004, introduction of taxation of capital gains from indirect transfers of shares, implementation of some proposals of 2009 Direct Taxes Codes, and introduction of General Anti-Avoidance Rule (GAAR).

Figure 11: Fiscal Management of the Union Government



Source: Computed based on Union Government Finance Accounts

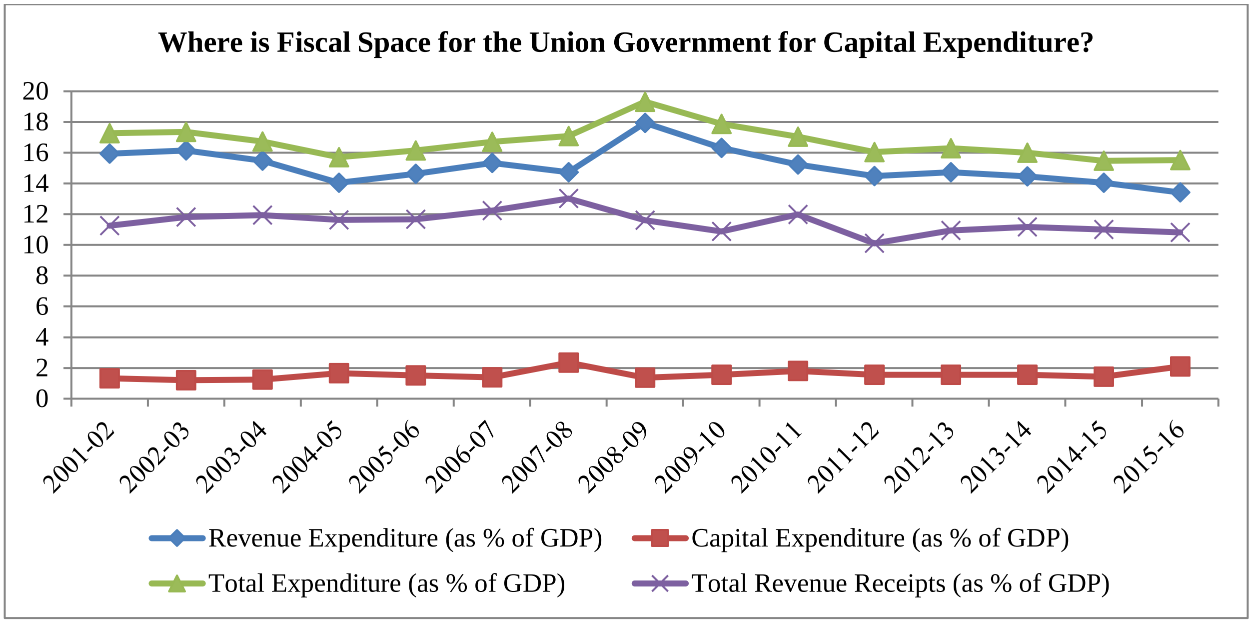
Figure 12: Annual Growth Rate of Revenue and Expenditure of the Central Government



Source: Computed based on Union Government Finance Accounts

Though the union government managed to contain revenue expenditure, inability to augment revenue mobilization resulted in continuation of revenue deficit. Union government is incurring a large part of revenue deficit as well as fiscal deficit on account of interest payment. On average interest payment constitutes 3.7 percent of GVA and 24.5 percent of total revenue expenditure during 2011-17 (Mukherjee 2019). If we exclude interest payment and grants-in-aid from total revenue expenditure of the union government, revenue deficit turns into revenue surplus (Mukherjee 2019). Continuation of fiscal deficit further adds to debt burden of the government. According to Schedule E of Finance Account, as on 31 March 2016, stock of accumulated public debt of the union government was 41.57 percent of GDP of which 96 percent was internal debt and the rest was external debt. There is limited fiscal space for expenditure on capital account (Figure 13). On average central government spends only 2 percent of GDP as capital expenditure.

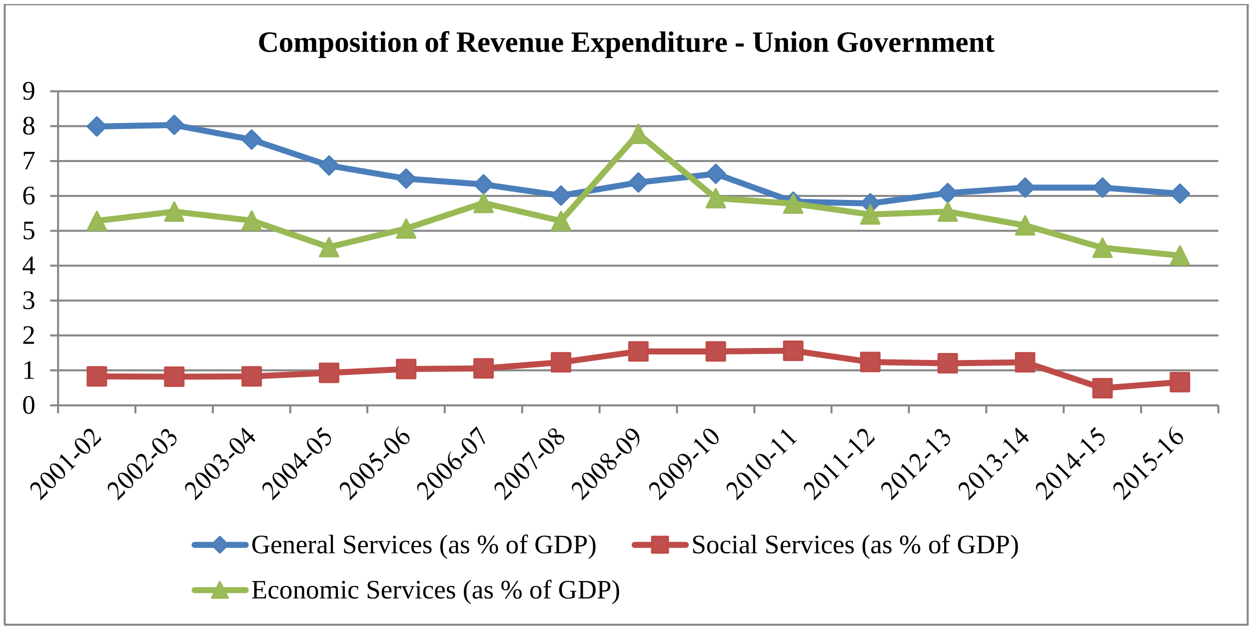
Figure 13: Where is Fiscal Space for Union Government for Capital Expenditure?



Source: Computed based on Union Government Finance Accounts

Analysis of composition of revenue expenditure shows that Union Government expenditure on general services was going down till 2010-11 and thereafter it remains constant at 6 percent of GDP (Figure 14). On average expenditure on general services constitute 44 percent of total revenue expenditure. Share of revenue expenditure on economic services was going up till 2008-09 and thereafter it started falling. Economic services constitute on average 36 percent of total revenue expenditure. Together general and economic services constitute four-fifth of total revenue expenditure. On average share of revenue expenditure on social services is only 1 percent of GDP. There is dramatic fall in social services expenditure during 2014-16. On average expenditure on social services constitute only 7 percent of revenue expenditure. Together these three services constitute 86 percent of revenue expenditure and the rest is grants-in-aid disbursement to states.

Figure 14: Composition of Revenue Expenditure – Union Government



Source: Computed based on Union Government Finance Accounts

6.1 Tax Revenue of the Union Government

Average gross tax revenue of the union government was 11.5 percent of GDP during 2001-16 and net tax revenue was 7.3 percent (Table 8). On average states receive 2.7 percent of GDP as share in central taxes and 2 percent of GDP as centre's grants-in-aid. On average non-tax revenue of the union government contributes 4.1 percent of GDP and it has fallen down from 5.5 percent of GDP in 2001-02 to 3.65 percent in 2015-16. Five central taxes discussed below contribute 98.5 percent of gross tax revenue of the centre. Of five taxes, two direct taxes - corporate income tax or CIT and personal income tax or PIT – contribute on average half of gross tax collection of the central government. Three indirect taxes – union excise duty, customs duty and service tax – contribute on average 4.9 percent of GDP or half of total gross tax collection. A rising trend in CIT collection (as % of GDP) till 2007-08 and thereafter a mild falling trend is observed during 2008-16 (Figure 15). Growth in CIT collection has slowed down post 2007-08 and it demands an in-depth analysis of causes behind such falling growth in CIT collection.

Table 8: Revenue Profile of Union Government (% of GDP)

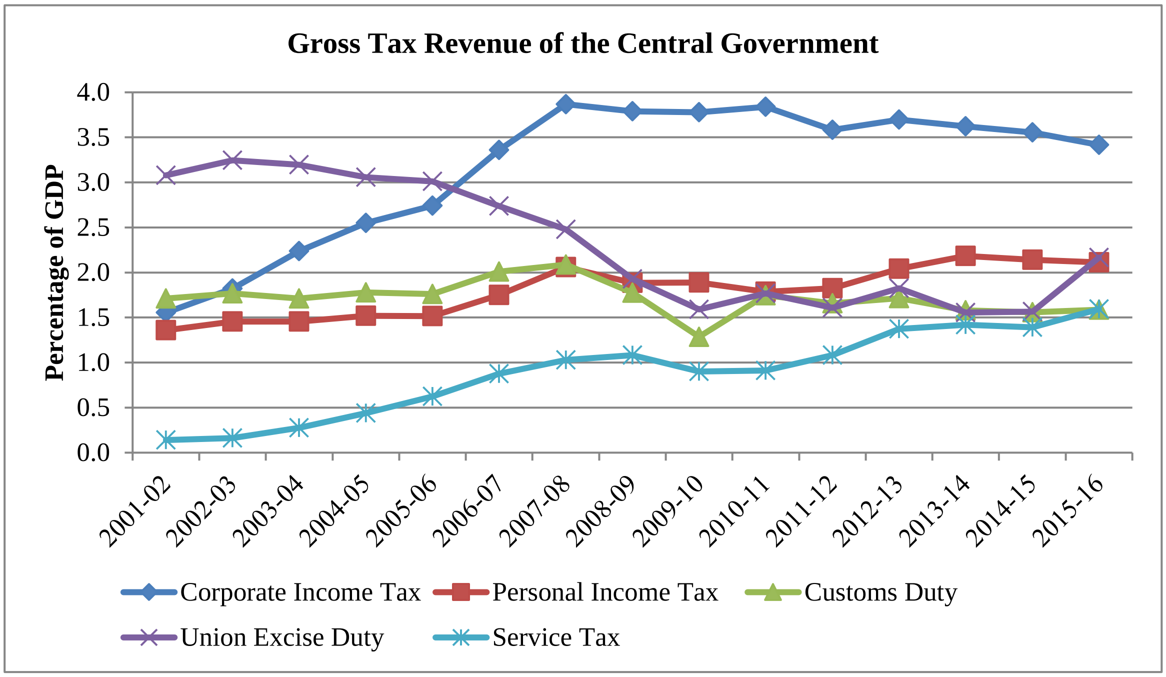
	2001-05	2005-10	2010-15	2015-16	2001-16
Total Revenue Receipts (Finance Accounts)	11.7	11.9	11.0	10.8	11.5
Net Tax Revenue	6.4	7.9	7.4	7.2	7.3
Non Tax Revenue	5.2	3.9	3.6	3.7	4.1
Grants-In-Aid Receipt	0.1	0.1	0.0	0.0	0.0
Corporate Income Tax	*1.5*	*2.6*	*2.6*	*2.2*	*2.3*
Personal Income Tax	*1.0*	*1.2*	*1.4*	*1.3*	*1.2*
Customs Duty	*1.2*	*1.3*	*1.2*	*1.0*	*1.2*
Union Excise Duty	*2.4*	*1.8*	*1.3*	*1.7*	*1.8*
Service Tax	*0.2*	*0.6*	*0.9*	*0.9*	*0.6*
States' share in Central Taxes	2.3	2.8	2.9	3.8	2.7
Grants-in-Aid to States	1.7	2.1	2.0	2.3	2.0

Source: Computed based on Union Government Finance Accounts

PIT collection shows stable trend till 2005-06, thereafter a mild rising trend is observed (Figure 15). Not changing the exemption threshold and other provisions of tax exemptions could be reasons for such improvement in PIT collection (Rao et al., 2015). Widening the tax base is a priority of the government and therefore government has adopted many steps to curb generation and propagation of black money (or unaccounted income). Strengthening third party information gathering and reporting framework and extending coverage of transactions under mandatory reporting of PAN may have increased the tax base (Rao et al., 2015).

Collection of central excise shows a falling trend till 2009-10 and thereafter a stable trend is observed till 2014-15. In 2015-16, a rise in central excise collection is observed. Rationalization of the rate structure of central excise, allowance of adjustment in service tax credit against CENVAT credit and vice-a-versa are the reasons for falling trend in central excise collection. Reductions of excise duty and service tax as a part of fiscal stimulus package announced by the union government to rein in financial crisis also resulted in falling central excise collection. Though an upward trend in service tax collection observed, reduction of service tax rate during financial crisis caused fall in service tax collection in 2009-10 and 2010-11. Mild upward trend in customs duty collection observed till 2007-08. In the wake of global financial crisis, customs duty collection falls in two consecutive years (2008-10). Though, a rise in customs duty collection observed in 2010-11, but it could not raise customs duty collection to reach the level prior to financial crisis. Since 2011-12 customs duty collection remains stable around 1.5 percent of GDP.

Figure 15: Gross Tax Revenue of the Central Government (% of GDP)



Source: Computed based on Union Government Finance Accounts

7. Fiscal Management of States

Majority of Indian states adopted FRBM Act during in 2005-06 to 2007-08. Enactment of FRBM Act demands states to contain annual fiscal deficit to 3 percent of GSDP and eliminate revenue deficit. All states reduced their revenue as well as fiscal deficits post-FRBM period (Table 9). Low income states like Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh and Odisha reduced their revenue deficit substantially. It demands an assessment whether states reduced their revenue deficits through front loading (mobilization of more revenue) and/or back loading (cutting back expenditures). Even in revenue mobilization it would be interesting to investigate whether states' explore their own revenue sources (own tax and non-tax revenue) and/or it is through central transfers (States' share in central taxes and centre's grants-in-aid). On average, except Kerala, Punjab, Rajasthan, Telangana and West Bengal, other states met the FRBM target for fiscal deficit.

Table 9: Impact of FRBM Act in Fiscal Management of Indian States during 2001-16*

States	Average Revenue Deficit (% of GSDP)			Average Fiscal Deficit (% of GSDP)		
	Pre FRBM	Post FRBM	% Change	Pre FRBM	Post FRBM	% Change
Andhra Pradesh	2.34	0.32	-86.3	5.93	2.94	-50.4
Bihar	0.59	-2.56	-536.9	4.19	2.44	-41.8
Chhattisgarh	0.82	-1.79	-318.7	3.46	1.29	-62.5
Goa	1.45	-0.36	-124.7	4.47	2.85	-36.2
Gujarat	3.15	0.06	-98.0	4.64	2.54	-45.3
Haryana	0.77	0.67	-13.2	2.70	2.19	-18.7
Jharkhand	0.12	-0.87	-814.9	3.88	2.69	-30.6
Karnataka	2.73	-0.48	-117.7	4.87	2.69	-44.7
Kerala	3.74	**2.41**	-35.4	4.60	**3.68**	-20.0
Madhya Pradesh	1.83	-1.98	-208.1	5.22	2.40	-54.1
Maharashtra	2.65	0.20	-92.4	4.35	2.03	-53.2
Odisha	2.83	-2.03	-171.7	5.05	0.54	-89.3
Punjab	4.65	**2.21**	-52.4	5.79	**3.33**	-42.5
Rajasthan	3.09	0.11	-96.4	5.74	**3.13**	-45.5
Tamil Nadu	2.27	0.05	-97.6	3.44	2.26	-34.3
Telangana		-0.07	--		**3.07**	--
Uttar Pradesh	2.73	-0.02	-100.9	4.68	**3.79**	-18.8
West Bengal	4.27	**2.43**	-43.0	5.37	**3.35**	-37.7
All General Category States	2.23	-0.09	-104.0	4.63	2.61	-43.7

Note: *-2015-16 numbers include UDAY disbursements
Source: Computed based on respective State's Finance Accounts data.

Table 10 shows that majority of the states reduced their revenue expenditures post FRBM Act enactment and low and lower middle income states like Bihar, Chhattisgarh, and Madhya Pradesh could manage to raise revenue expenditure marginally. Though average capital expenditure is lower than revenue expenditure, except Andhra Pradesh all states managed to increase their capital expenditure after enactment of the FRBM Act. This shows that cutting expenditure is not the option that all states adopted to rein in deficits post FRBM enactment. Table 10 shows that heterogeneity in policy choices prevails among Indian states and it must be encouraged. Both low and lower middle income states managed to increase revenue expenditures (as % of GSDP) post-FRBM whereas upper middle income and high income states have reduced their revenue expenditures post-FRBM (Table 10). Increase in capital expenditures (as % of GSDP) was much higher for LIS and LMIS as compared to UMIS and HIS (Table 10).

Table 10: Impact of FRBM Act in Expenditure Management of Indian States during 2001-16

States	Average Revenue Expenditure (% of GSDP)			Average Capital Expenditure** (% of GSDP)		
	Pre FRBM	Post FRBM	% Change	Pre FRBM	Post FRBM	% Change
Andhra Pradesh	21.98	14.88	-32.3	3.15	2.52	-20.1
Bihar	18.94	20.27	7.0	1.79	4.75	165.8
Chhattisgarh	15.27	15.87	4.0	2.21	2.99	35.4
Goa	19.35	15.05	-22.2	3.00	3.19	6.4
Gujarat	14.45	10.39	-28.1	1.55	2.47	59.6
Haryana	12.33	11.37	-7.8	1.04	1.70	63.2
Jharkhand	12.39	15.03	**21.4**	2.19	2.89	31.9
Karnataka	15.45	14.45	-6.5	1.75	3.00	71.4
Kerala	14.77	14.54	-1.6	0.70	0.95	36.3
Madhya Pradesh	16.19	16.78	3.6	2.78	3.45	24.3
Maharashtra	12.42	10.59	-14.7	1.46	1.69	15.7
Odisha	17.60	15.78	-10.4	1.60	2.56	60.4
Punjab	16.97	14.80	-12.7	0.87	1.08	23.8
Rajasthan	16.17	14.71	-9.0	2.32	2.55	10.2
Tamil Nadu	14.20	12.88	-9.3	1.03	1.99	94.4
Telangana		14.02	--		2.43	--
Uttar Pradesh	15.57	17.85	**14.7**	1.77	4.04	128.9
West Bengal	13.89	13.39	-3.6	0.75	0.89	17.5
All General Category States	**15.75**	**14.59**	**-7.4**	**1.81**	**2.52**	**39.2**
Low Income States (LIS)*	16.7	17.4	4.0	2.1	3.8	81.6
Lower Middle Income States (LMIS)*	14.4	15.4	7.3	1.6	2.5	58.9
Upper Middle Income States (UMIS)*	15.0	14.1	-5.7	1.6	2.0	24.9
High Income States (HIS)*	15.0	12.4	-17.1	1.7	2.1	21.4

Note: *-HIS implies High Income States (Per Capita GSDP or PCGSDP is higher than or equal to the third quartile); UMIS implies Upper Middle Income States (PCGSDP lies between the second and third quartiles); LMIS implies Lower Middle Income States (PCGSDP lies between first and second quartiles) and LIS implies Low Income State (PCGSDP lies below the first quartile). ; **-Excluding Loans and Advances
Source: Computed based on respective State's Finance Accounts data.

A deeper analysis shows that except Jharkhand, all states have reduced their revenue expenditure on general services (Table 11). Expenditure on general services mostly constitutes of establishment and administrative related expenses of the government. Post FRBM enactment, some low income states (Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha and Uttar Pradesh) and a few high and middle income states (Haryana, Tamil Nadu and West Bengal) managed to increase expenditure on social services. Expenditure on social services enables a state in creation of human capital (e.g., education, health) and expands the possibility of economic growth through economic development. Surprisingly majority of high and middle income states have reduced their expenditure on social services. Except a few high income (Goa, Gujarat and Tamil Nadu) and middle income (Karnataka, Kerala and West Bengal) states, all states increased their spending on economic services. Economic services facilitate current economic activities which help in generation of income and economic growth. Surprisingly being a low income state, Madhya Pradesh reduced expenditure on economic services. It is good sign that majority of states have reduced their expenditure on interest payment. Liability to pay interest on past borrowings reduces fiscal space for current expenditures.

Table 11: Impact of FRBM Act in Structuring Expenditure of Indian States during 2001-16

States	Average Revenue Expenditure on General Services (% of GSDP)			Average Revenue Expenditure on Social Services (% of GSDP)			Average Revenue Expenditure on Economic Services (% of GSDP)			Average Revenue Expenditure on Interest Payment (% of GSDP)		
	Pre FRBM	Post FRBM	% Change	Pre FRBM	Post FRBM	% Change	Pre FRBM	Post FRBM	% Change	Pre FRBM	Post FRBM	% Change
Andhra Pradesh	8.78	4.80	-45.3	7.37	5.91	-19.8	5.62	4.13	-26.6	4.80	1.92	-60.1
Bihar	10.12	7.55	-25.4	**6.35**	**8.42**	**32.5**	2.47	4.29	73.8	4.48	2.25	-49.7
Chhattisgarh	5.20	4.11	-21.1	**5.54**	**6.62**	**19.5**	4.03	4.61	14.4	2.35	1.08	-53.9
Goa	7.94	4.66	-41.4	5.62	5.45	-3.0	**5.78**	**4.94**	**-14.5**	2.99	2.12	-29.2
Gujarat	5.32	3.88	-27.2	4.67	4.05	-13.5	**4.39**	**2.43**	**-44.8**	3.21	2.07	-35.6
Haryana	5.21	3.62	-30.6	**3.68**	**4.07**	**10.5**	3.39	3.59	6.1	2.47	1.50	-39.2
Jharkhand	**5.42**	**5.75**	**6.1**	**4.50**	**5.67**	**25.8**	2.46	3.61	46.6	2.27	1.80	-21.0
Karnataka	5.16	4.47	-13.3	5.34	5.25	-1.6	**4.48**	**4.02**	**-10.2**	2.23	1.72	-22.9
Kerala	6.88	6.61	-3.9	5.10	4.88	-4.2	**2.72**	**2.16**	**-20.7**	3.04	2.43	-20.1
Madhya Pradesh	6.02	5.35	-11.1	**5.17**	**6.22**	**20.4**	**4.44**	**4.18**	**-5.9**	2.84	2.01	-29.5
Maharashtra	5.67	3.88	-31.5	4.53	4.43	-2.2	1.99	2.11	5.8	2.23	1.66	-25.6
Odisha	8.69	5.55	-36.2	**5.89**	**6.14**	**4.2**	2.74	3.83	40.0	4.89	1.88	-61.6
Punjab	10.25	8.03	-21.6	3.91	3.52	-9.8	2.57	3.04	18.4	4.08	2.96	-27.4
Rajasthan	7.21	5.21	-27.7	6.18	5.79	-6.2	2.78	3.69	32.6	4.08	2.42	-40.8
Tamil Nadu	5.66	4.64	-18.0	**4.71**	**4.86**	**3.1**	**3.15**	**2.42**	**-23.2**	2.30	1.66	-28.0
Telangana		4.13	--		**5.44**	**--**		4.42	--		1.42	--
Uttar Pradesh	7.65	7.44	-2.7	**4.72**	**6.19**	**31.2**	2.70	3.39	25.8	3.69	2.73	-26.0
West Bengal	6.98	5.71	-18.2	**4.68**	**5.53**	**18.0**	**2.10**	**2.07**	**-1.6**	4.13	2.84	-31.2
All GC States	**7.02**	**5.36**	**-23.6**	**5.22**	**5.41**	**3.6**	**3.33**	**3.44**	**3.5**	**3.42**	**2.04**	**-40.2**

Source: Computed based on respective State's Finance Accounts data.

Table 12 shows that relatively low income states (e.g., Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Uttar Pradesh) have increased their own tax revenue post-FRBM. Increase in OTR in low income states is higher than high income states (e.g., Goa, Gujarat, Maharashtra, Tamil Nadu). The underlying reason behind such improvement in OTR collection is that average GSDP growth rate was higher for low income states than high income states post FRBM adoption (Table A.1 in Appendix). Except Gujarat and Andhra Pradesh, all states received larger share of GSDP as central transfers during post FRBM period.

Table 12: Impact of FRBM Act on State Revenue

States	Average Own Tax Revenue (% of GSDP)			Average Central Transfers (% of GSDP)		
	Pre FRBM	Post FRBM	% Change	Pre FRBM	Post FRBM	% Change
Andhra Pradesh	10.53	7.77	-26.1	6.39	4.92	-22.9
Bihar	4.12	5.30	28.8	13.75	16.96	23.4
Chhattisgarh	6.37	7.37	15.6	5.54	7.72	39.2
Goa	7.05	7.32	3.9	2.02	2.81	39.0
Gujarat	6.47	6.76	4.4	2.40	2.37	-1.0
Haryana	7.53	6.91	-8.2	1.47	2.00	35.4
Jharkhand	4.19	4.92	17.4	5.99	8.72	45.7
Karnataka	8.18	9.60	17.3	3.63	4.10	12.9
Kerala	7.40	7.90	6.8	2.95	3.25	10.3
Madhya Pradesh	6.24	7.80	25.1	5.91	8.94	51.3
Maharashtra	7.06	7.14	1.0	1.38	2.19	59.0
Odisha	5.14	5.99	16.5	7.99	9.31	16.4
Punjab	6.49	7.23	11.4	1.52	2.51	65.0
Rajasthan	6.18	6.52	5.6	5.27	6.02	14.1
Tamil Nadu	8.23	8.54	3.8	2.67	3.29	23.0
Telangana		7.69	--		4.11	--
Uttar Pradesh	5.53	6.88	24.4	6.41	9.32	45.3
West Bengal	4.40	4.89	11.2	4.63	5.77	24.5
All General Category States	**6.13**	**7.15**	**16.5**	**5.14**	**5.69**	**10.7**

Source: Computed by the Author using respective State's Finance Account data.

Our analysis shows that states adopted both back and front loading to rein in deficits. In expenditure side, states reduced revenue expenditure and it is mainly in general services. On revenue augmentation, states increased their own tax revenue collection as well as received higher transfers from the Centre. Introduction of VAT helped many states to augment own tax revenue mobilization.

7.1 Impact of State VAT in State Finances

Except Goa, Maharashtra, Tamil Nadu, all other states increased their collection of taxes under VAT (Table 13). Gains from VAT for low income states (Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha and Uttar Pradesh) are much higher than medium and high income states. The reason for such result is that low income states achieved high growth rate in GSDP as compared to high and medium income states post-VAT period (Table A.2 in Appendix).

The changing tax effort is another reason for such a result (Mukherjee 2017). Except a few states (Andhra Pradesh, Odisha, Gujarat, and Rajasthan), all states recorded a fall in tax buoyancy (ratio of annual growth rate of VAT collection and annual growth rate of GSDP) post-VAT period. Reason for such a fall in tax buoyancy needs an in-depth assessment. The importance of VAT as a source of Own Tax Revenue has gone up. On average share of VAT in OTR has increased by 2 percentage points.

Table 13: VAT Collection and Buoyancy across States

States	Average VAT Collection* (as % of GSDP)			Average VAT Collection* (as % of OTR)			Average VAT Buoyancy		
	Pre-VAT	Post-VAT	% Change	Pre-VAT	Post-VAT	% Change	Pre-VAT	Post-VAT	% Change
Andhra Pradesh	7.05	5.29	-25.0	67.08	68.02	1.4	0.72	1.02	40.9
Bihar	2.67	3.46	29.7	65.37	66.57	1.8	3.66	1.28	-65.2
Chhattisgarh	3.73	4.46	19.5	56.33	60.73	7.8	1.98	1.05	-47.1
Goa	5.28	5.04	-4.6	76.63	69.26	-9.6	0.86	0.55	-36.5
Gujarat	4.18	4.82	15.4	64.87	70.51	8.7	0.96	0.98	1.7
Haryana	4.61	4.68	1.5	61.96	66.78	7.8	1.97	1.03	-47.6
Jharkhand	3.25	3.90	20.2	79.59	79.72	0.2	3.03	1.54	-49.2
Karnataka	5.09	5.61	10.1	58.59	57.18	-2.4	1.58	1.03	-34.6
Kerala	5.58	5.89	5.6	74.24	73.91	-0.4	1.23	1.16	-5.8
Madhya Pradesh	3.54	4.40	24.3	54.87	56.19	2.4	--	1.10	--
Maharashtra	4.26	4.15	-2.6	59.66	58.32	-2.3	1.28	0.93	-27.7
Odisha	3.21	4.10	27.5	62.55	68.49	9.5	1.45	1.50	3.4
Punjab	3.68	4.22	14.8	54.55	58.05	6.4	2.42	1.12	-53.8
Rajasthan	3.63	4.04	11.1	57.28	62.30	8.8	0.41	1.05	156.7
Tamil Nadu	6.02	5.75	-4.4	70.35	67.98	-3.4	1.59	0.91	-42.3
Telangana		5.78	--		75.15	--		3.11	--
Uttar Pradesh	3.47	4.31	24.3	57.70	60.21	4.4	1.52	1.16	-23.7
West Bengal	2.56	2.89	12.8	57.60	62.04	7.7	1.47	1.04	-28.8
All General Category States	**4.18**	**4.55**	**8.8**	**63.40**	**65.22**	**2.9**	**5.98**	**1.09**	**-81.7**

Note: *-For pre-VAT period we have taken, sales tax, CST and entry tax collection and post-VAT period we have taken Sales tax (for out of VAT items), VAT, CST and entry tax collection as comparable set of taxes.

Source: Computed based on respective State's Finance Account data.

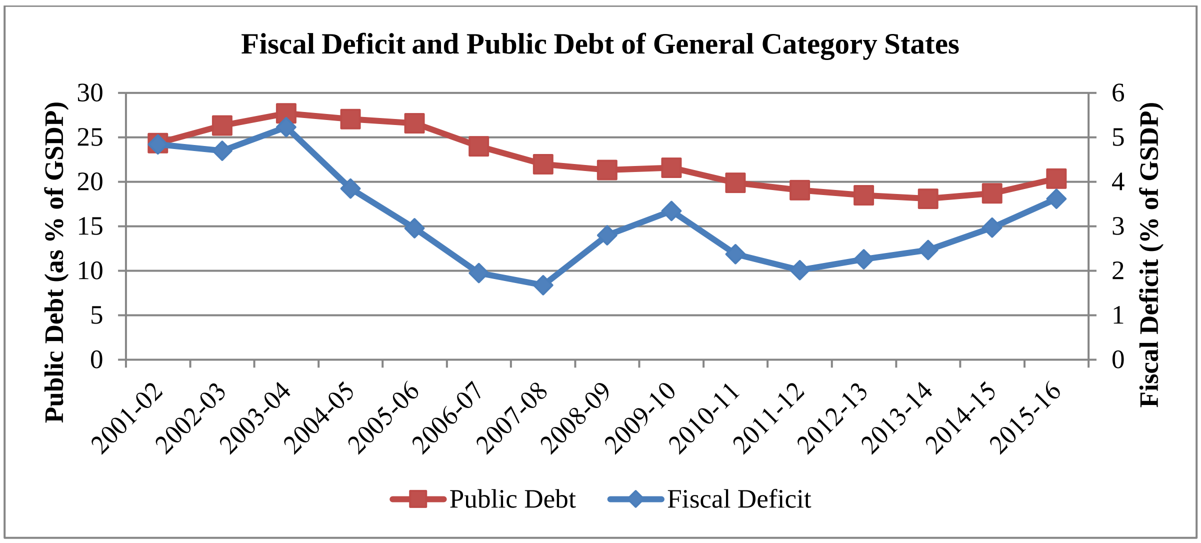
8. Public Debt

8.1 Public Debt of State Governments

Public debt position of states improved gradually and aggregate public debt of general category states has been contained to a little higher than 20 percent of aggregate GSDP in

2015-16 (Table 14, Figure 16).[10] A change in the structure of public debt is also observed during 2001-16. Over the years, share of market loans in total public debt has increased whereas 'Loans and Advances from Central Government' has declined.[11] Market loans emerged as predominant source of financing public debt. Share of Other Loans - comprising Ways and Means Advances (WMA) from the RBI, Bonds, Loans from Financial Institutions, Special Securities issued to National Small Savings Fund (NSSF) and other loans - has also declined since 2008-09. The FRBM Review Committee sets the target for states to bring down debt-GDP ratio to 20 per cent by 2022-23 (FRBM Review Committee 2017). In 2015-16, out of 18 general category states ten states had a debt-GSDP ratio higher than 20 per cent, despite a declining trend in overall debt-GDP ratio.

Figure 16: Fiscal Deficit and Public Debt of General Category States



Source: Computed Based on State Finance Accounts

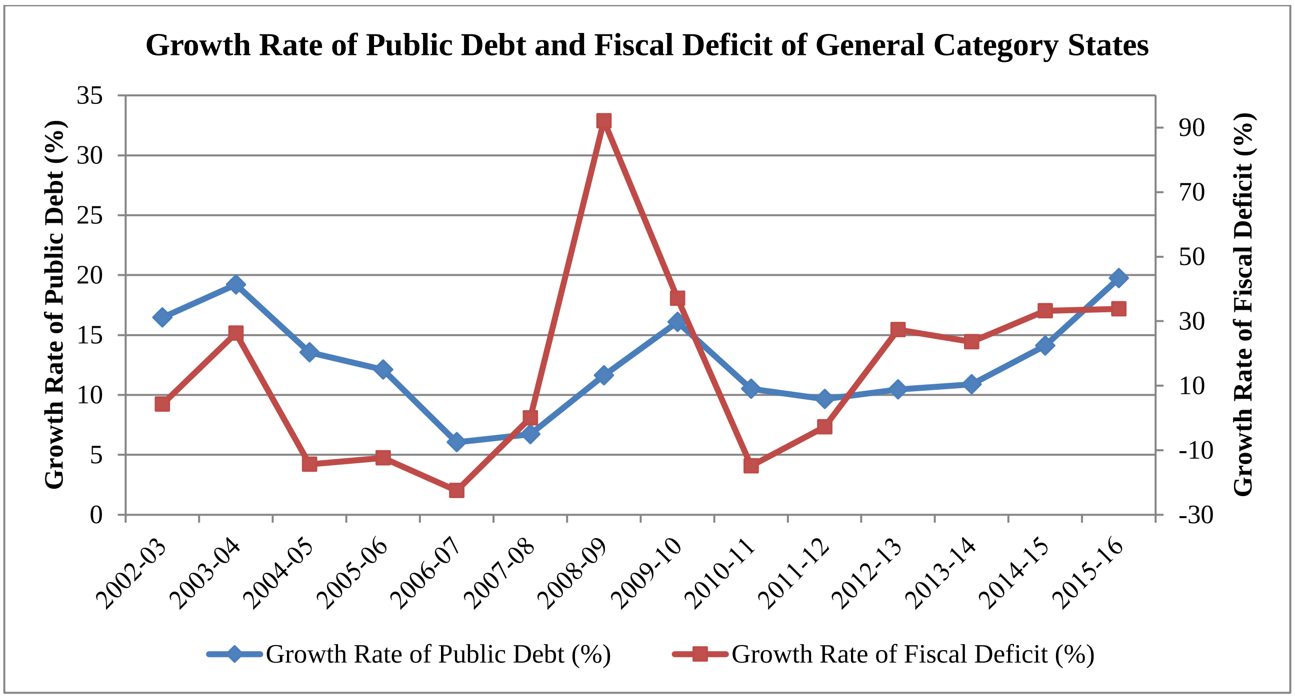
Annual growth in public debt has declined during 2003-04 to 2006-07; thereafter it has increased till 2009-10 (Figure 17). During 2010-12, growth rate falls consecutively for two years and thereafter it is increasing. Trends in annual growth rate of public debt and fiscal deficit match till 2007-08, thereafter one year time lag exists between the growth trends. In 2008-09, sudden jump in growth rate of fiscal deficit is observed and thereafter a falling trend is observed till 2010-11. Rising growth rate in fiscal deficit is observed from 2011-12 (Figure 17). In internal debt, growth rate in market loans shows sudden jump in 2008-09 and 2009-10 (Table 14). Similar jump in growth rate is also observed in 2003-04. Post global financial crisis, union government increased market borrowing limit of states to create additional

[10] This excludes Other Liabilities (Public Account) of State governments. Other Liabilities (Public Account) include Small Savings, Provident Fund (NSSF) etc., Reserve Funds (bearing and not bearing interest), and Deposits (bearing and not bearing interest).

[11] The reasons behind falling share of 'Centre's Lending to States' are that a) States swapped their high-cost outstanding debt to the Centre with low-cost market borrowings during 2002-05 and b) progressive reduction of Centre's intermediation in states' borrowing following the recommendation of 12th Finance Commission.

fiscal space as a part of fiscal stimulus measure (RBI 2018). This resulted in sudden jump in market loans for majority of Indian states. Twin fiscal shocks not only resulted in immediate fiscal stress to states but also left a long run impact in terms of burden of interest payment on market borrowings and redemption pressure on the maturity of the bonds. According to RBI (2018) “states normally issue plain vanilla bonds with the maturity of 10 years, the redemption pressures increased from 2017-18, implying that the borrowings of states are expected to soar.” (Page No. 17, RBI 2018). Interest payment along with repayment obligation squeeze fiscal space of the states which otherwise would have been spent on public goods and services.

Figure 17: Growth Rate of Public Debt and Fiscal Deficit for General Category States



Source: Computed Based on State Finance Accounts

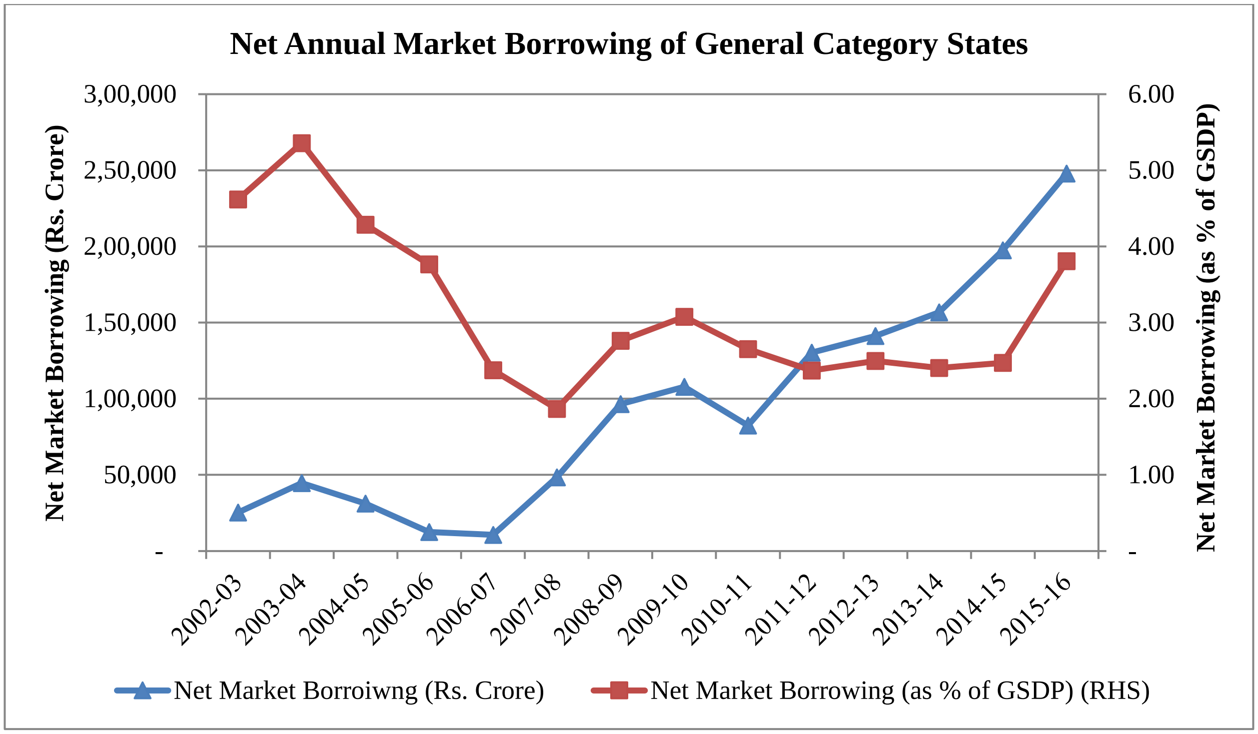
Table 14: Outstanding Public Debt of General Category States in India

	As Percentage of Aggregate GSDP (%)									Annual Growth (%)				
Year	Public Debt	Internal Debt of State Government		Market Loans		Others Loans		Loans & Advances from Central Government		Public Debt	Internal Debt of State Government	Market Loans	Others Loans	Loans & Advances from Central Government
	1 (2+5)	2 (3+4)		3		4		5		1 (2+5)	2 (3+4)	3	4	5
2001-02	24.36	11.16	(45.8)	5.36	(22.0)	5.80	(23.8)	13.20	(54.2)					
2002-03	26.35	14.03	(53.3)	6.30	(23.9)	7.73	(29.3)	12.32	(46.7)	16.45	35.39	26.56	43.56	0.44
2003-04	27.70	18.67	(67.4)	7.61	(27.5)	11.07	(40.0)	9.02	(32.6)	19.21	50.93	36.90	62.37	-16.92
2004-05	27.04	20.19	(74.7)	7.77	(28.7)	12.41	(45.9)	6.85	(25.3)	13.56	25.75	18.86	30.49	-11.65
2005-06	26.58	21.43	(80.6)	7.25	(27.3)	14.18	(53.3)	5.15	(19.4)	12.10	21.08	6.42	30.26	-14.34
2006-07	24.01	19.89	(82.8)	6.49	(27.0)	13.39	(55.8)	4.13	(17.2)	6.05	8.93	5.10	10.88	-5.92
2007-08	21.98	18.47	(84.1)	6.80	(30.9)	11.67	(53.1)	3.50	(15.9)	6.72	8.31	22.03	1.65	-0.94
2008-09	21.34	18.30	(85.7)	8.04	(37.7)	10.26	(48.1)	3.04	(14.3)	11.63	13.88	**35.99**	1.00	-0.24
2009-10	21.59	19.00	(88.0)	9.08	(42.1)	9.93	(46.0)	2.58	(12.0)	16.10	19.20	**29.58**	11.05	-2.54
2010-11	19.88	17.71	(89.1)	8.88	(44.7)	8.82	(44.4)	2.17	(10.9)	10.52	11.81	17.43	6.67	1.04
2011-12	19.05	17.14	(90.0)	9.59	(50.3)	7.56	(39.7)	1.91	(10.0)	9.66	10.80	23.47	-1.95	0.38
2012-13	18.50	16.80	(90.8)	10.17	(54.9)	6.64	(35.9)	1.70	(9.2)	10.45	11.45	20.61	-0.16	1.46
2013-14	18.11	16.60	(91.6)	10.68	(59.0)	5.92	(32.7)	1.51	(8.4)	10.88	11.91	18.98	1.08	0.70
2014-15	18.71	17.33	(92.6)	11.61	(62.0)	5.72	(30.6)	1.38	(7.4)	14.11	15.30	20.09	6.66	1.05
2015-16	20.36	19.09	(93.8)	12.77	(62.7)	6.33	(31.1)	1.27	(6.2)	19.73	21.23	21.00	21.70	0.95

Note: Figures in the parenthesis show the percentage share in total public debt.
Source: Computed Based on State Finance Accounts

General category states borrowed Rs. 2.48 lakh crore from market in 2015-16 which is 3.8 percent of aggregate GSDP of general category states (Figure 18). During 2008-10 market borrowing as percentage of GSDP also went up. A steep jump in market borrowing observed in 2015-16 and it is attributed to issuing of bonds as first tranche of borrowing under UDAY scheme (discussed in details in section 10).

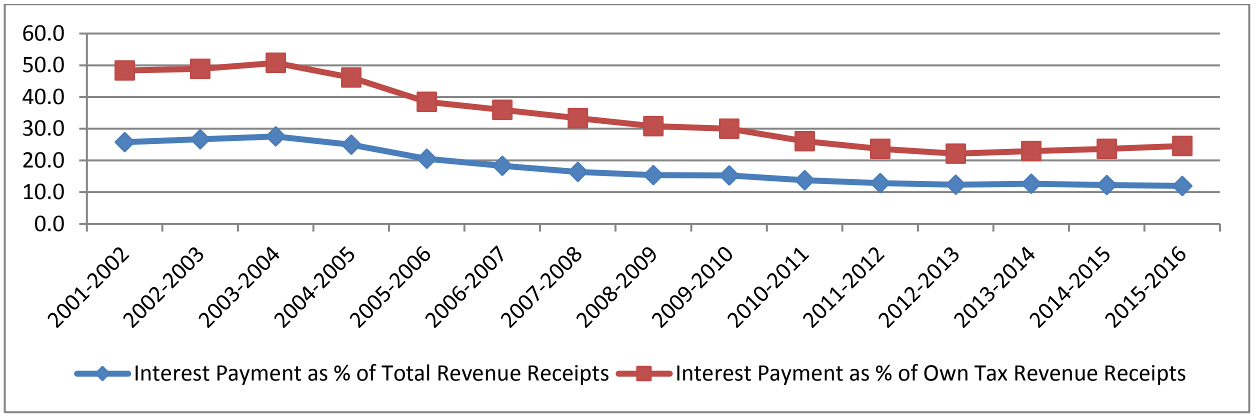
Figure 18: Net Annual Market Borrowing of General Category States



Source: Computed Based on State Finance Accounts

As compared to 2000s, interest payment obligation has come down substantially during 2010s (Figure 19). However, for a few states still interest payment obligations erodes considerable fiscal space and most important among them is West Bengal (54.4% of OTR, 21.1% of TRR in 2015-16), Punjab (36.6% of OTR, 23.6% of TRR in 2015-16), and Kerala (28.5% of OTR, 16.1% of TRR in 2015-16). Based on the recommendation of progressive reduction of Centre's intermediation in States' borrowing, the Twelfth Finance Commission (FC-XII) assumed that- a) additional central lending to states will come down to half of 2004-05 (BE) levels in 20005-06 and will be phased out by 2009-10 and b) the interest rates charged will be aligned to the marginal cost of borrowing by the Centre. Therefore, falling interest payment of States is largely result of recommendation of FC-XII for modification of the policy of central lending to states. Following the recommendation of FC-XII, States swapped their high-cost outstanding debt to the Centre with low-cost market borrowings during 2002-05 which also partly resulted in lower interest payments by the states.

Figure 19: Interest Payment Obligations of General Category States



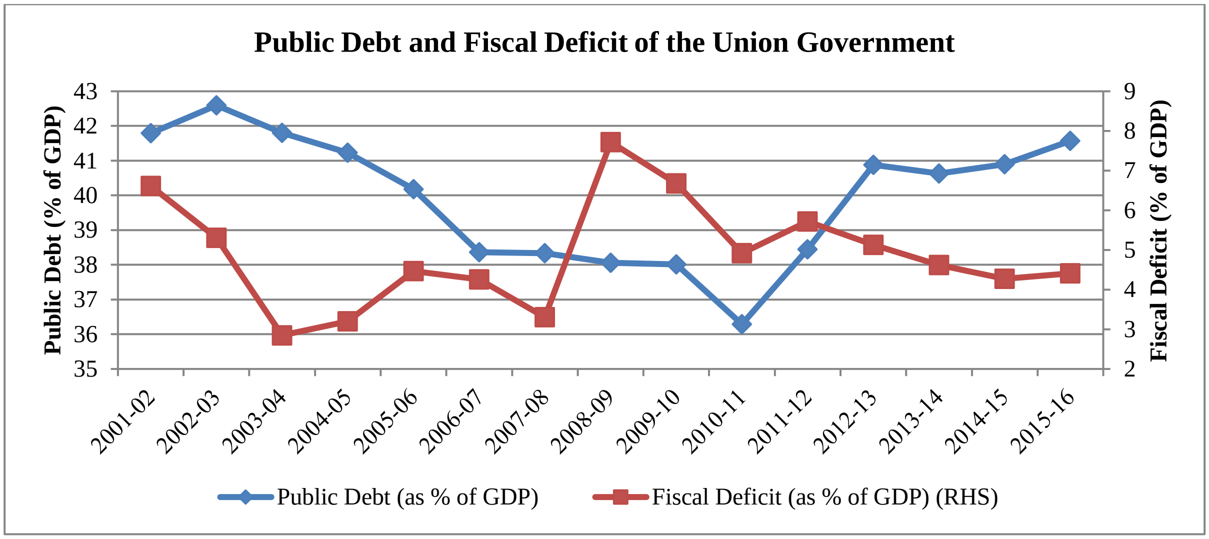
Source: Computed Based on State Finance Accounts

8.2 Public Debt of the Union Government

The FRBM Review Committee also recommended containing union government debt-GDP ratio to 40 percent by 2022-23. A falling trend in union government's debt-GDP ratio (according to Schedule E of Finance Account) is observed during 2002-11.[12] Sharp rise in the debt-GDP ratio observed in two consecutive years during 2011-13 and thereafter it is hovering around 40 percent of GDP (Figure 20). Except during 2008-09 to 2011-12, public debt and fiscal deficit trends do not match. There exists divergence between trends in public debt and fiscal deficit and the differences between trends is not attributed to exclusion of other liabilities of the Centre from our analysis. Similarly, except during 2009-10 to 2012-13, trends in annual growth rate of public debt and fiscal deficit do match (Figure 21). Meeting FRBM Review Committee target may not create additional fiscal stress for the union government, provided the union government sticks to fiscal consolidation path. On average 95 percent of the public debt of the union government is internal debt and the rest is external debt. The share of external debt in total public debt is continuously falling since 2005-06. Debt sustainability is an area which needs to be explored to benchmark efficiency in India's public debt management (Government of India 2018).

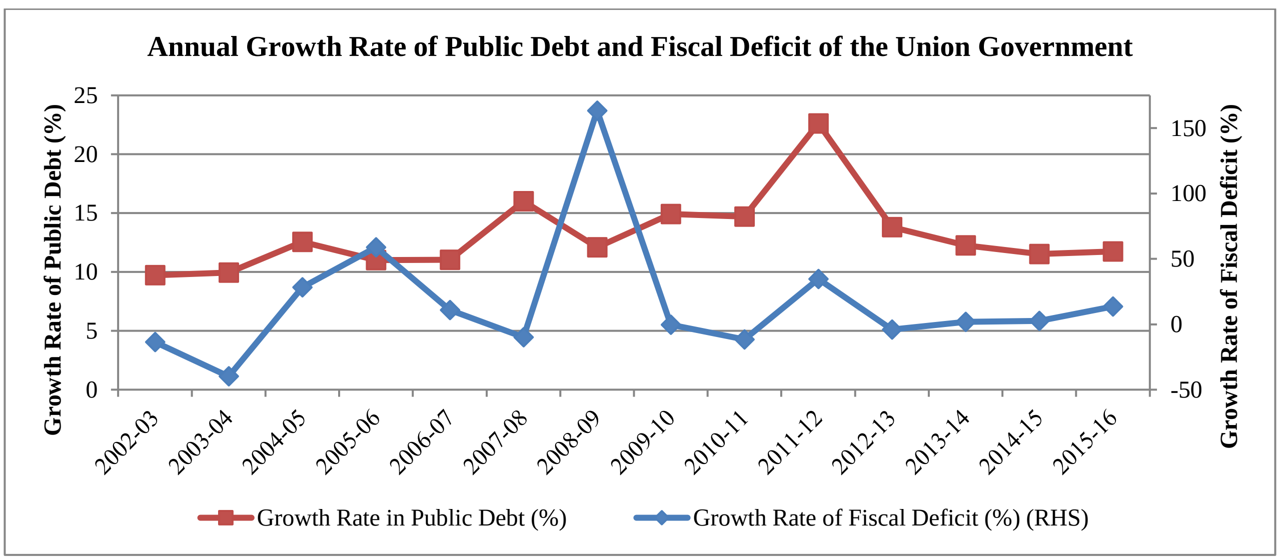
[12] This excludes Other Liabilities which comprise of National Small Savings Funds, State Provident Funds, Other accounts such as Special Deposits of Non-Government Provident Funds and Reserve funds and Deposits (please refer Table 3.3 of the Fourteenth Finance Commission Report, Government of India 2014)

Figure 20: Public Debt and Fiscal Deficit of the Union Government



Source: Computed Based on State Finance Accounts

Figure 21: Annual Growth Rate of Public Debt and Fiscal Deficit of the Union Government



Source: Computed Based on State Finance Accounts

9. Emerging Challenges of Indian Public Finance

In this section we discuss three emerging challenges of Indian public finance and fiscal management. The fiscal impacts of the policy decisions may have inter-temporal impacts in Indian public finance.

9.1 *Impact of UDAY in State Finances*

To improve the financial health and operational efficiency of the country's debt-ridden power distribution companies, Union government introduced Ujwal DISCOM Assurance Yojana (UDAY) scheme in November 2015 to provide debt relief to public Power Distribution Companies (DISCOM). Participating state government under the scheme required to sign a tripartite Memorandum of Understanding (MoU) amongst Ministry of Power, Government of India and state's public Power Distribution Companies (DISCOM). The basic objective of the scheme is to clean up the balance sheet of the DISCOM by taking over 75 percent of the outstanding debt (as on 30 September 2015) by the State Government and free the credit blocked by creditors (mostly Public Sector Banks). There was also objective to improve operational efficiencies of the DISCOM. The union government allowed participating states to raise the finance required to bail out DISCOM debt by issuing non-SLR bonds with interest rate 0.1 percent above the bank's base rate. Taking over of debt of public DISCOM will be done by the states in two tranches – 50 percent in 2015-16 and 25 percent in 2016-17.

The immediate impact of UDAY on states finances would be rise in revenue and fiscal deficits. However, the impact will differ across states depending on the mode of transfer of finance from state government to DISCOM. For example if the finance is transferred to DISCOM as grants/ subsidy, the impact will be on revenue as well as fiscal deficits. If the finance is transferred as loans/ investment to DISCOM, there will be no impact on revenue deficit but on fiscal deficit. Apart from immediate impact on the state finances, there will be inter-temporal impact in terms of interest payment and repayment obligation of state governments for the bonds issued to finance DISCOM debt. The FRBM review committee suggested containing aggregate public debt of state governments to 20 percent of GDP by 2025. Taking over 75 percent of debt of DISCOM by State government will worsen public debt position of UDAY states. The aggregate public debt of state governments was 22.83 percent of GDP in 2015-16 (including special category states). The impact of UDAY on public debt varies across states – e.g., it is 4.74 percent of GSDP for Haryana in 2016-17 (without UDAY Public Debt is 18.02% and with UDAY Public debt is 22.76%) and 1.15 percent for Madhya Pradesh (without UDAY public debt is 23.18% and with UDAY public debt is 24.33%).

To assess impact of UDAY on state finances, we present revenue and fiscal deficits of a few states in Table 15. It shows that the impact will vary across states depending on outstanding debt of the DISCOM and mode of relief given to DISCOM. Though stretching of deficits due to participation in UDAY scheme will not be a factor in meeting FRBM targets, the burden of interest payment on borrowed capital could be a factor and in the long run and it will reduce availability of public resources in the state. States having relatively higher deficits will face larger pressure on their public finance. The question is how the expansion of deficits to UDAY will be treated by credit rating agencies.

Table 15: Revenue and Fiscal Deficits of a few UDAY States

State		Revenue Deficit (Rs. Crore)		Revenue Deficit (% of GSDP)		Fiscal Deficit (Rs. Crore)		Fiscal Deficit (% of GSDP)		GSDP
		Without UDAY	With UDAY	Without UDAY	With UDAY	Without UDAY	With UDAY	Without UDAY	With UDAY	(Rs. Crore)
Haryana	2015-16	7786.65	11679.15	1.58	2.37	14179.51	31479.51	2.88	6.39	492,344
	2016-17	12014.11	15906.61	2.19	2.91	17635.12	26285.12	3.22	4.80	547,396
Punjab	2015-16	8550.11		2.18		17,359.41	22,956.48	4.43	5.86	391,543
	2016-17	7310.63		1.71		47071.17	52839.71	11.02	12.37	427,297
Madhya Pradesh	2015-16	5739.9		1.02		14,064.70		2.49		565,053
	2016-17	-7780.42	-3769.42	-1.21	-0.59	20303.57	27871.57	3.17	4.35	640,484
Chhattisgarh	2015-16	-2366.65	-1496.53	-0.94	-0.60	4573.71	5443.83	1.82	2.16	251,447
	2016-17	-5520.65		-1.90		4047.27		1.39		290,140
Bihar	2015-16	-12507.16	-10,952.64	-2.57		12,061.58	13,616.10	2.48	2.79	487,316
	2016-17	-13313.43	-12536.17	-3.04		13985.53	14762.79	3.19	3.37	438,030
Rajasthan	2015-16	5954.12				22,988.07		3.41		674,137
	2016-17	9114.14	18114.14	1.22	2.42	23915.17	46287.2	3.19	6.18	749,692
Tamil Nadu	2015-16	11,985.35				32627.56		2.69		1212668
	2016-17	12,964.13		1.00		33,356.37	56,171.37	2.57	4.33	1298511
Maharashtra	2015-16	5338.3684		0.27		28364.1518		1.44		1969184
	2016-17	8,535.59		0.38		33,657.00	38,616.75	1.48	1.70	2267789

Source: Computed Based on State Finance Accounts

9.2 Impact of GST on State Finances

A comprehensive multistage Value Added Tax (VAT) system, viz., Goods and Services Tax (GST), is introduced in India since 1 July 2017. GST encompasses various taxes from Union and State indirect tax bases and it is a dual VAT system with concurrent taxation power to Union and State governments. It was envisaged that removal cascading of taxes and enshrining destination based consumption tax system under GST will encourage investment and improve ease-of-doing business in India. Though it is not right time to comment on success or failure of Indian GST system unless the tax system stabilizes, so far revenue mobilization from GST is not encouraging. The shortfall in GST collection has been acknowledged in the 'Medium Term Fiscal Policy cum Fiscal Policy Strategy Statement' of the Union Budget 2019-20. The genesis of the revenue shortfall from GST may be design and structural in nature and/or compliance and tax administration related. However, the uncertainty surrounding GST revenue collection is an issue which needs an in-depth assessment for fiscal management of the union and state governments. The impact of revenue uncertainty will not be restricted to union finances alone; it will spill over to state finances through tax devolution. Therefore, depending on seriousness of the uncertainties associated with GST revenue collection, devising an inter-governmental fiscal transfer framework may be a challenging task for the Fifteenth Finance Commission (FFC) (Mukherjee 2019).

Union government assured compensation to states for revenue loss on account of GST during first five years of GST implementation (1 July 2017 to 30 June 2022). The revenue loss of a particular state will be estimated based on the difference between projected revenue of a year and actual GST collection. The revenue projection will be based on 14 percent annual growth rate of net revenue (net of refunds) collected by the state from taxes subsumed under GST (excluding out-of-GST items) in the base year 2015-16. During GST compensation period States' revenue on account of State GST (SGST) will be protected. Therefore, still June 2022 of the FFC's award period (2020-21 to 2024-25) there will be no impact from GST on State finances on account of own tax revenue mobilization. However, if the GST revenue shortfall continues, eventually central transfers to States may fall which may impact State finances.

With limited information available in the public domain about the details of revenue collections across states, it is difficult to infer about the likely impact on state finances. In the short run however, the assurance of the union government of revenue protection has ensured that states are protected from fluctuations in revenue collection from GST. Further it also allows for the GST council to experiment with policy changes without immediate concerns of state revenues. The assured rate of growth of revenue is rather generous given the fact that inflation in India is now mandated to remain at an average of 4 percent as per the mandate assigned to the Reserve Bank of India. A low rate of inflation and growth in GDP of 7 percent would imply a growth in nominal GDP of only about 11-12 percent. With 14 percent assurance, the states in effect get a tax buoyancy of at least 1.17 (Rao, 2019). Therefore impact of GST will differ across States. State finances will improve for states where pre-GST growth rate in revenue was lower than 14 percent.

9.3 Fourteenth Finance Commission Award and Consolidation of Centrally Sponsored Schemes

Aftermath of Fourteenth Finance Commission (FC-XIV) award and restructuring of Centrally Sponsored Schemes (CSS), a larger responsibility has been bestowed on the States to chart out their development path depending on structure and composition of the economy.[13] In view of higher share in tax devolution to States (from 32 percent to 42 percent of divisible pool of taxes as per the award of 14th Finance Commission) and recommendations of the sub-group of Chief Ministers on rationalization of CSS (Niti Aayog, 2015),[14] the Government of India has consolidated the numbers of CSS into three categories – a) Core of the Core Schemes (6 schemes), b) Core Schemes (19 schemes) and c) Optional Schemes (3 schemes), and also changed cost-sharing patterns. From 2015-16 onwards, only Core of the Core Schemes are solely financed by the Central Government. For the Core Schemes, the cost sharing pattern between States and Union would be in the ratio of 90:10 in case of North Eastern and Himalayan states, and 60:40 for all other states.[15] Earlier the cost-sharing pattern between union and state government was 75:25 for schemes categorized as Core Schemes. For Optional Schemes, the sharing pattern would be 80:20 for North Eastern and Himalayan states and 50:50 for other states. From 2015-16, central assistance to State plan schemes, Backward Region Grant Fund (BRGF) and Panchyati Sashaktikarn Scheme are discontinued. Therefore it would be a challenging exercise to assess the impact of policy changes on state finances post 2015-16.

Amarnath and Singh (2019) studied the impacts of increasing tax devolution, restructuring and changes in the cost sharing pattern of CSS,[16] withdrawal of central

[13] "The recommendation [of the FC-XIV] subsumes the normal Central assistance given by the Planning Commission (the Gadgil formula for grants), other Central assistance for Plan, Special Plan assistance, special Central assistance and grants for items like the backward region grant fund (state and district components) given by the Planning Commission. In addition, the 14th Finance Commission has confined itself to recommending grants for revenue deficit, disaster relief and local bodies and desisted from giving environmental, sectoral and specific-purpose grants." (Rao 2015)

[14] Core of the Core Schemes comprise of: 1) Mahatma Gandhi National Rural Employment Guarantee Scheme, 2) National Social Assistance Programme, 3) Umbrella Programme for Development of Scheduled Castes, Umbrella Scheme for Development of 4) Scheduled Tribes, 5) Backward Classes and other vulnerable groups and 6) Minorities. Core Schemes comprise of 1) Green Revolution, 2) White Revolution, 3) Blue Revolution, 4) Pradhan Mantri Krishi Sinchai Yojna, 5) Pradhan Mantri Gram Sadak Yojna, 6) National Rural Drinking Water Programme, 7) Swachh Bharat Abhiyan, 8) National Health Mission, 9) Rashtriya Swastha Suraksha Yojna, 10) National Education Mission (NEM), 11) National Programme of Mid-day Meals in Schools, 12) Integrated Child Development Scheme, 13) Pradhan Mantri Awas Yojna, 14) National Livelihood Mission, 15) Forestry and Wildlife, 16) Urban Rejuvenation Mission, 17) Modernisation of Police Forces,18) Infrastructure Facilities for Judiciary, and 19) Member of Parliament Local Area Development Scheme (GoI, 2016).

[15] In case a scheme/sub-scheme has a central funding pattern of less than 60:40, the existing funding pattern will continue.

[16] Due to changes in cost sharing pattern of CSS, general category states need to shell out 40 percent instead of 25percent of expenses to implement any scheme falling under the Core Scheme. States need to keep provision for an additional 15 percent of the cost of CSS under the Core Scheme in their budget to implement the CSS. The new cost sharing pattern limits fiscal space of states to prioritize expenses according their needs.

assistance to state plan schemes, discontinuation of BRGF and Panchyati Sashaktikarn Scheme on state finances. They conclude that the gain from increasing tax devolution was 0.71 percent of GSDP for general category states in 2015-16 whereas additional burden in terms of additional share in CSS and withdrawal of few CSS was 0.69 percent of GSDP. In 2016-17, the difference between the gain and additional burden further narrows down. From the analysis, they conclude that "Higher transfers through devolution and more autonomy to States is an illusion and is offset by the fact that States contribution towards CSS expenditures increased from 25% to 40% and States had to continue committed expenditures under CSS which have been withdrawn."

In another study Chakraborty (2019) shows that union government's revenue expenditure on subjects falling under the State List has increased from 13.4 percent in 2002-03 to 16.2 percent in 2015-16. In 2008-09, union government spent 23.1 percent of revenue expenditure on State List subjects. Similarly, union government's revenue expenditure on Concurrent List subjects increased from 11.8 percent in 2002-03 to 16.4 percent in 2015-16. With rising shares of union government's revenue expenditure on State and Concurrent List, the share of expenditure on Union List subjects is declining.

A part of fiscal space provided by the 14th FC award, in terms of higher share of States in divisible pool of taxes, is nullified by increasing contribution of States to run CSS. States need to keep aside 40 percent, instead of 25 percent earlier they used to contribute, of the costs of the Core Schemes from their budget. The restructuring of CSS and changing cost-sharing pattern leave states with limited fiscal space to spend on public goods and services as per their choice/ priority. Withdrawal of central assistance to State plan schemes, which used to be earlier administered by the Planning Commission, leave no option for States but to borrow from the market at the cost of running revenue deficit in case their revenue receipts do not meet the demands for expenditures for State plan schemes. This policy decision of the union government leaves limited freedom for States to spend as per preferences / demands from people of the State. Growing exposure of the union government in expenditures which are listed in the State List, leaves limited resources available for the union government to expense on subjects listed under the Union List. This is against the realm of expenditure efficiency argument of public spending implicitly enshrined in the Constitution of India. To provide adequate freedom to States to choose public expenditure programmes, union government may consider providing options to States to select schemes from a bucket of schemes where financial support to each State will be capped by a formula. This will provide adequate freedom to States to select CSS depending on demand from the people living in the State as well as improve visibility of the union government in various public expenditure programmes. This will also help the union government to contain expenses on subjects listed under the State List.

By changing cost sharing pattern of the Core Schemes under CSS, the union government has increased state's share and takes away a substantial part of the fiscal space provided by the FC-XIV in terms of higher share in the divisible pool of taxes. According to Rao (2017) additional fiscal space provided to States in the FC-XIV award period is only 2 percent of divisible pool of taxes whereas the restructuring and change in the cost sharing pattern of

CSS have reduced fiscal space available to States to pursue expenditure programmes of their choice.[17]

10. Conclusions

Episodic fiscal shock emanating from pay hike of government employees in every ten years and resulting fiscal stress to union as well as state finances in India is an area which needs in-depth policy debates/ discussions. To smoothen out the fiscal stress, annual increment of pay and allowances of government employees, instead of decadal increment, may be an alternative option to explore.

To rein in impacts of global financial crisis, union government announced fiscal stimulus package (mostly tax cuts in indirect taxes of the union government) which reduced tax collection. The impacts of fall in tax collection was not restricted to union finances alone, it spilled over to state finances in terms of lower tax devolution. In the face of higher demands for expenditures on account of pay hike to government employees and lower revenue mobilization, there was fiscal stress for both union and state governments. States responded to the shocks by backward (expenditure reduction) as well as forward loading (revenue augmentation). Reforms adopted during 2001-16 helped Indian states to adopt prudential fiscal management practices (through enactment of FRBM Act) to contain deficits and revenue augmentation (e.g., adoption of State VAT). Moreover, the timing of implementation of pay hike (following the recommendations of the 6th Central Pay Commission) perhaps also helped Indian economy to recover from low economic growth aftermath of global financial crisis by providing additional disposable income.

Now the question is whether introduction of Goods and Services Tax (GST) has reduced capacity (fiscal autonomy) of states to deal with fiscal shocks? Since all decisions related to GST will be taken by the GST Council, except improving revenue mobilization from taxes not subsumed under GST and improving tax effort (tax efficiency), there will be no tax instruments for States to rein in fiscal shocks in future. To rein in global financial crisis, the union government announced the fiscal stimulus package unilaterally without taking into account the revenue implications on state finances. Therefore, in future it would be ideal for States to pursue the union government to restrict fiscal stimulus package focusing expenditure side of the budget rather than revenue side of the budget. Any shortfall in revenue collection of the union government will spillover to state finances in terms of lower tax devolution and states may not have adequate own revenue sources to recover from such shocks.

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[17] Rao (2017) argues that "the 14th FC's recommendation on increasing devolution from 32% to 42% is not as generous as it looks. It must be noted that unlike the previous Commissions, the 14th FC was asked to cover the requirements under both Plan and Non-Plan accounts which required it to subsume Gadgil formula grants, amounting to 5.5% of the divisible pool in their recommendation. In addition, the 14th FC avoided giving discretionary sectoral grants including environmental grants amounting to 1.5% of the divisible pool. Thus, the legitimate comparison should be between 39% and 42%."

For many municipalities (or municipal corporations) own sources of revenue have dried up after introduction of GST. GST subsumes taxes like entry tax, local body tax, entertainment tax which are earlier used to be collected by ULBs. States where these taxes are collected by the State Government on behalf of ULBs, due compensation is granted. However, states where these taxes are collected by the ULBs, unless specifically mentioned in the list of 'local authority' under the State GST Compensation to Local Authorities Act (e.g., Maharashtra Goods and Services (Compensation to the Local Authorities) Act 2017), due compensation are not granted to municipalities (or municipal corporations) by the State government. Unless there is assignment of new tax handles to local authorities, it is perpetual revenue loss for local authorities and therefore perpetual compensation to local authorities is justified. However, in compensation mechanism the aspect of revenue buoyancy needs to be addressed to secure fiscal space for local authorities. For example Maharashtra Goods and Services (Compensation to the Local Authorities) Act 2017 keeps provision for 8 percent annual growth rate of revenue with specific to base year of 2016-17. States will receive GST compensation from the union government if state's GST collection falls below a 14 per cent annual growth rate (the rate of net revenue collected by the state from taxes subsumed under GST in the base year 2015–16) during the GST Compensation Period (1 July 2017 to 30 June 2022). Therefore, providing perpetual revenue protection to local authorities beyond the GST compensation period requires adequate buoyancy in State GST (SGST) collection. Achieving the required SGST buoyancy would be a challenge for some states, especially in a low inflation regime. Since, urban centres are engines of economic growth, providing adequate and good quality public services are important to secure public health and environmental wellbeing. For example safe drinking water supply, sanitation, municipal solid waste management are basic ingredients to achieve better public health whereas good roads, public transport system and street lights help in achieving road safety. Therefore, sharing a certain percentage of GST collection with ULBs may help in making Indian cities safe and sustainable (Goal 11 of Sustainable Development Goals).

Appendix

Table A1: Income Category-wise Average Annual GSDP Growth Rate of General Category Sates for Pre- and Post-adoption of FRBM Act

Income Category of States *	Average Annual GSDP Growth Rate (%)		
	Pre-FRBM	Post-FRBM	% Change
Low Income States (LIS)	9.1	14.9	63.9
Lower Middle Income States (LMIS)	12.4	14.6	17.3
Upper Middle Income States (UMIS)	9.0	14.3	58.0
High Income States (HIS)	13.8	14.5	5.6
All States	11.5	14.6	26.2

Note: *-HIS implies High Income States (Per Capita GSDP or PCGSDP is higher than or equal to the third quartile); UMIS implies Upper Middle Income States (PCGSDP lies between the second and third quartiles); LMIS implies Lower Middle Income States (PCGSDP lies between first and second quartiles) and LIS implies Low Income State (PCGSDP lies below the first quartile).
Source: Computed based on EPWRF India Time Series Database

Table A2: Income Category-wise Average Annual GSDP Growth Rate of General Category Sates for Pre- and Post-implementation of VAT

Income Category of States	Average Annual GSDP Growth Rate (%)		
	Pre-VAT	Post-VAT	% Change
Low Income States (LIS)	9.9	15.0	51.6
Lower Middle Income States (LMIS)	11.5	14.8	28.6
Upper Middle Income States (UMIS)	11.9	14.4	20.8
High Income States (HIS)	13.7	14.6	6.1
All States	11.7	14.7	25.5

Source: Computed based on EPWRF India Time Series Database

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