

Working Paper 05

**Grants from Centre and States' Fiscal Marksmanship**

Sharmadha Srinivasan and Prakhar Misra

## About Us

IDFC Institute has been set up as a research-focused think/do tank to investigate the political, economic and spatial dimensions of India's ongoing transition from a low-income, state-led country to a prosperous market-based economy. We provide in-depth, actionable research and recommendations that are grounded in a contextual understanding of the political economy of execution. Our work rests on three pillars — 'State and the Citizen', 'Strengthening Institutions', and 'Urbanisation'. The State and the Citizen pillar covers the design and delivery of public goods, ranging from healthcare and infrastructure to a robust data protection regime. The Strengthening Institutions pillar focuses on improving the functioning and responsiveness of institutions. Finally, the Urbanisation pillar focuses on the historic transformation of India from a primarily rural to largely urban country. All our research, papers, databases, and recommendations are in the public domain and freely accessible through [www.idfcinstitute.org](http://www.idfcinstitute.org).

## Disclaimer and Terms of Use

The analysis in this paper is based on research by IDFC Institute (a division of IDFC Foundation). The views expressed in this paper are not that of IDFC Limited or any of its affiliates. The copyright of this paper is the sole and exclusive property of IDFC Institute. You may use the contents only for non-commercial and personal use, provided IDFC Institute retains all copyright and other proprietary rights contained therein and due acknowledgement is given to IDFC Institute for usage of any content. You shall not, however, reproduce, distribute, redistribute, modify, transmit, reuse, paper, or use such contents for public or commercial purposes without IDFC Institute's written permission.

Copyright: © IDFC Institute 2020

## Suggested Citation

Srinivasan, S. and Misra, P. (2020). Grants from Centre and States' Fiscal Marksmanship. *IDFC Institute Working Paper 05*.

## **Abstract**

In this paper, we undertake a study of 28 states to establish the issues with their revenue budgets' fiscal marksmanship. We particularly focus on the grants received from the Central government. Within grants, we find state plan schemes and centrally sponsored schemes to be the most volatile. Our analysis looks at three key stakeholders in the budget-making process and their role in poor fiscal marksmanship. These are the Centre, the states and the Finance Commission. The actuals could miss budget estimates due to the Centre misprojecting its revenues or expenditures, the states misprojecting their own revenues, or the Finance Commission making errors while recommending grants. Poor estimation methods, weak capacity in drawing up budgets and implementing projects, specific conditionalities imposed either by the Centre or the Finance Commission, and exogenous and random shocks that cannot be controlled for – all affect marksmanship of the states' revenue budgets.

## **Acknowledgements**

The authors would like to thank Dr. M. Govinda Rao for reviewing this paper and providing extensive and valuable feedback. We also appreciate the inputs we received from Dr. Abhay Pethe, Dr. Mala Lalvani and Mr. Suyash Rai from initial conversations we had on the paper. The idea to work on this paper was born out of a conversation with Dr. Niranjana Rajadhyaksha and we are grateful to him for the same. We also thank our colleagues, Dr. Vaidehi Tandel for her comments on the early drafts and Mr. Vikram Sinha for his invaluable editorial support. All errors remain the authors' own.

## **About the Authors**

Sharmadha Srinivasan is Associate at IDFC Institute. She has a Bachelor's degree in Economics from St. Xavier's College, Mumbai, and a Master's degree from the University of Warwick.

Prakhar Misra is Senior Associate at IDFC Institute. He holds a Bachelor's in Engineering from MS Ramaiah Institute of Technology. He was Chanakya Scholar at Meghnad Desai Academy of Economics where he studied Economics and Finance. He also holds a Masters in Public Policy from the University of Oxford where he was a Chevening Scholar.

## **Table of Contents**

<b>Introduction</b>	<b>4</b>
<b>1. Analysing Fiscal Marksmanship of State Revenue Receipts</b>	<b>5</b>
1.1. Overestimation of Total Revenue	5
1.2 Grants from Centre Dominate Overestimation of Revenue	7
1.3. State Plan and Centrally Sponsored Schemes Show Forecasting Errors	9
<b>2. Reasons for Poor Fiscal Marksmanship</b>	<b>14</b>
2.1 States' Budgeting Exercise	15
2.2. Getting Centre's Projections Right	17
2.3 The Difficult Job of the Finance Commission	19
<b>References</b>	<b>22</b>
<b>Appendix</b>	<b>24</b>

## Introduction

The budgeting exercise is central to the promise of efficient and effective governance. If the errors in forecasting revenue and expenditure are large, the implementation of programmes and policies of any government will suffer, affecting welfare outcomes. The accuracy of budget estimates is referred to as fiscal marksmanship.<sup>1</sup> This is directly dependent on the ability of the state to make accurate budget forecasts, which in turn is chiefly a function of the capacity available to engage with this process.

State budgets get little attention despite the fact that subnational governments in India now collectively spend one and a half times more than the Central government (Reserve Bank of India State Finances, 2019). An increased share of taxes devolves to the states following the recommendations of the Fourteenth Finance Commission. Yet, state governments tend to do poorly on fiscal marksmanship. This intersects with the challenge of state capacity in two ways – it is a reflection of inadequate capacity to estimate revenues and spending; and it limits the capacity of state governments to follow their policy agenda. Capacity constraints interpreted through the 3Ps of personnel, paperwork and process not only capture the issues neatly but also allude to solutions where this can be strengthened.

In this paper, we look at unpacking the nuances in state capacity, complicated by India's federal structure that affect the marksmanship of state budgets. The existing literature on analysis of states' budgets has found that errors in revenue receipts of states are more pronounced compared to their revenue expenditure (Chakraborty et al., 2019). The 2019 Reserve Bank of India (RBI) State Finances report also points out that states have been overestimating all sources of revenue. Further, it notes, the overestimation is exacerbated when it comes to grants received from Centre<sup>2</sup>. States and their actual revenues are also particularly affected by the Centre itself being unable to get its own forecasting methodologies right (Jena, 2006). In this paper, we look at the state budgets of the 28 states<sup>3</sup> in India by Gross Domestic Product (GDP). We limit our analysis to revenue receipts of states and marksmanship of grants from the Centre.

---

<sup>1</sup> Fiscal marksmanship is calculated by assessing the difference between actuals and budget estimates, published by governments every year.

<sup>2</sup> Grants from Centre are the same as Grants-in-Aid. For this paper, we refer to them as Grants from Centre. An additional caveat we would like to add here, highlighted by Govinda Rao, is that the temporal study of grants is marked by discontinuity in grant policy. In the initial years, money was transferred through the state budgets but in the years post 2005-06, grants for many schemes were increasingly routed to the implementing agencies bypassing state budgets. In 2013, post recommendations of the High Powered Committee on Public Expenditure Efficiency chaired by Dr. Rangarajan, grants were rerouted through state budgets. We undertake this study despite these shifts in policy over the years.

<sup>3</sup> We restrict it to the 28 states due to availability of data for all 15 years we study from 2003-04 to 2017-18.

The paper is divided into two sections. The first section analyses the revenue receipts of states to establish that grants from Centre form the problematic component. Within grants, state plan schemes and centrally sponsored schemes (CSS) show greater variation of actuals from estimates. The second section details the reasons why fiscal forecasting on grants is problematic and analyses the role of the states, the Centre and the Finance Commission. We then conclude the paper.

## 1. Analysing Fiscal Marksmanship of State Revenue Receipts

Analyses of state budget estimates and actuals from 2003-04 to 2017-18 show that the total revenue estimates for each state have a lot of variation and are overestimated in most cases. Grants from Centre cause a large part of the overestimation. Within these grants, we find that the state plan and centrally sponsored scheme sub-heads are the categories causing variation. We look at these three trends in the subsections below.

### 1.1. Overestimation of Total Revenue

The overestimation of total revenues for states has been increasing since 2013-14 (see Table 1). The average overestimation across all states and all years was 10.79% and average underestimation was 10.32%. Further, in 2013-14, all 28 states overestimated their total revenues by an average of almost 10.41%, with the highest being 28.68% (Arunachal Pradesh) and the lowest being 3.56% (Rajasthan). Clearly, there is a problem in budget estimations if all states across all years are missing revenue marksmanship.

**Table 1: Average Overestimation of Total Revenues by States over the Years**

Over/Underestimation of Total Revenues for States (%)															
Year	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Karnataka	19.45	7.17	3.88	4.77	0.95	-8.36	1.58	8.52	-12.23	17.89	-8.62	-6.21	2.11	1.88	1.45
Maharashtra	-10.24	2.13	-3.95	5.16	16.52	1.7	-2.41	9.09	-0.18	4.56	-3.95	-8.27	-6.66	-7.3	-0.03
Tamil Nadu	4.59	14.76	12.26	5.63	6.71	6.87	-4.17	11.25	-0.56	-1.75	-8.89	-3.9	-9.58	-5.36	-8.21
Uttar Pradesh	-5.2	0.96	6.28	7.94	-7.22	-9.29	2.1	-0.39	-0.43	-8.15	-5.36	-14.57	-9.13	-8.77	-12.72
Andhra Pradesh	16.8	-10.66	-3.13	-0.19	-1.47	-11.38	-18.09	-10.65	-7.37	-11.09	-13.35	-1.53	-1.64	-9.44	-16.28
Kerala	-6.96	-5.35	-8	-4.98	-1.58	-1.7	-7.26	-0.61	-3.59	-8.32	-15.3	-10.63	-10.84	-10.64	-11.29
Madhya Pradesh	-9.93	14.44	3.77	9.43	9.62	-2.4	3.59	19.36	8.33	0.73	-4.84	-14.35	-7.79	-2.21	-3.05
Rajasthan	-0.01	2.18	1.46	6.67	7.63	1.46	-7.53	8.16	9.03	5.96	-3.56	-13.94	-9.95	-11.54	-2.19

Gujarat	-2.65	-2.64	7.97	17.96	8.27	1.04	-0.34	5.84	5.13	-0.89	-6.74	-10.75	-10.81	-5.61	-6.26
West Bengal	-3.33	-2.83	11.18	-3.27	-1.6	2.32	-12.74	-0.65	-10.77	-11.01	-17.56	-18.37	-2.98	-9.03	-7.97
Chattisgarh	-18.67	-1.58	12.15	6.04	3.06	0.04	-3.93	10.68	0.22	-5.74	-14.41	-22.04	-20.51	-12.6	-9.75
Goa	-34.38	-30.72	-24.51	-16.94	-12.95	0.53	-0.88	8.77	-1.53	-16.89	-11.73	-4.96	-13.94	-10.12	1.66
Haryana	0.34	3.31	15.09	30.59	10.23	-14.95	-6.44	4.17	-4.56	-9.9	-13.18	-14.45	-9.09	-16.61	-8.89
Himachal Pradesh	-1.27	9.27	12.22	20.15	25.13	-0.95	-1.26	9.68	3.19	-4.56	-11.24	8	-0.4	-0.02	-1.25
Jammu and Kashmir	11.39	-19.62	40.69	-25.21	16.03	3.22	0.98	-1.89	-7.18	-12.46	-20.14	-26.22	-5.38	-16.81	-16.46
Jharkhand	-1.46	5.24	0	0	0	2.06	-88.94	0	-19.2	-23.61	-22.21	-27.34	-15.38	-15.61	-19.59
Manipur	-5.01	15.83	1.2	2.53	27.01	6.48	-90.33	1.15	-3.89	-11.96	-15.51	-9.38	-4.36	-2.55	-6.65
Meghalaya	8.53	-8.66	-11.55	-12.85	-24.69	-24.1	-9.43	-3.03	-16.92	-20.63	-26.99	-42.23	-16.18	-0.47	-17.79
Mizoram	41.38	44.54	11.71	16.16	5.34	19.63	-1.52	3.71	7.03	-5.42	-5.45	-6.27	-6.95	-3.57	4.98
Nagaland	25.89	-5.9	3.29	2.08	-2.09	4.14	-4.86	-6.62	-0.45	-4.87	-10.93	-19.78	-9.54	-10.66	1.5
Arunachal Pradesh	-	-95.33	25.42	29.61	28.81	-1.22	31.87	6.29	-7.44	-11.66	-28.68	4.09	-9.3	-7.79	-5.65
Assam	-18.11	-23.71	-9.53	-12.74	-9.79	-18.55	-13.78	-12.89	-16.12	-18.51	-21.97	-27.54	-25.6	-25.63	270.79
Bihar	3.83	-3.8	-6.76	3.09	2.8	-1.7	-15.08	-5.72	-8.69	-12.46	-13.92	-23.07	-6.85	-15.25	-14.37
Odisha	-4.11	3.38	10.96	16.6	12.84	5.76	-0.45	5.82	10.67	0.21	-4.59	-15.11	-2.82	-4.9	-4.19
Punjab	-10.36	-11.93	-1.58	-16.19	-15.44	-10.95	-7.96	-3.53	-16.78	-15.75	-17.72	-13.08	-10.18	-4.38	-11.77
Sikkim	-36.16	-3.68	7.31	-33.57	-2.35	-0.67	8.87	-15	-12.26	-20.86	-13.4	-27.01	-21.19	-5.63	-2.13
Tripura	-4.75	2.45	0.98	4.03	0.97	-4.5	21.81	-6.24	8.14	-1.59	-5.96	-14.41	-24.74	-25.15	-25.71
Delhi	1.05	8.15	19.78	9.86	-2.42	-7.34	7.08	14.95	-2.04	-11.26	-17.87	-18.73	-9.25	-17.02	-8.41

Source: Authors' Analysis; Data from: RBI State Finances: A Study of Budgets of 2019-20

Note:

1) We calculate  $((\text{Actuals}-\text{Budget Estimates})/\text{Budget Estimates})\times 100$  to estimate overestimation/ underestimation. If the number is positive, then the budgets were underestimated and vice-versa.

2) Red indicates overestimations and green indicates underestimations.

Some states have done worse than others. Kerala, Assam and Punjab have overestimated their budgets for revenue receipts in almost all the years between 2003-04 and 2017-18 as shown in Figure 1. Kerala and Punjab overestimated their revenue in all 15 years by 7.14% and 11.17% respectively. Assam too overestimated its revenues in 14 out of 15 years by an average of a massive 18.18%. Considering that the three states differ in location, fiscal structures and size, scale and scope of the economies, this reflects a structural problem with revenue marksmanship.



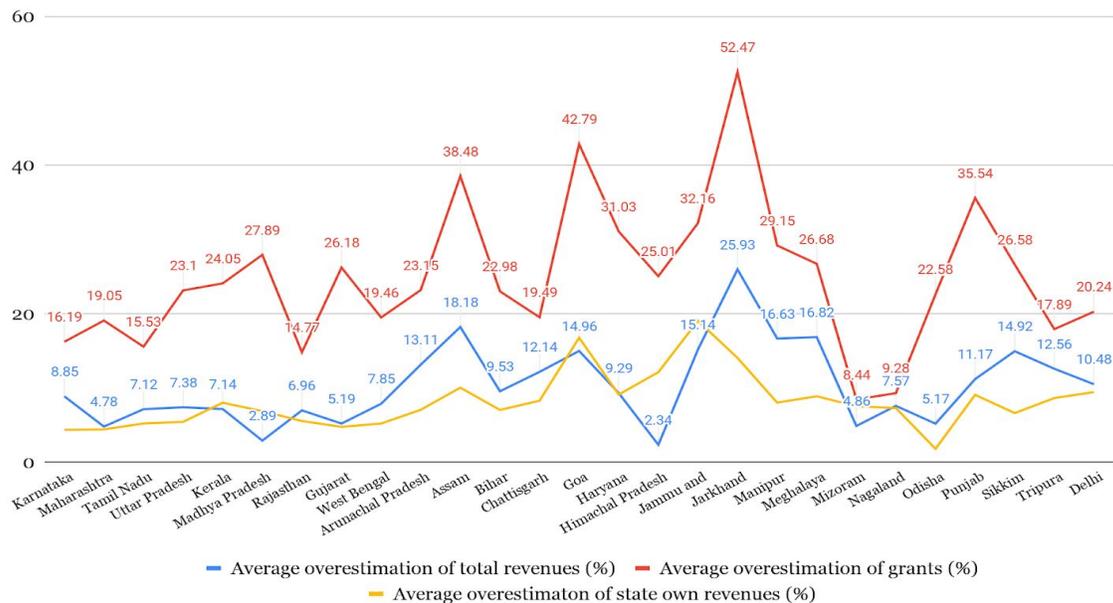
Our focus in this paper is on central transfers, and particularly on grants, for three reasons. We see that current literature has scrutinised the states' share of central taxes a fair bit but grants from Centre haven't received as much scholarship (Mohan and Shyjan, 2009; Bhanumurthy, Bose & Satija, 2019). Second, the RBI State Finances report as well as other papers on fiscal marksmanship of states (Chakraborty et al., 2019) have pointed out that grants from Centre are the most problematic when it comes to forecasting errors<sup>4</sup>. Last, it is important to note that the tax devolution component of central transfers is governed by a fixed formula. However, the determination of grants by the Finance Commission is more discretionary as it is guided more by principles than a formula (Mann, 2018). Thus, analysis of this pillar of India's fiscal architecture is crucial.

The importance of grants has grown in state budgets. Figure 2 shows that average overestimation of states' own revenue is a lot less volatile than that of grants from Centre. The extent of overestimation of grants is large. At 11.02%, the mean overestimation of the grants component is more than double the mean overestimation of state own revenues (4.47%) and total revenues (6.02%). The standard deviation of overestimating total revenues and the states' own revenues is 10.71% and 7.9% respectively, compared to 24.67% for grants. This is despite the average allocation of grants increasing as a percentage of total revenues. In the 10 richest states, this increased from 12% in 2003-04 to 18% by 2017-18. It becomes clear from this that it is the grants from the Centre where the challenge of fiscal marksmanship for the states lies.

---

<sup>4</sup> The RBI State Finances 2019 report notes that 'While the extent of overestimation is growing steadily in case of states' own tax revenue (7.2 per cent in 2013-14 to 11.1 per cent in 2016-17), the over-estimation in total revenue is consistently dominated by grants from the Centre' (Annex II.1, pg 29).

**Figure 2: Average Overestimation of All Years of Grants, State Own Revenues and Total Revenue by each State**



Source: Authors’ Analysis; Data from: RBI State Finances: A Study of Budgets of 2019-20

Note: We removed the state of Andhra Pradesh from this figure as the state’s overestimation of its own revenues was an extreme outlier: 2797 percent in 2006-07. While we can’t be completely sure, this could most likely be an input error which is reflected in some of the official estimates available.

### 1.3. State Plan and Centrally Sponsored Schemes Show Forecasting Errors

Grants from Centre are transfers that are either recommended as general purpose grants (untied in nature) to enable states to deliver services or as specific purpose transfers for areas such as health and education (primarily routed through centrally sponsored schemes) to ensure states deliver a minimal level of governance (Rao, 2017). Grants are further divided into the two components: plan and non-plan grants. Plan grants further consist of state plan schemes, central plan schemes, centrally sponsored schemes and NEC/special plan schemes. We give the details of each of these schemes in the appendix of this paper. Two trends emerge in state plan schemes and centrally sponsored schemes as we analyse budget numbers for 28 states.

First, there is a huge disparity in the accuracy of the forecasts of state plan schemes. Table 2 shows the marksmanship of state plan schemes over the years 2003-04 to 2016-17. In the years

2012-13 and 2013-14, all states except three (Madhya Pradesh, Delhi and Tamil Nadu) overestimated state plan schemes. The average overestimation was a colossal 31% and 34.17% respectively. Some other data points are quite startling. In the year 2015-16, many states, from Maharashtra to Haryana and Jammu and Kashmir, underestimated their state plan schemes massively. Maharashtra underestimated its state plan scheme by 1268.76%. The next year was better but still at 692.81%. Haryana and Jammu Kashmir too underestimated their state plans by a massive 576.26% and 626.28% respectively. On the other hand, Uttar Pradesh had an underestimation of 79.21% in 2015-16 but an overestimation the very next year of 538.59%.

**Table 2: Error in Forecasting of State Plan Schemes (%)**

Year	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Karnataka	-39.68	8.08	-32.03	-30.48	-5.94	-1.83	29.57	17.85	3.02	-21.44	-9.16	-42.22	14.95	-20.04
Maharashtra	-43.59	-7.16	-18.22	78.38	4.35	1.89	-36.4	-30.42	-28.58	-43.83	-52.23	-76.16	1286.76	692.81
Tamil Nadu	-17.87	-2.58	-18.17	-3.46	4.9	19.06	-20.55	-25.86	-18.01	-9.22	0.74	290.24	7.19	-36.56
Uttar Pradesh	-21.74	21.65	-16.07	4.45	-34.98	17.74	-0.97	-12.15	-9.89	-33.66	-9.63	-38.43	-79.21	538.59
Andhra Pradesh	-16.37	-45.53	-37.14	-13.68	8.25	-21.03	-44.53	-57.02	-31.06	-45.04	-45.89	46.14		
Kerala	-36.61	-2.13	-23.61	-20.67	-5.36	-18.54	-42.74	-35.65	-32.61	-42.74	-53.03	-24.91	11.61	193.5
Madhya Pradesh	-11.33	36.89	-9.04	26.14	6.54	-13.8	-93.03	-13.8	-28.15	38.5	-10.85	-61.2	-47.49	-5
Rajasthan	24.09	9.99	-12.19	-12.26	40.04	49.94	-24.65	-0.97	-21.14	-30.01	-19.43	-33.16	-18.15	-29.07
Gujarat	-14.18	-10.23	-4.99	-26.46	0.67	-12.2	-46.95	-46.53	-41.39	-28.69	-45.93	62.14	-46.19	-3.04
West Bengal	-23.89	1.1	-18.95	-9.06	-10.73	17.81	1.93	-8.23	46.89	-57.42	-55.24	-23.62	-39.36	-40.86
Chhattisgarh	-26.97	5.45	-19.33	19.54	-18.08	-30.88	-15.43	39.71	-27.83	-20.08	-41.19	95.82	218.41	419.99
Goa	-8.67	-15.28	-55.58	-62.53	14.55	-25.45	-57.25	-31.89	-67.02	-37.71	-29.26	-47.32	-80	-33.32
Haryana	104.76	17.04	91.95	91.86	54.62	62.21	-88.87	5.02	-53.23	-51.89	-46.48	143.64	576.26	59.81
Himachal Pradesh	0.49	-11.47	-6.44	-59.12	466.4	-1.21	10.09	2.27	10.57	-1.55	-18.16	-15.09	-27.66	20.38
Jammu and Kashmir	2.27	6.57	0.28	-71.66	133.37	1.98	-1.38	-13.08	-23.77	-26.49	-39.8	-15.04	626.28	29.43
Jharkhand	0	0	-36.66	27.65	0	90.3	167.81	0	-57.88	-63.66	-69.64	-5.54	50.57	751.84
Manipur	10.59	49.2	-5.87	255.86	-82.18	4.55	-10.87	2.52	-6.66	-21.03	-28.59	-26.47	-11.4	-22.64
Meghalaya	23.39	-35.43	-16.79	-30.25	-44.25	-29.36	-9.32	-10.42	-26.81	-28.98	-25.32	-25.99	-51.35	-
Mizoram	84.18	146.29	-83.32	96.68	-14.22	1.11	18.34	-17.07	-1.5	-16.96	-22.28	-2.62	35.92	30
Nagaland	39.28	-1.3	-28.93	16.35	3.72	10.34	1.94	-3.53	2.36	-13.97	-21.9	-38.36	-5.2	-88.95
Arunachal Pradesh	-16.37	-74.94	20.94	13.69	-0.89	19.91	4.8	7.94	-21.91	-6.64	-41.26	95.9	-	-

Assam	-9.9	1.38	-23.89	-22.33	-19.82	-6.16	-7.52	-1.28	-31.79	-29.17	-35.62	-33.72	-55.97	-54.07
Bihar	43.09	14.49	-27.91	-12.04	-18.21	-21.14	-26.15	-7.59	-43.12	-43.46	-41.86	-48.31	-7.95	-51.52
Odisha	-38.39	-15.94	-21.08	-27.19	6.46	-1.66	-17.49	-15.82	-19.47	-26.77	-37.07	-37.87	-39.65	-19.99
Punjab	-38.38	-20.21	9.67	35.79	-26.25	-42.41	46.56	9.37	-64.38	-68.16	-84.12	-48.76	-41.42	-50.09
Sikkim	4.04	-1.68	-21.09	-17.25	-21.69	6.4	10.97	-26.33	-23.44	-29.9	-15.08	-26.19	-61.76	53.27
Tripura	10.16	30.82	-0.6	6.58	-15.41	-5.9	-5.77	-6.96	9.04	-7.46	-5.91	-19.45	-58.67	-41.56
Delhi	12.57	8.22	-28.35	-68.71	-30.27	-34	46.2	47.1	-62.38	122.96	-17.53	-48.42	-40.52	-30.18

Source: Authors' Analysis; Data from: RBI State Finances: A Study of Budgets of 2019-20

Note: The above data is from 2003-04 to 2016-17.

The second trend that emerges is that errors in forecasting of centrally sponsored schemes are frequent (see Table 3). As shown in Figure 3, Uttar Pradesh has overestimated the centrally sponsored schemes component of grants from Centre for the most number of years -- 14 out of 15 years. The average overestimation of budget estimates of the schemes in these years was a high 32.45%. On the other hand, Tamil Nadu has underestimated the budget estimates of centrally sponsored schemes in 14 out of 15 years. The average underestimation for these years was a startling 74.9%. Sikkim too overestimated its centrally sponsored schemes in all 15 years. Clearly, there is huge variation even among the richest states and the most resource intensive in getting their estimates of centrally sponsored schemes right. Moreover, the variations move in different directions, making the case for unpacking the marksmanship of these schemes. It is clear that marksmanship on the revenue side is quite poor. State plan schemes and centrally sponsored schemes contribute to this misjudgement more than the other components. We turn to the reasons for this in the next section.

**Table 3: Error in Forecasting of Centrally Sponsored Schemes (%)**

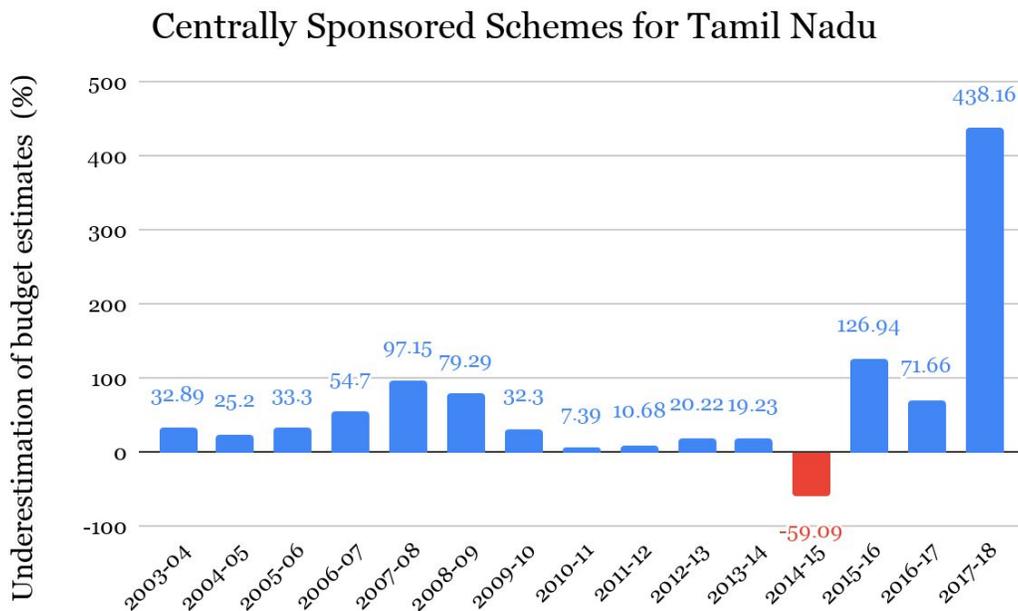
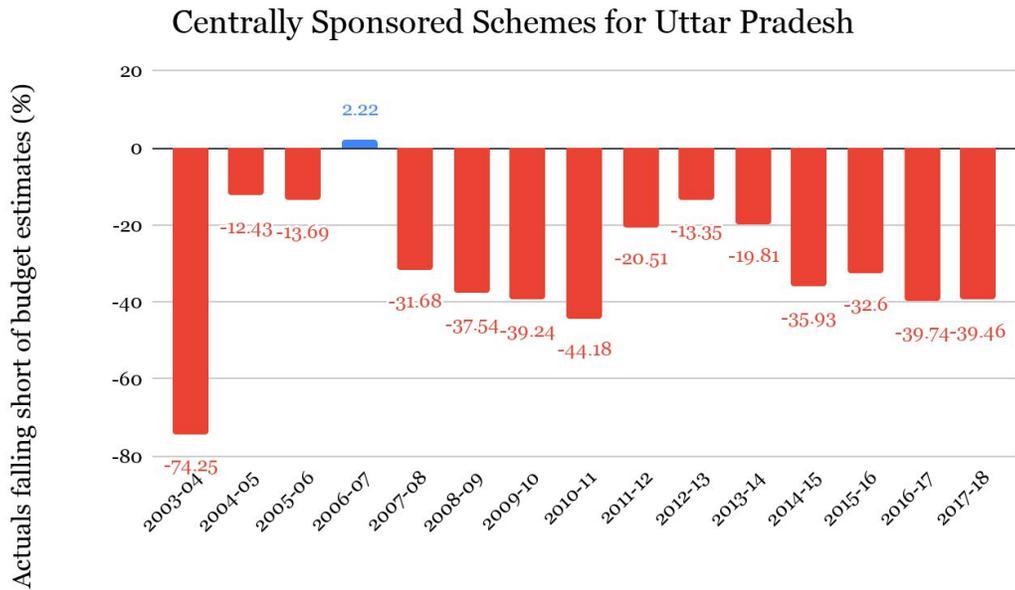
Year	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Karnataka	-21.65	-12.1	1.45	34.39	-41.86	-24.36	-18.01	24.68	-3.25	-18.81	-16.93	67.26	-78.36	-23.62
Maharashtra	-42.56	-50.62	-48.15	-35.6	12.93	-1.28	57.97	13.39	2.46	-0.81	-46.56	-9.9	-6.12	-21.54
Tamil Nadu	32.89	25.2	33.3	54.7	97.15	79.29	32.3	7.39	10.68	20.22	19.23	-59.09	126.94	71.66
Uttar Pradesh	-74.25	-12.43	-13.69	2.22	-31.68	-37.54	-39.24	-44.18	-20.51	-13.35	-19.81	-35.93	-32.6	-39.74
Andhra Pradesh	-53.4	-11.9	30.11	-10.52	43.04	-44.8	-11.56	-20.96	-13.71	-20.3	-48.05			
Kerala	-42.09	-49.84	-59.38	-55.16	-55.91	-21.2	-31.21	-38.27	11.93	-45.9	-51.92	49.96	-17.61	-52.5
Madhya Pradesh	-49.82	33.77	66.72	138.44	135.83	93.34	-91.54	-13.16	29.65	19.77	-35.98			
Rajasthan	-55.66	-28.02	-21.98	-17.2	-2.91	-11.86	-46.71	-29.03	-23.15	-23.26	-32.81			

Gujarat	-66.64	-22.46	0.6	-15.72	-51.02	-31.87	-36.64	-39.93	-14.31	-14.83	-6.57	-93.58	-68.8	4.78
West Bengal	34.08	5.12	98.95	8.64	16.6	4.18	-24.68	-19.45	-6.97	-23.95	-32.59			
Chattisgarh	-68.23	-14.3	69.47	-1.7	18.1	33.71	-41.47	-23.54	18.12	-0.89	-15.68	-88.93	-89.81	-95.83
Goa	-31.88	-60.4	-42.69	-53.92	-	-	-	-	-	-29.07	-64.75	1.6	-39.39	-60.29
Haryana	-47.22	-2.17	32.7	12.41	24.99	-1.9	-91.1	-52.99	-37.62	-48.94	-26.34	-64.47	-77.15	-80.44
Himachal Pradesh	48.87	66.52	159.3	269.58	-26.43	73.58	194.1	176.74	298.56	230.09	183.35	438.23	-14.94	3.6
Jammu and Kashmir	155	-30	0	80.23	-73.03	0	0	-24.91	52.64	29.96	49.27	-99.94	-	-
Jharkhand	0	0	-5.88	-42.59	0	47.54	-24.18	0	-4.56	-49.07	-35.9	-92.3	-92.81	-93.91
Manipur	-6.7	-6	124.39	1013.94	-87.07	-53.46	259.94	111.95	28.52	-5.98	59.33	143.86	182.84	342.37
Meghalaya	14.89	-67.04	-24.48	-54.34	-56.53	-64.07	-49.07	-46.65	-61.74	-65.4	-80.12	-88.44	-35.41	-99.91
Arunachal Pradesh	-53.4	-86.07	1065.56	65.2	50.18	-70.76	153.51	-25.29	-16.13	-42.04	-47.24	-88.5	-95.45	-94.58
Assam	-81.11	-56.03	-70.27	-60.63	-48.48	-43.1	-68.48	-59.91	-35.47	-32.86	-52.45	-	-	-79
Bihar	0	-	-41.53	13.73	-15.17	-24.57	-55.44	-43.98	-32.36	-46.62	-37.17	-	-	-
Odisha	60.06	177.9	119.27	205.39	39.35	-2.71	-25.02	-31.92	5.67	2.9	14.52	-99.13	-99.87	-99.78
Punjab	-64.5	-74.88	-84.34	-61.1	-69.98	-75.07	13.6	-33.95	-40.99	-35.96	-99.12	247.5	644.04	327.47
Sikkim	-28.71	-53.51	-31.29	-48.07	-31.15	-54.33	-20.07	-48.53	-40.99	-38.86	-25.16	-39.36	-47.07	-43.83
Tripura	-70.93	103.6	-23.32	-6.64	-29.9	-16.83	11.34	-5.99	4.08	-22.17	-12.93	-30.81	-96.52	-
Delhi	-27.63	-24.88	-38.89	-0.33	-41.75	-27.63	-	-6.86	-	56.96	-16.71	-	8.32	-11.06

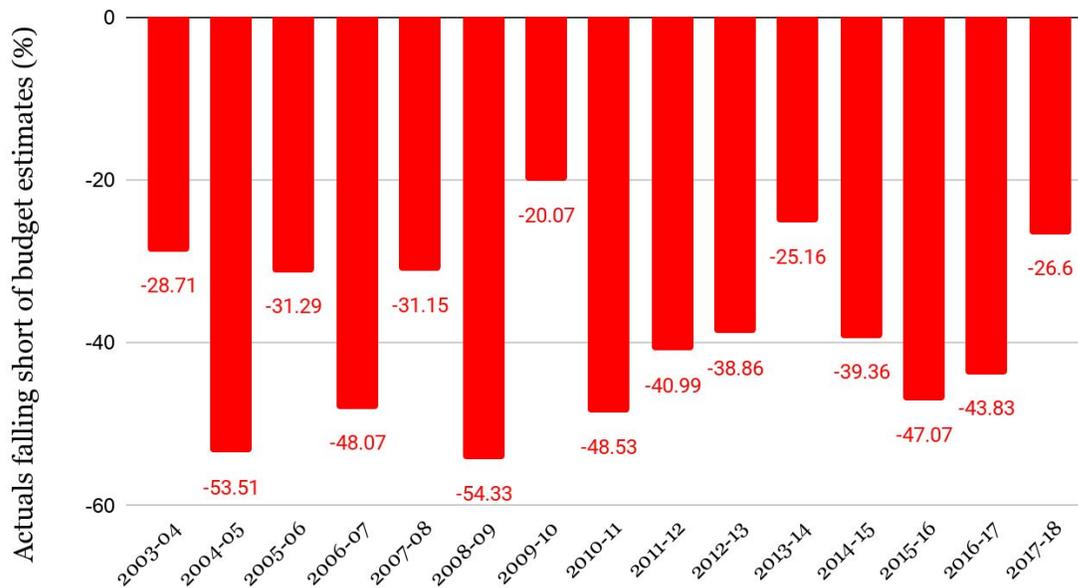
Source: Author's Analysis; RBI State Finances: A Study of Budgets of 2019-20

Note: The above table has data from 2003-04 to 2016-17. Data for Meghalaya and Nagaland are not available.

**Figure 3: Forecasting Error of Centrally Sponsored Schemes for Uttar Pradesh, Tamil Nadu and Sikkim**



### Centrally Sponsored Schemes for Sikkim



Source: Authors' Analysis

Data from RBI State Finances: A Study of Budgets of 2019-20

## 2. Reasons for Poor Fiscal Marksmanship

Poor fiscal marksmanship has many causes from poor planning and information assimilation to faulty execution of plans and schemes. However, the consistency in missing forecasts points towards at least a few structural problems that are germane to the budgeting process. In summary, the three main reasons for variations in actuals from projections for states are: (i) Centre's overestimation of its revenues resulting in variations in tax devolution and grants; (ii) Centre's wrong projection of its expenditures or unforeseen expenditures resulting in Centre cutting grants to the states; (iii) States' overestimation in projecting own revenue.

Before we get into the specifics, it is important to go over the process of estimating budgets. The grants are awarded based on the recommendations of the Finance Commission constituted once every five years. Plan grants were awarded by the Planning Commission till its abolishment, while the Finance Commission solely looked at non-plan grants. The basis on which the grants are recommended changes with each Finance Commission. For example, the First Finance Commission posited that the budgetary needs of the state as well as the equitable allocation of resources served as the governing principles for grant recommendations. The subsequent Commissions, while maintaining these broad principles, added additional criteria such as the

fiscal burden of the Centre. The Fourth Finance Commission explicitly laid down the revenue gap filling approach as a dominant principle. This approach estimates each state's revenue deficits post tax devolutions from the Centre before recommending the grants. Since then, this has been accepted as the established principle to devolve grants to the states (Reddy & Reddy, 2016). Grants from Centre are provided to states as a revenue gap filling measure in cases where the state's assessed expenditure exceeds the sum of its revenues. This process highlights two aspects that make fiscal marksmanship of grants from the Centre difficult.

1. The states' budgets are heavily dependent on the Centre's budget. The dependence of states on central transfers is high with relatively poor states depending on the Centre for nearly half their revenues (Jena, 2006). A misprojection or an unexpected revenue shortfall by the Centre means the states finances get affected. This shortfall is more likely to be reflected in grants rather than say devolution of taxes, because these are not based on a fixed formula. For example, as we pointed out earlier, the budgeting of state plan schemes have been consistently overestimated due to incorrect projections of transfers of devolved taxes by the Centre.
2. The budget reassessment exercise is a massively complex task given the number of budget heads and sub-components under various departments and schemes. To illustrate the scope of the problem, the government accounting system divides expenditure into six heads: major head, sub-major head, minor head, sub-minor head, detailed head and object head. Each state has 30-40 departments with one major head but numerous minor and sub-minor heads. A centrally sponsored scheme such as the National Health Mission could have countless sub-minor heads for the states to estimate and the Commission to evaluate. There would be numerous such schemes. Thus, we need to appreciate the complexity the Finance Commission faces when performing these calculations to meet the needs of the state while balancing the fiscal burden at the Centre.

We now look into the issues faced by the states, Centre and the Finance Commission to outline some reasons for poor fiscal marksmanship of grants from Centre.

## **2.1 States' Budgeting Exercise**

The data bears out criticism of the accuracy of state budget forecasts. This is for numerous reasons. First, there is a lack of foresight and planning by departments while drawing out the budgetary estimates. State budgets are not well framed before drawing them, and show little relationship between formulation and execution of policies (Jena, 2006). The true revenue gap assessment falters because of misestimation on both the revenue and expenditure side of the

state budget. On the expenditure side, line departments have no expenditure ceilings to ensure their actuals are more in line with the estimates drawn. Drawing out forecasts without controls on spending therefore tends to veer away from the actuals.

To understand the process of budgeting more closely, we reached out to officials in government. In conversations with Secretaries and Under-Secretaries of the revenue departments of a state, we found that there is no rational way in which they project their estimates on expenditure. For some departments they rely on information from the village/patwari level and aggregate that to project the estimates.<sup>5</sup> It is likely that the information provided is way off the mark. In certain cases, if they don't receive the information they have asked for, they ballpark the estimate based on previous year's estimates with an error band of +/- 10% and submit those to the Finance Commission. All of this adds to errors in estimating revenue gaps which then exacerbate the difference between budgets and actuals.

Second, the nature of funding of state plan schemes tends to cause issues with their projections. These schemes are funded and executed by states for subjects that are specifically not on the Union list. As discussed earlier while outlining reasons for poor fiscal marksmanship, although state plan schemes are completely budgeted by the states, projection by states of their total revenues is still heavily dependent on the Centre and their tax devolution shares to states. A shortfall in tax devolution to the states leads to the budget for state plan schemes being cut as resources by the state would have to be diverted elsewhere.

Lastly, policy impact and exogenous shocks also affect projections. States may take policy decisions over the course of the five year assessment period, such as introducing populist measures in an election year, that affect expenditure projections. A recent study of interim budgets shows that the budget estimates on expenditure are particularly biased in an election year, as governments undertake additional spending beyond what can be accounted for to appease vote banks (Pant, 2019). There are also policy decisions where the accounting of the

---

<sup>5</sup> The established process both for Centre and states is: (i) issuance of budget circular in October every year to the spending departments along with assumption about the growth, inflation and other relevant macro parameters and indicative budget envelope for the department; (ii) the heads of departments forwarding the circulars and directions to the Drawing and Disbursement Officers to prepare their estimate of expenditures for the ensuing year and the latter are required to prepare their expenditure estimates based on the inputs they receive from their subordinates; (iii) Compilation by the heads of spending departments and communication of the estimates to the Finance Department; (iv) Discussion of each spending department with the Finance Department to match the expenditure estimates with projected revenues.

As detailed in the paper by Mishra (2014), 'the state's budget preparation begins with the submission of budgets by the Drawing and Disbursement Officers (DDOs) who are based at district and sub-district levels. These budgets are submitted to the state's Estimating Officer by the end of August each year. The Estimating and Controlling Officers scrutinize the budgets prepared at the district level and, after separation by department, send them to the heads of the respective departments of the state by mid-November.'

expenditure is done after the policy announcement is made. For example, states, while announcing farm loan waivers, were yet to factor this into their expenditure budget of that year (Mishra & Singh, 2017). Exogenous shocks could also be due to a recessionary or inflationary environment, or a calamity or disaster that involves additional spending beyond what was stated in the Disaster Response Funds. Such shocks mostly result in random errors in forecasting by states and make marksmanship difficult.

## 2.2. Getting Centre’s Projections Right

Given the heavy dependence of the states on the Centre’s budgets, Centre’s projections play a huge role in the states marksmanship. We studied the budgets of the Central government (Srinivasan, Misra and Rajadhyaksha, 2019) and found that the government had overestimated revenue in 18 out of 22 years and underestimated expenditure in 12 out of the 22 years, as shown in Table 4 below. The poor fiscal marksmanship was attributed primarily to errors in forecasting of tax collections (also seen in Table 4). A similar study of the Centre’s forecasts on revenues and expenditure reveals that forecasts are not rational in nature, and not all available information is factored in correctly (Bhattacharya & Kumari, 1988). The sub-components of the plan grants from Centre mostly involve funding for central sector schemes and centrally sponsored schemes.<sup>6</sup> Given this revenue dependence on the Centre, a shortfall in the Centre’s revenue projections will ultimately result in the states receiving fewer grants.

**Table 4: Centre’s Forecasting Errors on Revenue and Expenditure over the Years 1997-98 to 2018-19**

Year	% Difference in Actuals from Budget estimates		
	Revenue Receipts	Total Expenditure	Tax Revenue Receipts
1997-1998	-12.56	-0.05	-15.63
1998-1999	-7.71	4.27	-10.44
1999-2000	-0.73	5.00	-3.09
2000-2001	-5.42	-3.80	-6.36
2001-2002	-13.07	-3.40	-18.01
2002-2003	-5.45	0.94	-22.72
2003-2004	3.92	7.42	1.53
2004-2005	-1.07	4.15	-3.89

<sup>6</sup> Central sector schemes are completely funded as well as executed by the Central government and departments, on subjects on the Union list. Centrally sponsored schemes, while funded by both the Centre and the state governments, are implemented by states and their agencies.

2005-2006	-1.06	-1.60	-1.17
2006-2007	7.66	3.44	7.33
2007-2008	11.40	4.72	8.83
2008-2009	-10.40	17.72	-11.98
2009-2010	-6.78	0.36	-2.58
2010-2011	15.58	7.99	6.22
2011-2012	-4.87	3.71	-4.64
2012-2013	-6.03	-5.40	-3.84
2013-2014	-3.94	-6.36	-7.86
2014-2015	-7.42	-7.31	-7.54
2015-2016	4.68	0.75	0.42
2016-2017	-0.20	-0.14	5.21
2017-2018	-5.31	-0.22	1.26
2018-2019	-10.01	-5.20	-11.04

*Source: Authors' Analysis; Data from: Union Budgets of India*

The conditionalities imposed by the Centre contribute to the gap between the actuals and estimates of centrally sponsored schemes. Centrally sponsored schemes are broadly divided into 'core of the core' and 'core' schemes with a prescribed model of revenue sharing. This ratio of sharing between the Centre and the state is 70:30, 60:40 and 50:50 for General Category states and 90:10 for Special Category states. Further, centrally sponsored schemes are mandated by the Centre, and the actual grants released are tied to the state's actual performance with regard to the scheme (Garg, 2006). However, these guidelines are exacting and not geared toward better performance. For example, the National Health Mission lays down a population criteria for setting up a health facility, not taking into account that certain poor states may have low population density (Kapur, 2019).

In addition to this, the states need to raise and match the grants given by the Centre in the decided ratio. The actuals in this case differ from the estimates, if the states are unable to put up matching grants for a scheme. M. Govinda Rao, in his forthcoming paper<sup>7</sup>, elaborates on how a shortfall in grants from the Centre, results in states scaling back on capital expenditure rather than already committed revenue expenditure. This shortfall translates to reduced allocation for centrally sponsored schemes as well. Thus, if the states are unable to put up their end of the ratio, the grant from the Centre also falls through. On Sarva Shiksha Abhiyan, the poorer states couldn't access the grants given as they were unable to raise revenues of their own to match the

<sup>7</sup> Forthcoming publication titled 'Budget and Tax System Changes: Confusing Signals' by M. Govinda Rao

grants due (Raghavan, 2014). The later installments are only given after a state is able to fulfill extensive formalities (such as utilisation certificates) on the scheme in a very time consuming process. In the time it takes to fulfill formalities, ground realities may change and the Centre may introduce budget cuts (Rao, 2017). In cases where states are unable to utilize the initial tranche of grants, this too results in non-release or delay in transferring grants to the states (Jha et al., 2008). This invariably leads to mismatched incentives on such schemes where the focus for states is on utilisation of the money than on better implementation.

### 2.3 The Difficult Job of the Finance Commission

The Finance Commission makes recommendations on grants based on the estimates and forecasts of revenue and expenditure of the Centre and states. This data, as discussed earlier, is filled with errors. It is tasked with doing the necessary adjustments to make the state budgets' data comparable as well as the projections realistic (Reddy & Reddy, 2019). It also judges the revenue needs according to the norms laid down factoring in tax effort, the state's economy and expenditure before awarding grants. Despite these efforts, there is divergence between its projections and the actuals as shown in Table 5. Certainly, this divergence leads to issues with fiscal marksmanship at the states.

**Table 5 : Non-Plan Revenue Deficits, Projections and Actuals**

Finance Commission	Finance Commission Projection	Actual	Variation (Actual over Projection)	Percentage Variation
Tenth (1995-2000)	7582	61831	54,249	715.5
Eleventh (2000-5)	35359	183997	148,638	420.4
Twelfth (2005-10)	56857	164964	108,107	190.1
Thirteenth (2010-15)	51799	139689	87,890	169.7

*Source: Indian Fiscal Federalism by Y.V Reddy and G.R Reddy (Chapter 9, Page 141)*

The above table suggests that the actual transfers were far greater than what the Finance Commission projected - possibly due to tax collections being better than projected. This will necessarily creep into marksmanship of states. There are many reasons for such a divergence to occur. First, the governing principles set by the Finance Commission on awarding grants gives rise to perverse incentives. One of the dominant principles for the awarding of grants is the budgetary needs of the state accounted for through the revenue gap. But this principle gives rise to moral hazard providing incentive to indulge in 'fiscal dentistry' - to underestimate their revenue projections and overestimate expenditure - in an attempt to receive more grants from

the Centre (Rao, 2000). Further, there remains a perception amongst states that the Finance Commission scrutinises their revenues and expenditure according to much stricter norms and hence more states attempt to accordingly tailor their budgets (Reddy & Reddy, 2016). This, of course, doesn't explain why actuals are greater than projections but indicates why it will be hard for the Finance Commission to project correctly.

The Finance Commission not only has to reassess the revenue gap of the states, but also has to see the fiscal room available from the Centre's coffers to bridge that gap. The 14th Finance Commission re-assessed the state's pre-devolution revenue gap as being Rs. 25.7 lakh crores or 2.7% of GDP between 2015-16 and 2019-20 compared to the Rs. 59.3 lakh or 6.21% of GDP gap projected by the states as seen in Table 6.

**Table 6: State projections and Fourteenth Finance Commission Re-Assessment for 2015-16 to 2019-20**

Item	States' Projections (Rs.crore) (% of GDP)	Finance Commission Re-Assessment (Rs.crore) (% of GDP)
Own Revenue Receipts	7041349 (7.36%)	8209352 (8.58%)
Revenue Expenditure	12980292(13.57%)	10632315 (11.12%)
Pre-Devolution Revenue Gap	5938943(-6.21%)	2577919 (-2.70%)

*Source: Fourteenth Finance Commission Report*

As stated earlier, specific purpose grants - such as grants for centrally sponsored schemes - are tied to more conditionalities. Sector specific grants have been granted since the Third Finance Commission with the Sixth Finance commission the first to make large increases in sector specific grants. The Seventh Finance Commission recommended grants to specific states which had backward administrative standards. The Eleventh Finance Commission mandated grants for special problems of states and to local bodies based on the 73rd and 74th Amendments to the constitution. These specific purpose grants such as the local body grants were given to augment the finances of municipalities and rural panchayats. But in case states did not comply with the norms for these specific purpose grants such as raising their share of the grant, the subsequent transfers were held back. This ultimately explained the variation of the budgetary estimates. It is only the 14th Finance Commission that, in a major deviation from the previous Commissions, did not specify sector specific or state specific grants. Instead, it recommended more untied grants to the states, more in line with the spirit of cooperative federalism.

Last, the Finance Commissions make macroeconomic assumptions around the growth rate of the global economy, price level and interest rates etc to arrive at a projection closer to actual outcomes. Such unanticipated shocks are many and contribute to the random errors in deviation of actual outcomes from projections. Shocks from the global economy are hard to predict: recessions, oil spikes, domestic shocks such as increased financing of public and foreign debt due to inflation spikes, and slowing down of investment due to adverse policies. These impact revenue and expenditure projections. A bad drought or a natural disaster for which adequate funding has not been set aside, will also potentially throw off calculations. These are, however, largely random factors where it is difficult to achieve better fiscal marksmanship compared to the systemic biases in forecasting (Chakraborty & Sinha, 2018).

## **Conclusion**

The above analysis makes it clear that fiscal marksmanship of the states has too many variables and too many actors for it to be precise. The volatility of fiscal transfers — both tax devolution and grants — has a detrimental impact on the functioning of the state. On the tax devolution front, the Goods and Services Tax (GST) and the compensation cess, defined by a formula by the Finance Commission should help to reduce volatility. The GST compensation cess for revenue losses should ideally help states budget their revenue estimates better and reduce uncertainty. However, it is hard to determine the impact of GST on fiscal marksmanship of fiscal transfers, given the limited number of years we have data for. On grants from Centre, which we have delved into, numerous forecasting issues are both pertaining to systemic issues germane to the institution involved, and random or unforeseen errors due to the contingent nature of public policy. While the latter are hard to control, more can be done to reduce errors in the former.

At the state level, problems that can be addressed are the poor estimation methods employed, the under capacity of most finance departments in drawing out budgets and the better implementation of schemes and projects. In addition, governments would do well to stay clear of arbitrary policies that introduce unaccounted expenditure that stress public finances. The issues faced by the state hold true for the Centre as well. It too employs poor estimation methods — for example, its estimates on tax collection are more in the nature of ambitious targeting than rational forecasting. Given the dependence of the states on the Centre, it is crucial that it fix its budgetary processes. Last, impractical conditionalities — imposed either by the Centre or the Finance Commission — for grants for specific purposes have resulted in deviations from actuals. Beyond these issues are largely the exogenous factors which cannot be foreseen or controlled. Thus, while estimates can never be exact, there is enough scope to minimise forecasting errors.

## References

- Bhanumurthy, N., Bose, S., & Satija, S. (2019). Fiscal Policy, Devolution and Indian Economy. NIPFP Working Paper Series, (287). Retrieved from <https://nipfp.org.in/publications/working-papers/1883/>
- Chakraborty, P., Chakraborty, L., & Shreshtha, R. (2019). Budget Credibility of Subnational Governments: Analyzing the Fiscal Forecasting Errors of 28 States in India. NIPFP Working Paper Series, (280). doi: [https://www.nipfp.org.in/media/medialibrary/2019/09/WP\\_2019\\_280.pdf](https://www.nipfp.org.in/media/medialibrary/2019/09/WP_2019_280.pdf)
- Chakraborty, L., & Sinha, D. (2018). Has Fiscal Rules changed the Fiscal Behaviour of Union Government in India? Anatomy of Budgetary Forecast Errors in India. International Journal Of Financial Research, 9(3), 75. doi: 10.5430/ijfr.v9n3p75
- Jena, P. (2006). Fiscal Marksmanship: Link between Forecasting Central Tax Revenues and State Fiscal Management. Economic And Political Weekly, 41(37). Retrieved from <https://www.epw.in/journal/2006/37/special-articles/fiscal-marksmanship.html>
- Kapur, A. (2019). Centre gives a lot of money to states for social welfare. A good policy, but only on paper. The Print. Retrieved from <https://theprint.in/opinion/centre-gives-a-lot-of-money-to-states-for-social-welfare-a-good-policy-but-only-on-paper/253685/>
- Kumari, A., & Bhattacharya, B. (1988). Budget Forecasts of Central Government Revenue and Expenditure: A Test of Rational Expectation. Economic And Political Weekly, 23(26). Retrieved 24 June 2020, from <https://www.jstor.org/stable/4378672>
- Mann, G. (2018). Central Transfers to States: Role of the Finance Commission. Retrieved 24 June 2020, from <https://www.prsindia.org/theprsblog/central-transfers-states-role-finance-commission>
- Mishra, N., & Singh, P. (2017). A Deep Dive into State Budgets in India. National Council of Applied Economic Research. Retrieved from <http://www.ncaer.org/Events/IPF-2017/IPF-2017-Mishra-Singh-Conf-version.pdf>
- Mohan, R. & D. Shyjan (2009) Tax devolution and grant distribution to States in India : analysis and roadmap for alternatives. CDS working papers, no.419. Trivandrum: CDS.

Pant, D. (2019). The arithmetic of this election year interim budget is questionable. The Print. Retrieved from <https://theprint.in/opinion/the-arithmetic-of-this-election-year-interim-budget-is-questionable/187038>

Raghavan, P. (2014). Cutting down centrally sponsored schemes would empower states and help improve their effectiveness. The Times Of India. Retrieved from <https://timesofindia.indiatimes.com/blogs/minorityview/cutting-down-centrally-sponsored-schemes-would-empower-states-and-help-improve-their-effectiveness/>

Reddy, Y., & Reddy, G. (2019). Indian Fiscal Federalism (1st ed., pp. 104-151). Oxford University Press.

Reserve Bank of India - State Finances: A Study of Budgets. (2019). Retrieved 24 June 2020, from <https://www.rbi.org.in/Scripts/AnnualPublications.aspx?head=State%20Finances%20:%20A%20Study%20of%20Budgets>

Rao, G. (2017). Central Transfers To States In India Rewarding Performance While Ensuring Equity | National Institute of Public Finance and Policy Retrieved 24 June 2020, from <https://smartnet.niua.org/content/6de1129a-310e-47a4-91aa-71e56e234483>

Srinivasan, S., Misra, P., & Rajadhyaksha, N. (2019). Finance ministry has a poor forecasting record. Livemint. Retrieved from <https://www.livemint.com/Politics/Ey6VRIMAozRKO82XGruVbP/Finance-ministry-has-a-poor-forecasting-record.html>

Subhash Chandra Garg. (2006). Transformation of Central Grants to States: Growing Conditionality and Bypassing State Budgets. Economic and Political Weekly, 41(48), 4977-4984. Retrieved June 24, 2020, from [www.jstor.org/stable/4418976](http://www.jstor.org/stable/4418976)

Tripathi, P., & Grigoriadis, T. (2020). State Capacity and the Soft Budget Constraint: Fiscal Federalism, Indian Style. *Indian Style* (May 17, 2020).

## Appendix

Concept	Definition
State plan schemes	State plan schemes are plans funded and executed by states for subjects that are specifically not on the Union list.
Central plan schemes	Central plan schemes are those that are directly funded as well as executed by the Central government and departments, on subjects on the Union list.
Centrally sponsored schemes	Centrally sponsored schemes, are schemes while funded by both the Centre and the state governments, are implemented by states and their agencies. There is a prescribed model of revenue sharing between the Centre and the state with a greater share of the funding allocated to the Centre. This ratio of sharing between the Centre and the state depends on the category of the state and the scheme.
North-Eastern council or special plan schemes	North-Eastern Council or special plan schemes are schemes specifically designed for the development of the North-Eastern states, where the schemes are either funded completely by the Centre or funding is shared in a 90:10 ratio model between the Centre and states.
Non-plan grants	Non-plan grants are grants given to cover non-plan gaps on revenue accounts of the states.