Analysis of State Budgets 2017-18:

Emerging Issues

POLICY BRIEF
ON
STATE FINANCES
2017

Pinaki Chakraborty
Manish Gupta
Lekha Chakraborty
Amandeep Kaur

Introduction

While the Union Government finances show a degree of consolidation in the last couple of years, the finances of State Governments show signs of increasing fiscal imbalance reflected in the levels of both revenue and fiscal deficits in large number of States. If we consider all-State trends in State finances, it appears that all States' fiscal deficit after a sharp reduction has started increasing in recent years. The RBI Study on State Finances for the year 2016-17 also observed that States started borrowing more in recent years compared to the period from 2005-06 to 2011-12 reflecting rising trend in fiscal imbalance at the all States level. Growing fiscal imbalance has the potential to derail fiscal consolidation at the general government level.

Medium term fiscal challenges at the State level are many. The most important being the taking over of DISCOM liabilities under the UDAY scheme by the State governments resulting in an increase in deficit at the State level. Implications of UDAY in-terms of higher debt liability and interest outgo requires clear understanding, particularly when the impact is asymmetric across States. It is also argued that potential fiscal risk due to farm loan waivers can really put pressure on the level of deficit. Though, the roll out of Goods and Services Tax (GST) from 1 July, 2017 is historic, benefits of GST would only start flowing in when the new tax system stabilizes. The medium term fiscal challenge would be to maintain fiscal balance, improve quality of fiscal deficit by reducing revenue deficit and make resources available for key priority areas of spending under social and economic services. Keeping these objectives in mind, this analysis on State finances has been prepared based on the 2017-18 State budgets for 28 States.[1] The objective is to understand emerging issues in State finances based on State Budgets 2017-18 in a comparative perspective, State-level fiscal policy stance and key sectoral spending. The other major objective of this exercise is also to have a fair understanding of the aggregate fiscal position of both Union and States for the current fiscal year.

Finances of the Union and State Governments

Table 1 provides a comparative picture of the finances of the Union and State Governments for the period 2011-12 to 2017-18BE. From the examination of key fiscal indicators, it is evident that between 2011-12 and 2017-18BE, there has been an improvement in the finances of the Union Government with major fiscal parameters like revenue deficit, fiscal deficit, primary deficit and outstanding liabilities expressed as percentage of GDP. The revenue deficit of the union government as percent of GDP declined from 4.51 per cent in 2011-12 to 2.51 per cent in 2015-16 and is budget to improve further to 1.91 per cent in 2017-18BE, while fiscal deficit declined from 5.91 per cent to 3.24 per cent during the same period. The primary deficit also showed considerable improvement declining from 2.78 per cent in 2011-12 to 0.14 per cent in 2017-18BE and outstanding liabilities as percentage of GDP declined from 51.71 per cent in 2011-12 to 47.27 per cent in 2017-18BE.

The combined finances of the State governments, however, showed deterioration during this period (table 1). We find a deterioration of the fiscal position of States since 2013-14. Surpluses in revenue account turned into deficit and we observe re-emergence of revenue deficit in 2013-14. The number of States hav

[1] This excludes data relating to 2017-18 budget of Manipur.

Table 1: Finances of the Union and States

(% of GDP)

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 RE	2017-18 BE
Revenue Deficit							
Union Government	-4.51	-3.66	-3.18	-2.94	-2.51	-2.05	-1.91
State Governments	0.27	0.20	-0.09	-0.37	-0.04	-0.23	0.03
Fiscal Deficit							
Union Government	-5.91	-4.93	-4.48	-4.10	-3.89	-3.52	-3.24
State Governments	-1.93	-1.97	-2.21	-2.63	-3.03	-3.67	-2.69
Primary Deficit							
Union Government	-2.78	-1.78	-1.14	-0.87	-0.67	-0.34	-0.14
State Governments	-0.36	-0.45	-0.70	-1.01	-1.48	-1.99	-0.97
Outstanding Liabilities							
Union Government	51.71	50.99	50.47	50.16	50.45	49.01	47.27
State Governments	22.34	21.80	21.40	21.49	22.83	23.91	24.10

Note: Surplus (+) / Deficit (-); GDP is at current prices (2011-12 series); Fiscal Deficit of States in 2015-16 and 2016-17BE includes DISCOM debt taken over by the States under UDAY; For 2016-17RE and 2017-18BE the data is for 28 States. As the 2017-18 budget of Manipur was not available, it could not be included in the analysis.

Source: 1) Union Government: Budget Documents (various years); 2) State Government: Finance Accounts (various years) and Budget Documents 2017-18; 3) Economic Survey 2016-17, Vol. 2.

Table 2: States with Revenue Deficit/Surplus

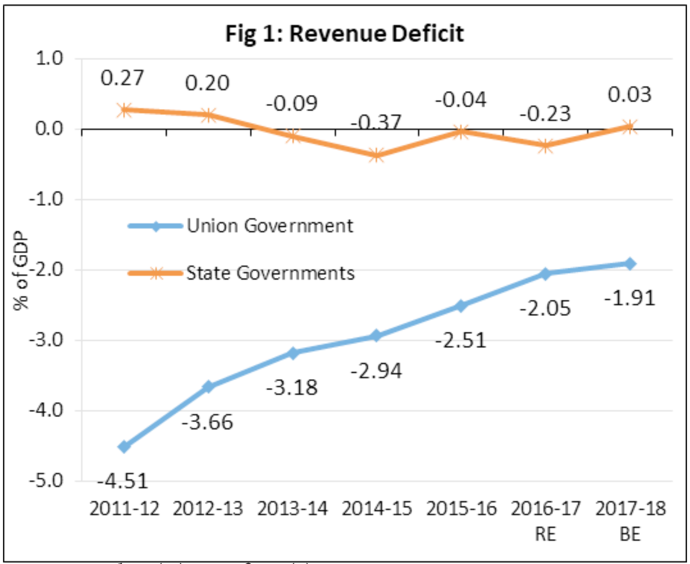
Revenue Deficit in 2013-14	Revenue Deficit in 2014-15	Revenue Deficit in 2015-16	Revenue Deficit in 2016-17 RE	Revenue Deficit in 2017-18 BE
Chh, Goa, Har, HP, Ker, Mah, Miz, Pun Raj, TN, WB	AP, Ass, Chh, Har, HP, J&K, Jha, Ker, Mah, Miz, Pun, Raj, TN, Utt, WB	AP, Har, J&K, Ker, Mah, Pun, Raj, TN, Utt, WB	AP, Ass, Har, HP, Ker, Mah, Nag, Pun, Raj, TN, Utt, WB	AP, Har, HP, Ker, Mah, Pun, Raj, TN
11 States	15 States	10 States	12 States	8 States

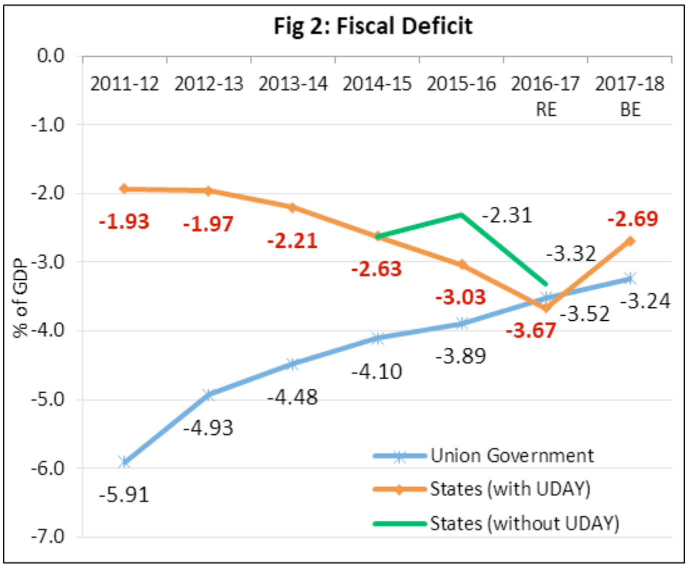
Note: Data for Manipur for the year 2016-17RE and 2017-18BE not available

Source: Finance Accounts of State (various years) and Budget Documents 2017-18.

ing revenue deficit increased from 6 in 2011-12 to 11 in 2013-14 and further to 15 in the following year. In 2015-16, 10 states had deficit in their revenue account. Although the combined revenue account of all States show a small surplus to the tune of 0.03 per cent of GSDP in 2017-18BE (see fig 1), 8 States have budgeted for revenue deficit as can be seen from table 2.

Fiscal deficit aggregated across States also deteriorated during this period. Fiscal deficit as percentage of GDP declined from 1.93 per cent in 2011-12 to 3.03 per cent in 2015-16 and is budgeted to further decline to 3.67 per cent in 2016-17RE (fig 2). The FD-GDP ratio in 2015-16 exceeded the 3 per cent FRBM ceil





Note: Surplus (+) / Deficit (-)

Source: Finance Accounts of State (various years) and Budget Documents 2017-18; Economic Survey 2016-17, Ministry of Finance, Government of India.

ing of fiscal prudence for the first time since 2004-05. High fiscal deficit in 2015-16 and 2016-17RE is on account of State governments taking over 75 per cent of the DISCOM debt under UDAY. If we exclude the UDAY liabilities the FD-GDP ratio would be around 2.31 per cent in 2015-16 and 3.32 per cent in 2016-17RE. Number of States having fiscal deficit greater that 3 percent, increased from 9 in 2011-12 to 14 in 2014-15 and further to 19 in 2016-17RE as can be seen from table 3. In 2017-18, fiscal deficit of all States as percentage of GDP is budgeted to be around 2.69 per cent (table 1) and 11 States have budgeted for FD-GDP ratio greater than 3 percent.

The primary deficits of all States taken together also show deterioration with primary deficit as percentage of GDP increasing from 0.36 per cent in 2011-12 to 1.99 per cent in 2016-17RE as evident from table 1. In 2017-18BE, the primary deficit is budgeted to decline by more than 1 percentage points to 0.97 percent.

Outstanding liabilities aggregated across all States as per cent of GDP from 22.34 per cent in 2011-12 to 21.40 per cent in 2013-14, thereafter it increased to 22.83 per cent in 2015-16 and is budgeted to be around 24.10 per cent in 2017-18 (table 1). RBI's recent report on State finances attribute UDAY to result in an increase in outstanding liabilities as percentage

Table 3: States with Fiscal Deficit/Surplus

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 RE	2017-18 BE
FD > 3%	**9** ArP, J&K, Ker, Man, Meg, Miz, Nag, Pun, WB	**7** HP, J&K, Ker, Miz, Nag, Pun, WB	**7** ArP, Goa, HP, J&K, Ker, Miz, WB	**14** AP, Chh, HP, J&K, Jha, Ker, Man, Meg, Miz, Raj, Tri, UP, Utt, WB	**12** AP, Goa, Har, J&K, Jha, Ker, Raj, Sik, Tel, Tri, UP, Utt	**19** AP, Ass, Bih, Goa, Har, HP, J&K, Ker, MP, Meg, Miz, Nag, Odi, Pun, Raj, TN, Tel, Tri, UP	**11** Chh, Goa, HP, J&K, Ker, MP, Meg, Odi, Pun, Tel, Tri
FD < = 3%	**17**	**19**	**19**	**14**	**14**	**9**	**17**
Fiscal Surplus	**2** Odi, Tri	**2** Odi, Tri	**2** Man, Tri	**1** ArP	**3** ArP, Ass, Miz	**0**	**0**
Total	**28**	**28**	**28**	**29**	**29**	**28**	**28**

Note: Data for Manipur for the year 2016-17RE and 2017-18BE not available.

Source: Finance Accounts of State (various years) and Budget Documents 2017-18.

of GDP by about 1.5 per cent in 2016 over 2015 and by 0.7 per cent in 2017 over 2016. The report further cautions about the increase in future liabilities of States if farm loan waivers become the norm. State-wise analysis show that between 2014-15 and 2015-16 and between 2015-16 and 2016-17RE, outstanding liabilities as percentage of GSDP increased in 18 and 17 States respectively.

2015-16 (Fig 4). This is not surprising given the restructuring of grants to accommodate enhanced tax devolution. However, total grants to States are budgeted to increase in 2016-17RE.

However, if we compare transfer to GSDP ratio between 2011-12 and 2017-18BE, it declined sharply from 6.76 per cent in 2011-12 to 5.74 per cent in 2014-15 (Fig 5). Post FFC award there is a significant

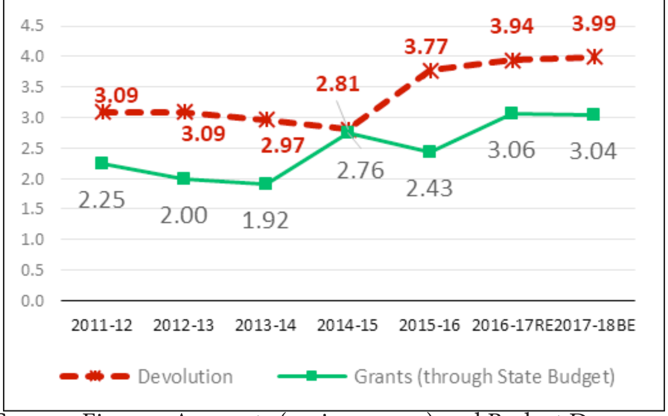


Fig 3: Central Transfers to States (% of GSDP)

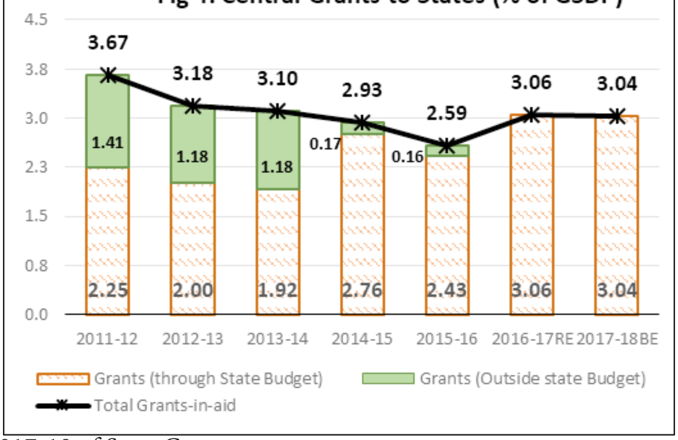


Fig 4: Central Grants to States (% of GSDP)

Source: Finance Accounts (various years) and Budget Documents 2017-18 of State Governments.

Trends in Central Transfers to States

While tax devolution as percentage of GSDP[2] aggregated across all States increased for all States in 2015-16, the first year of the award of the Fourteenth Finance Commission (FFC) as compared to 2014-15-the terminal year of the Thirteenth Finance Commission award, grants (through State budgets) as percentage of all State GSDP declined (Fig 3). If we add to it, grants that were going directly to State implementing agencies bypassing the State budgets, we find total grants as a percentage of GSDP have also declined in

increase in transfer to GSDP ratio to 6.36 per cent in 2015-16. Total transfers are budgeted to increase further to 7.00 per cent in 2016-17RE and 7.03 per cent in 2017-18BE. Not only has the total transfers to States increased, its composition has also undergone a change during this period. Due to the increase in devolution to 42 per cent of shareable taxes, untied and formula based transfers (i.e., tax devolution) have become the dominant form of transfers accounting for about 56.8 per cent of total central transfers to State governments in 2017-18BE.

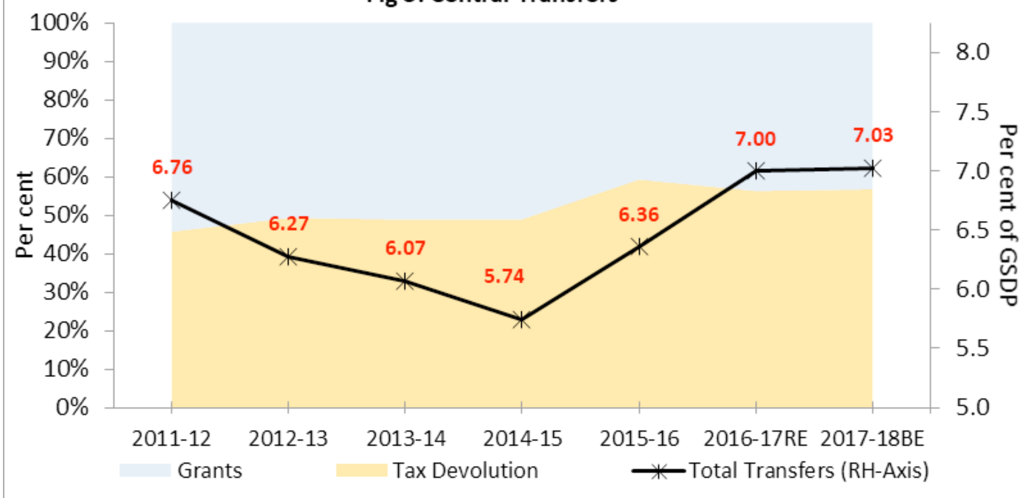


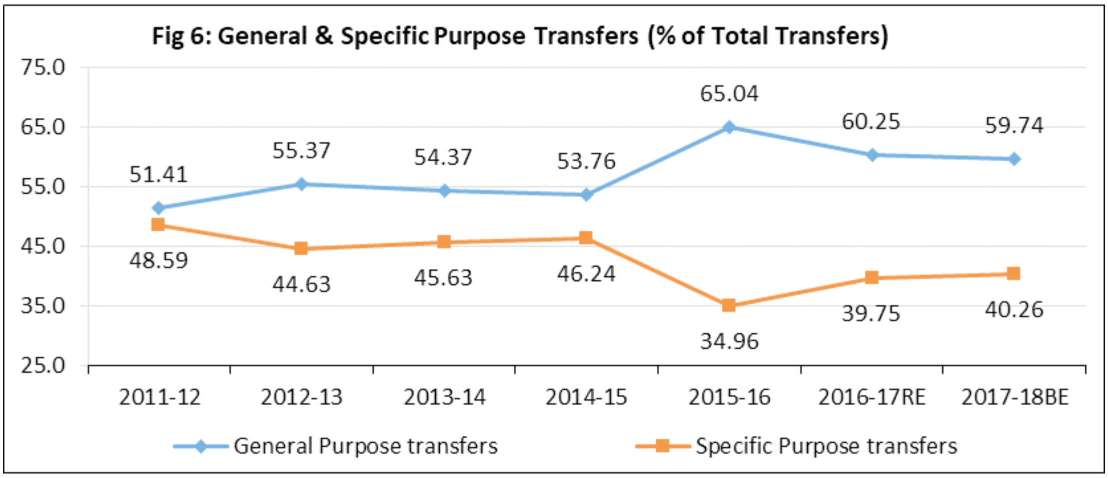
Fig 5: Central Transfers

Source: Finance Accounts (various years) and Budget Documents 2017-18 of State Governments.

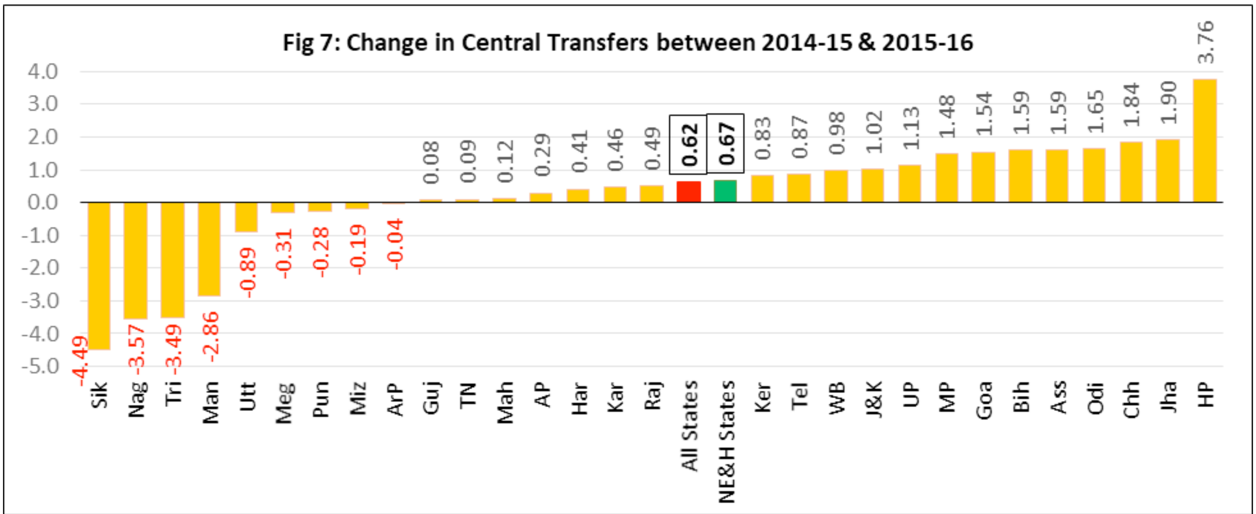
[2] GSDP number used in the analysis is at current prices-2011-12 series.

The share of general purpose transfers,[3] which are unconditional in nature, in total transfers increased from 51.41 per cent in 2011-12 to 59.74 per cent in 2017-18BE while that of specific purpose transfers, which are conditional in nature, have declined from 48.59 per cent to 40.26 per cent during this period (fig 6).

State-wise analysis reveal that, while all States benefitted from the increase in tax devolution in 2015-16 as compared to 2014-15, many of them experienced a reduction in central grants during this period. Total central transfers to States (including those going outside the State budgets) as percentage of GSDP declined for a number of States in 2015-16 vis-à-vis 2014-15 as evident from fig 7.



Source: Finance Accounts and Budget documents of States; Ministry of Finance, Government of India



Source: Finance Accounts (various years) and Budget Documents 2017-18 of State Governments.

12 and 2017-18BE mainly due to the fall in own tax revenues as evident from table 4. Own non-tax revenues have largely remained stagnant during this period. Between 2014-15 and 2015-16 own-tax revenues as percentage of GSDP declined in 19 States. States showing an increase in own tax revenues during this period are - Assam, Bihar, Goa, Haryana, Himachal Pradesh, J&K, Odisha, Mizoram, Rajasthan, and Telangana. A total of 14 States show a decline in own tax revenues in 2016-17 as compared to 2015-16 while the number of States where own tax revenues as percentage of GSDP have declined in 2017-18BE over 2016-17RE are 13.

Own Tax Revenue of States

There has been a decline in own revenues aggregated across all States as percentage of GSDP between 2011-

Analysis of own-tax revenues reveal that the most important state tax is the Sales tax/VAT which account for about 62-64 per cent of own-tax revenues

[3] We have considered tax devolution by Finance Commissions, Normal Central Assistance (or plan grants to State though Gadgil-Mukherjee formula) and post-devolution Non-plan Revenue Deficit/Revenue Deficit Grants recommended by Finance Commissions as General Purpose transfers.

Table 4: Own Revenues of States

(INR In Crores)

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 RE	2017-18 BE
Own Tax Revenue (OTR)	557396	654550	712417	780007	848035	955477	1098264
Own Non-Tax Revenue (ONTR)	99128	117262	132543	143721	153653	184325	195056
Own Revenue Receipts (ORR)	656523	771811	844960	923728	1001689	1139801	1293320
OTR as % of GSDP	6.74	6.95	6.64	6.51	6.33	6.35	6.44
ONTR as % of GSDP	1.20	1.24	1.24	1.20	1.15	1.23	1.14
ORR as % of GSDP	7.94	8.19	7.88	7.70	7.48	7.58	7.58

Source: Finance Accounts and Budget documents of States.

in aggregate. The other important state taxes are State Excise and Stamp and Registration fees. These three taxes together account for around 85-86 per cent of own-tax revenues aggregated across states (see table 5). Nine states account for about 69-70 per cent of own tax revenues of all states taken together. These are Andhra Pradesh, Gujarat, Karnataka, Maharashtra, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh and West Bengal.

As percentage of all states GSDP, these taxes also show a marginal decline between 2011-12 and 2017-18BE. State Sales tax/VAT as per cent of GSDP declined from 4.17 per cent in 2011-12 to 3.94 per cent in 2015-16 and is budgeted to be around 3.99 per cent in 2017-18BE, state excise declined from 0.87 per cent to 0.75 per cent and stamp and registration fee from 0.78 per cent to 0.61 per cent during this period.

With the roll out of GST from 1 July, 2017, a number of state taxes have been subsumed under GST. These are State VAT, central sales tax, purchase tax, luxury tax, entry tax (all forms), entertainment tax (not levied by local governments), tax on advertisements, taxes on lotteries, betting and gambling and state surcharges and cesses so far as they relate to supply of goods and services. What will be its impact on the own tax revenues of the state governments will depend on the revenue buoyancy of the GST. However, for the next five years the Union government has guaranteed all states governments a compensation equivalent to 14 per cent annual growth in revenues.

Expenditures

Expenditures aggregated across all States between 2014-15 and 2015-16 show total expenditure as percentage of all State GSDP to be higher in 2015-16 as evident from table 6. While revenue expenditure increased marginally during this period, the increase in total expenditures is largely driven by increase in capital expenditure which as percentage of GSDP increased from 2.27 per cent in 2014-15 to 2.49 per cent in 2015-16. In 2017-18BE, both Revenue and Capital

Table 5: Composition of Own Tax Revenues of States

(percent)

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 RE	2017-18 BE
State Sales Tax/VAT	61.91	61.70	63.72	63.33	62.36	63.88	64.37
State Excise	12.88	12.62	11.42	11.70	11.91	11.73	12.04
Stamp & Registration Fees	11.55	11.55	10.85	10.96	10.92	9.76	9.78
Other State Taxes	13.67	14.13	14.01	14.01	14.81	14.63	13.82
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00
As % of GSDP							
State Sales Tax/VAT	4.17	4.29	4.23	4.05	3.94	4.05	3.99
State Excise	0.87	0.88	0.76	0.75	0.75	0.74	0.75
Stamp & Registration Fees	0.78	0.80	0.72	0.70	0.69	0.62	0.61
Other State Taxes	0.92	0.98	0.93	0.90	0.94	0.93	0.86

Source: Finance Accounts and Budget documents of States.

expenditure are budgeted to increase to 14.57 per cent and 2.79 per cent of GSDP respectively. Capital expenditure on general services as percentage of GSDP has largely remained unchanged between 2014-15 and 2017-18BE. The entire increase in capital expenditures is primarily due to the increase in capital expenditure on economic and social services. However, there are State-wise variations. The capital expenditure on social services as percentage of GSDP increased from 0.53 per cent in 2014-15 to 0.70 per cent in 2017-18BE while capital expenditure on economic services increased by 0.34 percentage points during this period and was budgeted to be around 1.92 per cent in 2017-18BE. Total expenditure as percentage of GSDP declined in 2015-16 vis-à-vis 2014-15 in 14 States while 3 States have budgeted for an increase in total expenditures in 2016-17RE over 2015-16. Although capital expenditures as percentage of GSDP is higher in 2015-16 as compared to 2014-15, 12 States show a decline. These are Assam, Gujarat, Karnataka, Manipur, Meghalaya, Mizoram, Nagaland, Punjab, Sikkim, Tamil Nadu, Tripura and Uttarakhand. In 2016-17RE, 9 States budgeted for a decline in capital expenditure (as per cent of GSDP) over 2015-16.

remain unchanged at around 31.30 percent.

The expenditure on social services aggregated across all States as per cent of all State GSDP show an increase between 2014-15 and 2017-18BE. Expenditures on education and health,[4] which account for about 53-55 per cent of total social sector expenditures, have not shown a major increase when measured as a percentage of GSDP. The increase in expenditures in social services as percentage of GSDP is largely driven by the increase in expenditures in urban development, water supply and sanitation, housing, and welfare of SCs, STs and backward classes.

State-wise analysis show that between 2014-15 and 2015-16, expenditure as percentage of GSDP -

a) on social services declined in 15 States, namely Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh, Gujarat, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tamil Nadu, Tripura, Uttarakhand and West Bengal;

b) on education declined in 20 States. These are Andhra Pradesh, Assam, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttarakhand and West Bengal; and

c) on health declined in 10 States viz., Andhra Pradesh, Arunachal Pradesh, Himachal Pradesh, Karnataka, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, and Uttarakhand.

Table 6: Trends in Expenditure Aggregated Across States

(% of GSDP)

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 RE	2017-18 BE
Total Expenditure	15.06	15.12	14.92	15.92	16.21	17.59	17.36
Revenue Expenditure	12.99	13.07	12.86	13.66	13.72	14.81	14.57
Capital Expenditure	2.07	2.05	2.06	2.27	2.49	2.77	2.79
Expenditure on General Services	4.66	4.55	4.46	4.46	4.39	4.08	4.11
Expenditure on Economic Services	4.29	4.40	4.23	4.98	5.11	5.51	5.44
Expenditure on Social Services	5.58	5.63	5.61	5.81	6.04	6.71	6.45
Social Services							
Expenditure On Education	2.68	2.67	2.63	2.70	2.68	2.79	2.69
Expenditure on Health	0.59	0.60	0.60	0.67	0.70	0.78	0.73

Source: Finance Accounts and Budget documents of States

Between 2014-15 and 2015-16, while total expenditure on general services as percentage of GSDP have declined from 4.46 per cent to 4.39 percent, expenditures on social services and economic services have increased (table 6). Expenditures on general services are budgeted to decline further in 2017-18BE. Between 2014-15 and 2017-18BE, the share of expenditure on social services in total expenditure is budgeted to increase from 36.47 per cent to 37.17 per cent while that of expenditure on economic services have largely

[4] Expenditure on 'Education' pertains to expenditure on 'Education, Sports, Arts and Culture, while expenditure on 'Health' consists of expenditure on Medical and Public Health.

Table 7: States spending lower (in per capita terms) than All State Average Expenditure on Social Sector

	2014-15	2015-16
Social Services	Bihar, Jharkhand, Madhya Pradesh, Odisha, Punjab, Telangana, Uttar Pradesh, West Bengal **(8 States)**	Assam, Bihar, Jharkhand, Madhya Pradesh, Odisha, Punjab, Uttar Pradesh, West Bengal **(8 States)**
Education	Bihar, Jharkhand, Madhya Pradesh, Odisha, Punjab, Telangana, Uttar Pradesh, West Bengal **(8 States)**	Bihar, Jharkhand, Madhya Pradesh, Odisha, Punjab, Telangana, Uttar Pradesh, West Bengal **(8 States)**
Health	Assam, Bihar, Haryana, Jharkhand, Madhya Pradesh, Rajasthan, Telangana, Uttar Pradesh, West Bengal **(9 States)**	Bihar, Jharkhand, Madhya Pradesh, Rajasthan, Uttar Pradesh **(5 States)**

If we examine the trend in per capita expenditures on social sector we find that between 2011-12 and 2015-16, per capita expenditures of all States, in real terms, in education, health and social services increased at an annual average rate of 6.39 percent, 10.81 per cent and 8.28 per cent respectively. The rate of growth of per capita expenditures (in real terms) was much lower for the North-Eastern and Himalayan (NE&H) States. However, the per capital social sector expenditures of aggregated across 11 NE&H is on an average higher than that of the general category States. Eight States were spending less than the all States average per capita expenditure on social services and education in 2014-15 and 2015-16. As regards expenditure on health, 9 States were spending less than all State per capita expenditure in 2014-15 and 5 States in 2015-16 as can be seen from table 7. From the table it is evident that States spending lower than all States average per capita expenditures in social sector are mostly States with lowest per capita GSDP in the country, except Punjab which is a high income State and West Bengal which is a middle income State. These low per capita income States are also the States having some of the lowest human development indicators in the country.

In order to examine whether State-level equalisation is happening or not with respect to social sector expenditures we compare the ratio of per capita expenditure of highest per capita income State and lowest per capita expenditure State between 2014-15 and 2015-16 among the general category States and also among the NE&H States. Among the general category States we find that per capita expenditures on education, health and social services are not converging and the gap between the State with the highest and lowest per capita expenditure has increased. However, among the NE&H States the gap between States with the highest and lowest per capital expenditure on health and social services have declined in 2015-16 vis-à-vis 2014-15, but in case of education we find that the gap have increased.

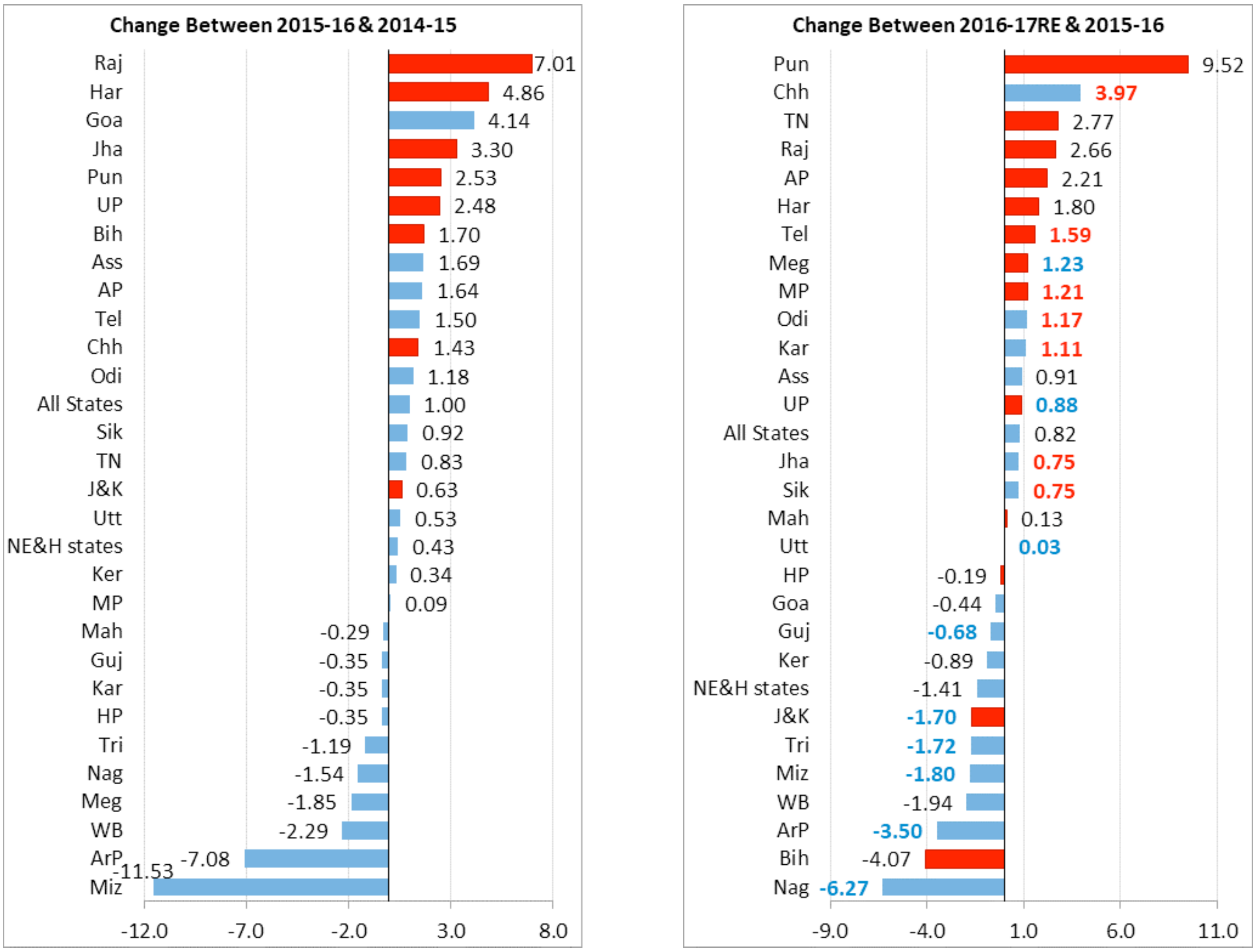
Outstanding Liabilities

Outstanding liabilities aggregated across all States as percentage of GSDP have declined from 23.60 per cent in 2011-12 to 22.31 per cent in 2014-15 and it increased by one percentage point to 23.31 per cent in the following year. Outstanding liabilities are budgeted to further increase to 24.13 per cent in 2016-17RE. In 2015-16, 18 States report an increase in outstanding liabilities as percentage of GSDP over 2014-15, while 17 States budget for an increase in 2016-17RE. As per information from RBI, during 2015-16 eight States[5] borrowed INR 98960 crores under UDAY while in 2016-17 thirteen States[6] borrowed under UDAY. The increase in liabilities of the State governments in 2015-16 and 2016-17 could be due to UDAY liabilities, as these liabilities add to the debt of the States. Moreover, the new framework of borrowing recommended by the FFC provided additional borrowing to fiscally

[5] The 8 States are Bihar, Chhattisgarh, Haryana, Jammu & Kashmir, Jharkhand, Punjab, Rajasthan and Uttar Pradesh

[6] These States are Uttar Pradesh, Maharashtra, Haryana, Punjab, Rajasthan, Bihar, Jammu & Kashmir, Andhra Pradesh, Tamil Nadu, Himachal Pradesh, Telangana, Madhya Pradesh and Meghalaya.

Fig 8: Change in Outstanding Liabilities of states between 2015-16 & 2014-15 and 2016-17RE & 2015-16 (as per cent of GSDP)



Note: Does not include Manipur; States with Red bars are the States that have taken over DISCOM debt in 2015-16 and 2016-17. State with bold red numbers are eligible to 0.50 per cent additional borrowings in 2016-17 and those with blue red numbers eligible for additional 0.25 per cent borrowing based on FFC recommendations.

prudent States.[7] This facility came into operation in 2016-17, the second year of the award of the FFC. As per estimates by RBI, States eligible for additional borrowings are:

i) Additional borrowing of 0.25 per cent of GSDP: Arunachal Pradesh, Gujarat, Jammu & Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, Uttar Pradesh and Uttarakhand (9 States);

ii) Additional borrowing of 0.50 per cent of GSDP: Chhattisgarh, Jharkhand, Karnataka, Madhya Pradesh, Odisha, Sikkim and Telangana (7 States).

In addition to the liabilities on account of UDAY, the increase in outstanding liabilities aggregated across states in the fiscal year 2016-17 could be due to the additional borrowing limits recommended by the FFC.

The reduction in outstanding liabilities during 2011-12 and 2014-15 was accompanied by a decline in interest payments to GSDP ratio. Between 2011-12 and 2015-16, interest payments aggregated across all States as percentage of GSDP declined from 1.65 per cent to 1.60 percent. However, with the increase in liabilities of State governments from 2015-16, interest payment as percentage of all State GSDP is budgeted to increase to 1.69 per cent in 2016-17RE and further to 1.70 per cent in 2017-18BE.

Conclusion

Based on our analysis of State Budgets 2017-18, it is observed that all State fiscal deficit has increased in recent years. Fiscal deficit to GDP ratio in the year 2015-16 was 3.03 per cent. In the year 2016-17 (RE) and 2017-18 (BE) it is estimated to be 3.67 and 2.69

[7] For more details refer to Chakraborty et al. (2016).

per cent respectively. Without UDAY liabilities, it is expected to be 3.32 per cent in 2016-17 (RE). It needs to be emphasized that even though the deficit level is on the rise, without UDAY liability it remained well below the FRBM targets in 2015-16 and states in aggregate is expected to be revert to below 3 per cent target of deficit in 2017-18. However, the level of fiscal imbalance is asymmetric across States. Some of the big States in terms of size of government expenditure have slipped into revenue deficits in recent years, which is a cause for concern. Though there has been an increase in the level of capital expenditure in States, its sustenance would depend on what happens to the revenue deficit. Downside fiscal risks are many and needs to be tackled in the medium term so that fiscal space for development spending is enhanced.

References

Budget Documents of State Governments (2017-18).

Chakraborty, Lekha, Manish Gupta and Pinaki Chakraborty (2017), "State Level Debt–Deficit Dynamics Emerging Issues", Economic and Political Weekly, Vol. 52, No. 9, pp. 24-26.

Chakraborty, Pinaki (2017), "GST: Too Late for the Battle on Federalism and Fiscal Autonomy" NIPFP Blog, 26 May 2017. (Url: http://www.nipfp.org.in/blog/2017/05/26/gst-too-late-battle-federalism-and-fiscal-autonomy/)

Comptroller and Auditor General of India (CAG), Finance Accounts of State Governments (various years), CAG, New Delhi.

Finance Commission (2009): Report of the Thirteenth Finance Commission 2010–2015, New Delhi.

Finance Commission (2014): Report of the Fourteenth Finance Commission, New Delhi.

Government of India (2017), Economic Survey 2016-17, Vol. 2, Ministry of Finance, Government of India, New Delhi.

Government of India (2017), Union Budget 2017-18, Ministry of Finance, Government of India, New Delhi.

Reserve Bank of India (2017), State Finance: A Study of Budgets of 2016-17, RBI, Mumbai.

UDAY and Power Sector Debt:

Assessing Efficiency Parameters and Impact on Public Finance

DISCUSSION PAPER

Pinaki Chakraborty
Lekha Chakraborty
Manish Gupta
Amandeep Kaur

1. Introduction

With the introduction of UDAY[1] - Ujwal DISCOM Assurance Yojana - States' deficits and debt have increased. We examine the progress of UDAY and its impact on sub-national public finances.[2] The UDAY scheme required State governments to absorb 75% of the DISCOM debt - 50% in 2015-16 and 25% in 2016-17. The scheme also issued bonds to take over DISCOM debt with a mix of equity, grant and loan. Since its launch, 27 States have signed MoU with the Union government and have joined this scheme.

This paper analyses the State-wise progress of UDAY scheme with a focus on financial and operational efficiency parameters. This paper also examines the impact of the UDAY scheme on State Finances. In 2015-16, eight States (Uttar Pradesh, Rajasthan, Chhattisgarh, Punjab, Jammu & Kashmir, Bihar, Jharkhand and Haryana) borrowed under UDAY, while in 2016-17, twelve States (Uttar Pradesh, Maharashtra, Punjab, Rajasthan, Bihar, Jammu & Kashmir, Andhra Pradesh, Tamil Nadu, Himachal Pradesh, Telangana, Madhya Pradesh and Meghalaya) borrowed under UDAY.[3] The other eight States (Gujarat, Goa, Manipur, Tripura, Uttarakhand, Puducherry and Kerala) have joined UDAY for achieving operational efficiency.

The impact of UDAY on State finances of each of these individual States is difficult to undertake, as in many States data at sufficient level of disaggregation is not available. However, our analysis is based on the UDAY Memorandum of Understandings (MoUs) signed as tripartite agreement between the Government of India, DISCOMs and the State Governments, and State-wise information provided in the UDAY portal of Government of India. However, detailed analysis of the impact of UDAY on State finances has been carried out for the State of Rajasthan. The paper tries to forecast the trajectory of debt and deficits incorporating the UDAY power debt to understand the fiscal implications on State finances of Rajasthan. It needs to be noted that the impact of UDAY is asymmetric across States and this result cannot be generalized for States. The paper is organized as follows. Section 2 and 3 analyse respectively the financial and operational efficiency parameters. The aggregate and State-wise picture of the performance of UDAY scheme on quarterly basis is also presented here. There are four financial parameters and ten operational efficiency parameters envisaged in UDAY MoUs. Section 4 analyses the impact of UDAY on State finances, with special reference to the State of Rajasthan and provides the fiscal forecasts of UDAY on debt-deficit dynamics of the State.

2. Financial Performance of States under UDAY

The objective of UDAY is to improve operational efficiency and financial transformation of electricity distribution companies (DISCOMs). Also the scheme objective includes reduction in the cost of genera-

[1] The Ujwal DISCOM Assurance Yojana (UDAY) scheme was announced by Minister of State (IC) for Power, Coal & New and Renewable Energy in November 2015..

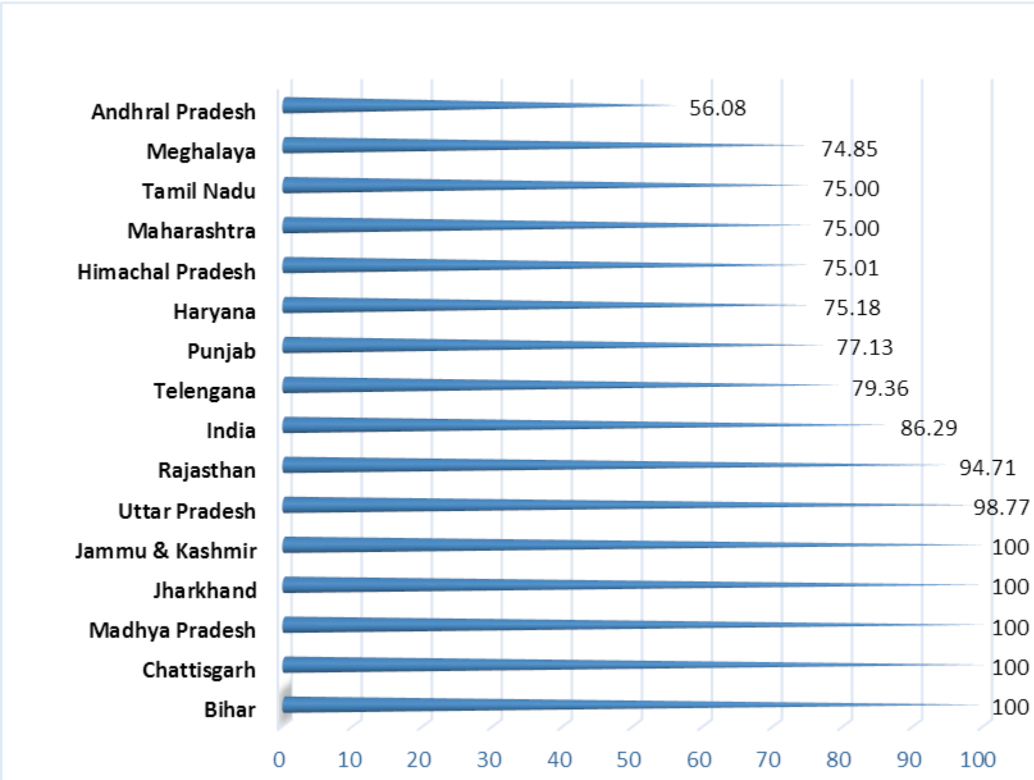
[2] The RBI in its State Finance Report-2016-17 has given data for fiscal deficit with and without UDAY for the year 2016-17 (RE) at 3.4 per cent (with UDAY) and 2.7 per cent (without UDAY) of GSDP (RBI 2017, page 13) respectively.

[3] Obtained from The Economic Survey, Volume 2 submitted in August 2017 and also from RBI State Finance report 2016-17.

tion of power and energy conservation. This section analyses the UDAY financial performance parameters across States of India. The financial parameters analysed in this section are the progress in the issuance of UDAY bonds, the reduction in aggregate technical and commercial losses, the reduction in the gap between average cost of supply (ACS) per unit of power and per unit average revenue realised (ARR) and tariff revisions by DISCOMs post UDAY.

ala no information on the issuance of bond is available. As per the MoUs, there were no debt takeover in most of these States. These States are Gujarat, Goa, Manipur, Tripura, Uttarakhand and Puducherry and Kerala. As mentioned, in these States, this scheme is targeted only to achieve further operational efficiency of DISCOMs.

Figure 1: State-wise Issuance of UDAY Bonds (%)



Source : (Basic data), Government of India , UDAY portal

2.1 State-wise Issuance of UDAY Bonds

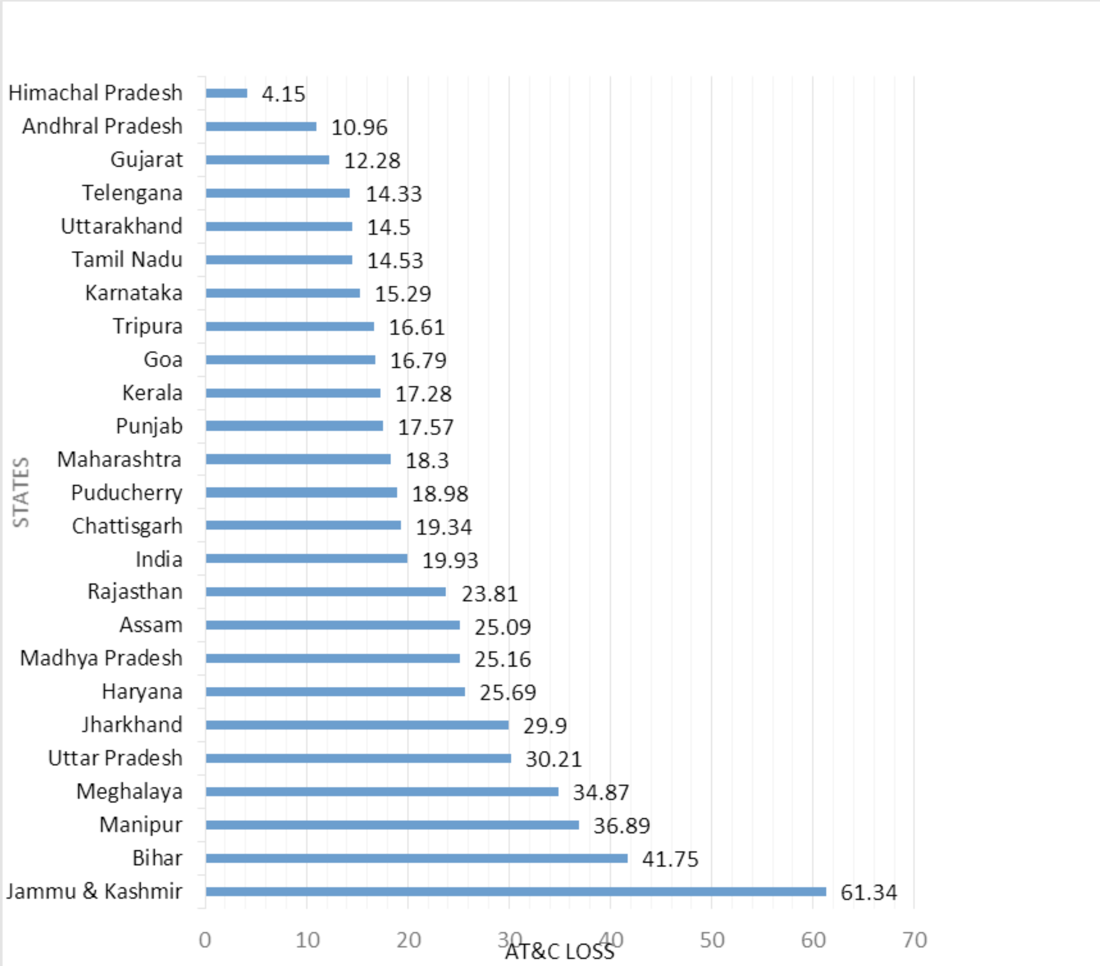
As mentioned, under the UDAY scheme, States agreed to convert 75% of the DISCOM debt into State government non-SLR bonds. These UDAY bonds were priced at not more than 75 basis points above the prevailing cut-off yield rate of government security of 10-year maturity. In aggregate level, so far, around 86% of UDAY bonds were issued (INR 2.32 lakh crores out of INR 2.69 Lakh crores) across all UDAY States. Five States, namely Jammu & Kashmir, Bihar, Chhattisgarh, Madhya Pradesh and Jharkhand issued 100% of the bonds to the DISCOMs as mandated in the UDAY scheme. Seven States (Maharashtra, Telangana, Himachal Pradesh, Haryana, Meghalaya, Tamil Nadu and Punjab) issued 75% of the total bonds so far. For eight States, namely, Gujarat, Karnataka, Puducherry, Tripura, Assam, Uttarakhand, Goa, Manipur and Ker-

2.2 State-wise aggregate technical and commercial losses (AT&C)

The aggregate technical and commercial losses is termed as AT&C loss. This includes losses which are technical and commercial. The commercial losses also include the loss of electricity due to theft, illegal metering etc. The technical losses are unavoidable losses in the transmission system. As per the UDAY scheme, State governments are required to reduce these losses to 15% by 2018-19.

As shown in Figure 2, only six States (Himachal Pradesh, Andhra Pradesh, Gujarat, Telangana, Uttarakhand and Tamil Nadu) have AT&C losses below the 15 % norm. The all States combined average is at 19.93%. Jammu & Kashmir reports AT&C loss of 61.34 % which is the highest while Himachal Pradesh

Figure 2: State-wise AT&C Loss (Aggregate Technical and Commercial Loss)



Source: (Basic data), Government of India, UDAY portal

has reported 4.15% AT&C loss which is the lowest in the scale. Six States report AT &C losses in the range of 20-30%. These States are Assam, Haryana, U.P, Madhya Pradesh, Jharkhand and Rajasthan. The highest in the scale are Jammu & Kashmir, Meghalaya, Manipur and Bihar that have AT&C losses between 30-60%.

2.3 State-wise Commercial Viability: ACS-ARR Gap (INR per unit)

Another milestone to be achieved under UDAY is reduction in the difference between average cost of Supply (ACS) per unit of power and per unit average revenue realised (ARR) to nil by 2018-19. This tests the commercial viability by covering the cost through revenues. The overall gap in India is INR 0.45 per unit.[4]

Eighteen out of the 24 States that reported the data have the gap ratio between 0-1. The gap is below 0.5 for Karnataka, Puducherry, Maharashtra, Tripura, Haryana, Uttarakhand, Manipur and Tamil Nadu. Ten States report gap ratio of above 0.5 but below 1. These are Goa, Madhya Pradesh, Punjab, Rajasthan, Kerala, Bihar, U.P., Andhra Pradesh, Telangana and Assam. Jammu & Kashmir tops the list of having a ratio of 2.15 followed by Meghalaya (1.81) and Jharkhand (1.48). Only Gujarat, Himachal Pradesh and Chhattisgarh have reported negative ratios for the same. For the FY 2016-17, out of 27 States tariff orders were issued by 24 States.[5]

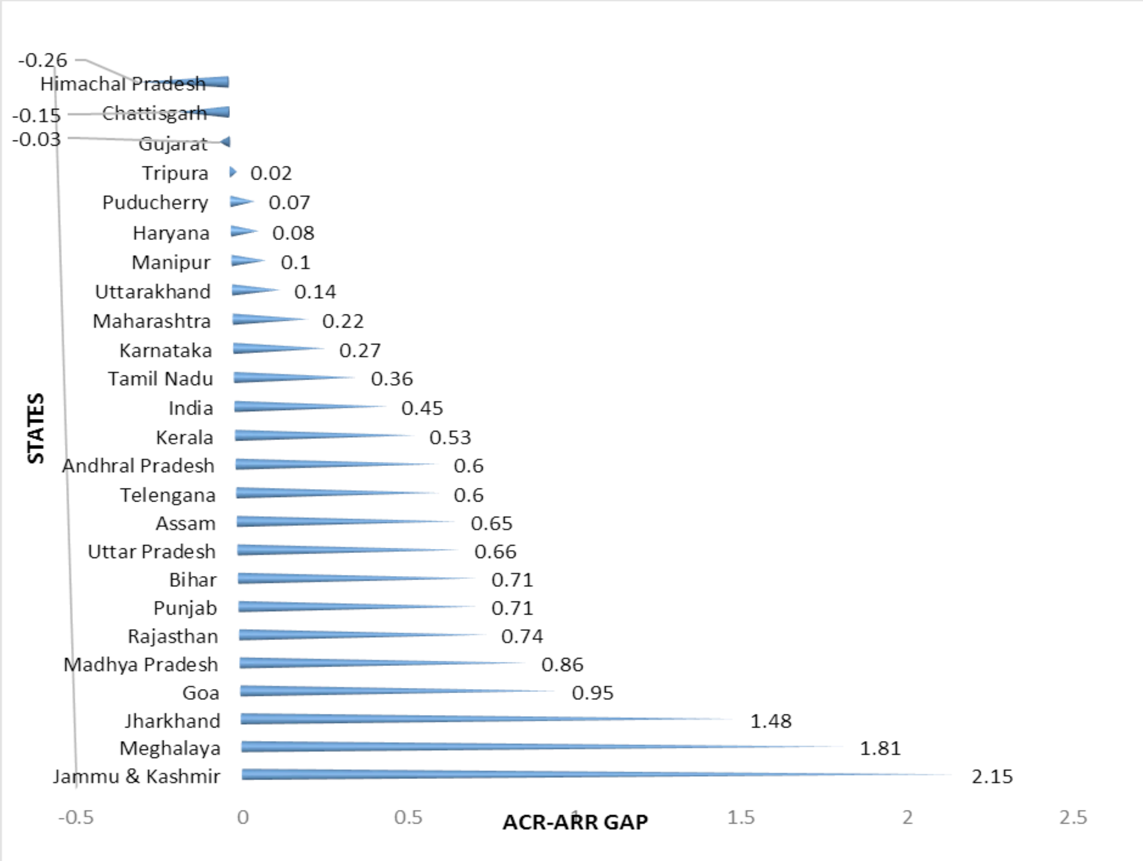
3. Operational Efficiency Parameters under UDAY

Apart from financial parameters to check performance of DISCOM across States, there are stipulated 10 operational efficiency indicators to be monitored under UDAY scheme. This section analyses these 10 operational efficiency indicators to understand the progress of UDAY across States.

[4] UDAY portal reports that this data does not include data of Sikkim, Arunachal Pradesh and Mizoram.

[5] Delhi Electricity Regulatory Commission. 2017. "Terms and Conditions for Determination of Tariff, Regulations 2017"

Figure 3: ACS-ARR Gap (INR/Unit)



Source : (Basic data), Government of India , UDAY portal

3.1 Power Supply Infrastructure (Feeder Metering)

Feeder metering is to ensure effective power supply and reduction in Aggregate Technical and Commercial (AT&C) losses. Target for 100% metering is the stated goal under UDAY. Figures 4 and 5 depict the progress made by the distribution companies in this respect. Also, it projects the outcome in absolute terms on the basis of the target set by the States at the time of joining UDAY. Figure 4 gives the State-wise feeder metering for urban areas of the States. Out of 24 States, 21 States have achieved their targets while Gujarat, Karnataka, Maharashtra, H.P, Andhra Pradesh are much ahead of their set targets. For urban feeders, Assam, Meghalaya and Kerala are yet to achieve their targets. The State-wise UDAY health cards of respective States report that even though States have not achieved their targets, still there is large improvement compared to pre –UDAY scenario. Feeder metering for both urban and rural shows an upward trend.

If we consider Feeder Metering in rural areas, 21 States have provided data, wherein fourteen States have reported to have achieved the targets. Meghalaya, Kerala, Jharkhand, Bihar, Chhattisgarh, U.P. and Assam have not been able to achieve the targets in rural areas. Himachal Pradesh, Tamil Nadu, and Telungana have not reported the progress and set targets.

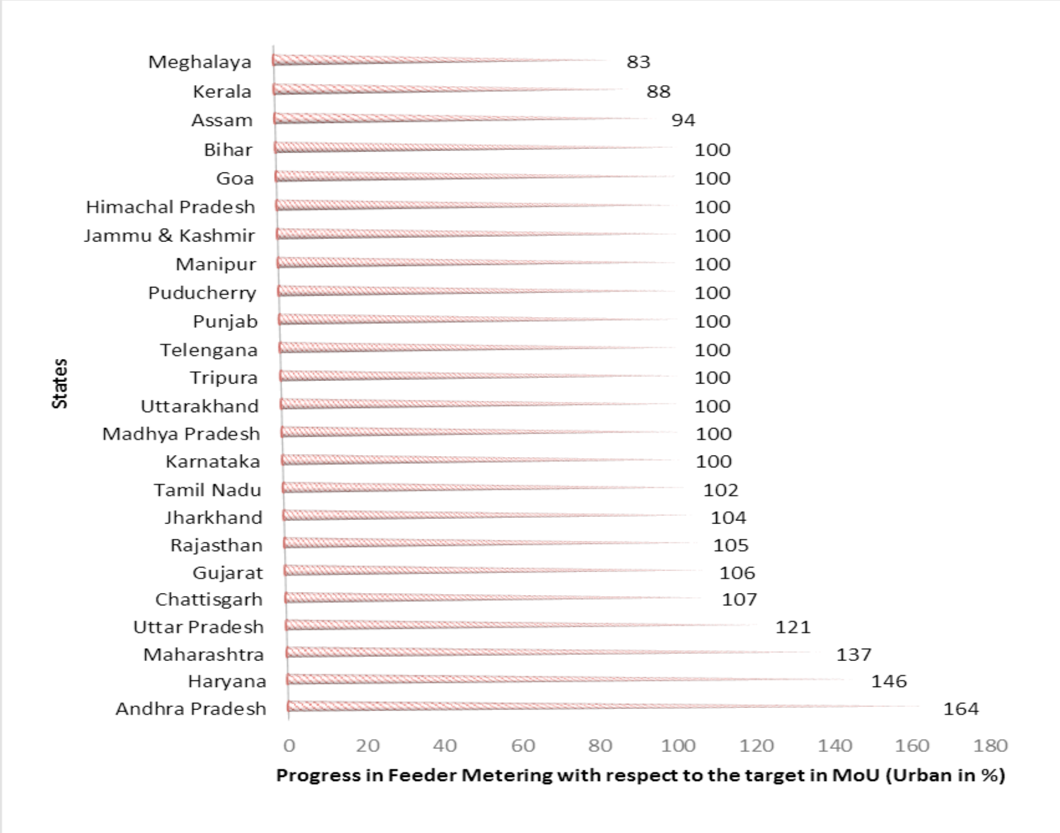
3.2 Energy Distribution Infrastructure: DT Metering

The Distribution Transformer Metering (DTM) helps in improving the energy distribution system and reduces the losses caused by thefts. This helps in load balancing and monitoring the quality of power. Also, it provides real time input and output data of the units consumed for better records. Figures 6 and 7 provide the DT metering for urban and rural areas respectively in absolute term. Out of 22 State utilities that reported data depict that this target has not been achieved by 18 States. Gujarat, Assam and Jharkhand lead in reaching their targets while all the other States lag behind. On the other hand, DT Metering in the rural areas seems to be a major challenge as no States out of 24 have been able to achieve this target by this year.

3.4 Electricity Access to Un-connected Households

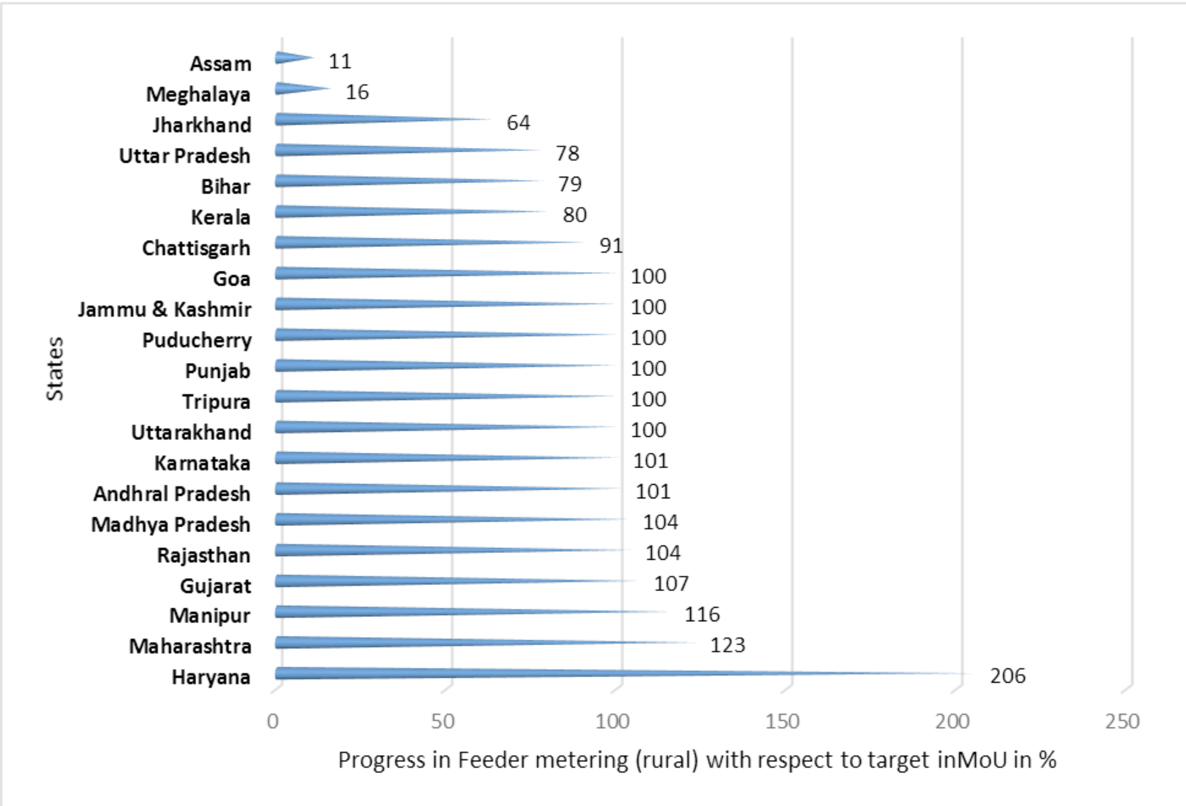
Figure 8 provides the progress of the States on the ba-

Figure 4: Power Infrastructure: State-wise Feeder Metering (Urban)



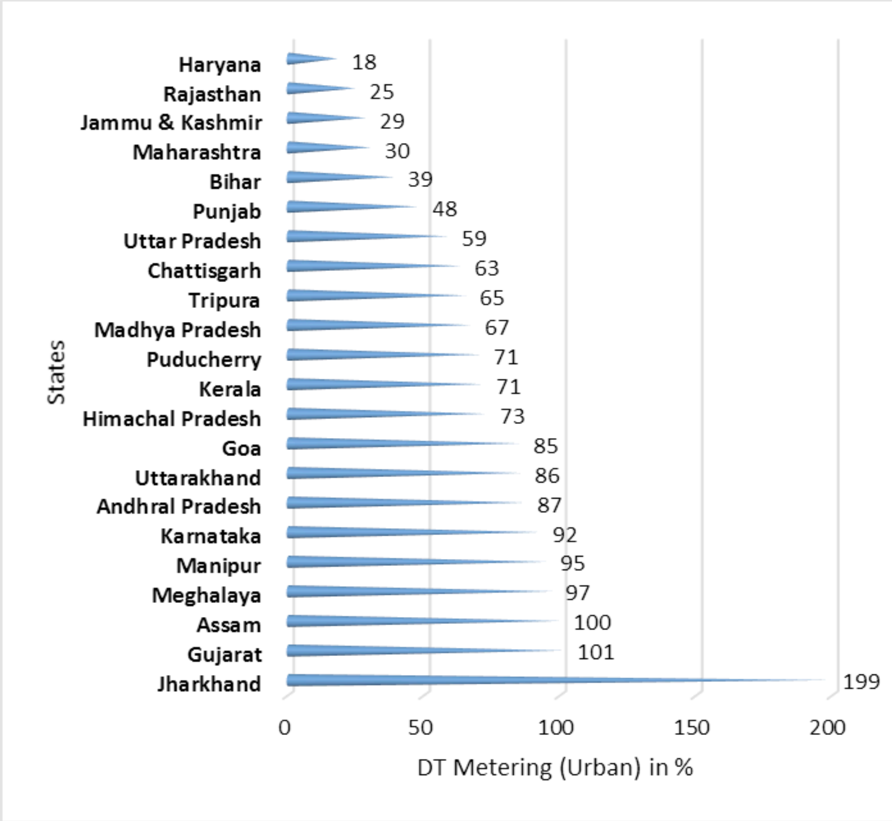
Source : (Basic data), Government of India, UDAY portal

Figure 5: Power Infrastructure - State-wise Feeder Metering (Rural)



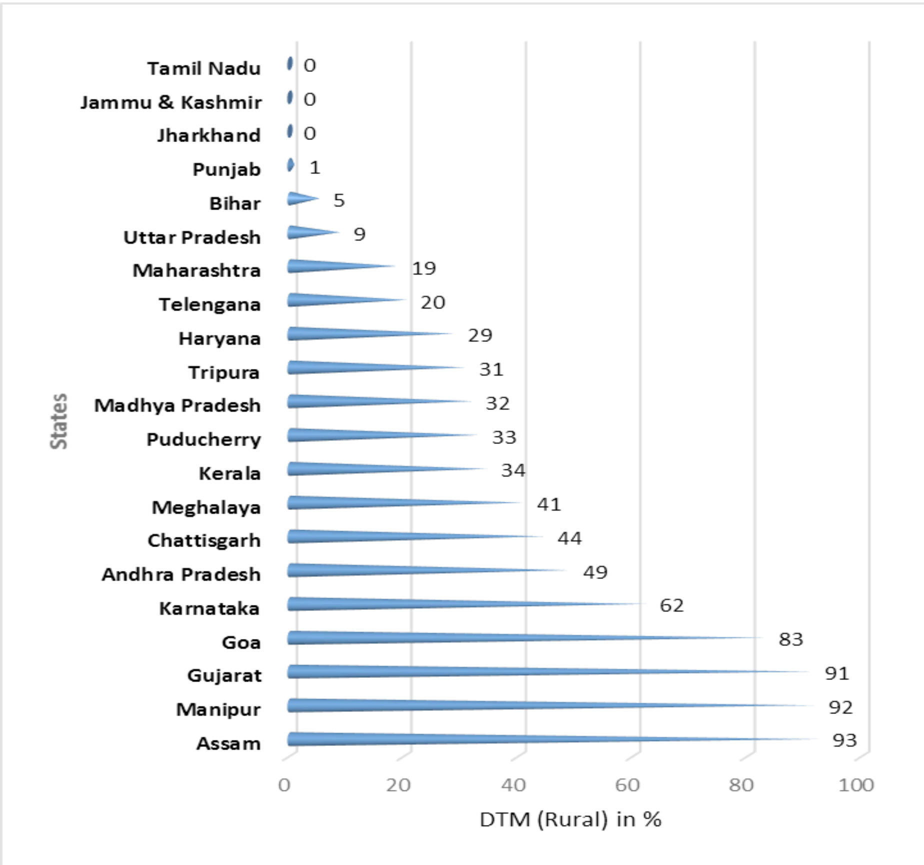
Source: (Basic data), Government of India, UDAY portal

Figure 6: DT Metering (Urban)



Source : (Basic data), Government of India , UDAY portal

Figure 7: State-wise DT Metering (Rural)



Source: (Basic data), Government of India, UDAY portal sis of their targets for the financial year, in absolute terms, for electricity access to unconnected households. We do not have data for Tamil Nadu, Sikkim, Arunachal Pradesh and Mizoram. Electricity access is low on average for all the States except Gujarat, Puducherry, Punjab and Goa that have achieved their targets for the year (Figure 8). Even though the States have not been able to achieve their targets, a pre and post UDAY analysis shows improvement in electricity access to households vis-à-vis prior to UDAY.

3.5 Smart Metering above 200 and upto 500 Kwh & above 500 Kwh

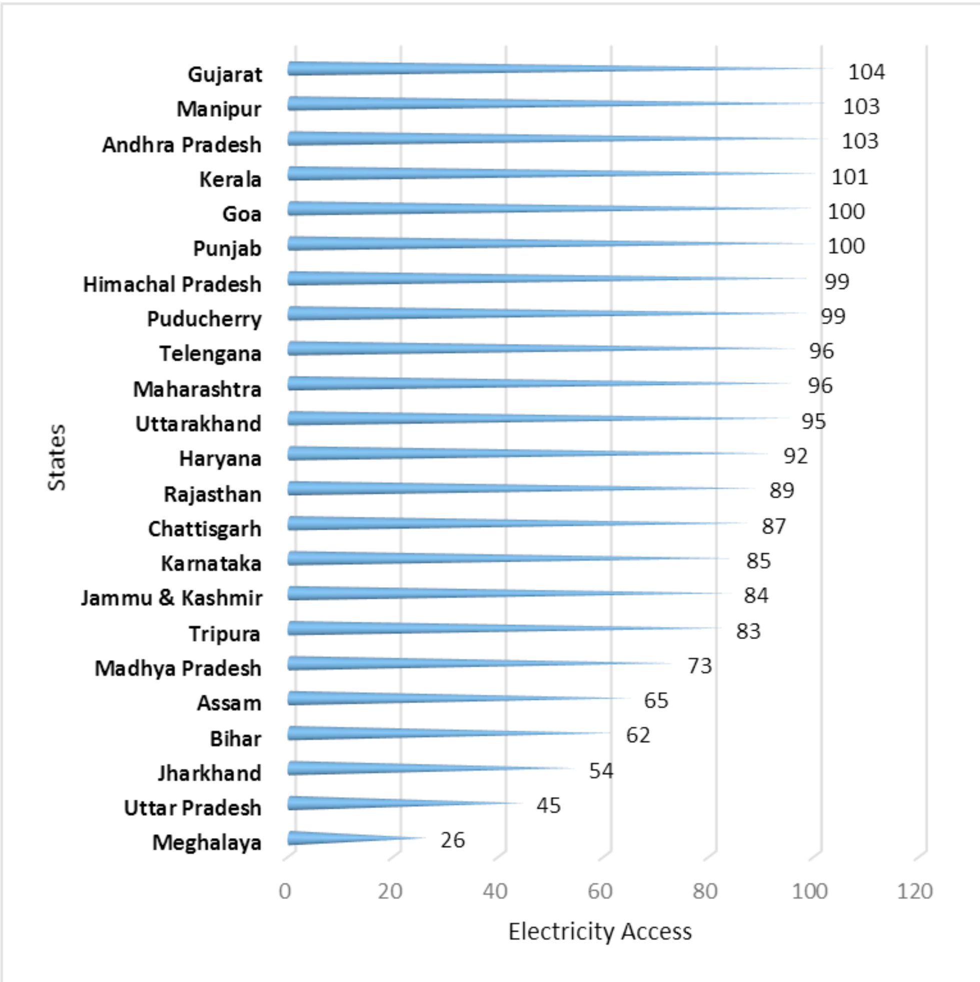
Installations of Smart Meters help in recording energy consumption in intervals of an hour or less and communicate the same to State utilities for effective monitoring and billing.[6] The government aims to reach this target by December 2017 for greater than 500 units and December 2019 for greater than 200 units. Out of the 27 States that have signed MoU, Punjab, Puducherry, Sikkim, Arunachal Pradesh, Mizoram have not reported the data on same. Also, none of the 24 States that have reported seem to reach near the target for above 500 kWH (figure 9) as well as above 200 and upto 500 Kwh (figure 9 and 10).

Only six States have reported data on pre and post UDAY progress and witness an improvement in their goals after UDAY for above 200 units. This progress is based on the quarterly performance of the States. These States are Meghalaya, Madhya Pradesh, Uttar Pradesh, Andhra Pradesh, Tripura and Karnataka.

3.6 Feeder Segregation

As per the RBI State Finance report 2016, those States who adopt UDAY and perform as per operational milestones will be given additional / priority funding through Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY), Integrated Power Development Scheme (IPDS), Power Sector Development Fund (PSDF) or

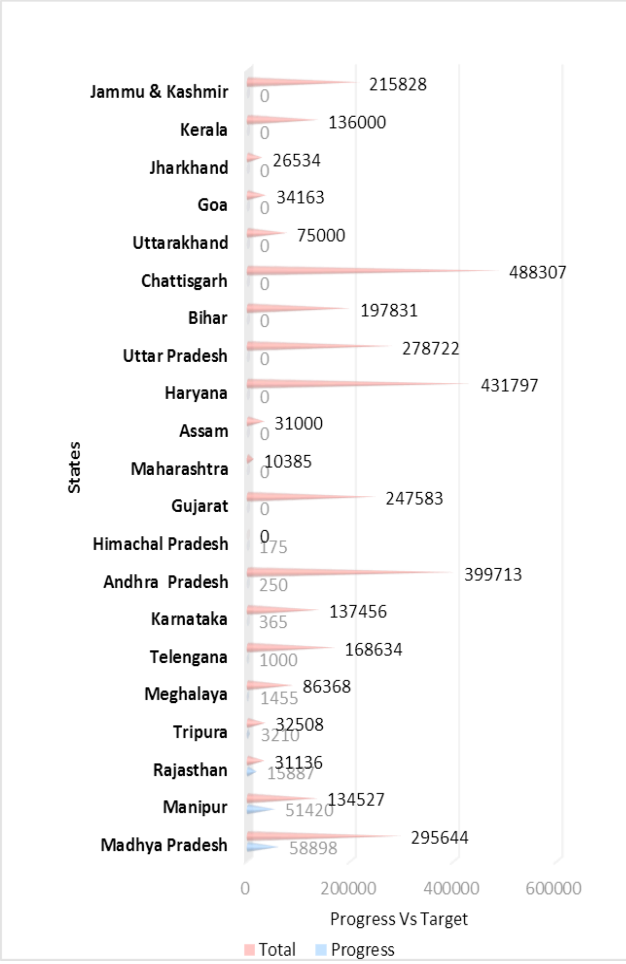
Figure 8: State-wise Electricity Access to Unconnected Households



Source: (Basic data), Government of India, UDAY portal

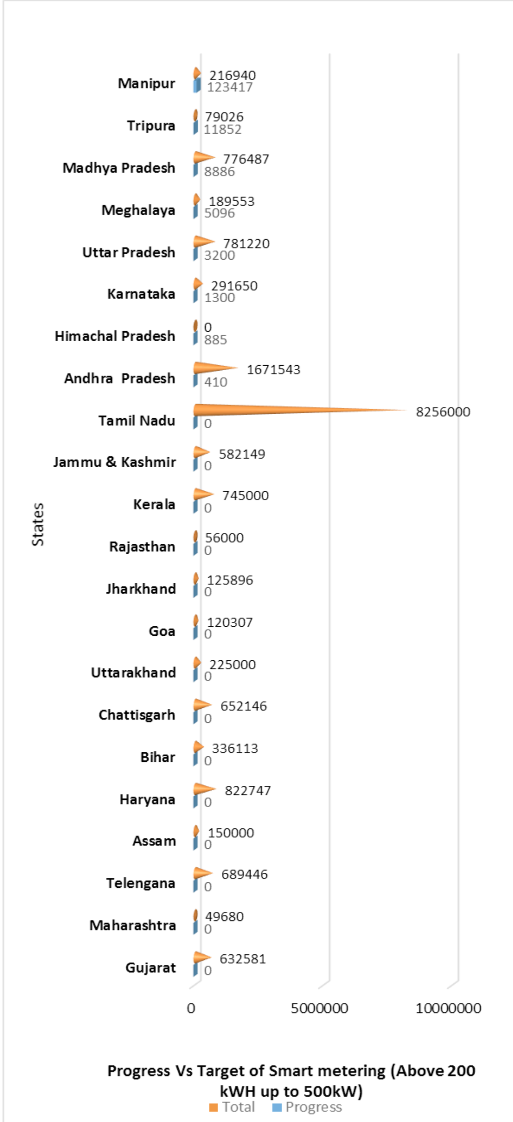
[6] Ministry of Power, Coal and New & Renewable Energy, 2015. "Presentation on Towards Ujwal Bharat UDAY: The Story of Reforms", (November).

Figure 9: State-wise Smart Metering Above 500kWH



Source: (Basic data), Government of India, UDAY portal

Figure 10: State-wise Smart Metering above 200 kWH up to 500kW



Source : (Basic data), Government of India , UDAY portal

other such schemes of Ministry of Power and Ministry of New and Renewable Energy.[7]

Government approved Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) that aims at segregation of agricultural and non-agricultural feeders for uninterrupted supply to non-agricultural consumers in the rural areas.[8] This aims at imparting 24*7 electricity supply to the rural households. Figure 11 gives us the State-wise Feeder segregation targets achieved (in per cent) so far. This includes the data reported for 17 States wherein only Gujarat and Haryana have achieved the targets. A pre and post UDAY trend for feeder segregation shows progress after signing for UDAY for 7 States out of 24 States. The remaining States have not reported yet.

3.7 Rural Feeder Audit

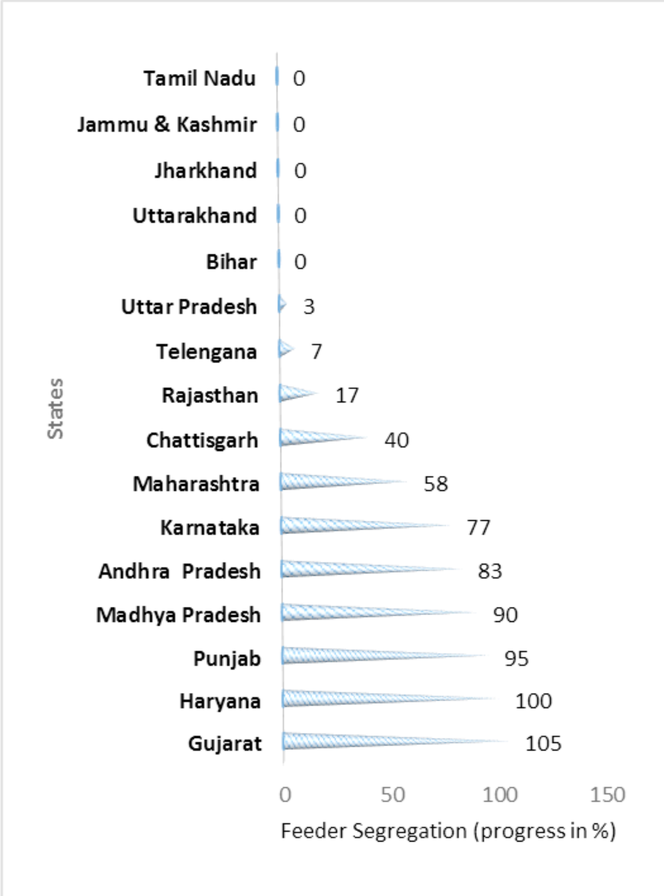
Rural feeder audit helps in identifying the utilities/ feeders making losses and helps in taking necessary actions to improve their health. Also, the audit locates the areas that require immediate attention thereby improving efficiency.

Figure 12 provides the State-wise data for rural–feeder audit. Gujarat, Maharashtra, H.P., Madhya Pradesh, Goa, Manipur and Rajasthan have successfully

[7] States not meeting operational milestones, however, will be liable to forfeiture of their claim on IPDS and DDUGJY grants. (Box IV.1 of RBI State Finance Report, April 2016). https://rbi.org.in/scripts/PublicationsView.aspx?id=16836

[8] Ministry of Power. 06-August-2015. "Feeder Segregation Scheme". Press Information Bureau, Government of India.

Figure 11: State-wise Feeder Segregation



Source : (Basic data), Government of India, UDAY portal

reached their targets for energy audit. Moreover, out of 24 States, 17 States are yet to attain their objectives. The pre and post UDAY performance of 14 States (out of 24) show a positive trend and progress in their targets.

3.8 Distribution of LEDs under UJALA

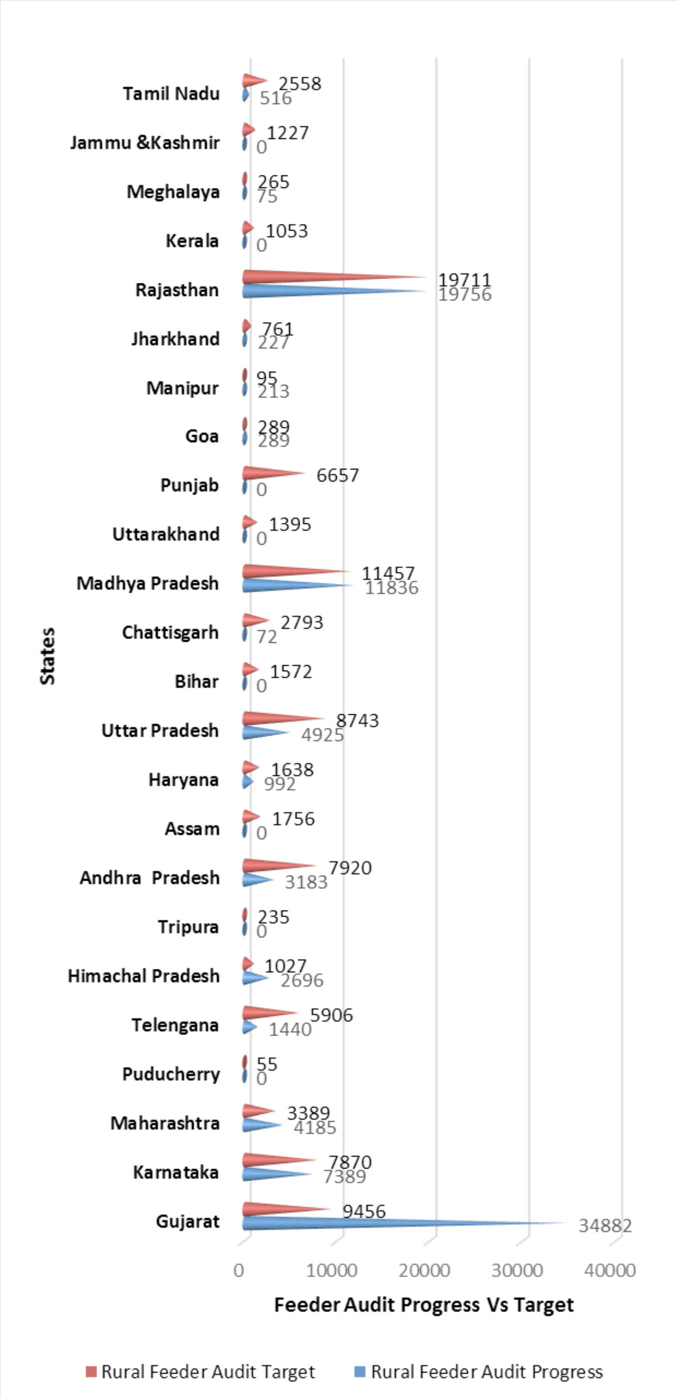
UJALA, an acronym for Unnat Jyoti by Affordable LEDs for All, is being implemented by Energy Efficiency Services Limited (EESL). Under this scheme, superior quality energy efficient LED bulbs are distributed to domestic consumers at INR 75 to 95, which is 80% less than the market price of INR 350-450. The main idea is promoting energy conservation and creating awareness about energy saving technologies.[9] Table 13 depicts State-wise distribution of LEDs under UJALA scheme. Out of the 24 States, Gujarat, Karnataka, Maharashtra, Puducherry, Tripura, Andhra Pradesh, Assam, U.P., Bihar, Chhattisgarh and Jharkhand have achieved their target levels while other States report less than the total no. of LEDs targeted. The pre and post UDAY trend depicts progress for all the States from 2016 to June, 2017.

Taking India as a whole, the aggregate picture is depicted in Figure 14. As evident, aggregate operational parameters for India show an upward trend in the performance if we compare pre and post UDAY. All the parameters are analysed from March 2016 to September 2017 (figure 14).

On the basis of operational and financial parameters, State-wise performance has been discussed. Gujarat takes the lead as the best performer among all the States. It tops for having the lowest ATC losses and the ACS/ARR gap is also negative. It is followed by Karnataka, Maharashtra, Puducherry, Telangana and Himachal Pradesh. States that are at the bottom in terms of performance of these indicators are Tamil Nadu, J&K, Meghalaya, Kerala and Rajasthan. In addition to this, ranking of States have also been done on quarterly basis for the DISCOMs. Among the DISCOMs, Bangalore Electricity Supply Company Ltd. (BESCOM) tops the scale based on the performance of parameters on quarterly basis. This is followed by 3 out of 4 DISCOMs of Gujarat.

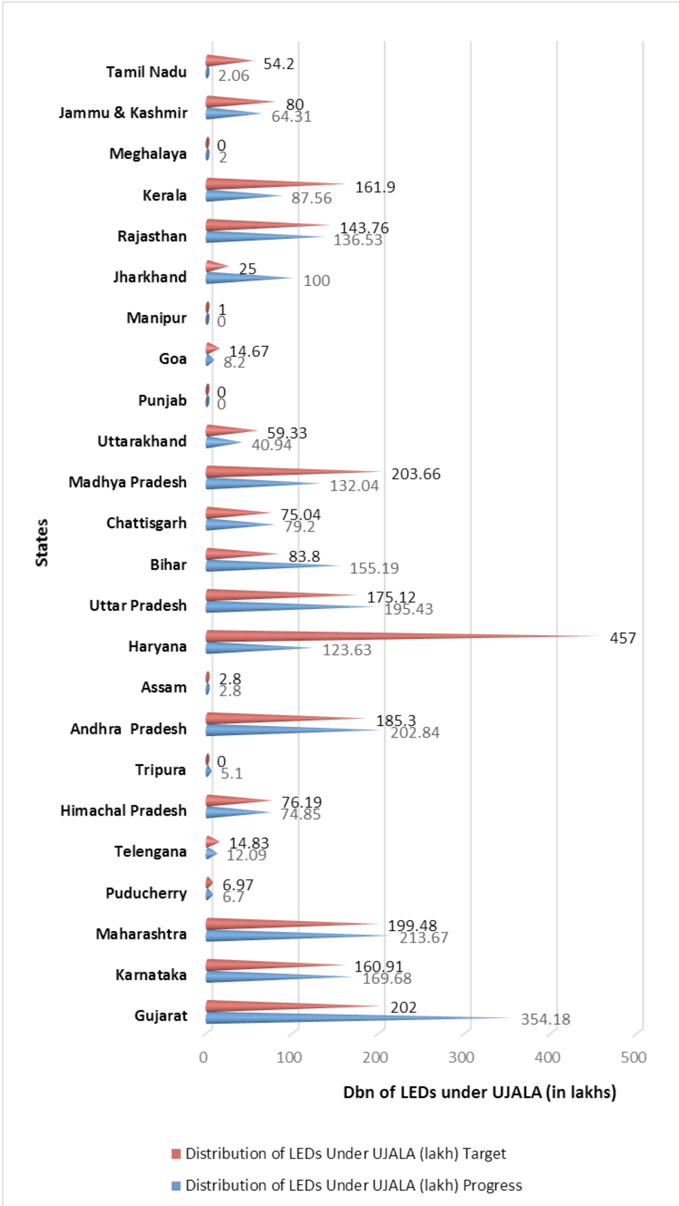
[9] Fact Sheet on Unnat Jyoti by Affordable LEDs for All (UJALA) PIB, Government of India.

Figure 12: State-wise Rural Feeder Audit



Source: (Basic data), Government of India, UDAY portal

Figure 13: State-wise Distribution of LEDs under UJALA



Source: (Basic data), Government of India, UDAY portal

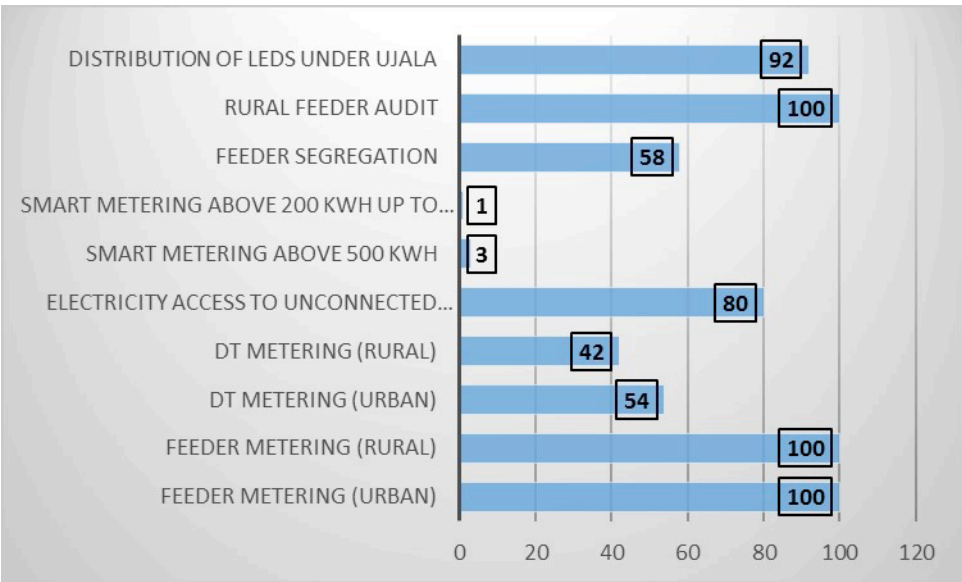
4. Impact of UDAY on State Public Finance

It is pertinent to ask about the likely impact and future implications of the UDAY debt on State finances. To arrive at an aggregate debt (with and without UDAY) is a challenge. As all States have not provided UDAY-disaggregated debt figures in their recent budgets, we cannot provide an aggregate number.

The RBI State Finances Study for the year 2016-17 has also provided the fiscal deficit number. However, in all likelihood, there will be asymmetric impact of UDAY across States since power sector debt liabilities are different across States. For instance, the Budget 2017-18 of Rajasthan revealed that the fiscal deficit with UDAY as percent of GSDP was as high as 9.38 per cent in 2015-16 due to the absorption of 50 per-cent of DISCOM debt in that year (which was INR 62,000 crores).

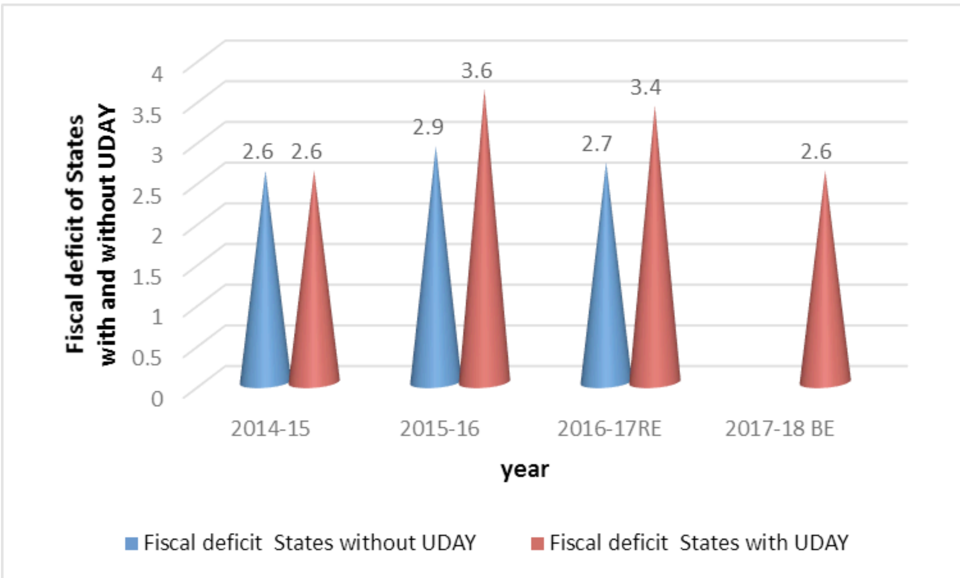
The outstanding liabilities of Rajasthan increased to 33.79 per cent in 2016-17 (RE) which was much above

Figure 14: Progress of UDAY Operational Parameters (as of March 31, 2017)



Source: (Basic data), Government of India, UDAY portal

Figure 15: Fiscal deficit of the States - with and without UDAY



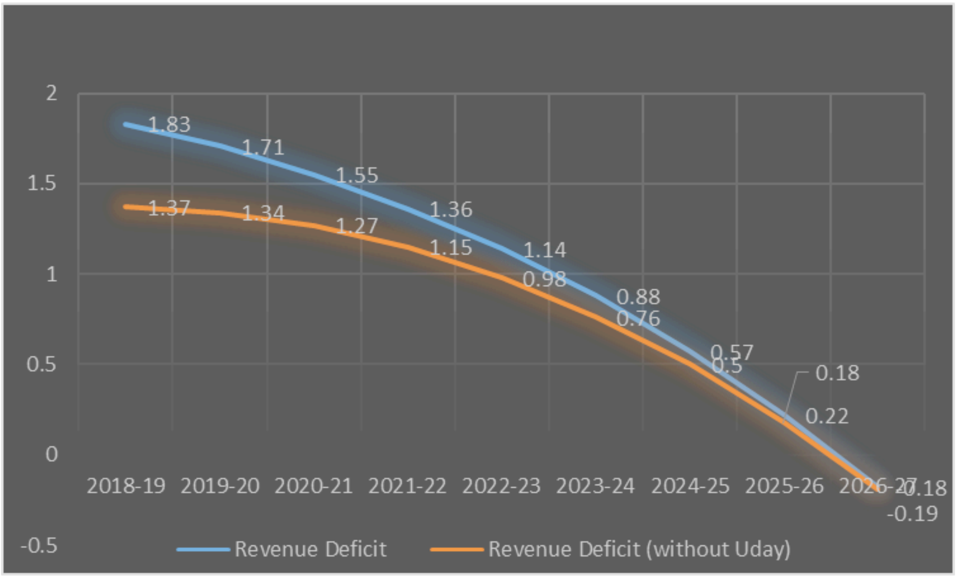
Source: (Basic data), RBI State Finances & Economic Survey, Vol 2, 2017.

the FC-XIV suggested debt cap of 25 per cent of GSDP or the proposed target of 20 per cent recommended by FRBM review committee to be achieved by 2025.

The Economic Survey – Volume 2 submitted in early August 2017 observed that: *The Union Budget for 2017-18 opted for a gradual rather than the sharp consolidation path recommended by the FRBM Review Committee, prudently balancing the requirements of a cyclically weakening economy and the imperative of maintaining credibility, especially in the wake of disruptions to State government finances, reflecting their absorption of the DISCOM liabilities under the UDAY programme.*

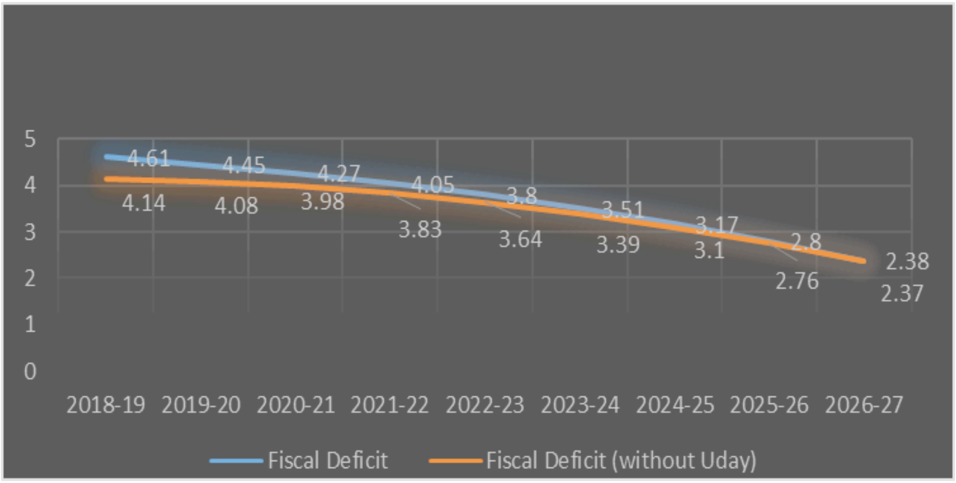
The RBI Study on State Finances points to the worsening of the fiscal deficit to GDP ratio on account of the increase in capital outlay and loans and advances to power projects-around $98960 crore was borrowed under UDAY by eight States during 2015-16 (Economic Survey, Volume 2, 2017). Net of UDAY bonds, consolidated State fiscal deficit moderates by

Figure 16: Forecast of Revenue Deficit (with and without UDAY in Rajasthan)



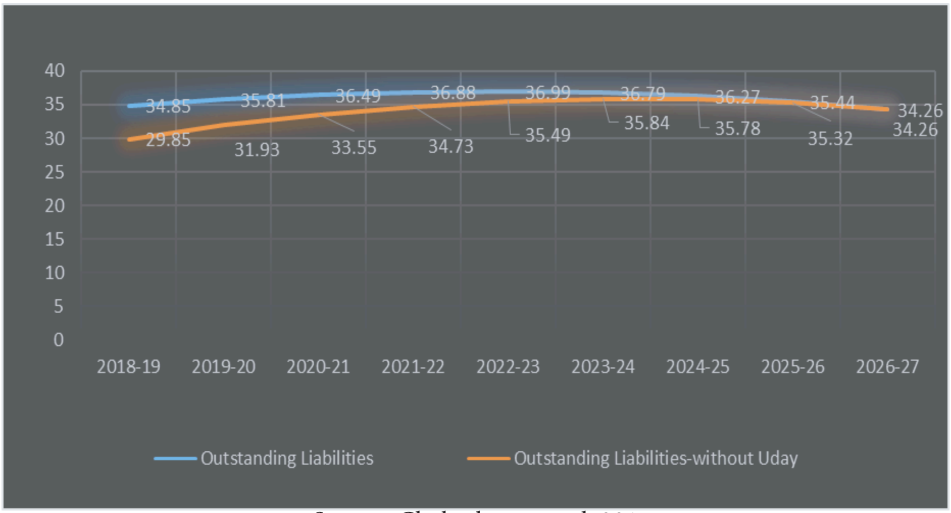
Source: Chakraborty et al., 2017

Figure 17: Forecast of Fiscal Deficit: with and without UDAY in Rajasthan



Source: Chakraborty, et al. 2017

Figure 18: Forecast of Outstanding Liabilities with and without UDAY in Rajasthan



Source: Chakraborty, et al. 2017

0.7 percentage point to 2.9 per cent (Figure 12). Thus with UDAY, as per the available information, the combinedfiscal deficit of States crossed the FRBM benchmark of 3.0 per cent. Based on information on 25 States, the combined fiscal deficit of States in 2016-17 (RE) would be 3.4 per cent, while it would be 2.7 per cent without the UDAY liabilities (Figure 15).

The UDAY-incorporated forecast path of outstanding liabilities of States would depend on a host of factors including the buoyancy of State revenues and performance of DISCOMs. As data is not disaggregated for UDAY and non-UDAY in all States, we are unable to provide all the State-specific forecasts. However, we have the forecast path of debt and deficit of Rajasthanwith and without UDAY.

4.1 Forecast of Debt-Deficit in Rajasthan (with and without UDAY)

The forecasts of revenue deficit, fiscal deficit and outstanding liabilities of Rajasthan are shown in Figure 16, 17 and 18 respectively. The projections are carried out on the basis of tax buoyancy, expenditure elasticities and assumed the inflation-growth paths (for details, Chakraborty et al., 2017).

5. Conclusion

UDAY power debt raises a fundamental question. What should be the criteria to judge fiscal prudence at the State level? May be it is time to propose that future reforms on debt and deficit should judge fiscal prudence based on comparable measures of deficits and debt across States. The aim should be to have a comprehensive measure of Public Sector Borrowing Requirement (PSBR) by encompassing all public sector liabilities at the State level including power sector debt, than using a measure which only reflects deficit arising out of budgetary transactions.

References:

Anupama Airy, 2017. "A big turnaround in India's Power Sector". Press Information Bureau, Government of India, Special Service and Features.

CARE Ratings, 2016. "Power: Evaluation of UDAY", December 28.

Delhi Electricity Regulatory Commission, 2017. "Terms and Conditions for Determination of Tariff, Regulations 2017".

Delhi Electricity Regulatory Commission, 2017. "What are ATC losses?" Public Awareness Bulletin-2.

Government of India, 2016. Fact Sheet on Unnat Jyoti by Affordable LEDs for All (UJALA) PIB, Government of India.

Ministry of Power, 2015. "Year End Review - Comprehensive State-Specific Action Plans for 24x7 "Power for all", Energy Shortage reduced to 2.3%; Peak Shortage to 3.2%,'UDAY' to ease Financial Crunch of DISCOMs, National Initiatives to Curb Carbon Emissions & Promote Energy Efficiency", Press Information Bureau, Government of India, December.

Ministry of Power, 2015,"Feeder Segregation Scheme". Press Information Bureau, Government of India. August 6.

Ministry of Power, Coal and New & Renewable Energy, 2015. "Presentation on Towards Ujwal Bharat UDAY: The Story of Reforms", Accessed at https://www.uday.gov.in/, November.

Ministry of Power, 2013. "Minimizing gap between ACS & ARR of Power generation is a priority". Press Information Bureau, Government of India. December 13.

The Hindu, 2016. BSES relying on DT metering, the Hindu, September.

Would UDAY brighten up Rajasthan finances?

DISCUSSION PAPER

Pinaki Chakraborty
Manish Gupta
Lekha Chakraborty
Amandeep Kaur

Introduction

Rajasthan is the largest State in India (in terms of area) with a geographical area of 342.24 thousand sq km which constitutes 10.41 per cent of the total geographical area of the country. It also accounts for 5.66 per cent of the total population of the country. Rajasthan is one of the low per capita income States. Per capita income as per the latest GSDP data (new series - 2011-12) for the year 2014-15 is INR 84837.30. Despite low per capita income, the State has made significant progress in social sector development and also reduced level of poverty in recent decades. The State also managed its fiscal deficit well. But power sector finances continued to be a significant drag on its fiscal resources. We analyse the aggregate picture of the finances of Rajasthan taking power sector into consideration.

Importance of Consolidated View of State Finances

Fiscal prudence in most countries, including India, is focused on general government deficit. Though, there is a strong merit in targeting total public sector borrowing requirements, paucity of data and its timeliness always prevented having a consolidated view of public sector borrowing. In the multilevel federal system of India also, the focus has always been in controlling fiscal deficit reflected in the State and union government budgets. In case of Rajasthan also, when we consider only government deficit, it remained well within the Fiscal Responsibility Act (FRA) target of 3 per cent of GSDP in recent years. But the story changed dramatically with the introduction of Ujwal DISCOM Assurance Yojana (UDAY). Under this scheme, 21 State governments including Rajasthan have taken over 75 per cent of the outstanding debt of the power sector-DISCOM companies in the year 2015-16 and 2016-17. With this, by the end of the fiscal year 2016-17, aggregate fiscal deficit of Rajasthan, shows an increase from 3.13 per cent of GSDP in 2014-15 to 9.38 per cent in 2015-16. It is expected to be 5.76 per cent in 2016-17 (RE). However, in 2017-18 (BE) fiscal deficit is expected to be 2.99 per cent of GSDP.

This restructuring of power sector debt has the following long run fiscal implications:

(a) An increase in deficits, particularly revenue deficit due to the increase in interest payment as a result of the increase in the stock of outstanding debt. A corresponding reduction in capital expenditure is inevitable if the State has to remain within the fiscal deficit target specified under the Fiscal Responsibility Act.

(b) As UDAY scheme has come into force post Fourteenth Finance Commission's (FFC's) recommendations, the fiscal framework for higher borrowing proposed by FFC for higher capital spending remains unclear for all the States participating in UDAY scheme.

(c) The FRBM framework proposed by the FRBM Review Committee suggests that aggregate State debt should be 20 per cent of GDP by 2023. What would that mean for States like Rajasthan needs clarity when the debt to GSDP ratio with power sector debt now is hovering around 34 per cent of GSDP and is likely to continue upto 2026-27.

Overview of State Finances

An overview of State Finances is presented in Table 1. As evident from the table, aggregate revenue receipts as a percent of GSDP has increased from 13.06 per

National Institute of Public Finance and Policy, New Delhi.

IDRC project on 'Intergovernmental Fiscal Transfers in India'.

Table 1: An Overview of State Finances of Rajasthan (2011-12-to 2017-18)

(% of GSDP)

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 RE	2017-18 BE
Revenue Receipts	**13.06**	**13.55**	**13.55**	**15.06**	**14.91**	**15.53**	**15.73**
Revenue Expenditure	**12.29**	**12.85**	**13.74**	**15.59**	**15.79**	**17.91**	**17.36**
Capital Expenditure	**1.63**	**2.16**	**2.49**	**2.66**	**3.27**	**2.47**	**3.09**
Total Expenditure	**13.92**	**15.01**	**16.22**	**18.24**	**19.06**	**20.38**	**20.45**
Social Services	5.48	5.69	6.56	7.19	7.34	7.86	7.56
Economic Services	4.05	5.06	5.31	6.37	7.05	7.11	7.47
Revenue Deficit	0.77	0.70	-0.19	-0.53	-0.89	-2.38	-1.63
Fiscal Deficit	-0.83	-1.73	-2.76	-3.13	-9.38	-6.36	-2.99
Primary Deficit	0.98	-0.04	-1.11	-1.41	-7.59	-3.99	-0.62
Outstanding Liabilities	24.41	23.85	23.63	24.34	31.13	33.79	33.61

Source: Finance Accounts and 2017-18 Budget Documents of Government of Rajasthan.

cent to 15.73 percent between 2011-12 and 2017-18 BE. This increase is due to the increase in own tax to GSDP ratio and a notional increase in grants due to the changes in accounting of the flow of grants.[1] For the period from 2014-15 to 2017-18 BE, the increase in revenue to GSDP ratio is from 14.91 to 15.73 per cent. During the same period, total expenditure as per cent of GSDP is expected to increase from 15.59 to 17.36 per cent.

from 7.92 percent in 2011-12 to 8.56 percent in 2014-15. However, in 2015-16 own revenues declined to 7.97 percent mainly due to the fall in own non-tax revenues which declined from 2.18 percent of GSDP in 2014-15 to 1.62 percent in 2015-16. The fall in own non-tax revenues was due to the reduction in petroleum royalties, receipts under police and miscellaneous general services. Own tax revenues also fell during this period, but the decline was marginal. Own

Table 2: Revenue Receipts

(% of GSDP)

		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 RE	2017-18 BE
A	**Total Revenue Receipt (B+C)**	**13.06**	**13.55**	**13.55**	**15.06**	**14.91**	**15.53**	**15.73**
B	**Own Revenue Receipt**	**7.92**	**8.63**	**8.56**	**8.56**	**7.97**	**7.93**	**8.34**
	Own Tax Revenue	5.81	6.17	6.09	6.38	6.35	6.27	6.59
	Own Non-Tax Revenue	2.10	2.46	2.47	2.18	1.62	1.66	1.75
C	**Central Transfers**	**5.15**	**4.91**	**4.99**	**6.50**	**6.93**	**7.60**	**7.38**
	Tax Devolution	3.43	3.46	3.40	3.27	4.15	4.48	4.50
	Grants-in-aid	1.71	1.45	1.59	3.23	2.78	3.12	2.88
D	Grants outside State budget	1.61	1.60	1.56	0.09	--	--	--
	All Grants	3.33	3.05	3.15	3.33	2.78	3.12	2.88
E	**All Central Transfers (C+D)**	**6.76**	**6.51**	**6.55**	**6.59**	**6.93**	**7.60**	**7.38**

Source: Finance Accounts and 2017-18 Budget Documents of Government of Rajasthan.

Analysis of finances of the State of Rajasthan reveals that own revenues of the State as percentage of GSDP has been growing during the period 2011-12 to 2014-15. Own revenues as percentage of GSDP increased

Revenues (as percentage of GSDP) are expected to be around 7.93 percent in 2016-17 RE and 8.34 percent in 2017-18 BE as evident from table 2.

Following the recommendations of the FFC, there

[1] Grants for various centrally sponsored schemes earlier bypassed State budgets were routed through the State budgets from 2014-15 onwards (See Table 2). This resulted in an increase in the flow of grants to States in an accounting sense.

was an increase in tax devolution to States. The criteria and weights used by FFC in arriving at the inter se share to States resulted in a decline in Rajasthan's share by about 0.358 percentage as compared to the inter se share recommended by the Thirteenth Finance Commission (TFC).[2] Despite this, tax devolution to Rajasthan as percentage of its GSDP increased from 3.27 percent in 2014-15 to 4.15 percent in 2015-16 and is budgeted to further increase to 4.48 percent in 2016-17RE and 4.50 percent in 2017-18BE (table 2). However, between 2014-15 and 2015-16 central grants as percentage of GSDP declined from 3.23 percent to 2.78. This is due to the fact that grants were restructured based on the recommendations of the Committee of Chief Ministers post FFC.

Prior to 2014-15, a sizeable proportion of central grants to States were directly going to implementing agencies in the State, outside the State budgets. Between 2011-12 and 2013-15 they accounted for more than 1.50 percent of Rajasthan's GSDP. However, since 2014-15, these grants are routed through State budgets. The increase in central grants in 2014-15 (as percentage of GSDP) vis-à-vis 2013-14 is largely due to the change in the way in which central grants are routed to States. Total central transfers (including those going to implementing agencies) to Rajasthan as percentage of GSDP have increased from 6.59 percent in 2014-15 to 6.93 percent in 2015-16 and further to 7.60 percent in 2016-17RE and is budgeted to be around 7.38 percent in 2017-18BE as can be seen from table 2.

On the expenditure front we find that both revenue and capital expenditures as percentage of GSDP have increased between 2011-12 and 2015-16 (see table 3). In 2016-17RE capital expenditure as percentage of GSDP at 2.47 percent is lower as compared to that in 2015-16. Total expenditure as percentage of GSDP increase from 13.92 percent in 2011-12 to 19.06 percent in 2015-16 and is budgeted to increase to 20.45 percent in 2017-18BE. Expenditures on social services and economic services (as percentage of GSDP) also show an increasing trend during this period.

There has been a decline in interest payments (as percentage of GSDP) between 2011-12 and 2013-14. However, from 2014-15 onwards interest payments have been increasing. The sharp increase in interest payment in 2016-17RE is due to the servicing cost of DISCOM loans taken over by the State government under the UDAY scheme.[3] The interest burden due to UDAY would be around 1.20 percent of GSDP in 2016-17RE and 1.45 percent in 2017-18BE.

From the examination of key deficit indicators of the State we see that surplus on the revenue account in 2011-12 and 2012-13 turned into deficit and we have re-emergence of deficit in the revenue account from 2013-14 as is evident from table 4. The revenue account has been in deficit since then. In 2016-17RE, there was a sharp increase in the revenue deficit. Rev-

Table 3: Trends in Expenditures

(% of GSDP)

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 RE	2017-18 BE
Revenue Expenditure	12.29	12.85	13.74	15.59	15.79	17.91	17.36
Capital Expenditure	1.63	2.16	2.49	2.66	3.27	2.47	3.09
Total Expenditure, *of which*	**13.92**	**15.01**	**16.22**	**18.24**	**19.06**	**20.38**	**20.45**
Economic Services	4.05	5.06	5.31	6.37	7.05	7.11	7.47
Social Services	5.48	5.69	6.56	7.19	7.34	7.86	7.56
Education	2.67	2.65	2.80	3.20	3.16	3.43	3.35
Medical & Public Health	0.60	0.63	0.69	0.73	0.79	0.84	0.89
Interest Payment	1.81	1.69	1.65	1.73	1.79	2.37	2.37
of which due to UDAY					0.00	1.20	1.45

Source: Finance Accounts and 2017-18 Budget Documents of Government of Rajasthan.

[2] Rajasthan's inter se share declined from 5.853 percent under TFC to 5.495 percent under FFC.

[3] In January 2016, Rajasthan joined the UDAY scheme. The outstanding debt of the DISCOMs in Rajasthan as on 30.09.2015 was INR 80500 crore, out of which 75 per cent, i.e., INR 60500 crore would be taken over by the State, as envisaged in the scheme.

enue Deficit as percentage of GSDP increased from 0.89 percent in 2015-16 to 2.38 percent in 2016-17RE and in 2017-18BE it is budgeted to be around 1.63 percent. The sharp increase in RD in 2016-17RE was due to the increase in interest payment burden on account of joining the UDAY scheme. In the absence of UDAY, the revenue deficit would be around 1.18 percent in 2016-17RE and 0.18 percent in 2017-18BE.

As regards fiscal deficit (FD), we find that FD as percentage of GSDP in Rajasthan was well below 3 percent during 2011-12 and 2012-13-14. In 2014-15, the FD at 3.13 percent was marginally above the 3 percent mark. However, in 2015-16 the FD increased by more than 6.25 percentage points and was about 9.38 percent of GSDP. This sudden increase was due to the takeover of 50 percent of the DISCOMs debt (as on 30.09.2015) by the State. In 2016-17, the State is expected to take over another 25 percent of the DISCOM debt. As a result the FD in 2016-17RE would be around 6.36 percent of GSDP. However, in 2017-18BE, the FD was budgeted to be about 2.99 percent of GSDP. In the absence of UDAY scheme the FD of Rajasthan as percentage of GSDP would be 3.42 percent and 3.37 percent in 2015-16 and 2016-17RE respectively.

As a result of this takeover of DISCOM debt, the total outstanding liabilities of the State government as percentage of GSDP which were well below 25 percent during 2011-12 and 2014-15 increased to 31.13 percent in 2015-16 and further to 33.79 percent in 2016-17RE. In 2017-18BE they were budgeted to be around 33.61 percent (table 4).

Table 4: Debt and Deficits

(% of GSDP)

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17 RE	2017-18 BE
Revenue Deficit	0.77	0.70	-0.19	-0.53	-0.89	-2.38	-1.63
RD (without UDAY)					-0.89	-1.18	-0.18
Fiscal Deficit	-0.83	-1.73	-2.76	-3.13	-9.38	-6.36	-2.99
FD (without UDAY)					-3.42	-3.37	-2.99
Outstanding Liabilities	24.41	23.85	23.63	24.34	31.13	33.79	33.61

Note: Deficit (-) / Surplus (+)

Source: Finance Accounts and 2017-18 Budget Documents of Government of Rajasthan.

Power Sector Finances and Consolidated Fiscal Position

So far, as the power sector of Rajasthan is concerned, the State government set up the State Electricity Regulatory on 2nd January, 2000 and it has been operational since then. Rajasthan State Electricity Board has been unbundled into 5 companies namely (1) Rajasthan Rajya Vidyut Utpadan Nigam Ltd. (2) Rajasthan Rajya Vidyut Prasaran Nigam Ltd. (3) Jaipur Vidyut Vitaran Nigam Ltd. (4) Jodhpur Vidyut Vitaran Nigam Ltd. And (5) Ajmer Vidyut Vitaran Nigam Ltd. In the year 2011-12, the State purchased 52 per cent of power requirement and produced the rest 48 per cent in the State. A large proportion of power comes from Thermal Coal Fired power plants (51 per cent) followed by Hydro power (15 per cent), Gas (6 per cent) and Nuclear (5 per cent) & Others account for 23 per cent in 2011-12 of the total installed capacity. The T&D losses of the most of the power DISCOMs although have declined it remained around 23 to 27 per cent in 2011-12. The total loss of the power utilities has gone up substantially from 1347.05 crore in 2008-09 to 19751.1 crore in 2011-12.

The UDAY scheme

Over the years, Power Distribution Companies (DISCOMs) have accumulated the loss of 3.8 lakh crores and outstanding debt of 4.3 lakh crores as on March 2015 (Press Information Bureau, 2015). The increase in the debt has been mainly because of non-revision of tariff commensurate with the increase in cost of supply. Moreover, inadequate subsidy receipt and non-improvement of efficiency level are also held responsible for the enormous increase in power debt. In spite of having surplus of power generation, DISCOMs are not able to provide electricity to the customers due to their debt liabilities. Against this backdrop, the Government of India launched Ujwal DISCOM Assurance Yojana (UDAY) (approved by the Union Cabinet on 5th November, 2015), which aims at the financial turnaround and revival of DISCOMs.[4] It is a tripartite agreement between Ministry of Power, State government and DISCOMs. It is optional for all States; however, States are encouraged to be a part of the scheme and benefit from the same.

UDAY seeks to set free DISCOMs of their debt in the next 2-3 years through the following four initiatives: (i) improving operational efficiencies of DISCOMs; (ii) reduction of cost of power; (iii) reduction in interest cost of DISCOMs; and (iv) enforcing financial discipline on DISCOMs through alignment with State finances.[5] It is argued that UDAY will be panacea for the DISCOM debts of the States. However, it has direct fiscal implications on State finances as States are expected to take over the DISCOM debts. If these impacts are large, the States might squeeze the other developmental expenditure given the Fiscal Responsibility Act (FRA) target of deficits.

Debt restructuring mechanism of the UDAY scheme

Under this scheme, States are expected to take over 75 per cent of DISCOMs debts as on 30th September, 2015 over two years - 50 per cent in 2015-16 and 25 per cent in 2016-17 (Press Information Bureau, 2015). This will reduce the interest taken over by States to around 8-9 per cent from 14-15 per cent. States will issue non-SLR State Development Loan (SDL) bonds in the market or directly to the respective banks/FIs holding the DISCOM debt (maturity period of these bonds will be 10-15 years). DISCOM debt not taken

Table 5: Selected 17 States - Date of Joining the UDAY

States	Date of joining
Andhra Pradesh	24.06.16
Bihar	22.02.16
Chhattisgarh	25.01.16
Goa	No liabilities
Gujarat	13.02.16
Haryana	11.03.16
J&K	15.03.16
Jharkhand	5.01.16
Karnataka	16.6.16
Madhya Pradesh	10.08.16
Maharashtra	07.10.16
Manipur	26.07.16
Punjab	04.03.16
Rajasthan	**27.01.16**
Uttar Pradesh	30.01.16
Uttarakhand	21.03.16
Puducherry	10.08.16

Source: MoU of the respective States.

[4] The earliest attempt by the central government to support DISCOMs after unbundling of erstwhile State Electricity Board (SEB) was in the form of Financial Restructuring Scheme (FRS), 2012. The scheme provided incentive by reimbursing 25 per cent of the loans taken over by the States and by providing grant for reduction of aggregate technical and commercial loss (ICRA, 2015). However, these measures did not provide the intended results as the outstanding debt continued to soar up.

[5] Measures of operational efficiency improvements include compulsory smart metering, upgradation of transformers, meters, etc., energy efficient measures like LED bulbs, agricultural pumps, fans and air-conditioners. These improvements are likely to bring down the gap between average revenue realized (ARR) and average cost of supply (ACS) from 22 per cent to 15 per cent by 2018-19. Increased supply of cheaper domestic coal, coal linkage rationalization, liberal coal swaps from inefficient to efficient plants, coal price rationalization based on gross calorific value (GCV), supply of washed and crushed coal, and faster completion of transmission lines are some of the ways to reduce cost of power.

Table 6: Total outstanding debt to be taken over by the States (INR crores)

States	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Andhra Pradesh	4231	2115.41				
Bihar	1555	777.27				
Chhattisgarh	870	435.06				
Goa	No outstanding liabilities					
Gujarat	all dues by 31.3.16					
Haryana	17300	8650				
Jammu & Kashmir	1769	884.388				
Jharkhand	583	292				
Karnataka						
Madhya Pradesh	7568	4622	4622	4622	4622	4621
Maharashtra		992	992	992	992	992
Manipur	all dues by 31.3.17					
Punjab	10419	5209.42				
Rajasthan	**40265**	**20133**				
Uttar Pradesh	26606	13302.8				
Uttarakhand	all dues					

Source: (Basic data), from the Tripartite MoU of the respective States.

by the States will be converted into loans or bonds with interest rate not more than the bank's base rate plus 0.1 per cent by banks/FIs. Moreover, States are expected to take over the future losses in a graded manner.[6]

Table 6 demonstrates the amount of DISCOM debt, which has to be covered by the States. The data on debt is extracted from the respective tripartite agreement, i.e., the MOU signed by the respective states.

Rajasthan: State-Specific Mechanism and Targets of UDAY

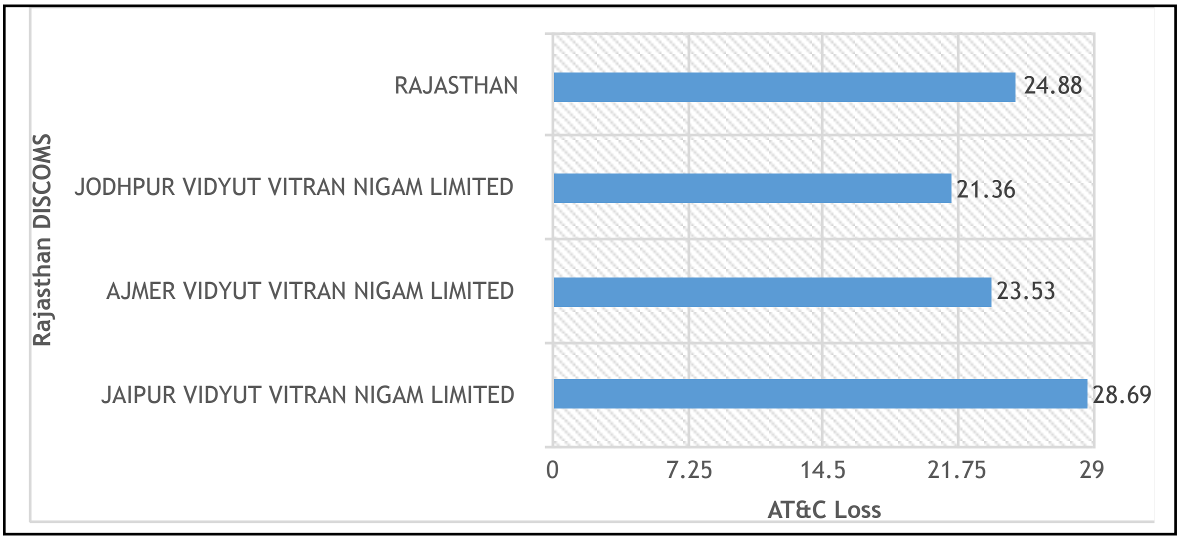
The Government of Rajasthan has signed MoU under the scheme UDAY (Ujwal DISCOM Assurance Yojana) with the Government of India and the DISCOMs of the State on January 2016 to ensure financial and operational turnaround of the DISCOMs. The DISCOMs signed include Jaipur Vidyut Vitran Nigam Limited, Jodhpur Vidyut Vitran Nigam Limited and Ajmer Vidyut Vitran Nigam Limited. The MOU stated that this agreement aims at the rapid electrification of villages[7] and distribution at reduced per unit cost to consumers. As on September 30, 2015, the outstanding debt of DISCOMs stood at INR 80500 crores. The scheme also provided for the balance debt of INR 20000 crore to be re-priced or issued as State guaranteed DISCOM bonds, at coupon rates around 3 per cent less than the average existing interest rate. This should result in savings of about INR 3000 crore in annual interest cost through reduction of debt and through reduced interest rates on the balance debt.[8] As of March 31, 2017, the bond issued by Rajasthan is INR 72090 crores, which is 94.71% of the bonds to be issued stipulated at INR 76120 Crores.

[6] States accepting UDAY and complying with the operational guidelines will be given additional/priority funding through Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY),Integrated Power Development Scheme (IPDS), Power Sector Development Fund (PSDF) or other such schemes of Ministry of Power and Ministry of New and Renewable Energy. So far 17 States/UTs (Andhra Pradesh, Bihar, Chhattisgarh, Goa, Gujarat, Haryana, Jammu & Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Punjab, Rajasthan, Uttar Pradesh, Uttarakhand and Puducherry) have signed the MoU and the States of Telangana, Assam and Kerala have given 'in principle' approval. Table 5 shows the list of States and the date of signing the MoU.

[7] To ensure electrification of 396 villages and 30 lakh households in Rajasthan that are still without electricity.

[8] http://pib.nic.in/newsite/PrintRelease.aspx?relid=135834

Fig 1a: UDAY Financial Parameters (Progress in reducing AT&C Losses in Rajasthan, as of March 31, 2017)



Source: UDAY portal, Govt. of India. https://www.uday.gov.in/atc_india.php

Fig 1b: UDAY Financial Parameters: Progress in reducing ACS-ARR Gap in Rajasthan (as of March 31, 2017)

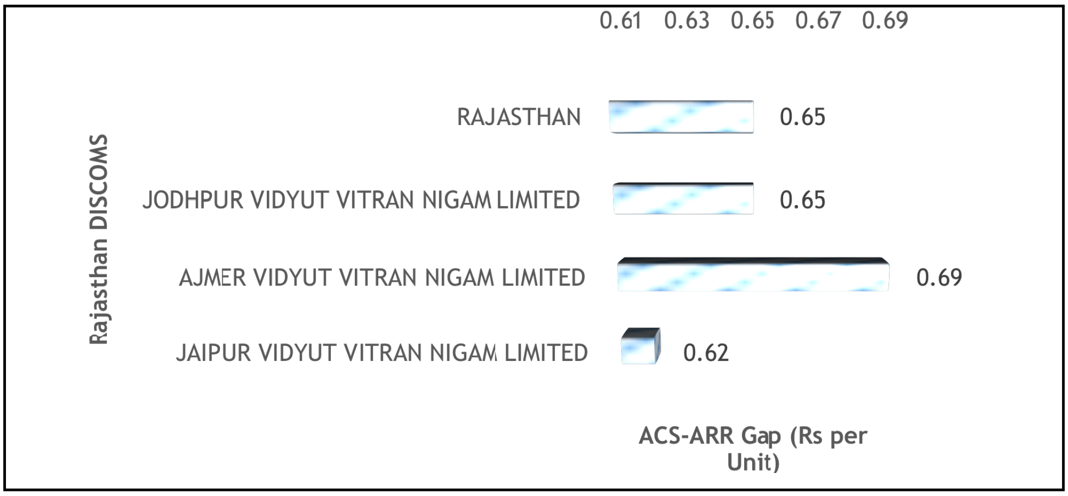
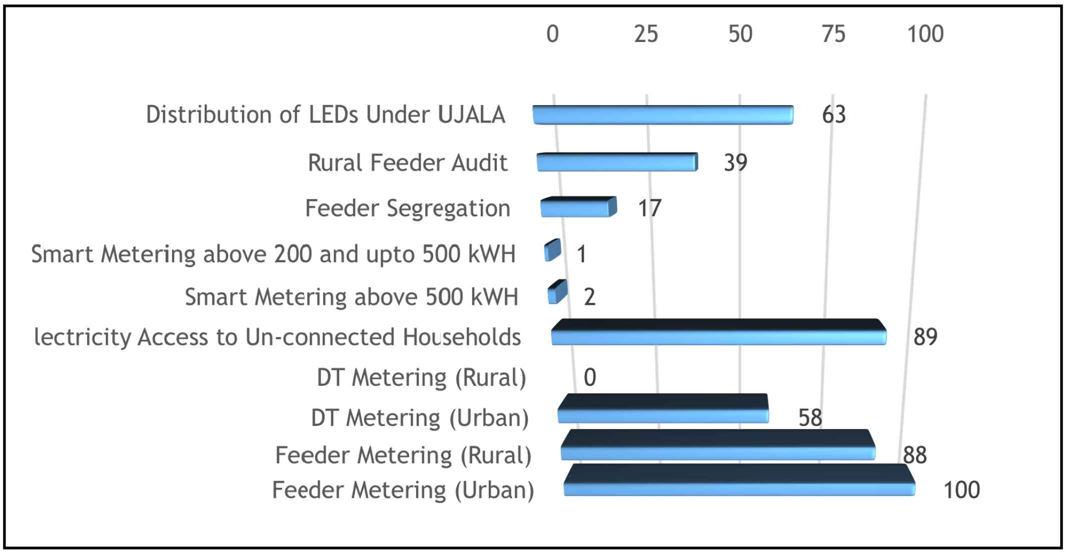


Figure 2: UDAY in Rajasthan: Progress in Operational Efficiency (as of March 2017)



Source: UDAY portal, Govt. of India. https://www.uday.gov.in/state.php?id=4&code=rajasthan

The progress in reducing the AT&C losses (Aggregate Technical and Commercial Loss) by Rajasthan DISCOMs is respectively 28.69 per cent by Jaipur Vidyut Vitran Nigam Limited, 21.36 per cent by Jodhpur Vidyut Vitran Nigam Limited and 23.53 per cent by Ajmer Vidyut Vitran Nigam Limited (Figure 1). The overall State progress is 24.88 per cent as of March 31, 2017.

The ACS-ARR gap (INR per unit) which indicates the commercial viability of the DISCOMs at State level is INR 0.65 per unit in Rajasthan; the DISCOM disaggregated gap is given in Figure 1b. The UDAY scheme emphasises on strengthening the operational efficiency of DISCOMs through many initiatives including compulsory Feeder and Distribution Transformer metering, providing electricity access to unconnected households, distribution of LEDs and smart metering. However, the progress in operational efficiency parameters has not been 100 per cent (Figure 2).[9] The next section would analyse the impact of these UDAY

Table 7: State Finances of Rajasthan: 2017-18 (BE) to 2026-27

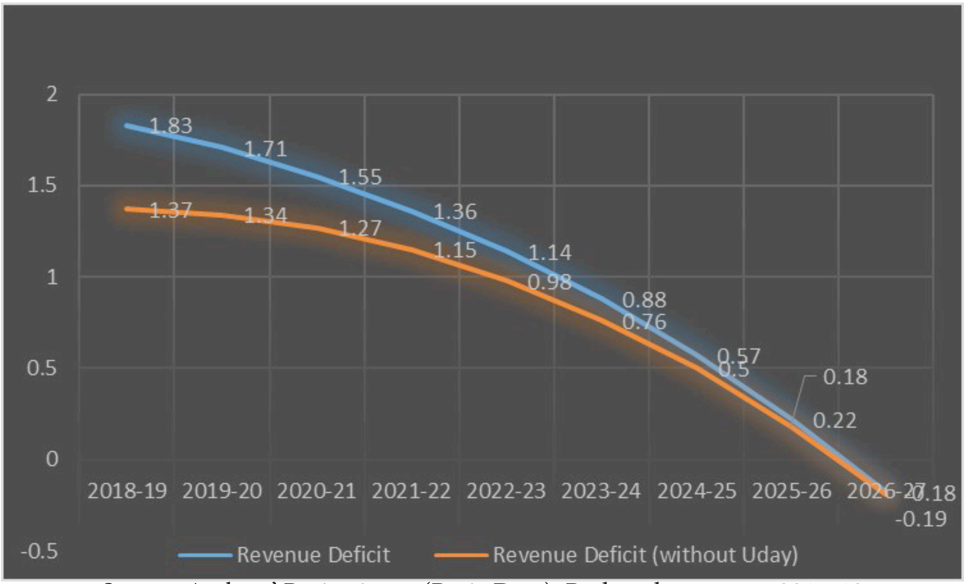
(per cent to GSDP)

	2017-18 BE	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27
Revenues	15.73	15.91	16.13	16.37	16.65	16.95	17.29	17.66	18.06	18.49
Own Tax Revenue	6.59	6.71	6.84	6.97	7.11	7.25	7.40	7.56	7.73	7.90
Stamps & Registration Fees	0.49	0.46	0.43	0.41	0.38	0.36	0.34	0.32	0.30	0.28
State Excise	1.00	1.05	1.11	1.17	1.23	1.29	1.36	1.43	1.50	1.58
Sales Tax	4.27	4.35	4.44	4.53	4.63	4.72	4.82	4.92	5.02	5.12
Taxes on Vehicles	0.49	0.50	0.51	0.51	0.52	0.53	0.54	0.55	0.56	0.57
Others	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
Own Non-Tax Revenue	1.75	1.65	1.55	1.45	1.36	1.28	1.20	1.13	1.06	1.00
Central Transfers	7.38	7.56	7.75	7.95	8.18	8.42	8.68	8.96	9.27	9.60
Share in Central Taxes	4.50	4.75	5.02	5.30	5.59	5.91	6.24	6.59	6.96	7.35
Grants	2.88	2.81	2.73	2.66	2.58	2.51	2.44	2.38	2.31	2.25
Revenue Expenditure	17.36	17.75	17.84	17.93	18.01	18.09	18.16	18.23	18.28	18.32
General Services	5.31	5.62	5.63	5.64	5.64	5.64	5.63	5.61	5.58	5.53
Interest Payment (with UDAY)	2.37	2.65	2.63	2.61	2.59	2.56	2.51	2.46	2.39	2.31
Pension	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71	1.71
Others	1.23	1.26	1.29	1.32	1.35	1.38	1.41	1.44	1.48	1.51
Social Services	6.37	6.45	6.53	6.61	6.69	6.78	6.86	6.95	7.03	7.12
Education	3.24	3.39	3.54	3.70	3.87	4.04	4.23	4.42	4.62	4.83
Health	0.73	0.77	0.81	0.84	0.88	0.93	0.97	1.02	1.07	1.12
Others	2.40	2.29	2.18	2.07	1.94	1.81	1.66	1.51	1.35	1.18
Economic Services	5.68	5.68	5.68	5.68	5.67	5.67	5.67	5.67	5.67	5.67
Capital Expenditure	3.09	2.71	2.68	2.66	2.64	2.62	2.59	2.57	2.55	2.53
Revenue Deficit	**1.63**	**1.83**	**1.71**	**1.55**	**1.36**	**1.14**	**0.88**	**0.57**	**0.22**	**-0.18**
Revenue Deficit (without UDAY)	**0.18**	**1.37**	**1.34**	**1.27**	**1.15**	**0.98**	**0.76**	**0.50**	**0.18**	**-0.19**
Fiscal Deficit	**2.99**	**4.61**	**4.45**	**4.27**	**4.05**	**3.80**	**3.51**	**3.17**	**2.80**	**2.38**
Fiscal Deficit (without UDAY)	**2.99**	**4.14**	**4.08**	**3.98**	**3.83**	**3.64**	**3.39**	**3.10**	**2.76**	**2.37**
Outstanding Liabilities	**33.61**	**34.85**	**35.81**	**36.49**	**36.88**	**36.99**	**36.79**	**36.27**	**35.44**	**34.26**
Outstanding Liabilities -without UDAY	**27.30**	**29.85**	**31.93**	**33.55**	**34.73**	**35.49**	**35.84**	**35.78**	**35.32**	**34.26**

Source: (Basic data), Budget Documents of Government of Rajasthan and Authors' Projections

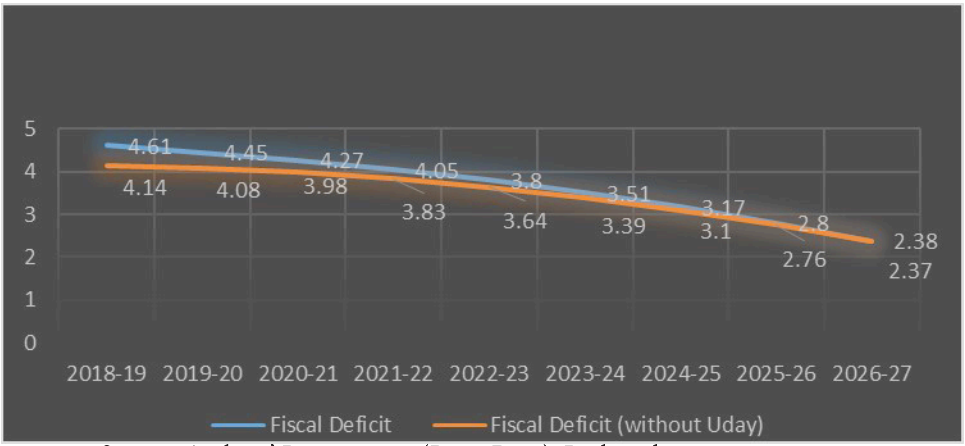
[9] As per the UDAY scheme, if the State meet all the financial and operational efficiency parameters, they would get additional/priority funding through the Central schemes DDUGJY, IPDS, Power Sector Development Fund or such other schemes of MOP and

Figure 3: Forecast of Revenue Deficit - with and without UDAY in Rajasthan



Source: Authors' Projections. (Basic Data), Budget documents, 2017-18, Ministry of Finance, Govt. of Rajasthan

Figure 4: Forecast of Fiscal Deficit - with and without UDAY in Rajasthan



Source: Authors' Projections. (Basic Data), Budget documents, 2017-18, Ministry of Finance, Govt. of Rajasthan

Figure 5: Forecast of Outstanding Liabilities - with and without UDAY in Rajasthan

Source: Authors' Projections. (Basic Data), Budget documents, 2017-18, Ministry of Finance, Govt. of Rajasthan reforms on public finances of Rajasthan.

Post UDAY Long Run Fiscal Trend: 2017-18 to 2026-27

We have projected fiscal profile of Rajasthan for the period from 2017-18 (BE) to 2026-27. This covers the period in which restructured power sector debt will be amortized. As evident from the Table, based on past trends for most components of revenue and expenditure, the State debt to GSDP ratio would increase from 33.6 per cent in 2017-18 (BE) to 34.26 per cent in 2026-27 (BE). This projection also shows that given post UDAY trend in State finances, the government of Rajasthan would be able to comply with the FRA target only in the year 2025-26 and produce a revenue surplus in the fiscal year 2026-27.

It is also to be noted that projected fiscal profile is based on a highly conservative fiscal stance as reflected in the following ratios presented in table 7:
1) Aggregate revenue receipts to GSDP ratio is projected to increase from 15.73 per cent of GSDP to 18.49 per cent of GSDP - an increase of more than 3 percentage point of GSDP in ten years. Own tax revenue to GSDP ratio is expected to increase from 6.59 to 7.90 per cent during this period.

2) Revenue expenditure shows an increase from 17.36 to 18.32 per cent primarily due to the increase in social sector expenditure.
3) Capital expenditure is expected to decline from 3.09 to 2.53 per cent.

The forecasts of revenue deficit, fiscal deficit and outstanding liabilities are shown in Figure 3, 4 and 5 respectively.

Conclusion and the Questions Forward

Given these trends in State finances incorporating UDAY power debt, the following questions would arise. How does one view the long run sustainability of State debt and deficits? What is the likely impact of the FRBM Committee's recommendations on the finances of Government of Rajasthan where debt to GSDP ratio of all States has to be brought down to 20 percent by 2023 Finally what should be the measureable indicator of fiscal prudence at the state level? Is it fiscal deficit incorporating UDAY debt or the one without UDAY?

References

Government of India, UDAY portal, Ministry of Power, New Delhi.

Government of Rajasthan, Finance Accounts (various years), State Secretariat, Jaipur.

MNRE. If they meet all operational parameters, the State would also be supported through other benefits such as coal swapping, coal rationalization and the correction in coal grade slippage, which would gain the State around INR 3000 crores due to these coal reforms.

National Institute of Public Finance and Policy, New Delhi.

IDRC project on 'Intergovernmental Fiscal Transfers in India'.