



# INDIA POLICY FORUM 2017

## A Deep Dive into State Budgets in India

**Neelkanth Mishra**  
Credit Suisse Research

**Prateek Singh**  
Credit Suisse Research

**India Policy Forum**  
July 11–12, 2017



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## Abstract

Over the past six years the size of state government budgets have increased sharply, and they now collectively spend 87% more than the Union Government. In this period not only has their combined expenditure as a share of India's GDP increased from 14% to 18%, they are as a group now nearly equal to the Union Government in their annual borrowing from the bond markets.

Most of the available research on state budgets follows a certain pattern, focusing on aggregates like the total fiscal deficit and total borrowing requirements, or comparisons of states on standard high level ratios like own revenues as a share of GDP, or debt to GDP. While this sufficed when states were fiscally smaller, the system needs to step up analysis, scrutiny as well as regulation.

In this paper we dig deeper into state budgets, looking for variations in spending patterns across states (an important objective of greater fiscal discretion provided by the Fourteenth Finance Commission), analyzing the capital versus revenue expenditure trends (can revenue expenditure be more productive than capital expenditure for some states?), differences in states' revenue sources (are some states over-reliant on alcohol related revenues?) and the extent of their dependence on central transfers, as well as their approach to financing fiscal deficits. Is the increase in debt due to UDAY and the recent increase in fiscal deficits pushing the states into a debt trap? How rapidly are pension burdens rising? We also study the effectiveness of the budgeting process across states as visible in differences between the budgeted, revised, and final numbers. Flaws in this process may have been ignored in the past, but recent slippages are worryingly large, and warrant scrutiny and rectification.

Such an analysis is important not only to manage the market distortions increasingly caused by the growing bond issuances by state governments, but also to assess the impact and prepare for major changes like the start of GST, implementation of the Pay Commission (where states bear the greater burden), the target of 20% debt to GDP by 2023 prescribed by the FRBM Review Committee for state governments and the recent farm loan waivers. Some of this analysis can also be of use to Fifteenth Finance Commission, which is now getting set up.

**JEL Classification:** H7, H8

**Keywords:** State Budgets, Public Finance, India, Fiscal Policy

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[neelkanth.mishra@credit-suisse.com](mailto:neelkanth.mishra@credit-suisse.com), [prateek.singh@credit-suisse.com](mailto:prateek.singh@credit-suisse.com)



# A Deep Dive into State Budgets in India

Neelkanth Mishra and Prateek Singh

## 1. Introduction

Despite the rising importance of state government budgets in the economy over the past six years, there has not been a comprehensive analysis of changes at an aggregate level, as well as the differences between states on various parameters like indebtedness, dependence on central transfers, flexibility in expenditure, and the efficacy of their spending on various heads. A big reason for this is the paucity of detailed data, particularly as the only comprehensive source is the Reserve Bank of India's (RBI) compendium of state budgets. As this compendium is published only 14 to 15 months after the presentation of budgets, any analysis based on this becomes backward-looking. Further, significant differences between budget estimates and what actually transpires mean that accurate data is only available with a lag of more than two years.

Over the past three years we have been publishing detailed budget analyses for the larger states, poring over budget speeches by state finance ministers and standardizing state level budget data into comparable categories. Not only does this allow us to be almost a year ahead of publication of the RBI's compendium, this has led to the discovery of several nuances (like large differences between "revised" budget deficits and what is delivered finally) that are very important to understand trends and patterns underneath the publicised headline numbers.

In the second section we discuss the steadily rising importance of state budgets on several fronts. Growth in their aggregate expenditure has outpaced that by the central government for each of the last seven years (starting FY2012), and their combined spending is now 18% of GDP versus just 14% in FY2012. Further, state tax collection as a share of GDP has risen meaningfully over the past decade. Lastly, as the central fiscal deficit ratio has nearly halved to about a three percent level over this period, but the states' ratio has stayed in the two to three percent range, the size of their absolute fiscal deficits is now becoming comparable to that of the centre. This has also meant that the state government bond (State Development Loans, or SDLs) issuance every year is comparable to that of the centre, and their calendar is now very important for the bond markets.

In the third section we analyze some major expenditure heads for state governments, starting with whether revenue expenditure is as bad as it is made out to be, particularly in under-sized governments. As state governments shoulder the bulk of the responsibility of providing government services, their spending is spread over a wide range of categories. We analyse some of the more salient ones, like interest payments and the debt burden of states, salaries and pensions, and comment on differences between states on spending on education (revenue expenditure), and irrigation (capital expenditure) as examples. We end the section with an analysis of the budgeting accuracy itself, and the drivers of the same.

In the final section we assess the impact of some significant framework-level changes now occurring: GST, which subsumes 40% of all of India's taxes; the recently triggered wave of loan waivers across states; and the implications of the FRBM review committee's recommendations for debt to GDP levels for state governments (FRBM, 2017).

## 2 India Policy Forum 2017

A few words on nomenclature and some abbreviations used:

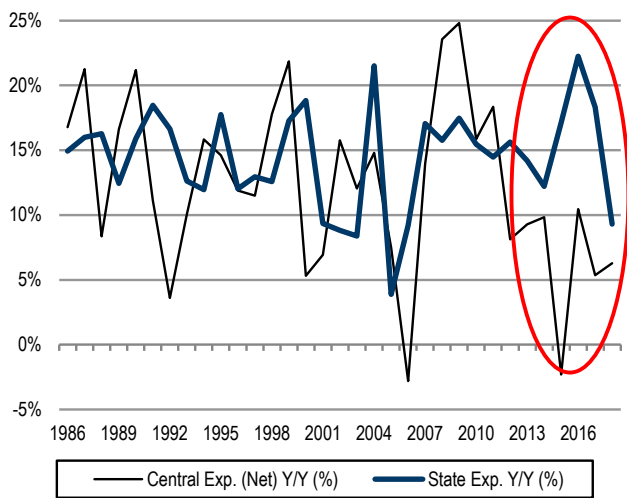
- There are at least four versions of each year's budget. Budgeted Estimates (BE) are presented one to two months before the financial year starts; Revised Estimates (RE) are published when the next year's budget is being presented (the government at this time has actual data for nine to ten months of the year, and projections for the remaining two to three months), Provisional (available one to two months into the next financial year), and Final (after all data becomes available). As India's financial year ends 31<sup>st</sup> March, FY2018 stands for the fiscal year ending 31 March 2018; the suffix 'b' for a year indicates BE, 'r' indicates RE, and numbers without a suffix indicate the provisional or the final numbers.
- As large numbers get mentioned frequently, we shorten trillion to 'tn', billion to 'bn' and million to 'mn'.
- YoY stands for Year-on-Year: a measure compared to a similar one from the previous year.
- CAGR stands for Cumulative Annualized Growth Rate
- To make charts more readable, we use two-letter codes for states: the mapping of codes to state names is in the Appendix.

## 2. Rising Fiscal Importance of the States

Growth in aggregate expenditure of state governments has outpaced that of the central government for each of the last seven years (starting FY2012). In this analysis, to avoid double-counting, we subtract from central government's spending the transfers to the states where the centre does not control the last-mile delivery: we thus look at "net" central spending in these comparisons. These transfers are mainly grants under various heads, including some Centrally Sponsored Schemes (CSS) like the *Sarva Shiksha Abhiyaan* (SSA).

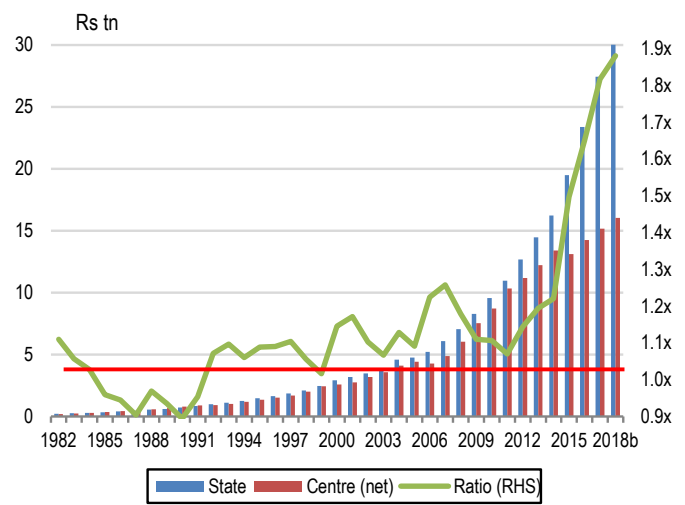
Such a sustained period of state spending growing faster has not been seen in the past several decades (**Figure 1**). This has been supported by three important changes: i) even before the Fourteenth Finance Commission-recommended 42% devolution of taxes was implemented (FFC, 2015), the central government had started combining programmes that touched on state subjects, and giving state governments more discretion; ii) the FFC's recommendations increased state governments' control; iii) state governments' own tax revenues have continued to grow; and iv) steady increase in nominal GDP has created more fiscal space for states even though their aggregate fiscal deficit ratio has remained below the mandated 3% of GDP, even as a sharply shrinking deficit ratio for the centre has kept the absolute central fiscal deficit broadly unchanged.

**Figure 1: State expenditure growing faster than Centre's**



Source: RBI, Budget documents, Credit Suisse estimates.

**Figure 2: States now spend 1.87x the Centre's net spend**

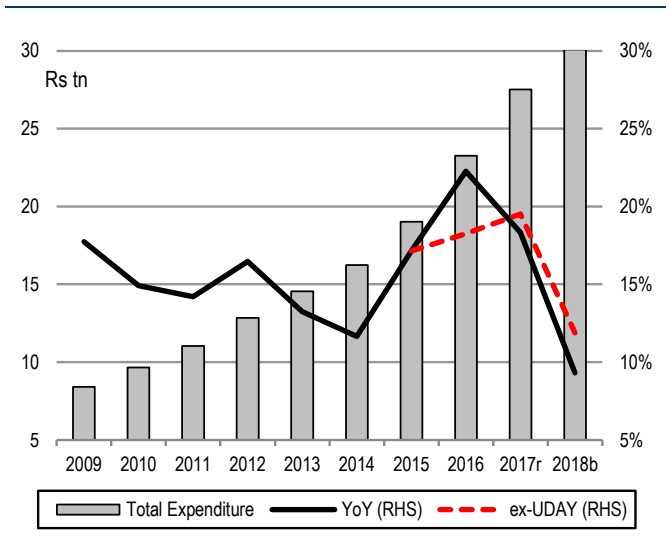


Source: RBI, Budget Documents, Credit Suisse estimates.

As a result of these trends, from spending 6% more than the centre in FY2011, the states are budgeted to spend 87% more than the Centre in FY2018b (**Figure 2**). Even adjusting for the UDAY (Ujjwal Discom Assurance Yojana, where state governments took on State Electricity Board debt) related expenses of Rs732bn and Rs638bn in FY2016 and FY2017 respectively, expenditure growth was in the high teens in the last three years (**Figure 3**).

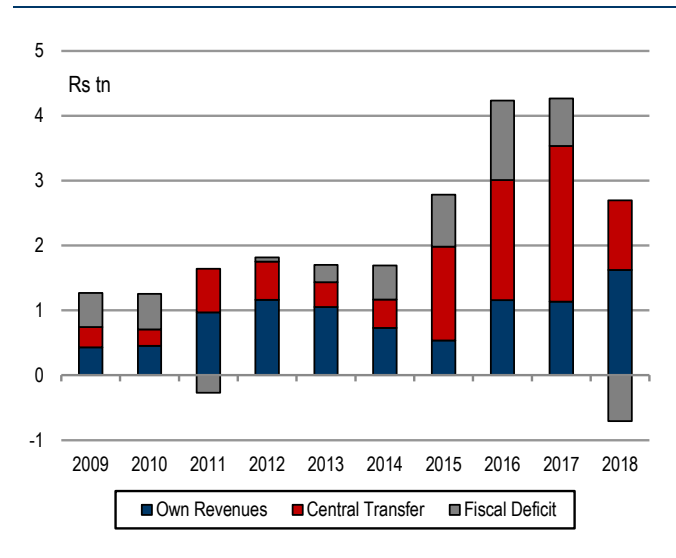
However, the growth in expenditure slows in FY2018b to just 9.3% over FY2017r, the lowest in more than a decade. The main reasons for this sharp slowdown appear to be a smaller increase in central transfers and a drop in the fiscal deficit (**Figure 4**): these offset the increase in own revenue growth. After three years of sharp increases in central transfers, when these rose by Rs1.4-2.4tn each year, the increase in FY18b is to be only Rs1.1tn; on the higher base, the growth therefore appears lower. The budgeted decline in the absolute fiscal deficit for FY18b is also intriguing, coming as it does at a time when the popular consensus is of profligate states undoing the fiscal discipline of the centre. Budgets for the states do not yet incorporate the loan waivers announced in the past few months, but as we demonstrate in the fourth section (section 4.2, page 33) the impact of those is likely to be spread out over several years.

**Figure 3: Total state spend to grow 10% over FY17r**



Source: RBI, Budget Documents, Credit Suisse estimates.

**Figure 4: Sources of increase in expenditure**



Source: RBI, Budget Documents, Credit Suisse estimates.

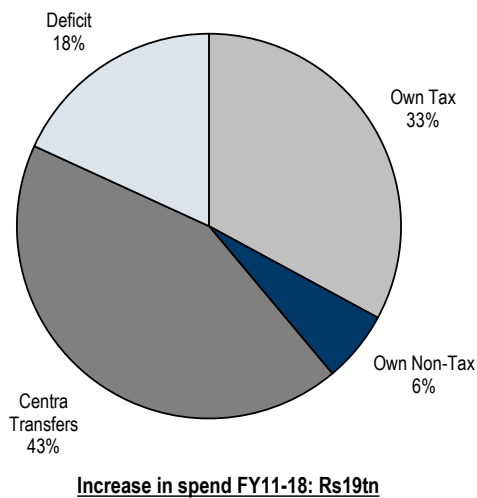
We discuss all themes in detail in the following sub-sections.

### 2.1. Pickup in Central Transfers

Of the Rs19tn increase in state government expenditure between FY2011 and FY2018b, 43% came from the rise in central transfers (**Figure 5**). These consist of two parts: a direct share of central taxes, and grants from the centre. Whereas the first part are untied funds, meaning that the states have complete discretion in spending them, the grants generally come with pre-conditions, mostly about the desired areas of spending, but often also necessitating matching contributions from state governments.

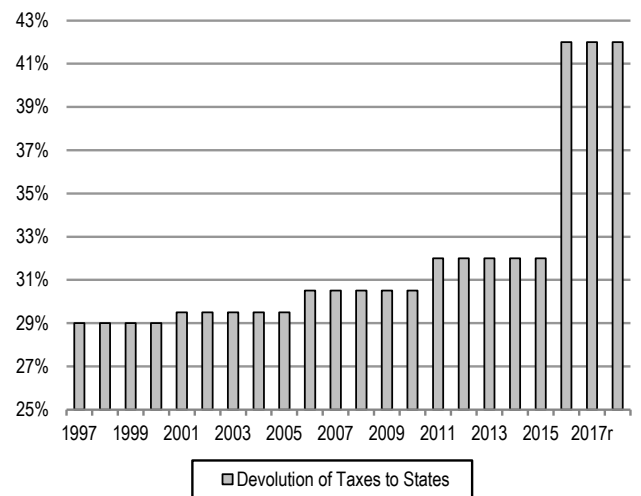


**Figure 5: Source of funds for rise in expenditure FY11-18**



Source: RBI, Budget Documents, Credit Suisse estimates.

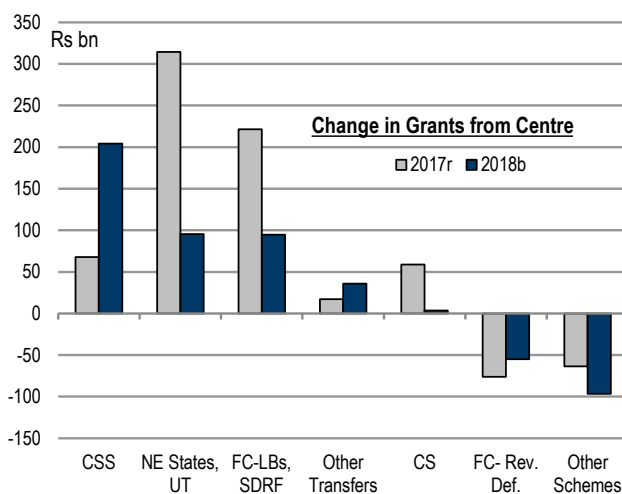
**Figure 6: Ratio of central taxes devolved to states**



Source: 14<sup>th</sup> Finance Commission Report, Credit Suisse estimates.

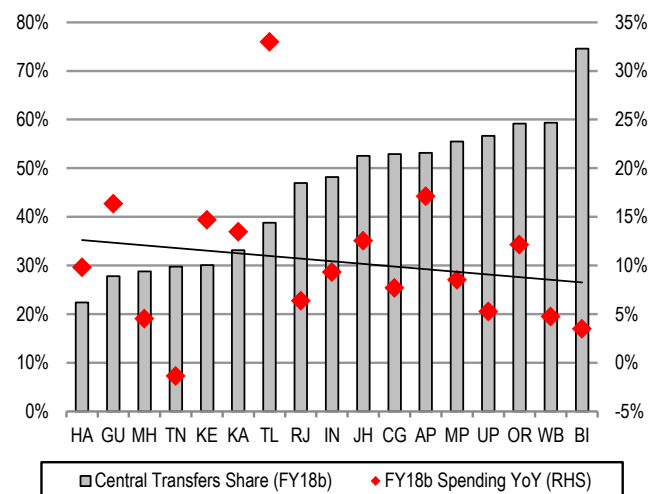
As has been well discussed, the impact of the Fourteenth Finance Commission (FFC) was very significant in the sharp jump in the share of central revenues directly transferred to the states. Whereas the Eleventh to the Thirteenth Finance Commissions had raised the proportion in increments of 50 to 150 basis points, moving from 29% to 29.5% in the Eleventh, to 30.5% in the Twelfth, and to 32% in the Thirteenth, the FFC raised it to 42% in one go (Figure 6). This was also accompanied by a reduction in grants to states, and total transfers did not rise by that quantum.

**Figure 7: YoY changes in grants**



Source: RBI, Budget Documents, Credit Suisse estimates.

**Figure 8: Slow growth in some transfer-dependent states**



Source: Budget Documents, Credit Suisse estimates.

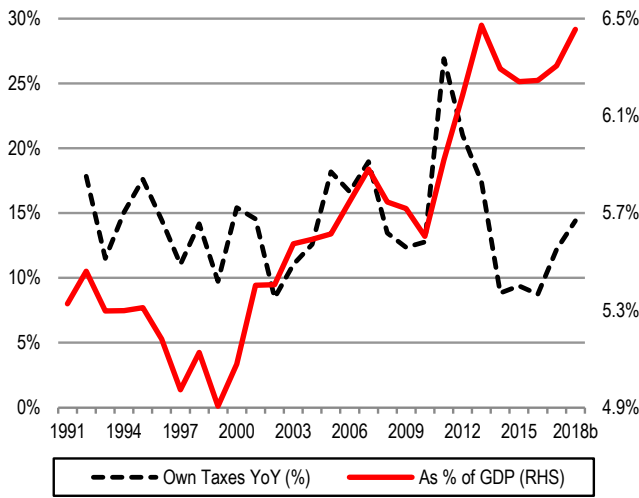
In FY18b, growth in the central government's gross tax revenue is also slowing, from 17% each in FY2016 and FY2017r to just 12% in FY2018b, as the boost from the surge in excise duties on petroleum products as well as the increase in service tax rates is now in the base. This reflects in the slower growth in transfers to the states as well. Further, whereas the grants to states, where the centre holds some discretion in annual allocations to states, had increased by Rs540bn in FY2017r (a growth of 16% over FY2016), in FY2018b the growth is only Rs282bn (a growth of 7% over FY2017r). This decline appears to be mostly in the grants to North-Eastern states and in the Revenue Deficit grants (**Figure 7**): the latter was as per instructions of the FFC. These declines offset the increases in grants under the Centrally Sponsored Schemes.

As one can expect, states where central transfers form a large part of revenue receipts are budgeting for slower growth in spending in FY2018b (**Figure 8**). The outliers to this trend are Telangana and Andhra Pradesh on the higher side and Maharashtra and Tamil Nadu on the lower side. Both Telangana and Andhra Pradesh are to receive special funds from the centre: these were promises made at the time when Telangana was carved out of Andhra Pradesh, for example funding for the Polavaram irrigation project. Maharashtra was budgeting for a sharp decline in the fiscal deficit ratio from 2.0% in FY2017r to 1.5% in FY2018b before the recently announced loan waivers, which explains its low expenditure growth. For Tamil Nadu a Rs228bn UDAY related spend in FY17r elevated the base: adjusted for that the growth would be 11% YoY.

### *2.2. Growth in Own Receipts*

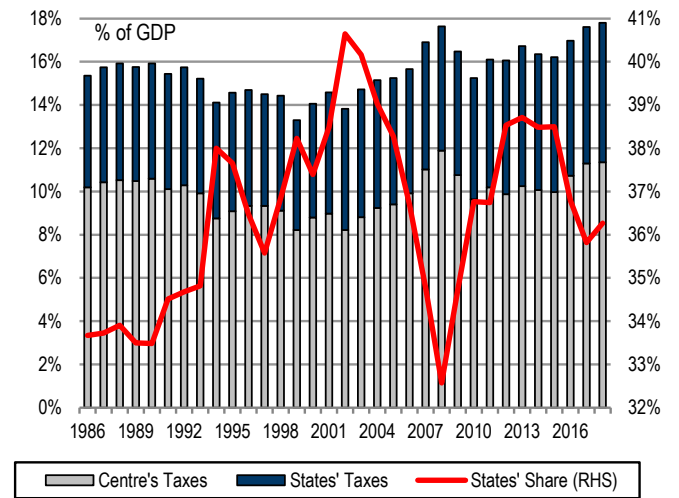
The ability to spend more is not all due to the centre delegating more responsibility: growth in own taxes has funded a third of the Rs19tn increase in states' aggregate expenditure between FY2011 and FY2018b (**Figure 5** on Page 5). State taxes as a share of GDP have risen quite sharply from the bottom of 4.9% in 1999 to a budgeted 6.5% in FY2018b (**Figure 9**). The increase from 2009 onwards is attributed to the lagged effects of VAT implementation (Viswanathan, 2016), which started in 2005 but was implemented by a few large states some years later, and then took a few years to stabilize.

**Figure 9: States' own taxes have risen as % of GDP**



Source: RBI, Budget Documents, Credit Suisse estimates.

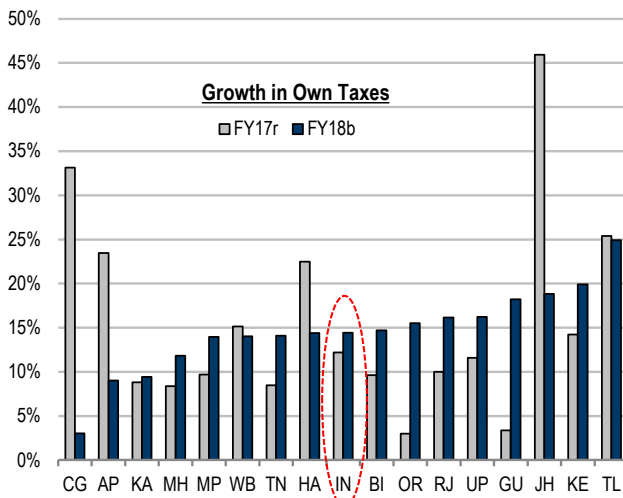
**Figure 10: Share of state taxes in overall collection**



Source: RBI, Budget Documents, Credit Suisse estimates.

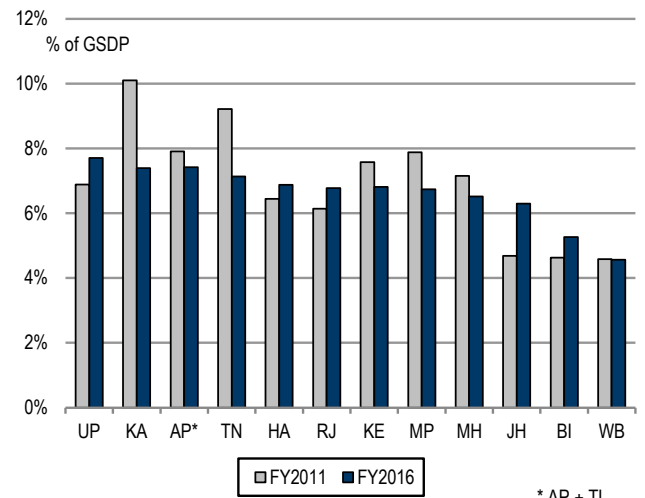
States' share of aggregate tax collection in India on the other hand has remained range-bound (**Figure 10**) as aggregate tax to GDP in India has also increased during this period. Before 2002, as the central government rationalised taxes, whereas states did not, state share had increased to over 40% of GDP. But then the share fell below 33%, bottoming in FY2008 as central tax revenues surged driven among other things by sharp improvement in corporate profitability (as reflected in more than 30% growth in corporate taxes in those years). In recent years, in FY2016 and FY2017 higher excise duties on petroleum products and the rise in service tax rates caused this ratio to dip.

**Figure 11: Growth in own taxes for states in FY17r/18b**



Source: RBI, Budget Documents, Credit Suisse estimates.

**Figure 12: Tax to GSDP changes for states FY2011-2016**



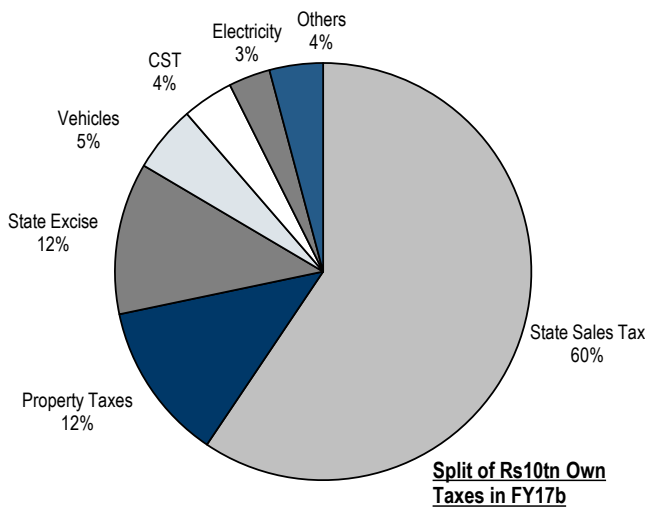
Source: RBI, Budget Documents, Credit Suisse estimates.

There is wide divergence in states' own revenue growth too in FY2017r and FY2018b (**Figure 11**): subdued growth in Chhattisgarh and Andhra Pradesh is likely explained by the high base of the previous year, and the higher growth in Gujarat and Odisha is explained by a low base. States like Jharkhand and Telangana are seeing rapid growth. In the five year period between FY2011 and FY2016, tax to GSDP remained within a range, like it did for the states' aggregate tax take (**Figure 9**). States like Karnataka and Tamil Nadu saw their ratios drop sharply during the period, but this was either due to GDP revisions (Karnataka's FY2017 GDP was 65% higher than FY2016), or rapid GSDP growth (TN). Tax buoyancy was strong, i.e. tax to GSDP ratio went up for Jharkhand, Bihar and Rajasthan (**Figure 12**).

2.2.1. SALES TAX/VAT REMAINS THE DOMINANT SOURCE OF TAX REVENUES

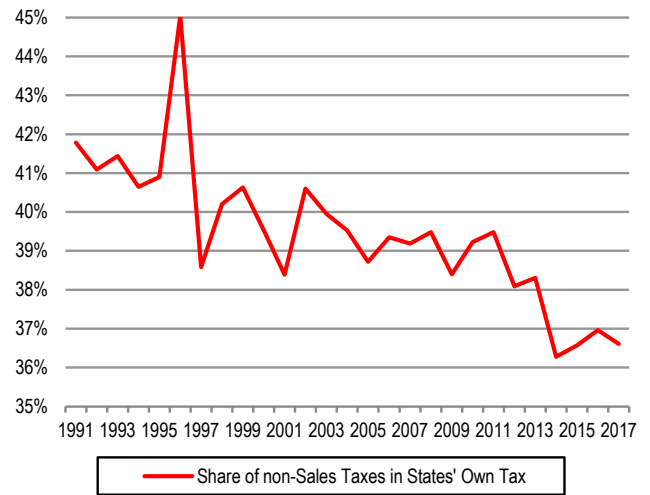
State sales tax, or Value-Added Tax (VAT) remains the dominant source of tax revenues for state governments, accounting for 60% of the Rs10tn in taxes collected by them in FY2017b (**Figure 13**). Property Taxes (stamp duty, registration fees) and State Excise (that is manufacturing taxes on alcohol production) are 12% each of overall taxes, and there are minor contributions from taxes on vehicles (road tax), CST and Electricity.

**Figure 13: Split of own taxes by tax-type**



Source: RBI, Budget Documents, Credit Suisse estimates.

**Figure 14: Share of non-VAT taxes steadily declining**

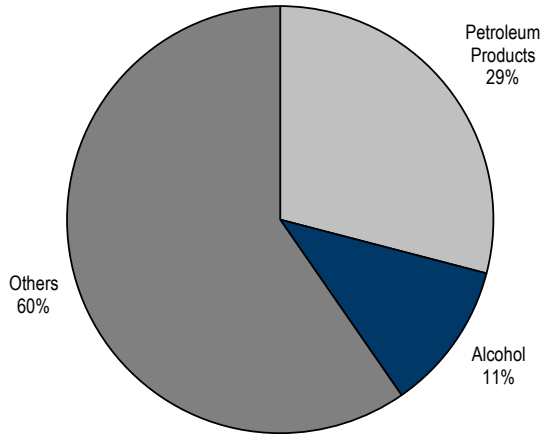


Source: RBI, Budget Documents, Credit Suisse estimates.

2.2.2. SHARE OF NON-VAT TAXES FALLING: DO STATES NEED TO BE MORE CREATIVE AS WELL AS DILIGENT?

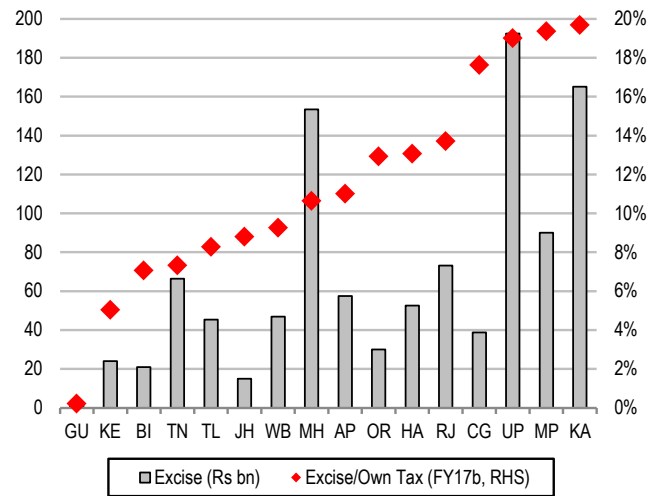
Interestingly, the share of non-VAT taxes in states' own tax receipts has been falling slowly but steadily over the last three decades (**Figure 14**). There is a cyclical element in some non-VAT taxes like in the property taxes, but that can only explain weakness in a few years: the decline on the other hand has been surprisingly steady and long-drawn. This suggests that states have been lax in exploiting non-VAT sources of tax revenues.

**Figure 15: Only 60% of VAT is non-oil/alcohol (FY2014)**



Source: RBI, RNR Committee Report, PPAC, CS estimates.

**Figure 16: Alcohol excise large tax source for some states**

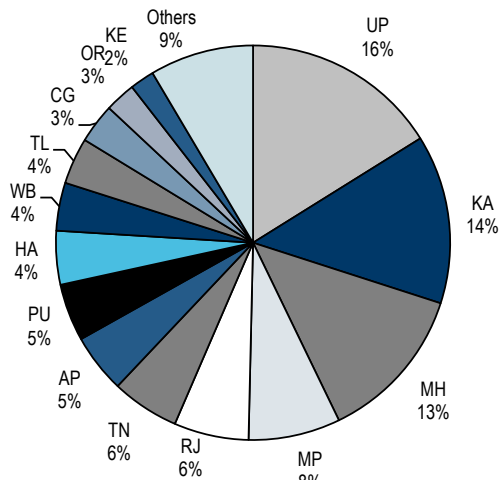


Source: RBI, Budget Documents, Credit Suisse estimates.

This laxity is compounded by the over-reliance on petroleum products and alcohol even in VAT collections (**Figure 15**): 29% of VAT in FY2014 came from petroleum products, and another 11% from alcohol. This was in addition to excise duties on alcohol that contributed 10-20% of all taxes for several states in FY2017b (**Figure 16**). This is the reason that states have been reluctant to allow alcohol into GST, and also unwilling to set GST on petroleum products.

States' dependence on alcohol revenues is harder to quantify exactly, given that only State Excise collection is disclosed separately, and most of this is on manufacturing of alcohol. Some states also levy very high tax rates on alcohol and in states like Kerala, nearly all sales must pass through state-owned enterprises. These drive significant mark-ups, and then the booked profits are passed on to the state government as dividends. Thus, even though UP has good State Excise collections (**Figure 17**), it may have a smaller proportion of overall alcohol taxes.

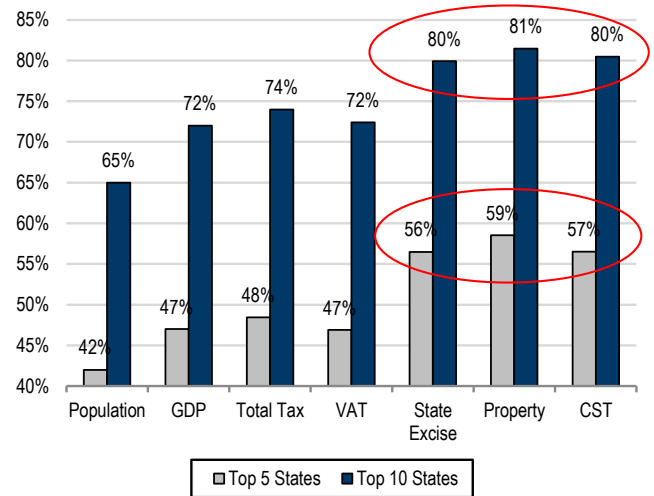
**Figure 17: State Excise collection higher in a few states**



**Split of FY17b Excise Collections: Rs 1.2tn**

Source: RBI, Budget Documents, Credit Suisse estimates.

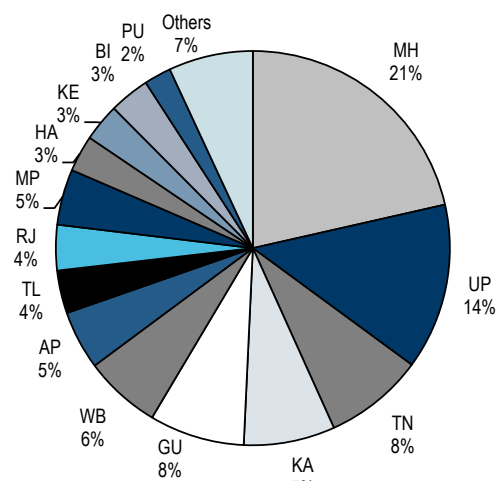
**Figure 18: Non-VAT taxes are more concentrated**



Source: RBI, Budget Documents, Credit Suisse estimates.

In any case, non-VAT taxes are more concentrated in their state-wise distribution than VAT collection, overall tax collection as well as population. The top 5/10 tax collecting states account respectively for 42%/65% of population, 47%/72% of GDP and 47%/72% of VAT collections, but for State Excise (i.e. alcohol manufacturing taxes), Property Taxes and CST, these ratios are 10-12pp higher at 56-59% and 80-81% respectively (Figure 18). Moreover, the set of states in top 5 and top 10 for the non-VAT taxes is also different. There appears to be therefore significant unexploited potential for tax collection even in the taxes administered by state governments.

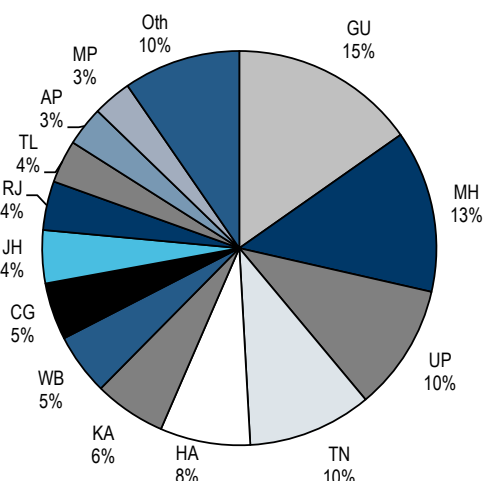
**Figure 19: Real-estate Tax collections most concentrated**



**Split of FY17b Property Tax Collections: Rs 1.25tn**

Source: RBI, Budget Documents, Credit Suisse estimates.

**Figure 20: A few states dominated CST collections**



**Split of FY17b CST Collections: Rs 402bn**

Source: RBI, Budget Documents, Credit Suisse estimates.

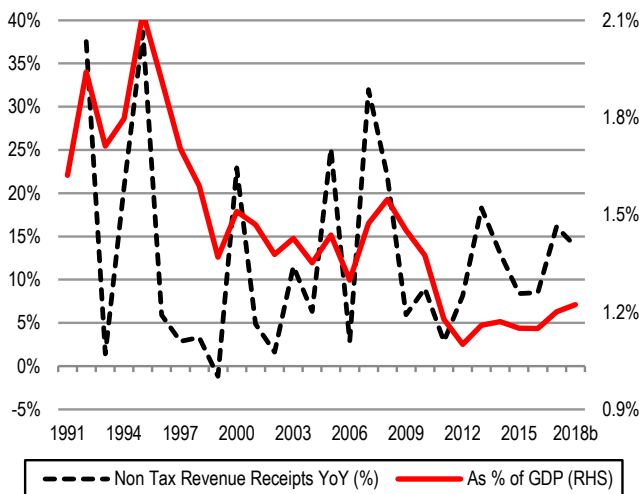
For each of the non-VAT taxes, state-wise differences have different drivers. In stamp duty/registration tax collections for example, while there are some differences in rates across states as well, states that have more populous cities do seem to have greater success in generating revenue from this source. Thus, the existence of several large cities like Mumbai, Pune and Nagpur in Maharashtra increases its tax potential (**Figure 19**), and the same holds true for UP (Noida & Ghaziabad are satellite towns of New Delhi), TN (Chennai), Karnataka (Bengaluru), Gujarat (Ahmedabad) and West Bengal (Kolkata) as well.

Similarly, the stronger manufacturing-led economies of Gujarat, Maharashtra, TN, Karnataka and Haryana make them dominant in CST collections as well (**Figure 20**). These states have been the most worried about GST implementation: even though CST is only 4% of taxes subsumed under GST, these states have the most to lose once these "export taxes" (levied on goods manufactured for sale in other states) get abolished in the new regime starting 1<sup>st</sup> July 2017.

2.2.3. SHARE OF NON-TAX REVENUES ALSO STAGNATING AFTER A STEEP FALL

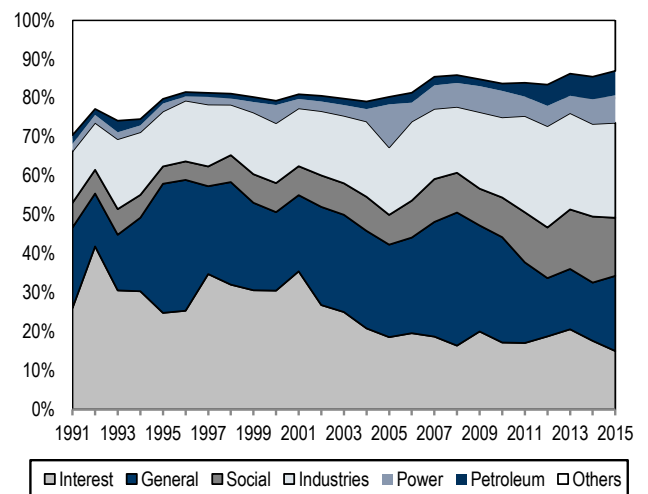
Worryingly, states' own non-tax revenues have fallen from 18% of all revenue receipts in 1995 to just 8% now, indicating that their growth has lagged other revenue sources. From being 2.1% of GDP in 1995, they just add up to 1.2% of GDP in FY2018b (**Figure 21**). This is higher than the low of 1.1% in FY2012 but still indicates an inability to generate other forms of revenue.

**Figure 21: Non-tax receipts have declined in importance**



Source: RBI, Budget Documents, Credit Suisse estimates.

**Figure 22: Share of non-tax receipts over time**



Source: RBI, Budget Documents, Credit Suisse estimates.

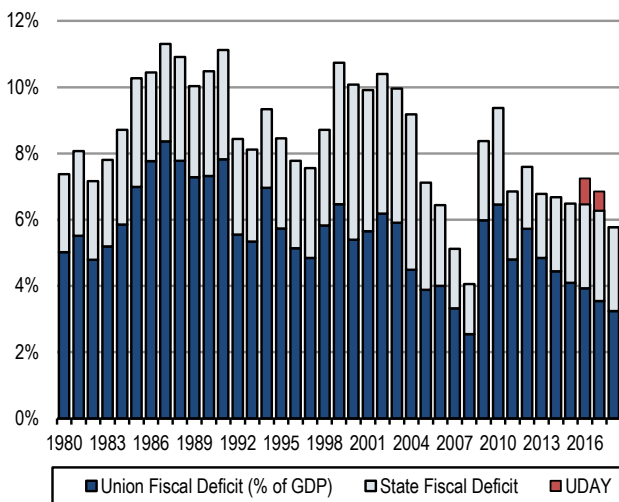
An analysis of the split of non-tax revenues though provides some comfort. Interest income used to be a dominant source of non-tax income for state governments, but has come down significantly (**Figure 22**). On the other hand, income from sources like industries, power, and petroleum have picked up, and that from forestry has declined in relevance. In recent years some states have also started to accelerate revenue generation

from land: for example, Telangana had budgeted Rs82bn from land sales to industry in FY2017, but court cases slowed down the process, and there was significant revenue slippage (Budget Speech, 2017). In states like Maharashtra such revenue generation has been commonplace, but mostly within urban centres to fund the city government (for example, in the Bandra Kurla Complex in Mumbai). The administration of Jaipur (capital of Rajasthan) has also had some success in generating revenues through such means.

### 2.3. States Now a Bigger Part of the Bond Market

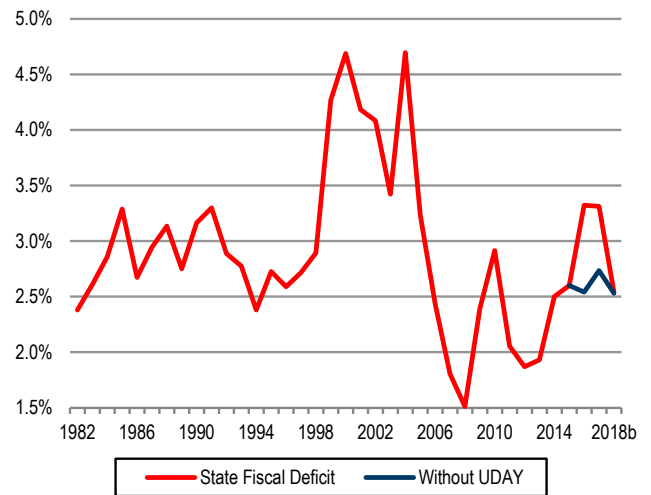
There has been much concern if not alarm in the past year on the profligacy of state governments undoing the fiscal contraction at the Centre. However, the reality is less worrying.

**Figure 23: General government deficits (Centre + States)**



Source: RBI, Budget Documents, Credit Suisse estimates.

**Figure 24: State deficits up from lows, but under control**



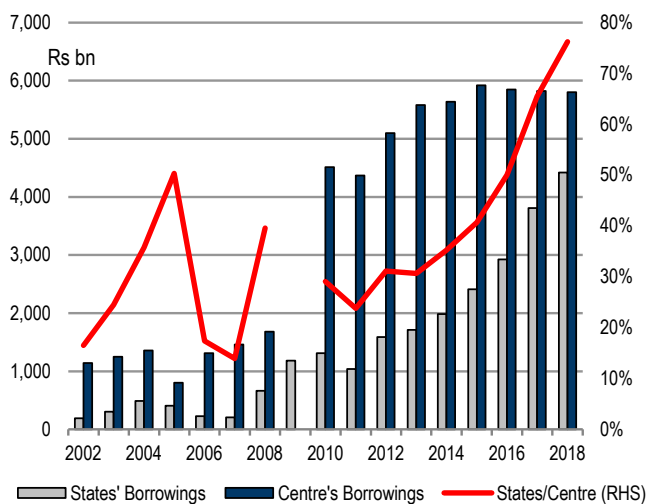
Source: RBI, Budget Documents, Credit Suisse estimates.

While the pick-up in state fiscal deficit ratios in the past six years has indeed slowed down improvement in the general government deficits (Figure 23), the concern gets exaggerated by two factors: the first being that FY2011 saw among the lowest ratios ever recorded for states (Figure 24) and so is not the best starting point, and the second that UDAY related borrowing drove the headline deficits higher. Adjusted for UDAY, aggregate state deficits have been in the 2.5%-2.7% of GDP range in the last five years, and well within the 3% range prescribed for them. This is despite some of the states starting to use the 50bps of extra fiscal room available to them if their debt to GSDP ratio and their interest expenses are within specified limits.

In such matters stress mostly picks up when financial markets press the panic button: bond traders have been spooked by the rising share of SDLs (State Development Loans, i.e. bonds issued by state governments to fund their deficits) in overall government bond issuance (Figure 25). It is educative to see when this stress started showing: while the trend was clear from FY2012 onwards, it was the 30%-plus growth in SDL issuance for two consecutive years that the market seems to have been startled by (Figure 26).



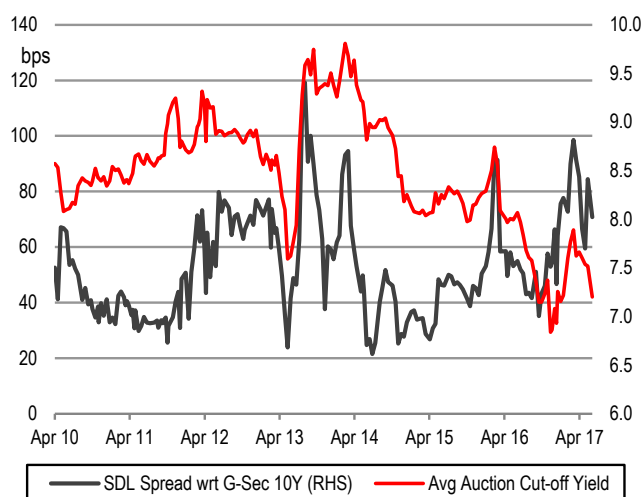
**Figure 25: State borrowing vs. Central borrowing**



Source: RBI, Budget Documents, Credit Suisse estimates.

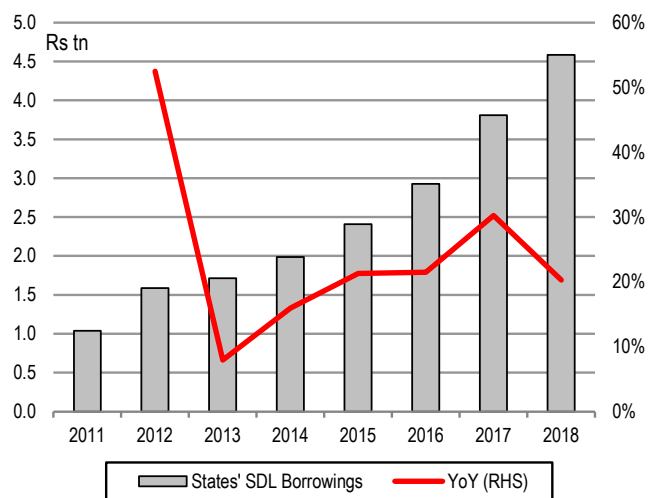
This is why SDL yield spread over G-Secs (i.e. the yields on SDLs minus the yield on the 10 year central government bonds: **Figure 27**) started to widen from 2015 onwards: the spikes in this spread are associated with the UDAY related bonds. The markets' tendency to extrapolate trends, and the absence of updated data (the RBI's compendium of state budgets comes with a lag of 14 to 15 months, by which time it is outdated for all practical purposes) has kept these fears high.

**Figure 27: Yield Spread: major states vs. Centre**



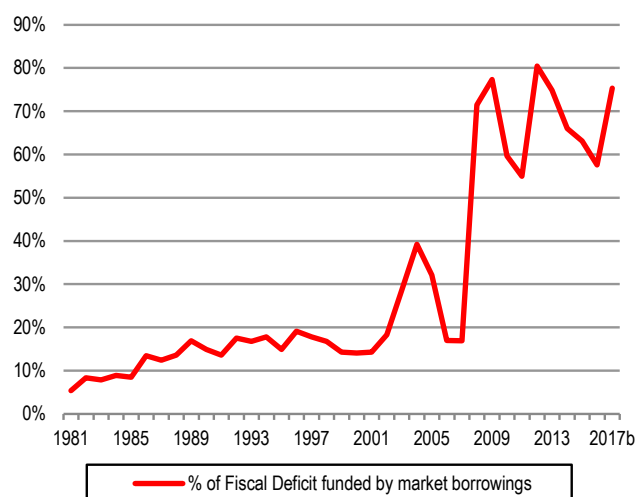
Source: RBI, Credit Suisse estimates.

**Figure 26: YoY growth in bond issuance by states**



Source: RBI, Budget Documents, Credit Suisse estimates.

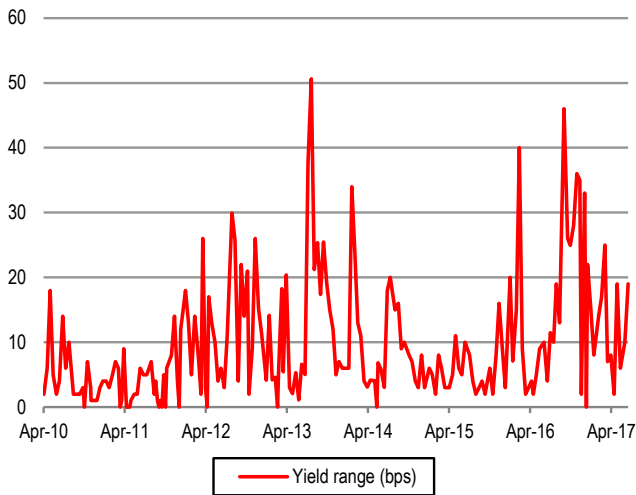
**Figure 28: Percentage of state deficits funded by bonds**



Source: RBI, Credit Suisse estimates.

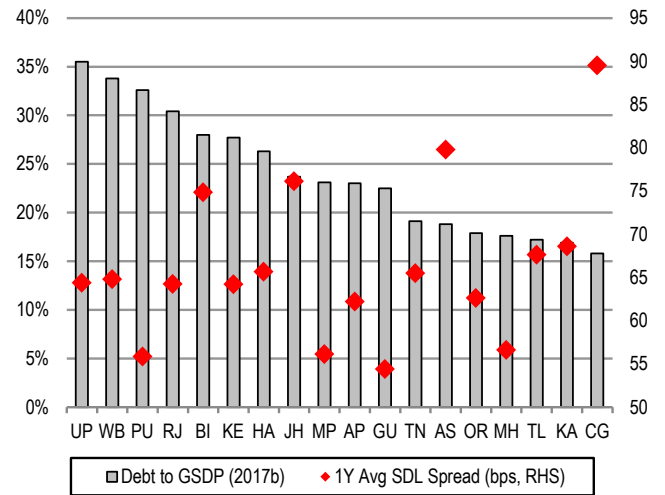
However, our aggregation of FY2018b state budgets suggests that this trend is likely to taper off. Further, states are now funding most of their deficits directly through bonds, which is a healthier alternative. This ratio now appears to be peaking as well, implying that borrowing cannot grow faster than the growth in deficits (**Figure 28**). We discuss in the third section why the impact of farm loan waivers is unlikely to change bond issuance targets meaningfully this year.

**Figure 29: No change in yield spread between states**



Source: RBI, Credit Suisse estimates.

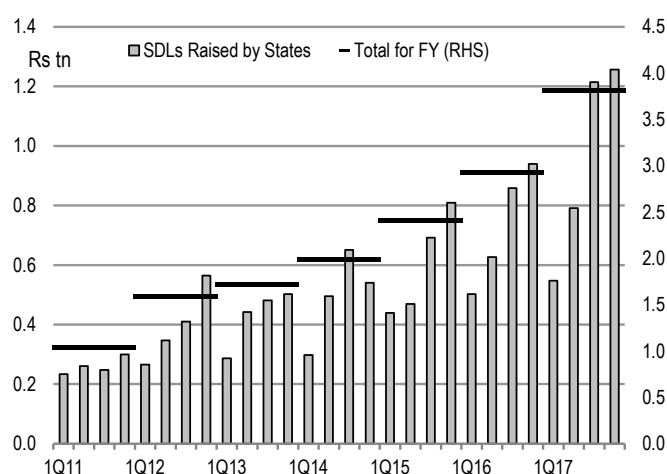
**Figure 30: Debt to GSDP vs. SDL spread over G Secs**



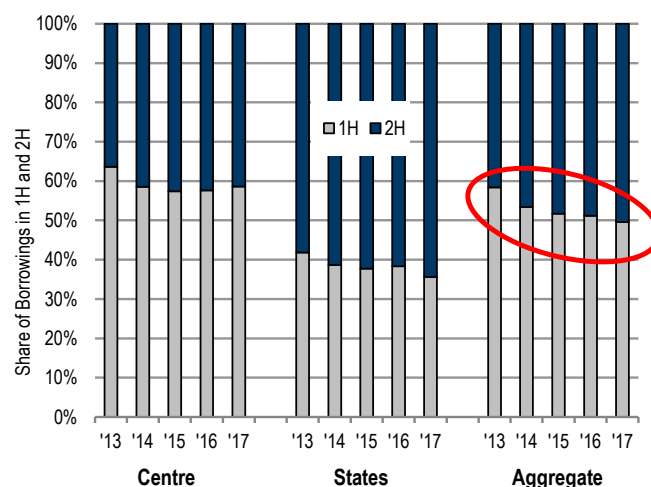
Source: RBI, Credit Suisse estimates.

For SDLs aggregates matter, but not state-level differences. The yield spread for SDLs of different states issued in each auction (there are two a month) is rarely more than 20 bps (**Figure 29**), and this spread, while volatile, has not changed meaningfully in the period we are analysing. The spread between states is generally more dependent on the timing of the auction (for example, yields at an auction at a time when there is a surfeit of issuance like during UDAY, could be much higher than at one when issuance is weak) and the liquidity of the bond than the states' indebtedness (**Figure 30**). In the last section we discuss some reasons why this is the case (Section 3.2, Page 18-24), but for now this indicates a debt-driven blow up is unlikely.

While there does not seem to be any need for alarm, these changes do throw up some important questions, and also necessitate some changes. For example, the Fiscal Responsibility and Budget Management (FRBM) framework in India has assumed that the general government deficit targets should be split equally between the central and the state governments: there is no scientific reason for that ratio, and one can argue both for the states and the centre to be allowed a higher share. However, since this ratio was first proposed nearly 15 years back, a lot has changed, and this may need an update. We do not attempt an answer to this question in this paper, interesting as it is.

**Figure 31: State borrowing vs. Central borrowing**

Source: RBI, Credit Suisse estimates.

**Figure 32: 1H/2H skew in overall government borrowing**

Source: RBI, Credit Suisse estimates.

Where policymakers do need to change however, is in the issuance calendar for states. State government borrowing is second-half skewed, and a disproportionately large quantum of bonds is issued in the final quarter (**Figure 31**). As demand for private credit in India is also skewed towards the second half of the financial year, this creates market distortions. To avoid unwarranted volatility, that is, too little demand on savings in the first half and too much in the second half, the central government schedules 60% of its borrowing in the first half, and 40% in the second half (**Figure 32**). As state issuances were much smaller earlier, their borrowing followed a more natural rhythm. However, as their share of general government bond issuance has climbed, they are now starting to distort the financial markets, and may even be the reason for some of the recent panic around state deficits. This needs urgent attention of policymakers.

### 3. Analyzing Expenditure Trends and Patterns

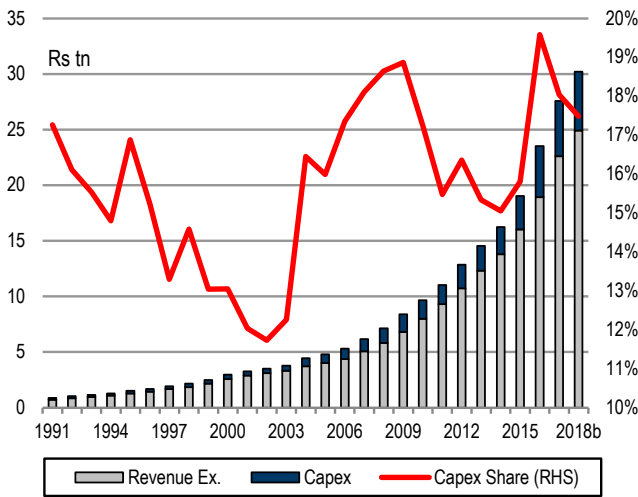
The share of states in combined government expenditure has increased from 51% in FY2011 to 65% in FY2018b. But do they spend wisely and more important, productively? How does one define productive expenditure: is high capex always good? Further, while a greater share for states is in many ways true to the constitution and should be irreversible and beyond debate, concerns have often been raised on whether the states are mature enough to handle such responsibility. Some apprehensions have also been expressed on whether social sector spending could be taking a back-seat as the centre transfers control to the states. We analyse some of these issues in this section.

#### 3.1. In Under-sized Governments Revenue Expenditure Still Appears Important

A common measure of how 'wasteful' government outlay is the share of capital expenditure (capex): the implicit assumption here is that state governments have a natural incentive to spend on revenue items like salaries and subsidies, which can help them get

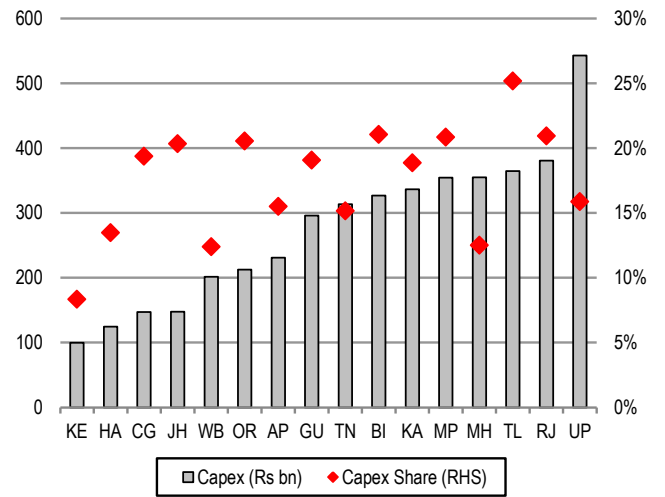
votes, as against capex, which is typically longer gestation, and could end up benefiting the government that follows.

**Figure 33: 17% of state spending is on Capex**



Source: RBI, Budget Documents, Credit Suisse estimates.

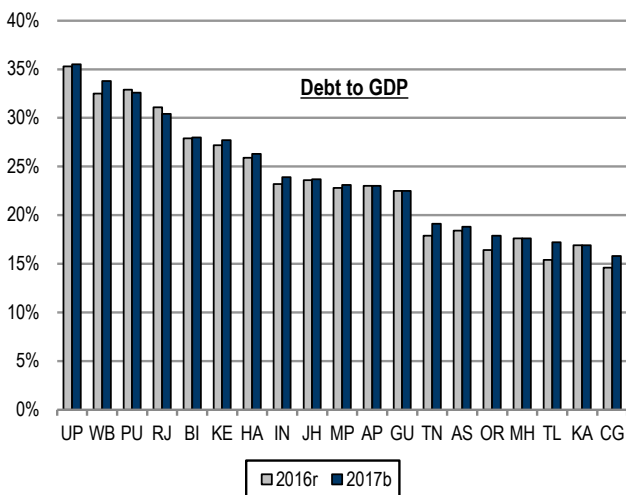
**Figure 34: Share of capex across states**



Source: RBI, Budget Documents, Credit Suisse estimates.

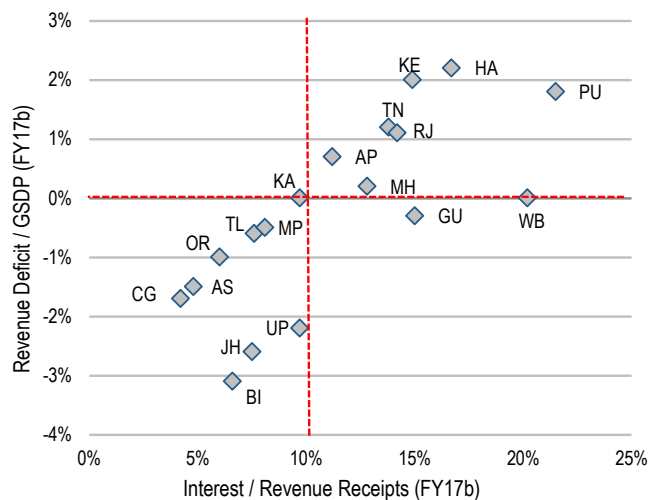
Capex is only about 17% of FY2018b state spending (**Figure 33**): this has fallen in the last two years from an all-time high of nearly 20% in FY2016, but is still among the highest seen in the last three decades. The ratio varies significantly among the major states: from less than 10% in Kerala to nearly 25% in Telangana. As many as nine states of these sixteen have a capex ratio at or above 20% (**Figure 34**). Since FY2012 capital expenditure has increased at a faster pace than overall expenditure, growing at 18% vs. 16% overall.

**Figure 35: States with debt/GSDP < 25% can spend more**



Source: RBI, Budget Documents, Credit Suisse estimates.

**Figure 36: States with revenue surplus and low interest cost**

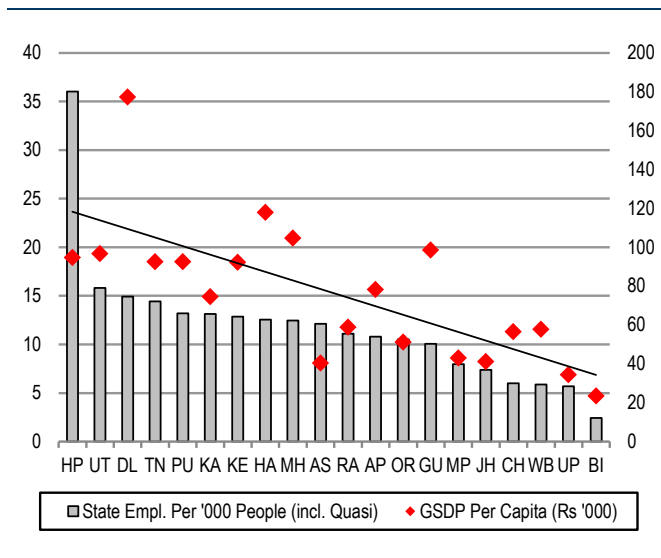


Source: RBI, Budget Documents, Credit Suisse estimates.

In the last two years state governments have been allowed to increase the fiscal deficit ratio up to 50bps beyond the 3% ceiling if they meet specific conditions, i.e. 25bps if they have a revenue surplus for the year, and their debt to GSDP is below 25% (**Figure 35**), and another 25bps if interest cost as a percentage of revenue receipts is less than 10% (**Figure 36**). These guidelines ensure that higher deficits are being incurred only for capex, and that the rise in debt even if incurred for capex, should not trigger a debt sustainability problem. Some of the states like MP and Telangana have used this leeway to increase their capex.

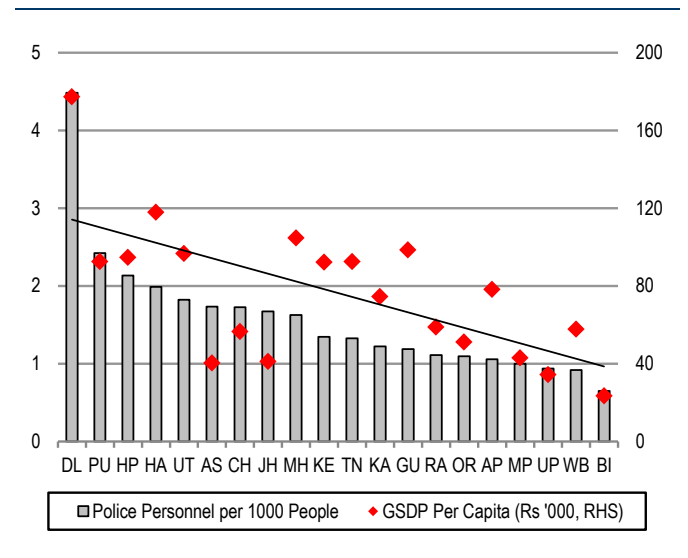
We would, however, caution against presumptuous conclusions that revenue expenditure is all bad. Most states that have below average capex ratios, like Kerala, Maharashtra, Haryana and Tamil Nadu have above average per capita output, and are generally considered more prosperous states. In fact, states with a larger government size, as measured in the number of government employees per unit population, appear to have higher productivity levels (**Figure 37**) (Mishra, 2015). This is simply a correlation for now, and there are exceptions (for example, Gujarat has similar per capita GSDP as Tamil Nadu despite having 33% fewer employees), but it cannot be coincidence that all states with below average per capita GSDP also have small governments.

**Figure 37: Low GSDP/capita states have fewer employees**



Source: MOSPI, Credit Suisse estimates.

**Figure 38: Police density (essential service) across states**



Source: MOSPI, Credit Suisse estimates.

This surprises many economists, as it flies in the face of conventional thought that small government is good. In India, however, governments appear to be too small, not too large (though perhaps it is indeed bloated in some parts, making it much smaller than what appears in headline statistics in the departments where it needs more working staff). A usual counter we hear is that **Figure 37** just shows correlation, and the direction of causality could very well be on the other side, that is that more prosperous states have more funds to run the government and hire more staff.

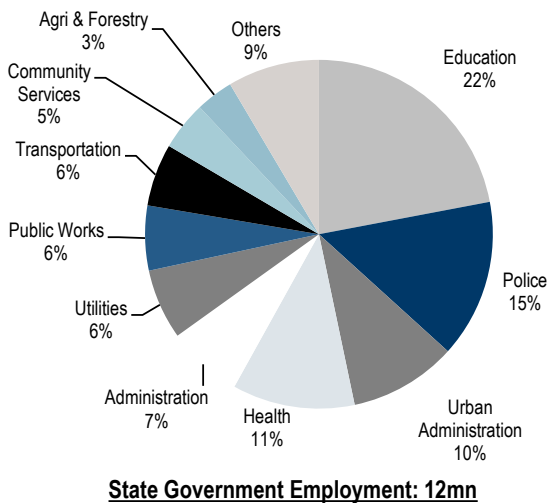
However, we note that even on essential services like policing, the weaker states have a much smaller headcount than the larger ones (**Figure 38**). Countries like Japan and Canada have 50% more police personnel (per unit population) than India a ratio of 2.0 in 2013 versus just 1.38x in India), despite significantly better equipment like cars and

smartphones that one can safely assume improve productivity as well. Similar arguments can be made for state employment in education or even in State Transport Corporations.

Thus, the narrative that states like Tamil Nadu and Maharashtra have higher productivity because they employ more people and therefore provide better quality government services like maintaining law and order and also a social safety net, has much merit. This implies that revenue expenditure is not all bad, and a jump in hiring by state governments does not equate to wasteful spending. Most of state government employment is indeed for schools, law and order, urban administration and health (**Figure 39**).

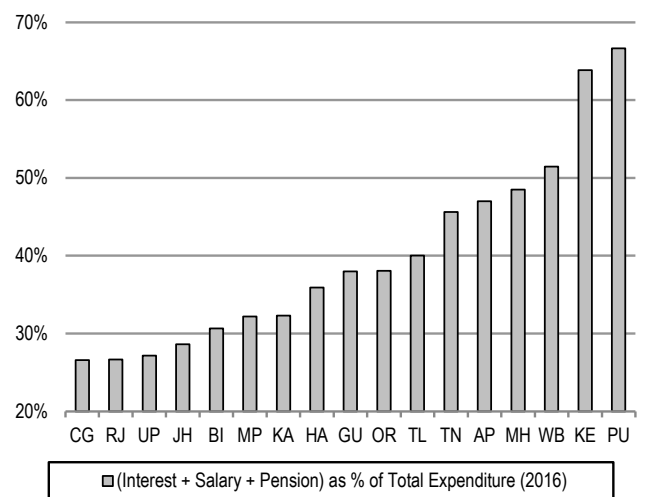
It is within Revenue Expenditure that some worrying patterns emerge, particularly for some states. In Punjab for example, the burden of salary, pensions and interest costs is as high as 65% of total expenditure (**Figure 40**). These are non-discretionary expenditure heads, and crowd out spending elsewhere. States like Kerala and West Bengal have such constraints too, but this does not appear to be a problem at a national level. Some developed states like Gujarat and Karnataka have this ratio well under control.

**Figure 39: Split of state government employment (2012)**



Source: MOSPI, Credit Suisse estimates.

**Figure 40: Non-discretionary spend high for some states**

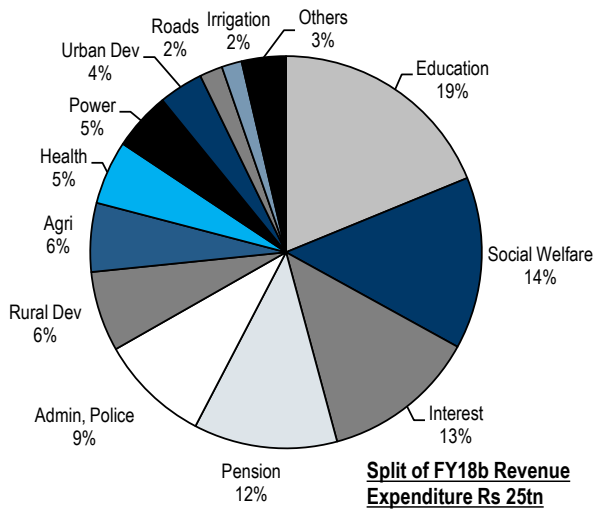


Source: RBI, Credit Suisse estimates.

### 3.2. Focus on Social Spending Continues

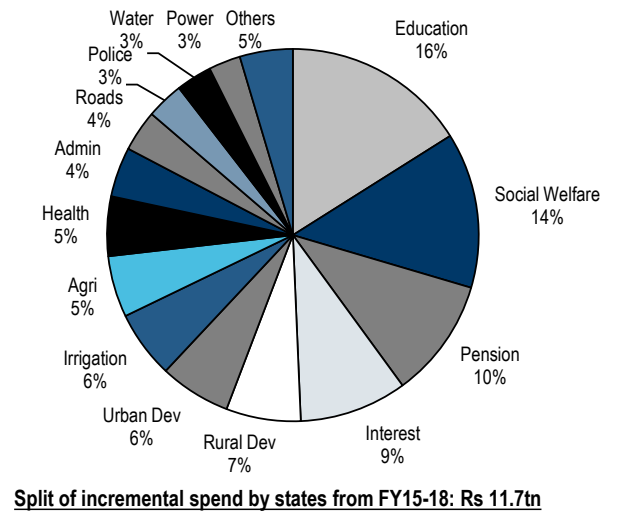
A look the split of revenue expenditure indicates concerns around social spending get de-prioritised may be misplaced (**Figure 41**). A third of states' aggregate revenue expenditure is on Education and Social Welfare; even Social Welfare in most states involves running schools and hostels for children of Scheduled Caste/Scheduled Tribe or Other Backward Castes, and various forms of subsidized education like scholarships. Further, the split of incremental expenditure between FY2015 and FY2018b suggests that this pattern has continued (**Figure 42**), with over 30% of spending on education and social welfare.

**Figure 41: Split of States' Revenue Expenditure (FY2018b)**



Source: Budget Documents, Credit Suisse estimates.

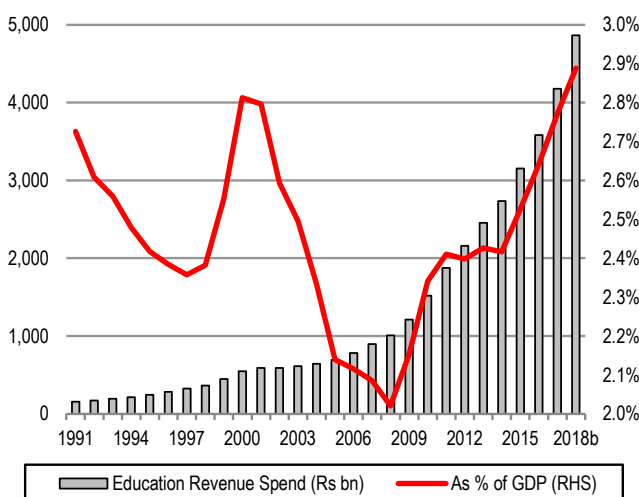
**Figure 42: Split of additional revenue spending (FY15-18)**



Source: RBI, Budget Documents, CSO, Credit Suisse estimates.

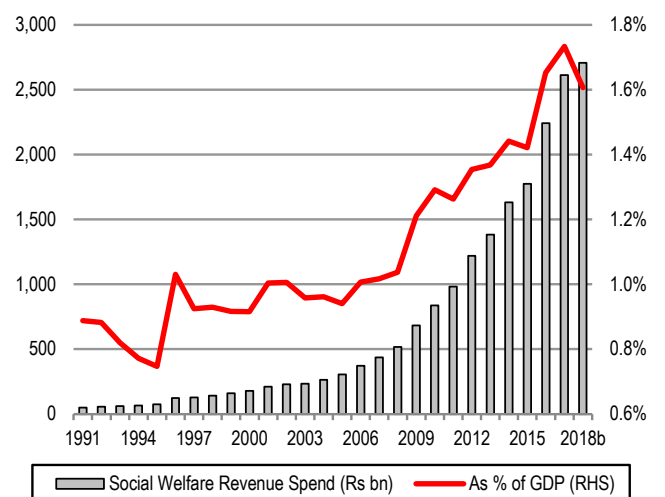
In particular, states' aggregate education spending as a % of GDP has been rising steadily (**Figure 43**), and is now at an all-time high. Social welfare spending as a % of GDP has also been rising, and despite a slight budgeted decline in the ratio to 1.6% in FY2018b, states put together are to spend Rs2.7tn on social welfare. Between the states though trends vary, and are in some cases deeply concerning, particularly in education. If there can be questions, they should be on the efficacy of this spending.

**Figure 43: States' Education spend as % of GDP over time**



Source: RBI, Budget Documents, CSO, Credit Suisse estimates.

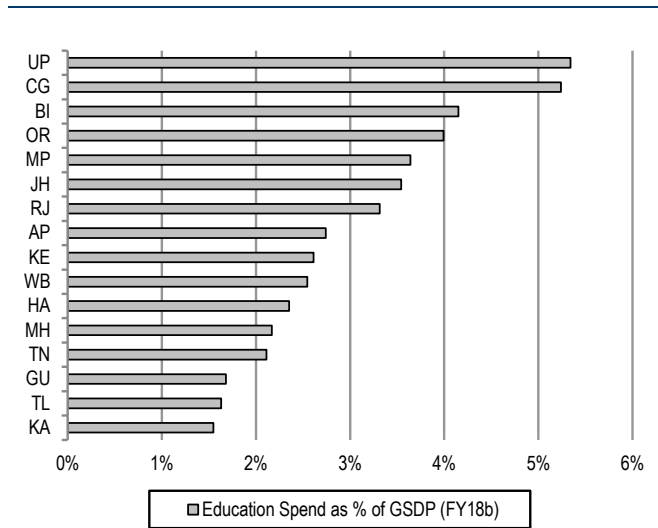
**Figure 44: Social Welfare as % of GDP over time**



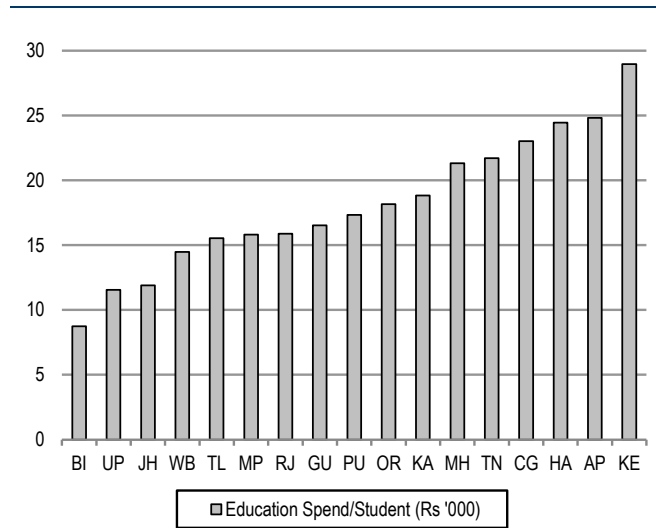
Source: RBI, Budget Documents, CSO, Credit Suisse estimates.

Education spending as a % of GSDP varies widely from 1.6% in Karnataka to 5.2% in UP (Figure 45), as does spending per student: from a low of Rs8000 per year in Bihar to nearly Rs30000 per year in Kerala (Figure 46). Wide differences between where states rank on these two ratios is explained by stark differences in per capita GSDP between them. Economically weaker states like UP and Bihar appear to face a significant fiscal challenge in meeting their demographic burden: despite a high spend ratio they also have the lowest spending per student, and have a high PTR.

**Figure 45: Spend on education as % of GSDP**



**Figure 46: Education spending per student (FY2017b)**



Source: RBI, Budget Documents, CSO, Credit Suisse estimates.

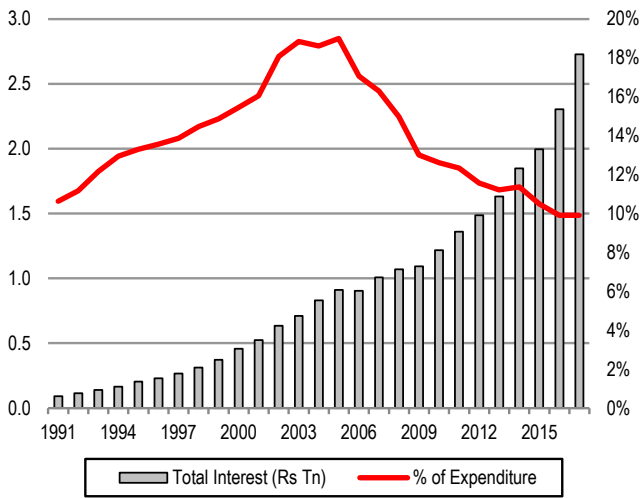
Source: Budget Documents, DISE, Credit Suisse estimates.

### 3.3. Interest Costs a Challenge Only for a Few States; Limited Risk of a Debt Trap

Given the rise in state borrowing due to UDAY and the pick-up in deficit ratios since FY2011, there is an apprehension of a sharp increase in interest costs for states. However, we note that interest costs have been coming down as a share of total spending for state governments since the peak of 19% in 2005 (Figure 47), particularly after the restructuring of state debt in the middle of the last decade. At 10% it is now the lowest in three decades. Further, 75% of all interest costs are now paid on loans directly issued by state governments (Figure 48). This is in stark contrast to the situation before 2000, when most of state debt was loans from the centre.

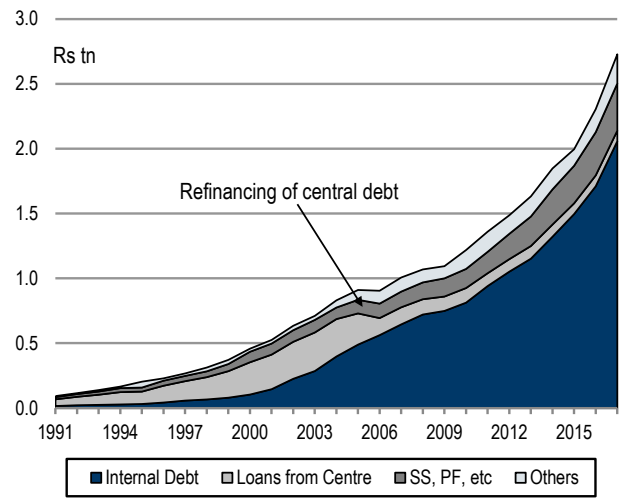


**Figure 47: Interest cost as % of expenditure**



Source: RBI, Budget Documents, Credit Suisse estimates.

**Figure 48: Interest cost by lender**

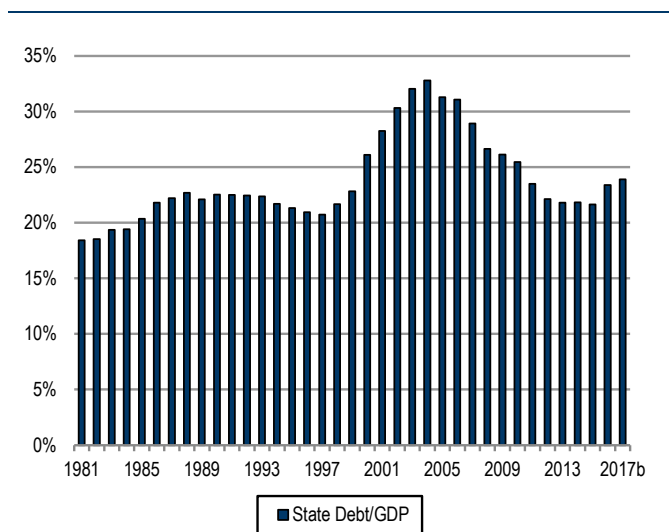


Source: RBI, Budget Documents, Credit Suisse estimates.

While interest costs are a lagging indicator (when they start climbing as a share of expenditure, the borrower is already well into the debt trap), they do not appear to be an immediate area of concern. As a result of UDAY, aggregate state debt to GDP has nudged up in the last two years, but at 24% it is still meaningfully lower than the extreme levels seen in the 2000 to 2007 period (Figure 49) and only marginally off the bottom.

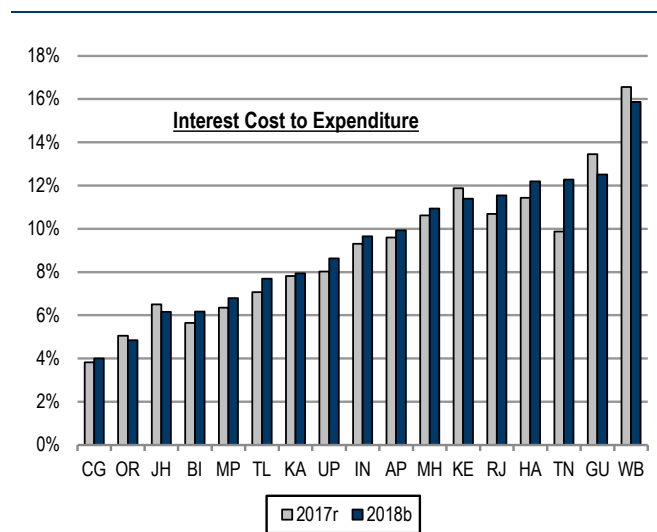
However, there is a significant skew in the debt distribution, as most of the states are meaningfully above the 20% of GSDP recommended by the FRBM Review Committee. The lower debt to GSDP in some heavyweight states like Maharashtra, Karnataka and Tamil Nadu brings down the overall ratio. For the weaker states, reducing the ratios in the next five years could be cumbersome (we look at this in detail in Section 3.5).

**Figure 49: Aggregate state debt to GDP**



Source: RBI, Credit Suisse estimates.

**Figure 50: Interest cost as % of expenditure for states**

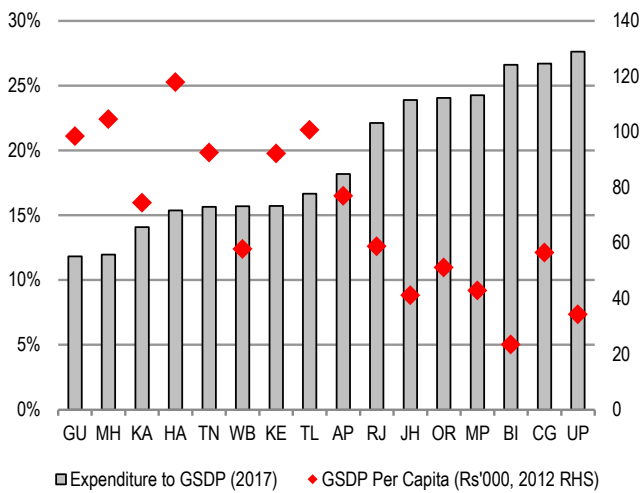


Source: RBI, Budget Documents, Credit Suisse estimates.

Interest costs are 4-16% of expenditure for various states (**Figure 50**). This is lower than 24% for the centre, but given the bigger mandate for states in terms of provision of basic services, a high ratio can be debilitating, as seen earlier (**Figure 40** on Page 18).

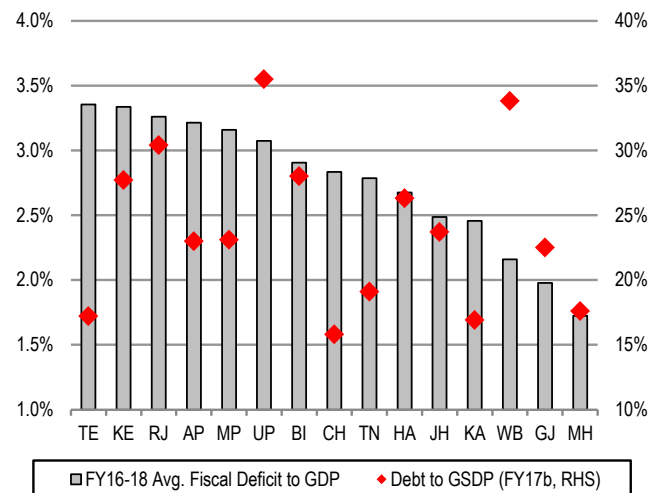
The share of interest costs in total expenditure does not seem correlated to the indebtedness of the state: UP and Bihar for example have high debt levels but interest costs are a smaller part of expenditure. This is due to these states having very high expenditure to GSDP: in fact, the weaker states appear to have higher expenditure to GSDP (**Figure 51**). As discussed earlier most of these states are more reliant on central transfers to fund their budgets than the states that are better off. Further, as a share of the state's economy, governments are much larger in the weaker states.

**Figure 51: Poor states have a higher spending ratio**



Source: RBI, CSO, Credit Suisse estimates.

**Figure 52: Debt to GSDP vs. 3 year average deficit ratio**

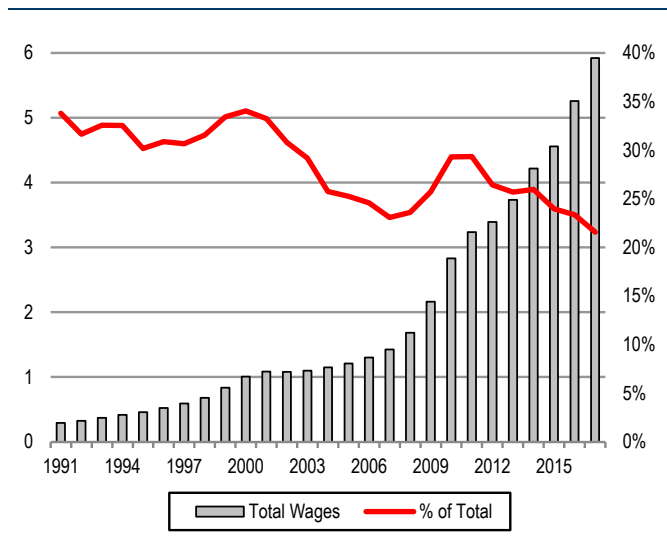


Source: RBI, Budget Documents, Credit Suisse estimates.

Some of these complexities may be the reason that market forces do not work to discipline the states, and debt to GSDP seems uncorrelated to their borrowing costs (Figure 30 on page 14). Much ink has been shed on analysing this "failure of the markets", but one need only look at yield spreads among EU members to see that when the union's survival is not in question, they narrow. For most states there is limited risk of a debt trap for now, i.e. where rising debt drives interest rates higher, and the resultant jump in interest costs squeezes spending, which slows the state down, and hurts revenues. For Indian states this path of market discipline is distorted by the large central transfers.

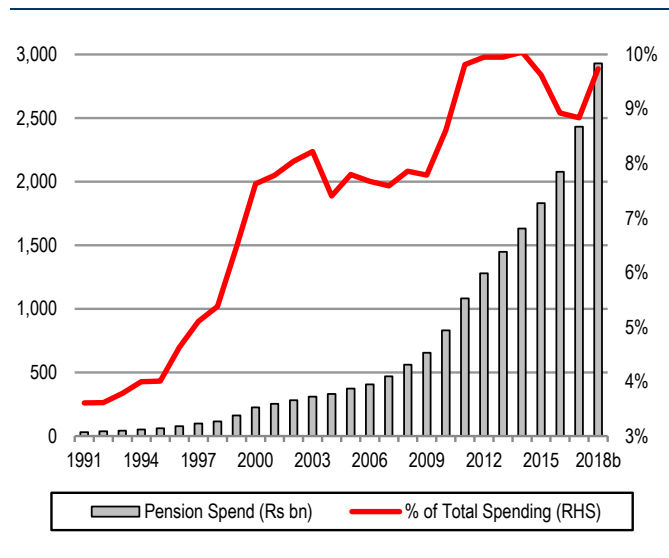
That means the central government/RBI remain the only entities that can potentially discipline recalcitrant states in the case of persistent profligacy. Till a state owes debt to the centre (currently all states do), the latter can control its borrowing plans. With nominal GSDP growth mostly in double digits, a fiscal deficit ratio below 3-3.5% can make a debt spiral unlikely.

**Figure 53: Salaries are lower as % of total expenses**



Source: RBI, Credit Suisse estimates.

**Figure 54: The rising pension burden**



Source: RBI, Budget Documents, Credit Suisse estimates.

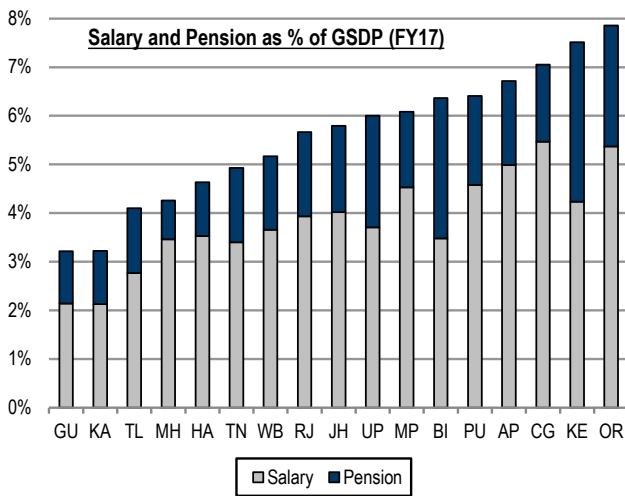
At the same time, there does not seem to be any natural mechanism or inclination to correct for excesses if and when they do occur, like in the case of Punjab recently: fiscal deficits of states do not have any correlation with their indebtedness (**Figure 52**). The centre had taken advantage of the debt restructuring of 2005 to get the states to legislate their own FRBM targets. Some such opportunity may be taken advantage of to get them to adhere to FRBM review targets.

### 3.4. Salaries Mostly in Control, But Pension Expenses Spiralling up

State governments' salary and pension bills deserve attention as they provide most of government services and employ nearly four times as many people as the centre. Their Rs6tn wage bill in FY2017 was 2.2x the centre's and pension expenses at Rs2.4tn were 1.4x the centre. Salaries as % of expenditure have fallen (**Figure 53**), but share of pensions has been climbing (**Figure 54**).

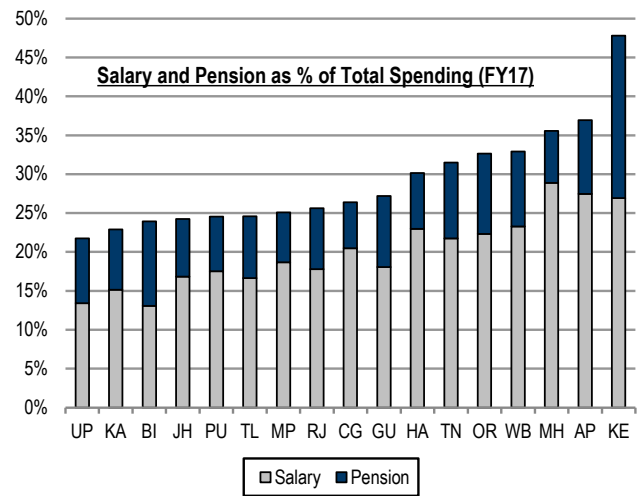
This is worrying, particularly as pensioners for state governments are now growing. While most states had moved from defined benefit pension schemes to defined contribution schemes about a decade back, the impact of this change will only become meaningful in a few decades, and for now implementation of every pay commission increases the pension bill sharply.

**Figure 55: Salary and Pension expenses as % of Total**



Source: RBI, Budget Documents, Credit Suisse estimates.

**Figure 56: Salary and Pension expenses as % of GSDP**

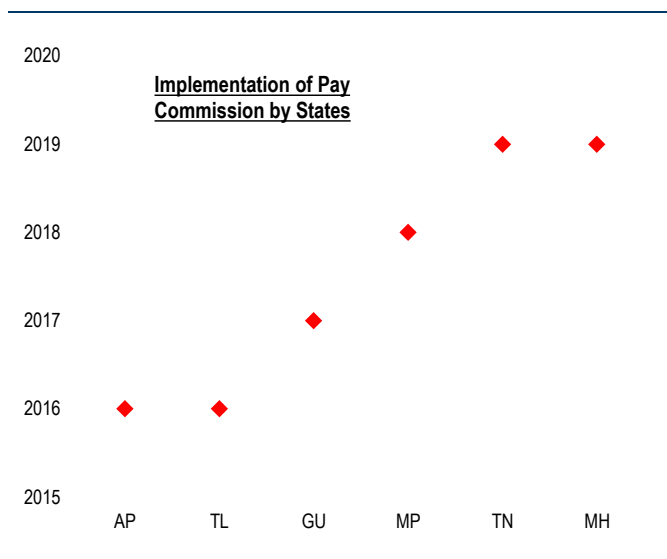


Source: RBI, Budget Documents, Credit Suisse estimates.

Salary and pension expenses vary significantly among the states, both as a % of total spending (i.e. the fiscal impact: **Figure 55**) as well as a % of GSDP (a measure of government productivity in a way: **Figure 56**). Thus, Kerala stands out in having nearly half its expenses paid out for salaries and pensions, with more than a fifth of all expenditure being pensions: while it was the last to transition to a defined contribution scheme, it is too soon for that difference to show through. The high ratio to GSDP for some of the economically weaker states like Odisha, Chhattisgarh, Bihar, MP and UP is likely due to a mix of inefficiency as well as these states being at early levels of development, where tax generation and growth of private enterprises are still nascent.

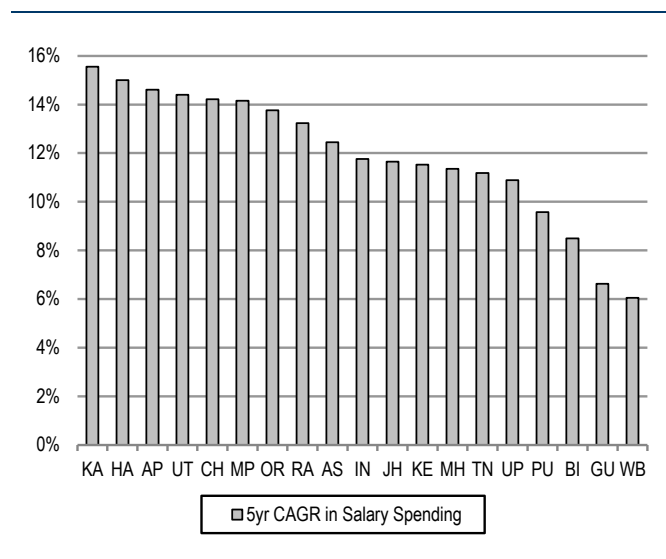
The centre implemented the 7<sup>th</sup> Pay Commission recommendations in phases: the basic salaries were changed starting 1<sup>st</sup> April 2016, and the allowances were hiked from 1<sup>st</sup> July 2017. State governments can set up their own pay commissions, but in the past most have just adapted the central recommendations. In the current cycle, states like Andhra Pradesh and Telangana were the early birds: they raised salaries at the time of the creation of Telangana. Gujarat and MP also implemented their revisions shortly after the centre (**Figure 57**). Some states like TN have announced plans to implement from FY2019, Karnataka has setup a commission which suggests it would implement after the state elections, while many others have still not made any announcements. Growth in salary expenses (we take a five year average to even out one-off factors: **Figure 58**) shows wide disparity in growth: some of this is due to the different timelines of implementation, and particularly as the 6<sup>th</sup> Pay Commission implementation was spread out over many years, lasting till 2013 in some states.

**Figure 57: Pay Commission implementation**



Source: Credit Suisse research.

**Figure 58: Five year growth in salary expenses**



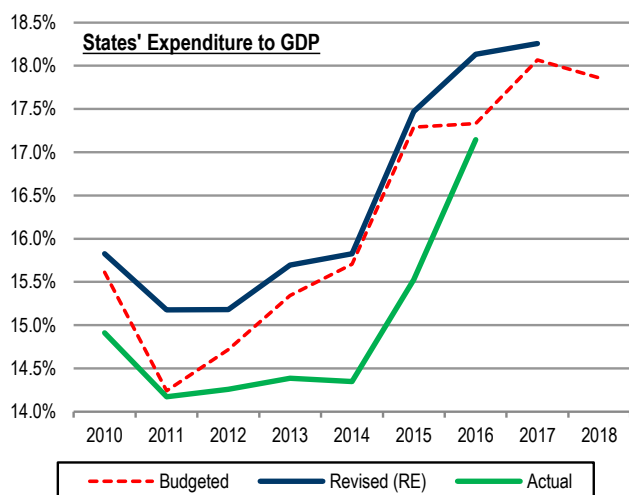
Source: RBI, Credit Suisse estimates.

States adding up to about 18% of the salary bill have already implemented the 7<sup>th</sup> Pay Commission, implying that a further increase of Rs1.7tn is possible over the coming years.

### 3.5. The Rigour of the Budgeting Process Needs Improvement

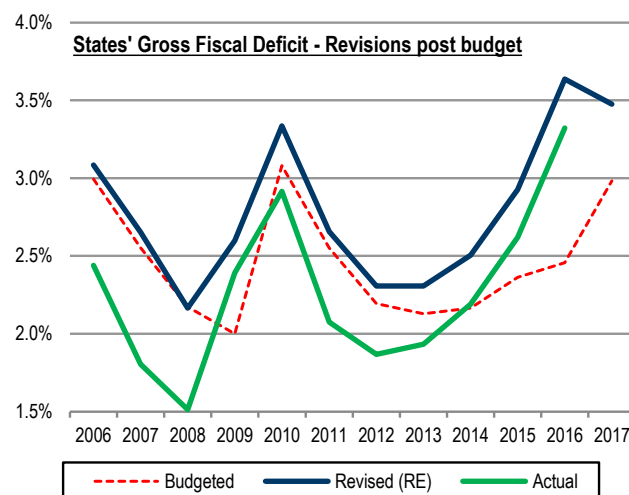
As we saw in the first section, state governments now manage nearly two-thirds of total government expenditure in India (**Figure 2** on page 3). Poor planning can therefore cause significant volatility in the economy. We find that in some years the final expenditure can be as much as 1.8pp of GDP lower than budgeted (**Figure 59**). In fact, for three consecutive years, i.e. FY2013, FY2014 and FY2015, final state expenditures were more than 1pp lower than budgeted.

**Figure 59: Expenditure BE and RE vs. Final**



Source: RBI, State Budget Documents, Credit Suisse estimates.

**Figure 60: Final Deficit is always lower than RE**



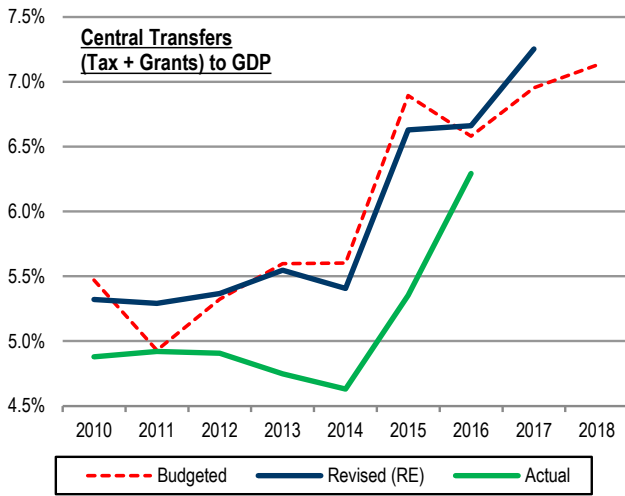
Source: RBI, State Budget Documents, Credit Suisse estimates.

There are several drivers of these differences: volatility and unpredictability in central transfers, incorrect estimation of own taxes, last-minute efforts to meet fiscal deficit targets (as states also do cash-based accounting, delaying expenditures helps meet deficit targets), as well as poor execution on various schemes and projects.

Interestingly, the final fiscal deficit in most years comes at or below the budgeted deficit target (**Figure 60**): the slippage against that in the last two years has been mainly due to UDAY. This is perhaps another reason why the UDAY related spurt in deficits spooked the markets: it was only in these two years that eventual state deficits were higher than BE. The 14-15 month delay with which state budget aggregates are made available by the RBI makes this worse. In fact, deficits in RE are higher than what finally transpires, and therefore market participants in the interim work with higher estimates of state deficits and borrowing than is needed.

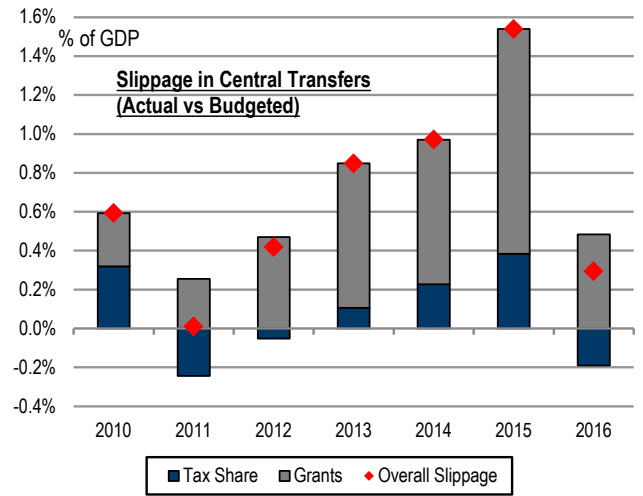
3.6.1. UNCERTAINTY AROUND CENTRAL TRANSFERS

Figure 61: Central Transfers BE vs. Final



Source: RBI, State Budget Documents, Credit Suisse estimates.

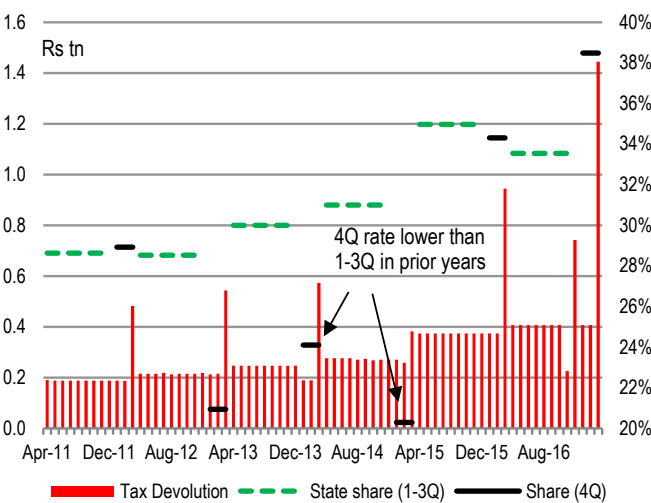
Figure 62: Much of the slippage is on grants



Source: RBI, State Budget Documents, Credit Suisse estimates.

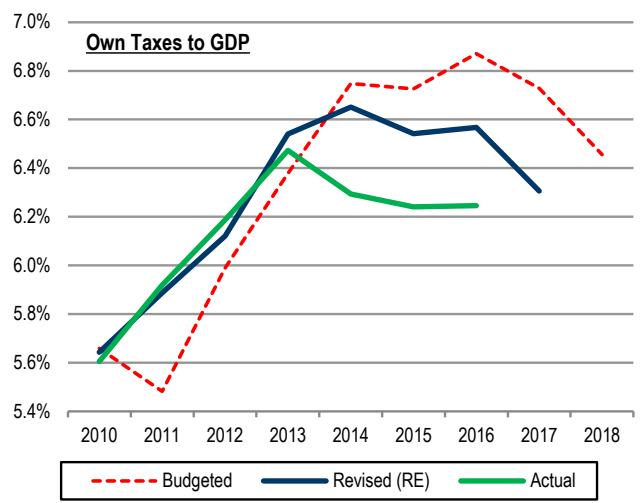
One important source of volatility for state finances is the uncertainty around central transfers: in some years these have been 1pp of GDP lower than budgeted (Figure 61). As one can expect, given that tax sharing is by formula, the bulk of the shortfall has been in grants (Figure 62), hurting the implementation of specific schemes. This shortfall has two drivers: firstly, many of these grants are 'matching grants' and execution dependent, i.e. schemes are co-funded by the centre and the states, so if the states slip up, the centre does not need to transfer. Secondly, if the central government misses its tax targets, discretionary expenditure like grants to states face the axe.

Figure 63: Excessive last month skew of tax transfers



Source: CGA, Credit Suisse estimates.

Figure 64: Own Tax Receipts BE and RE vs. Final



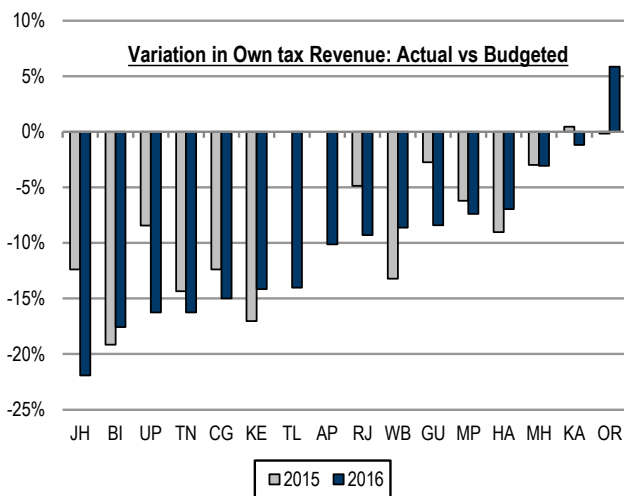
Source: RBI, State Budget Documents, Credit Suisse estimates.



*Suisse estimates.*

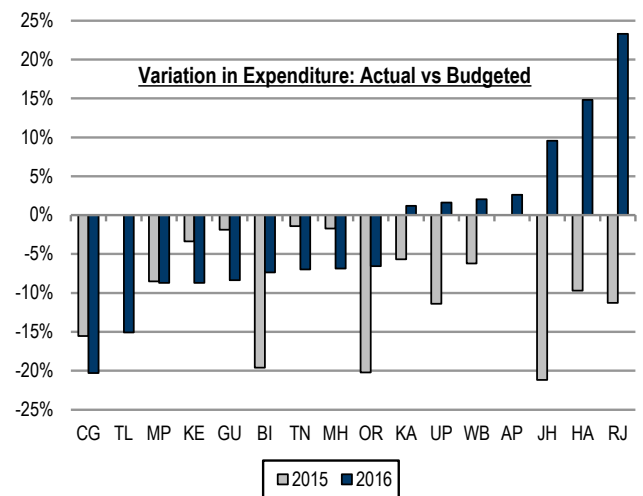
Then there is the timing problem. The temporal spread of tax transfers creates volatility. While its tax collections are volatile from month to month, the centre transfers a steady quantum to the states for the first 11 months, and then transfers an adjusting amount in March (**Figure 63**). So, any slippage on its own tax collection drives a big surprise for the states only in the final month.

**Figure 65: State-wise Own Taxes BE vs. Final**



Source: RBI, State Budget Documents, Credit Suisse estimates.

**Figure 66: State-wise Expenditure BE vs. Final**

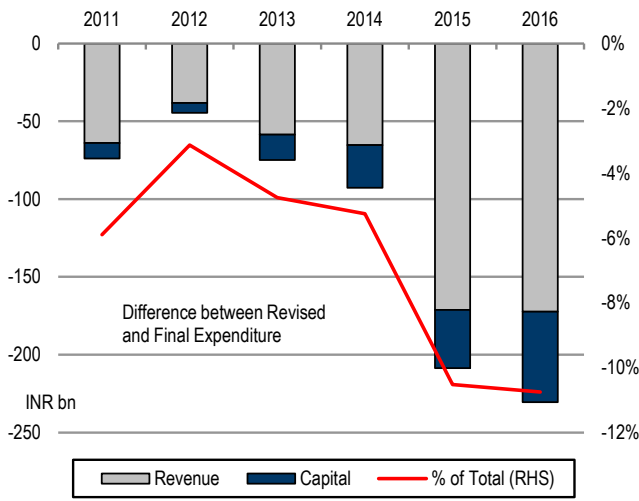


Source: RBI, State Budget Documents, Credit Suisse estimates.

**3.6.2. SLIPPAGES IN OWN TAX RECEIPTS HAVE PICKED UP IN RECENT YEARS**

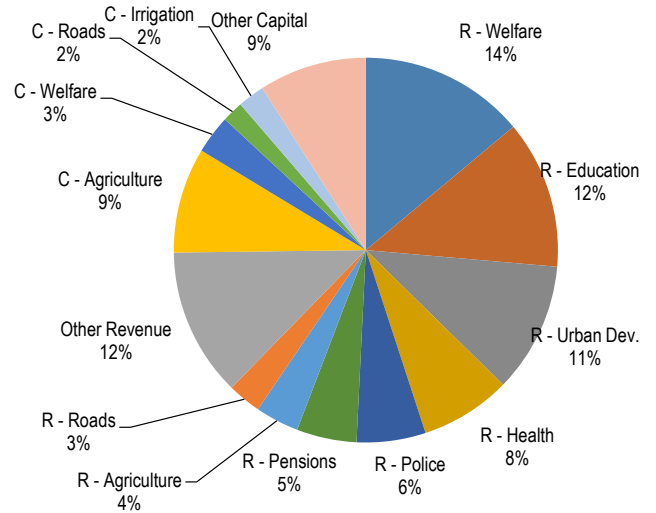
In the last four years the gap between state governments' budgeted estimates of own tax revenues have turned out to be too optimistic (**Figure 64**). In every year since FY2014, the actual numbers have been lower than RE, and the RE has itself been lower than BE, with the actuals being as much as 0.6% of GDP lower than budgeted. Interestingly, this seems to be a recent occurrence, as in the years from FY2010 to FY2013 own tax receipts were generally higher than budgeted. Some states like Jharkhand, Bihar, UP and TN have seen bigger disappointment on their revenue targets than other states like Odisha, Karnataka, Maharashtra, Haryana and MP (**Figure 65**).

**Figure 67: MH: most of slippages on revenue expenditure**



Source: State Budget Documents, Credit Suisse estimates.

**Figure 68: MH: split of unspent funds in FY17r**



Source: State Budget Documents, Credit Suisse estimates.

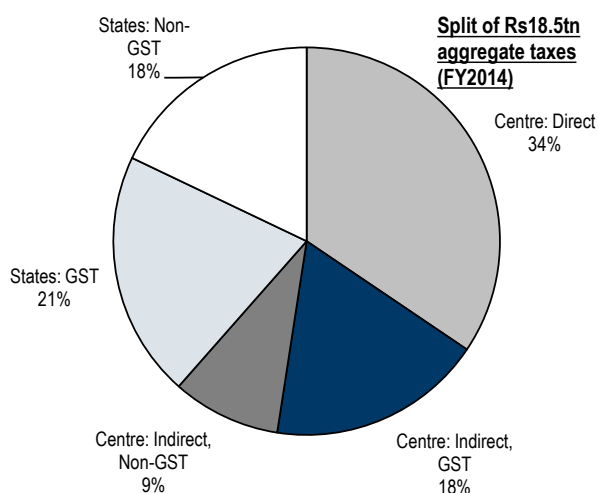
These slippages drive down expenditure: with the exception of Rajasthan, Haryana and Jharkhand where UDAY drove a change in headline expenditure in FY16, states generally tend to spend less than budgeted (**Figure 66**). As one can see in Maharashtra (**Figure 67**), the slippage on expenditure has been picking up over the years, copying the trend on central transfers as well own tax receipts. Most of the curtailment of expenditure appears to be on the revenue front, and disappointment is spread across departments (**Figure 68**), even hurting revenue expenses on education. In states like Bihar, where RE deficits can be as high as 5-8% of GSDP but the final deficit ratio is less than 3%, even salaries for government employees can be unpaid for months.

The use of cash accounting by the central and state governments distorts seasonality, as to meet hard fiscal deficit targets governments just stop paying their bills (sometimes even salaries) in the month of March. A more robust and accurate budgeting process is the need of the hour.

## 4. Assessing impact of GST, Loan Waivers and FRBM

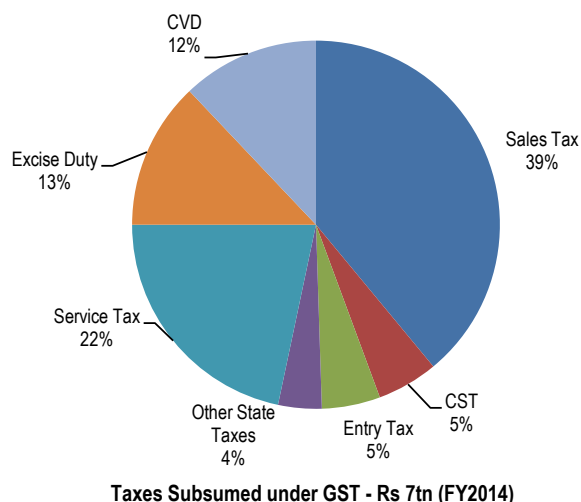
### 4.1. GST Impact on States Unclear, Compensation Agreement May Be Too Generous

**Figure 69: 40% of India's tax collection subsumed by GST**



Source: RNR Committee Report, Credit Suisse estimates.

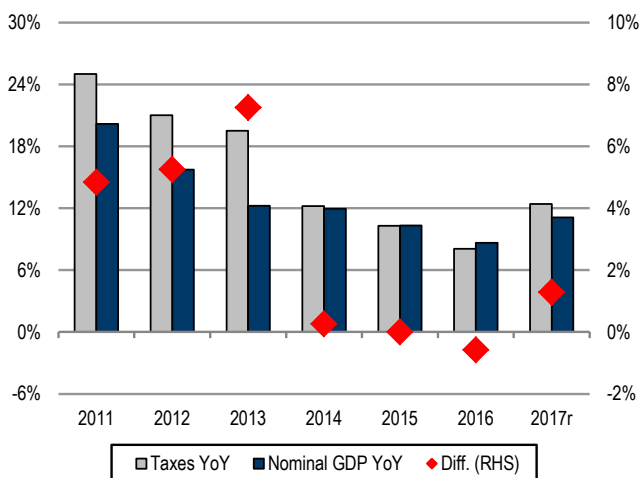
**Figure 70: Split of taxes subsumed under GST (FY2014)**



Source: RNR Committee Report, Credit Suisse estimates.

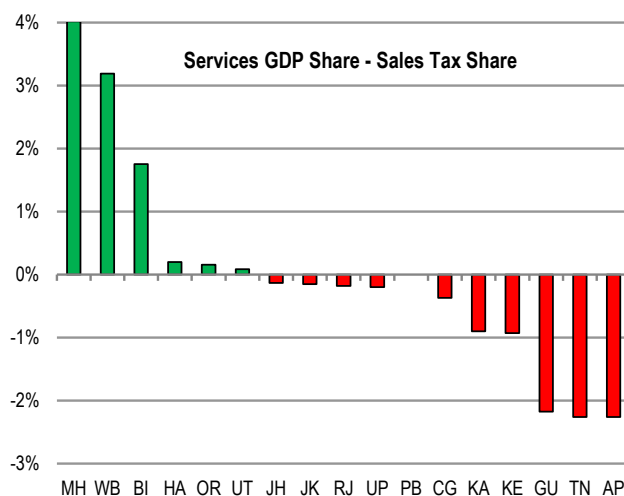
The start of Goods and Services Tax (GST) on 1<sup>st</sup> July 2017 is an epochal event. There are many meaningful ways in which it can impact state budgets, but we focus only on first order effects.

**Figure 71: The "beat" slowed sharply after FY2013**



Source: RBI, Budget Documents, Credit Suisse estimates.

**Figure 72: Variation by states**



Source: RBI, State Budget Documents, Credit Suisse estimates.

40% of India's tax collection (based on FY2014 numbers) will now merge under GST (**Figure 69**). While the published split between the centre and the states for FY2014 suggests a 57:43 split in favour of the states (**Figure 70**), recent commentary from the GST Council suggests that SGST and CGST would be set equally, implying an equal split. This may have been driven by the faster growth in service taxes in recent years, which was a central tax.

Prima facie it appears that the compensation agreement for the states is too generous. The 14% CAGR growth assumption for the next five years assumes a 2pp revenue buoyancy on 12% annual GDP growth. That is, the states' revenues should grow 2pp faster than nominal GDP. However, in the last four years states' own taxes have barely beaten nominal GDP growth (**Figure 71**): the slight jump in FY2017r is likely to get revised down when actual numbers are published.

The second impact, which is much harder to assess, is how taxes get distributed across the states. Assuming revenue neutrality at the centre, the central transfers should stay unchanged, or at least affect the states equally. The debate on which states benefit and which lose has been focused only on CST so far, which is just 5% of taxes subsumed under GST (**Figure 70**), even though some states dominate its collection (**Figure 20** on Page 10). "Producer states" like GU, MH and TN worry about losing revenues (CST is like an export tax on inter-state goods movement).

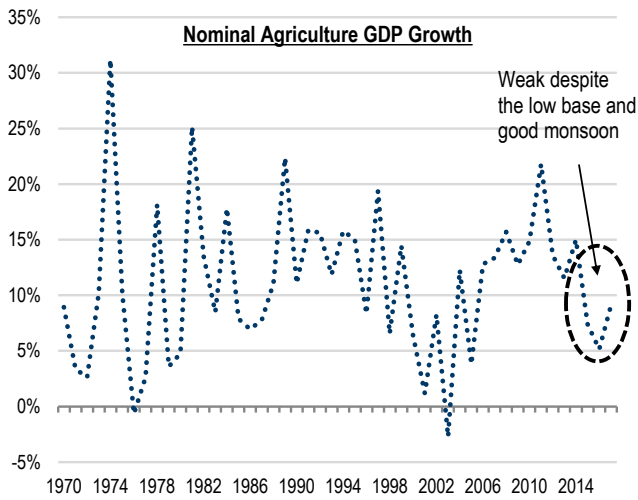
However, there are many other moving parts and our modelling exercise suggests at least some of them need not worry. Put simply, in the GST regime a state loses part of sales tax and gains part of service tax, excise duty and CVD. Let's take Maharashtra (MH) as an example. It currently gets 2.4% of service tax (as part of the tax sharing) but under GST would get 9.7% (MH is 17% of India services GDP). It would lose part of sales tax it currently collects (14% of national total), but that would be offset by a higher share of excise duty and CVD as it consumes more too.

Given the paucity of data, it's difficult to assess the overall impact accurately, but we estimate that a state that has a higher share of services GDP than its current share of sales taxes would benefit, and a state with the converse would lose revenues. On this count Maharashtra, West Bengal and Bihar gain, while Andhra Pradesh, Tamil Nadu and Gujarat would lose (**Figure 72**).

The promised compensation should eventually address any gaps that emerge, but states don't seem to be prepared for these changes, and there could be significant disruption in this year's budgets, and likely next year's too, as the state budgeting machinery grapples with these changes.

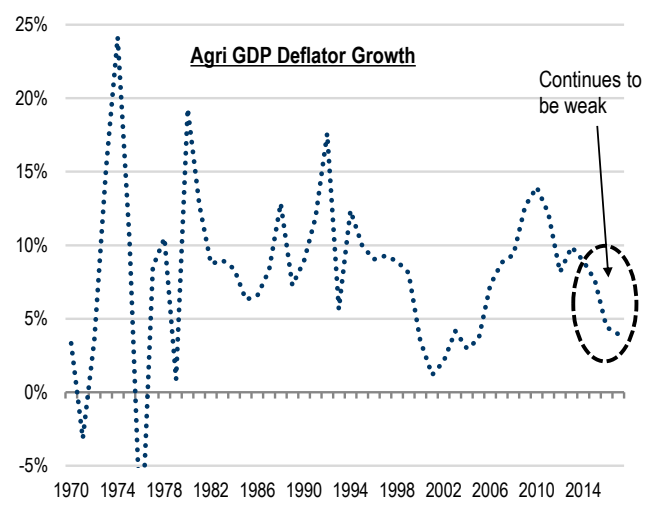
4.2. Loan Waivers: A Risk, but Not Yet Meaningful

Figure 73: Weak agricultural income growth



Source: CSO, Credit Suisse estimates.

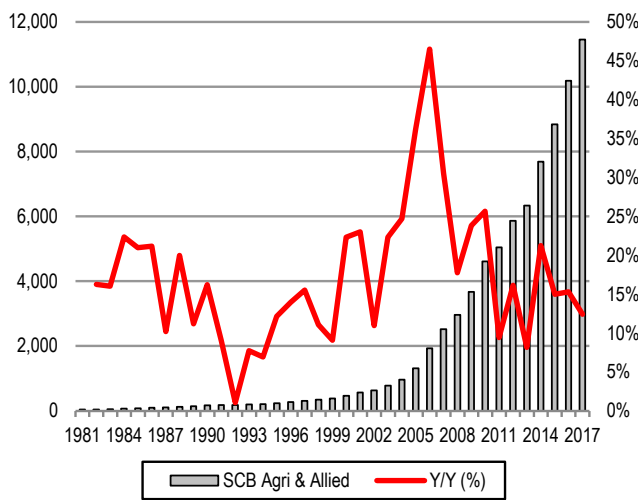
Figure 74: Mainly due to weak pricing



Source: CSO, Credit Suisse estimates.

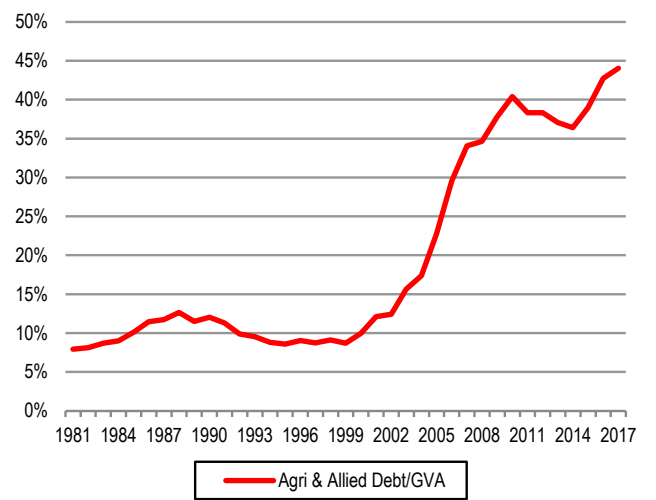
The clamour for crop loan waivers appears to be spreading: MP, Haryana and Rajasthan may join UP, Maharashtra, Punjab and Karnataka in being forced to announce waivers. While there may be a political aspect to farmers' protests too, rising agricultural debt when agricultural income growth is slowing is the driving force. As feared (Mishra, 2016), a good monsoon did not revive farm incomes in FY17, with nominal GVA growth still in single digits (Figure 73). Pricing was weak (Figure 74), as rising supply met stagnant/slow-growing demand.

Figure 75: Agricultural credit kept rising



Source: RBI, Credit Suisse estimates.

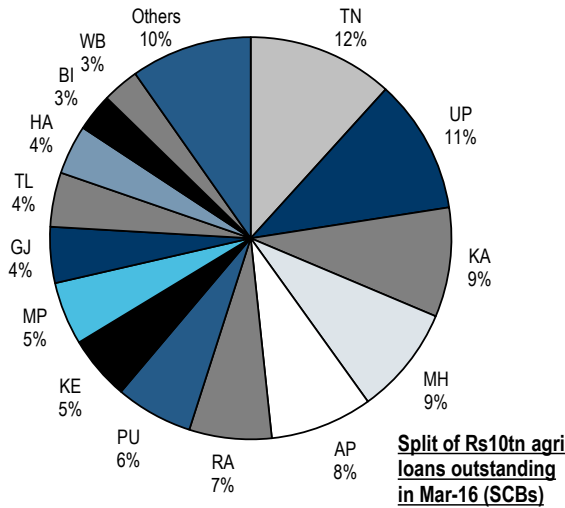
Figure 76: Agri & Allied Debt now 45% of Agri GVA



Source: RBI, CSO, Credit Suisse estimates.

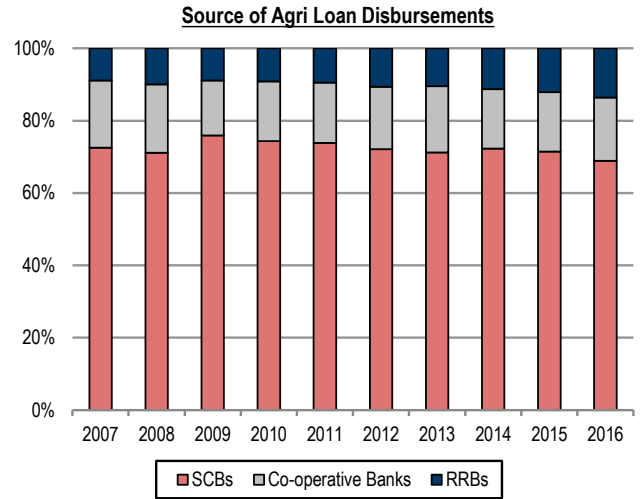
Agricultural credit meanwhile has continued to climb steadily, with loans from Scheduled Commercial Banks (SCBs) compounding at 15.5% CAGR over the past decade (**Figure 75**). While the aggregate debt to GVA ratio of 45% is not alarming (**Figure 76**), the sharp rise in the ratio suggests that the viability of many of these loans would now be questionable.

**Figure 77: State-wise split of SCB Agri Loans**



Source: RBI, Credit Suisse estimates.

**Figure 78: Source of Agricultural Loans**

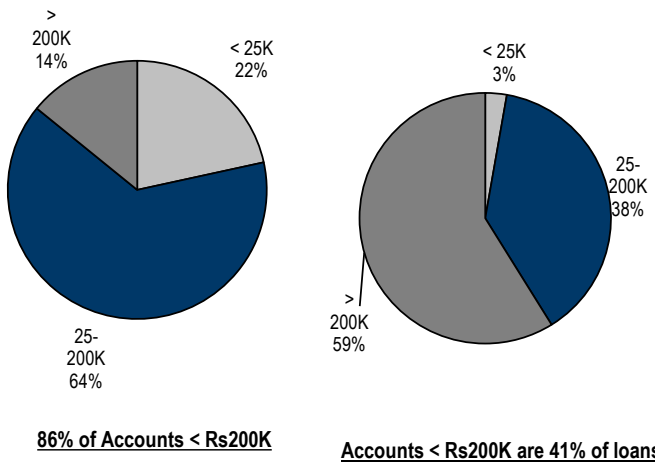


Source: NSSO, Credit Suisse estimates.

However, the trigger for the loan waivers is government action, and not farmers defaulting on them. Four states (UP, Maharashtra, Punjab and Karnataka) have already announced, and in addition waivers are already part of the discourse in MP, Tamil Nadu (Cooperative loans already waived, but SCB loans could be taken up too), Haryana and Rajasthan. These were together 62% of SCB loans in FY2016 (**Figure 77**). In FY2017, and including Regional Rural Banks and Co-operative Bank loans (**Figure 78**), these states would add up to Rs9.6tn.

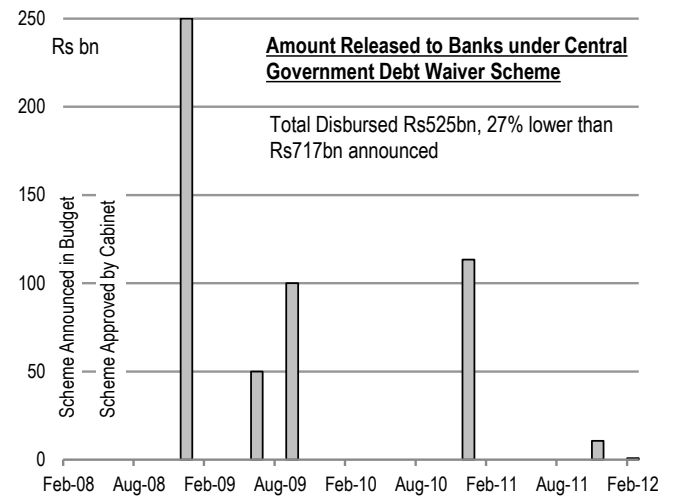
The mechanism of farmer identification would vary across states, but it appears that states are screening for accounts with amount outstanding less than Rs100,000-150,000. Accounts with less than Rs200,000 outstanding (we do not have a separate categorization for Rs100,000 available) were 41% of loans and 86% of accounts (**Figure 79**). This explains why Maharashtra and UP chose to waive about 30-31% of the loans. If all states where these issues are being discussed were to waive loans in this proportion, the quantum would be Rs2.1tn.

**Figure 79: Loans split by size**



Source: RBI, Credit Suisse estimates.

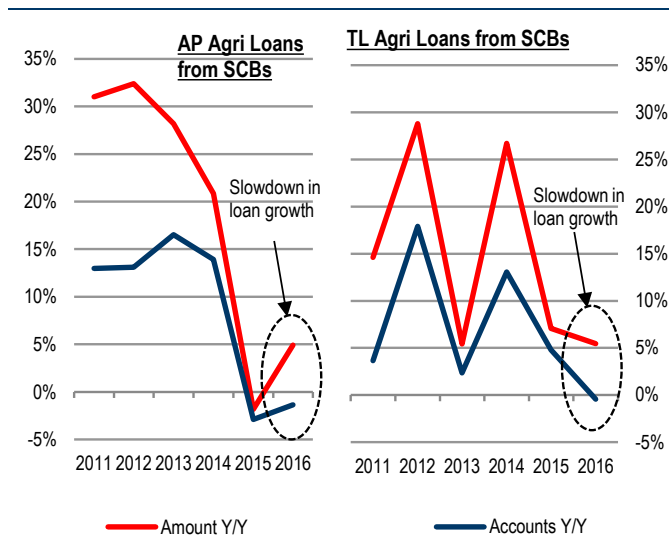
**Figure 80: 2008 waiver took 2.5 years to execute**



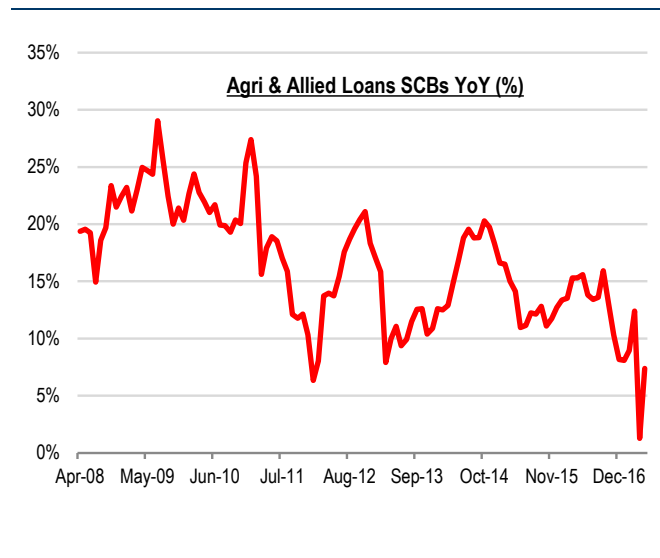
Source: CAG Report on Loan Waiver, Credit Suisse estimates.

However, in states like Punjab and Karnataka, smaller, i.e. 16% and 9% respectively of loans are being waived (for now). This suggests that the aggregate waiver could be in the range of Rs1-1.5tn. This is in addition to the waivers already conducted by Telangana, AP and Tamil Nadu (for cooperative banks).

Even in states where farm loan-waiver announcements have been made, execution, i.e. government paying banks, could take a few years. The 2008 central loan waiver took 2.5 years (**Figure 80**) from announcement to completion, and was 30% smaller than announced. The reason is not just lack of fiscal space, but also complexity of execution.

**Figure 81: Loan growth slowed in AP/TL during waivers**

Source: RBI, Credit Suisse estimates.

**Figure 82: Agri loan growth has slowed sharply of late**

Source: RBI, Credit Suisse estimates.

While the basic contours of these waivers, which matter politically, have been publicised, this needs to be translated to individual details. State governments need to identify who benefits and who does not, and this means answering several non-trivial questions: should there be crop-specific waivers, should those with irrigated farms get less, should absentee landlords get nothing, and by corollary should tenant farmers get more? What should be the quantum of waiver, and how should this be phased out? We understand that loans data is not linked to specific crops, tenancy records are patchy, and irrigation data is not updated. It is likely to take state governments many months to identify beneficiaries and execute on the plan.

In addition, the centre asking the states to find their own sources of funding could force the state governments to spread these waivers out over several years, like AP and Telangana were forced to do. If so, the Rs1.5tn is likely to be spread out over 4-5 years, particularly as many of the states have not announced waivers yet. Thus, the annual impact could be in the range of Rs300-350bn: not small change, but only 0.15-0.20% of GDP.

Till then, loan growth may suffer as banks refrain from lending in areas where repayments have stalled. For example, AP and Telangana saw a sharp dip in loan growth once they started their loan waivers (**Figure 81**). At a national level, Apr-17 and May-17 growth have already slowed to 1% and 7% respectively, the lowest levels in a decade (**Figure 82**).

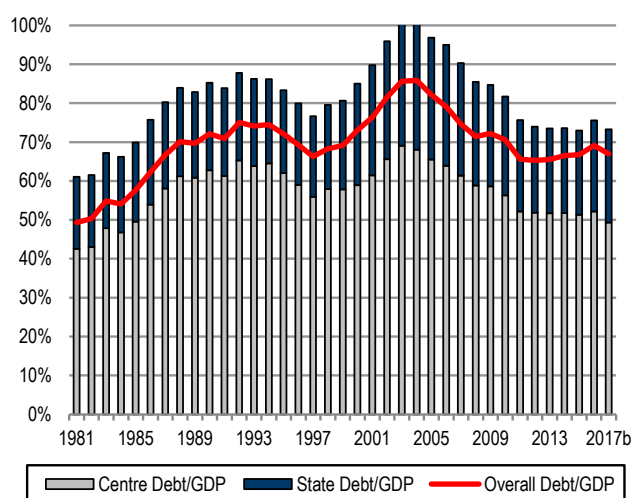
This slowdown was not visible in 2008-09, most likely because a bank's priority sector lending targets are set on the previous year's closing total loan balance. As FY2008 was a strong growth year for bank loans, the targets for FY09 were set at a high level. Further, the waiver of loans made a number of new farmers eligible for new loans, and that supported loan growth. In FY2017 on the other hand, system loan growth was only 5%, and for most PSU Banks, growth was zero or negative. Thus, there would be minimal regulatory pressure as well on banks to continue agri lending. A sharp slowdown in agri lending could shave 1pp off system loan growth.



### 4.3. FRBM Targets for State Governments Require Minor Fiscal Consolidation

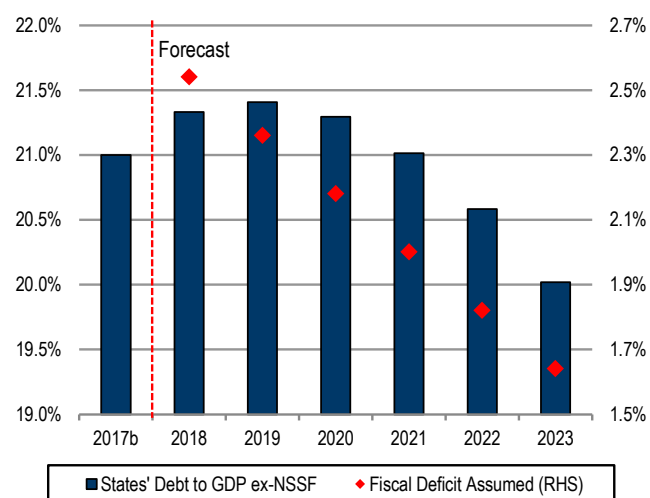
The FRBM Review committee has recommended that a general government debt anchor of 60% be achieved by FY2023, with a ceiling of 40% for the Centre and 20% for the states. As of FY2017 end, general government debt to GDP stands at 67% (Figure 83), with Centre at 49% and the states at 24% (the liabilities of Centre and the states do not add up to the combined liabilities on account of inter-governmental transactions).

**Figure 83: Aggregate government debt to GDP**



Source: RBI, Credit Suisse estimates.

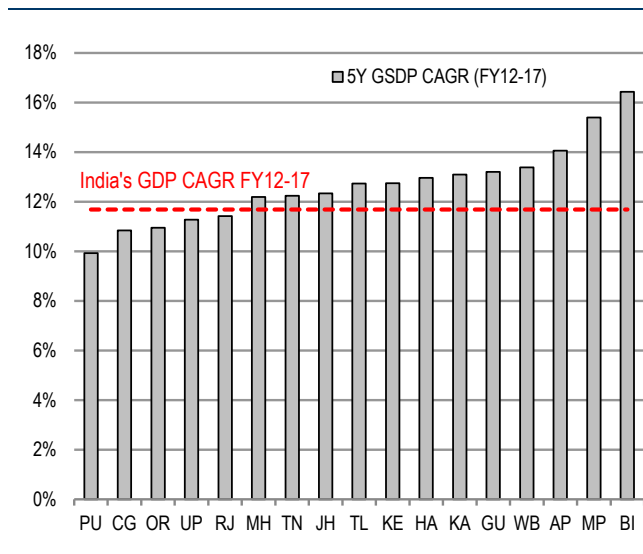
**Figure 84: State ratio on FRBM committee guided path**



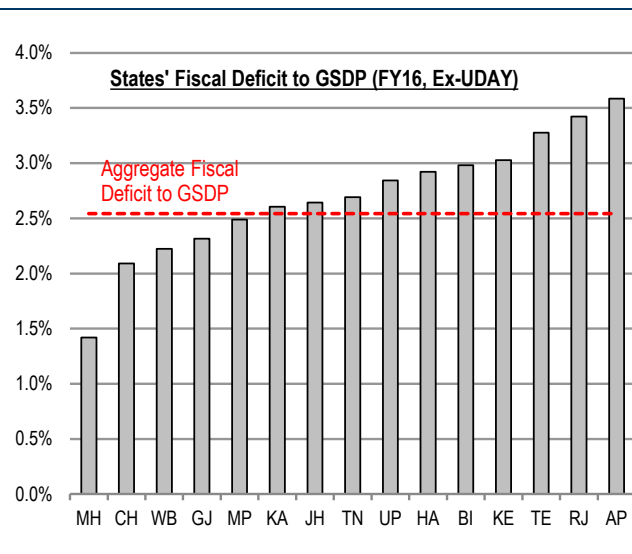
Source: FRBM Review Committee Report, Credit Suisse estimates.

The Committee presents various scenarios for the states' debt to GDP trajectory beginning at 21% (ex-NSSF liabilities) in FY2017. For this ratio to fall below the 20% ceiling by FY2023, the deficit ratio has to decline by 0.18pp per year from the 2.5% ratio budgeted for FY2018b (Figure 24 on Page 12), ending at 1.64% in FY2023 (Figure 84).

The nominal GSDP growth assumed here is 12% YoY. However, a lower GSDP growth rate, as happened in FY12-17 (Figure 85), would need a steeper fiscal correction to achieve the anchor target. Among the major states, only Maharashtra had a fiscal deficit lower than 2% in FY16 (Figure 86). Moreover, as discussed earlier (Figure 50, on Page 22), indebtedness varies across states, and the targets may need to be steeper for some, and easier for others.

**Figure 85: 5 Year Nominal GSDP growth vs. national**

Source: CSO, Budget Documents, Credit Suisse estimates.

**Figure 86: FY16 fiscal deficit ex UDAY for states**

Source: Budget Documents, Credit Suisse estimates.

That said states are not mandated to accept the FRBM Review Committee recommendations. Just as FRBM at the centre was followed a few years later by state governments, this may happen with a lag. The centre used the refinancing of state debt in 2005 as an opportunity to get states to agree to adopt FRBM targets. UDAY was used to get the states to agree to add State Electricity Board losses to fiscal deficits starting FY2021. Some such opportunity can be utilized to get the states as well to adopt second generation fiscal targeting requirements.

## 5. Summary of Findings and Conclusions

The importance of state governments in the economy has increased dramatically in the past few years: from spending 6% more than the centre in FY2011, the states are budgeted to spend 87% more than the Centre in FY2018b. While the significant increase in central transfers to states is well understood, what is not is that their own taxes have funded a third of the Rs19tn of increase in expenditure in this period. As a share of GDP they have risen quite sharply from the bottom of 4.9% in 1999 to a budgeted 6.5% in FY2018b. The growth in central transfers have funded 43% of the increase, own revenues 39%, and the larger fiscal space created by nominal GDP growth even as the fiscal deficit ratio has remained below the mandated 3% of GDP has contributed 18%.

There has been much concern in the past year on the profligacy of state governments undoing the fiscal contraction at the centre. Bond traders, and therefore the more forward-looking economic commentary, have been surprised by the rising share of SDLs in government bond issuance: in FY2018b states may issue as much as 80% of the bonds issued by the centre. While the pick-up in state fiscal deficits has indeed slowed down improvement in the general government deficits, we find that the reality is less worrying. The concerns get exacerbated as the start year (FY2011) set a low base and UDAY makes

headlines appear worse in recent years. The pace of growth in bond issuance is also expected to slow from 30% YoY in the last two years to the mid-teens in FY2018b.

The pace of growth in state expenditure is also expected to slow in FY2018b to just over 9% YoY, after having grown at 17-20% YoY in each of the previous three years. This is mainly due to a smaller increase in central transfers, but also due to a decline in the targeted fiscal deficit ratio (even after adjusting for UDAY). However, the growth will still be higher than the centre's.

Challenges however remain on state taxation: there appears to be significant unexploited potential for tax collection even in the taxes administered by state governments. Most of the improvement in state taxation seems to be on VAT, which contributes to 60% of own tax revenues. They appear to have been lax on both non-VAT taxes (like property tax), as well as on non-tax revenues: the shares of both of these in own receipts have been falling steadily over the past three decades. Moreover, the non-VAT taxes and non-tax revenues are also much more concentrated in a few states, indicating insufficient penetration. Even within VAT, 40% is collected on petroleum products and alcohol (the reason state governments have been reluctant to include these in GST). The high dependency of states like Karnataka, TN and AP on alcohol taxation, or of Kerala on revenues from lotteries shows that states seem to lack creativity in generating tax revenues. Recent attempts by Telangana to use receipts from land sales have not seen much success due to conflicts on land titles and other legal issues, but indicate some fresh thinking. Perhaps the perceived lack of flexibility post-GST can push state governments into more innovative taxes.

Further, the policy apparatus has not adjusted to the rising importance of state governments. While central borrowing is carefully scheduled to avoid crowding out in the second half of the financial year when private credit demand picks up, that now needs to be applied to state borrowing too. A deeper debate on the assumption that the state and the centre should split the general government fiscal deficit equally may also be needed.

While one cannot deny that many areas that are state subjects, like urban infrastructure, irrigation, state highways and drinking water are in need of substantial capex, we challenge the conventional thought that all revenue expenditure is bad, and that all capital expenditure is good. Efficacy of spending differs between states on both revenue and capital heads, and further, in under-sized governments, increase in revenue expenditure can sometimes be more productive.

Capex is 17% of FY2018b spending, lower than the all-time high of nearly 20% in FY2016, but still among the highest seen in the last three decades. The ratio varies significantly: from less than 10% in Kerala to nearly 25% in Telangana. Most states that have below average capex ratios, like Kerala, Maharashtra and TN have above average per capita GSDP. In fact, it cannot just be coincidence that all states with small governments have below average per capita GSDP, and vice versa, with only a few exceptions. This we believe is because governments in India are of sub-optimal size, in everything from policing to teaching, and better provision of these improves output.

Our analysis suggests that the apprehension that the focus on social spending could be lost as the baton was handed over to the states seems to be misplaced. Revenue spending on education has risen to Rs4.9tn (2.9% of GDP, up from 2.0% in about a decade), and social welfare spending has also climbed to Rs2.7tn (1.6% of GDP). The per-student expenditure is too low and the PTR too high for states like UP and Bihar, despite spending

4-5% of GSDP on education, demonstrating the fiscal challenge of raising productivity in poorer states.

We find that the share of interest cost in overall expenditure is disconnected from the indebtedness of the state (debt to GSDP ratio). This is mainly because poorer states have a higher expenditure to GSDP ratio, as a larger part of their receipts is from the centre. This may also be another reason for the lack of a correlation between a state's indebtedness and its borrowing cost. At an aggregate level interest cost are now 10% of total expenditure (19% in FY2005), a three decade low. Debt to GSDP has risen in the last two years due to UDAY but a debt trap is unlikely at an aggregate level.

Despite the implementation of pay commission recommendations periodically, the share of salaries in total expenses has been falling steadily, and do not provide grounds for concern. Pensions on the other hand, are rising very rapidly, particularly as the number of retirees grows. Lack of good details prevents us from assessing future pension liabilities, but this can be risk for state budgets. While only four states have so far implemented the 7<sup>th</sup> pay commission recommendations, and two more are planning to do so in FY19, increases so far have been lower than seen in the 6<sup>th</sup> pay commission, and may not be as debilitating to state budgets.

All put together, the combination of non-discretionary expenditures like salaries, pensions and interest costs is at a worrying level only for a few states: in Punjab it rises to 65%. For Kerala, nearly half its expenses are paid out as salaries and pensions.

We also find that budgeting accuracy of state governments is weak, and has been worsening in the last few years: for three consecutive years, i.e. FY2013-15, final state expenditures were more than 1pp of GDP lower than budgeted. Uncertainty around central transfers had increased meaningfully in those years, as the centre's attempt to consolidate fiscally had caused payments to get pushed out to subsequent years. This is exacerbated by the timing of these transfers: a large quantum is due in the last month, creating unnecessary volatility. States' own taxes have also been up to 0.5pp of GDP lower than budgeted in recent years, from being higher than budgeted in the years before that. States therefore, taking advantage of cash accounting, end up pushing out all types of expenditures, including salaries for teachers and doctors.

We also assessed some recent developments that can have meaningful impact:

- **GST:** about 40% of India's tax collection will now be through GST. Our analysis suggests that the compensation formula is too generous, as the 2 percent buoyancy (i.e. growth in taxes 2% more than nominal GDP) wasn't seen in the last four years. The states may therefore end up with more revenues, and the centre could see some pressure. The distribution of these taxes between states is much harder to assess: much of the analysis so far has focused on CST, but it is the state-wise distribution of taxable services that will affect net impact state-wise.
- **Loan Waivers:** Several more states are likely to be forced to announce these, in addition to the four that already have: UP, Maharashtra, Punjab and Karnataka. We estimate that the final quantum could be Rs1.5tn, much lower than our initial estimate of Rs2.1tn, as Punjab and Karnataka have announced smaller waivers than expected. This is also likely to be spread out over 4-5 years, and the impact on any given year's fiscal deficit may not be more than 0.2% of GDP. In the interim, credit availability for farmers in these states could be a problem.

- **FRBM Review Committee:** In the general government debt anchor of 60% to be achieved by 2023, the committee expects a ceiling of 20% for the states. We estimate that for the states' ratio to fall below 20% by FY2023, the deficit must decline by 0.18pp per year from the 2.5% budgeted for FY2018b, ending at 1.64% in FY2023. However, when looking at state level trends, the hurdle rate appears very high for most: many have debt to GSDP well above the threshold, or and the GSDP growth assumption of 12% per year could be challenged.

However, the states are not mandated to accept the FRBM Review Committee recommendations, and it could be a challenge for the centre to get them to update their fiscal framework with second generation fiscal targeting.

## Appendix

Code	State Name	Code	State Name	Code	State Name
AP	Andhra Pradesh	KA	Karnataka	RJ	Rajasthan
AR	Arunachal Pradesh	KE	Kerala	SK	Sikkim
AS	Assam	MP	Madhya Pradesh	TN	Tamil Nadu
BI	Bihar	MH	Maharashtra	TL	Telangana
CH/CG	Chhattisgarh	MN	Manipur	TR	Tripura
GU	Gujarat	ME	Meghalaya	UP	Uttar Pradesh
HA	Haryana	MZ	Mizoram	UT	Uttarakhand
HP	Himachal Pradesh	NA	Nagaland	WB	West Bengal
JH	Jharkhand	OR	Odisha	DL	NCT Delhi
JK	Jammu and Kashmir	PU/PB	Punjab	PO	Puducherry

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