Exhibit 3

States of growth

Gujarat, Madhya Pradesh, Haryana, fastest-growing
Punjab, Uttar Pradesh, Kerala bring up the rear

January 2018

Exhibit 3

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Executive summary

Equitable economic development requires that we do not miss the woods for the trees. But India's aggregated GDP and other vital statistics hardly reveal how its constituent states are faring.

Not only are there wide divergences in state-level performance, but also a lot of policy action these days takes place at the state level. Additionally, they are getting exposed to increasing competition, and now have the responsibility for some key reforms such as of land and labour laws, which can play an important role in shaping macroeconomic outcomes at the sub-national level. Details on these get buried in aggregate national statistics.

This report gauges the performance of states on three key macroeconomic parameters – growth, inflation and fiscal health.

We trace the growth paths of different states, identifying leaders and laggards in GDP growth, and tracking the progress in convergence of poorer states to richer states. We also take a look at one of India's biggest concerns at the moment – unemployment – and assess which states are performing relatively well in the labour-intensive sectors.

We also evaluate inflation trends and analyse the growth-inflation dynamics at the sub-national level. Inflation fell in most states between fiscal 2013 and fiscal 2017. In 11 major states inflation declined faster than the all-India average. But was there a growth-inflation trade-off? Did states that grew faster than the all-India average experience higher inflation?

In addition, we analyse the fiscal situation of states, looking at their debt and deficit parameters. By juxtaposing the growth performance of states with their fiscal positions, we have identified the top performers and the laggards in this space.

Here are some interesting takeaways:

- **Most of the poorer states aren't growing faster**
  - Gujarat, Madhya Pradesh and Haryana were the fastest-growing states between fiscals 2013 and 2017. Bringing up the bottom were Punjab, Uttar Pradesh and Kerala.
  - To gauge which states would likely have been more successful in creating employment, we constructed an aggregate gross value added (GVA) measure of three sectors having the highest labour intensity (*see methodology detailed later*) using available data for fiscals 2013 to 2016.
  - Gujarat, Chhattisgarh, and Haryana recorded the highest growth in this aggregate GVA of labour-intensive sectors.
  - Gujarat was the top performer in construction and manufacturing growth, while Chhattisgarh and Haryana have been among the top performers in manufacturing and trade, transportation and communication services. These states, therefore, are likely to have been more successful than others in job creation. In Gujarat specifically, the share of manufacturing has jumped from 28.4%to 34.4% of GVA – which is close to levels seen in China.
  - If we compare the performance of states in labour-intensive sectors with their overall GDP growth for fiscals 2013 to 2016, we find that the growth of top-performing states has been labour-intensive, while those of laggards has not been so. Gujarat and Haryana figure among the top 3 growing states in terms of GVA of labour-intensive sectors as well as overall GDP growth between fiscals 2013 and

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2016. States which had the lowest GDP growth in this period – Kerala, Punjab, Uttar Pradesh – saw below-average growth in GVA of their labour-intensive sectors.

- **Inflation fell in most states between fiscals 2013 and 2017**
  - Inflation in 11 major states fell faster than the all-India average.
  - Interestingly, in the fastest-growing states of Gujarat, Haryana and Madhya Pradesh, inflation stayed below the national average of 6.8% between fiscals 2013 and 2017. Meaning, there was no growth inflation trade-off in these states.
- **Picture is mixed on the fiscal front**
  - While some states are highly indebted and run large deficits, others continue to perform well on both fronts.
    - Based on level of indebtedness (measured by debt to GDP ratio as on March 2017) and deficit position (measured by fiscal deficit to GDP ratio from fiscal 2013 to fiscal 2017), Chhattisgarh, Karnataka and Maharashtra emerged as the top three, while Uttar Pradesh, Punjab and Rajasthan were at the bottom
    - States that successfully managed high growth levels while keeping their fiscal deficits below 3% include Chhattisgarh, Karnataka, Maharashtra Gujarat, and Telangana
    - On the contrary, states which have lower growth rates despite their fiscal deficits overshooting the 3% target are Kerala, Punjab, Rajasthan, Tamil Nadu and Uttar Pradesh

Overall picture between fiscals 2013 and 2017

We conclude that Gujarat and Maharashtra performed well on all the three key macroeconomic parameters, having a growth rate above the national average, inflation and debt levels below the national average, and fiscal deficit less than the target set by the Fiscal Responsibility and Budget Management (FRBM) Act between fiscals 2013 and 2017. Conversely, Bihar, Rajasthan and Uttar Pradesh were laggards across these parameters with low growth rate, high inflation and debt compared with the national average, and a fiscal deficit overshooting the FRBM target.

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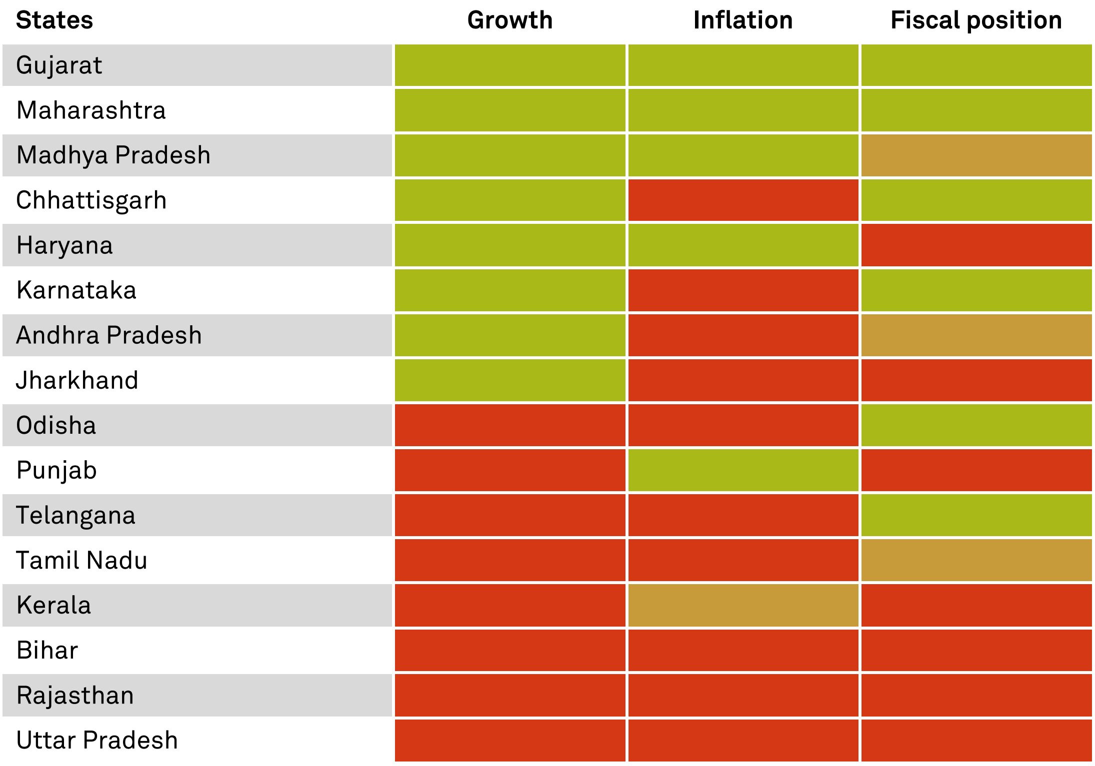
Putting the puzzle pieces together



Source: CRISIL

Key for fiscal parameters

- Debt to GDP < 23.7%; and Fiscal deficit to GDP < 3%
- Debt to GDP < 23.7%); and(Fiscal deficit to GDP > 3%
- Debt to GDP > 23.7%); and (Fiscal deficit to GDP > 3%

Key for growth

- GDP>6.9%
- GDP<6.9

Key for inflation

- Inflation < All-India average of 6.8%
- Inflation = All-India average of 6.8%
- Inflation > All-India average of 6.8%

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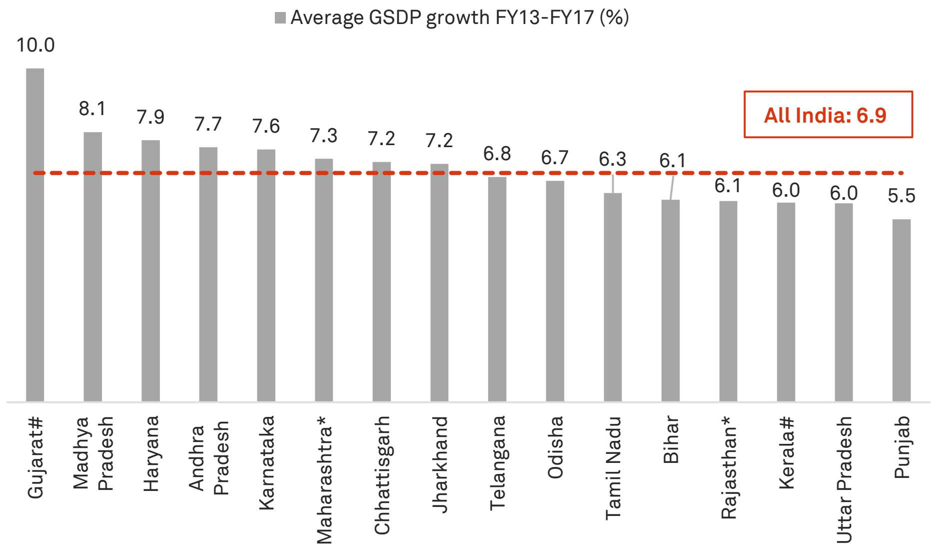
Pace and quality of growth

Between fiscals 2013 and 2017, Gujarat, Madhya Pradesh and Haryana recorded highest growth in gross state domestic product (GSDP) in a sample of 17 major states[1], while Punjab, Uttar Pradesh and Kerala brought up the rear.

Gujarat grew nearly twice as fast as Punjab



*Note: *2017 growth is taken from Economic Survey of the given state; #2017 growth derived from state budget speeches and CRISIL estimates*

Special states (as per the Reserve Bank of India [RBI] categorisation), union territories, Goa and West Bengal have not been considered for growth comparison. GDP data for West Bengal (2011-12 series) was not available.

Source: Central Statistics Office

Are poorer states catching up?

The goal of equitable economic development is to enable income levels of poorer states to reach the levels of the richer states. For this, the incomes of poorer states must grow faster than those of the rich for a long time. However, as shown by the following graphs, this hasn't quite happened in India.

The first graph plots the per capita income (i.e, per capita net state domestic product) of the states in fiscal 2005 on the horizontal axis, along with their respective average growth in per capita income from fiscals 2006 to 2012 on the vertical axis[2]. Had 'convergence' occurred (i.e. had poorer states grown at a faster rate than the richer states), the graph would have shown a negative relationship (downward sloping trend line) between

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[1] *Special states (as per the RBI categorisation), union territories, Goa and West Bengal have not been considered for growth comparison. GSDP data for West Bengal (2011-12 series) was not available.*

[2] *The per capita income level plotted on horizontal axis is at current prices (i.e. 2004-05 prices) and growth in per capita income plotted on vertical axis is at constant prices (i.e. 2004-05 prices). Data is from 2004-05 series*

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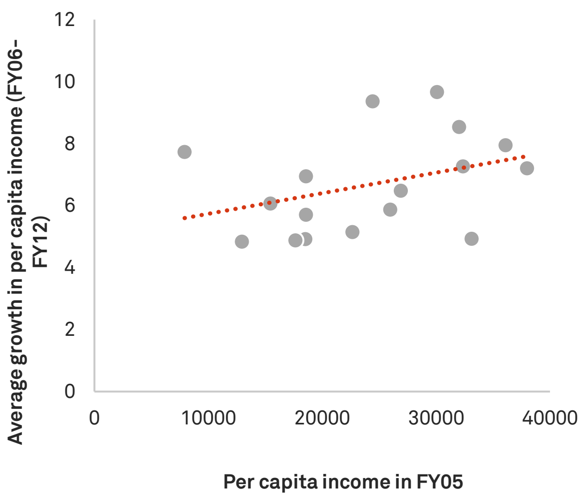
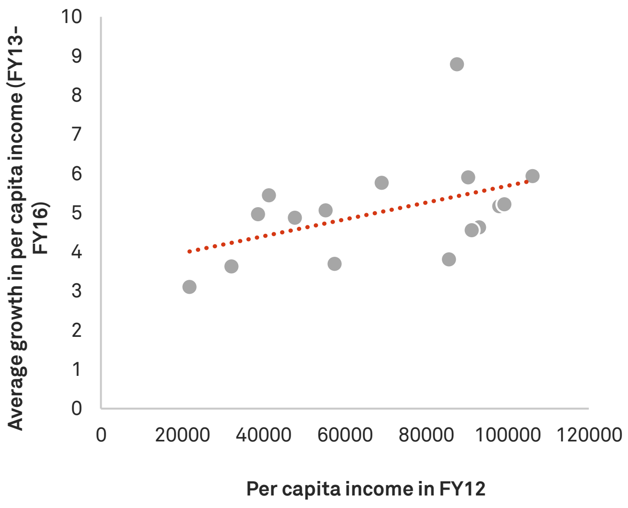
the level of per capita income and growth in per capita income. However, the graph below shows a positive relationship between fiscals 2005 and 2012, which indicates growing 'divergence' among states – richer states growing faster than the poorer ones.

The situation has not improved after fiscal 2012. The second graph[3] plots the per capita income of states for fiscal 2012 on horizontal axis against average growth in per capita income between fiscals 2013 and 2016[4]. Similar to the first graph, the second graph shows a positive relationship between per capita income level of a state and its growth, i.e. richer states continued to diverge from poorer states after fiscal 2012.

Poorer states not on the path to catch up as of FY12… **…or as of FY16**





Note: Per capita income refers to per capita net state domestic product of the given state. Data for graph on the left is from 2004-05 GDP series, in 2004-05 prices. Data for graph on right is from 2011-12 series, at 2011-12 prices

Source: CSO, CRISIL Research

Where do individual states stand relative to each other in the progress towards convergence? The next two graphs compare the position of states with respect to national per capita income levels and growth during the two reference periods.

- Between fiscals 2005 and 2012 (first graph), two states in the upper left quadrant – Bihar and Rajasthan – experienced growth in per capita income higher than the national average. These two are among the eight states which have lower per capita income level than the national average. This indicates that the majority of the poorer states did not grow fast enough to reach the income levels of the richer states.
- The situation worsens as we move forward in time. Between fiscals 2013 and 2017 (second graph), the relatively poor states remained poor. None of the states with per capita income level lower than the all-India average in fiscal 2005 had higher than average per capita income in fiscal 2012.

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[3] *The per capita income level plotted on horizontal axis is at current prices (i.e. 2011-12 prices) and growth in per capita income plotted on vertical axis is at constant prices (i.e. 2011-12 prices). Data is from 2011-12 series.*

[4] *Per capita income data for fiscal 2017 was not available for all states*

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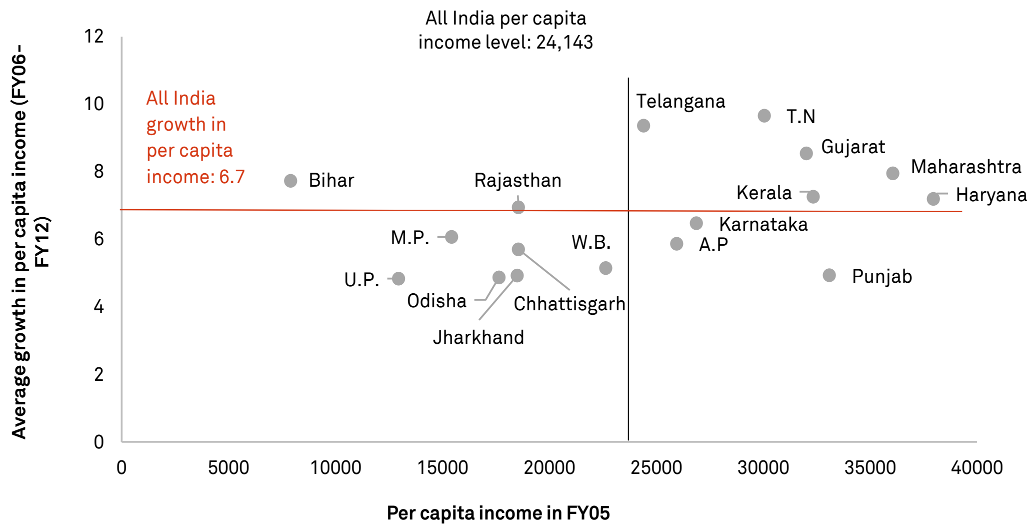
- What's worse, Bihar and Rajasthan – which were trying to catch up in the preceding period – saw their growth performance worsen between fiscals 2013 and 2016. They shifted from the upper left quadrant (high growth, low income) in fiscals 2005 to 2012, to bottom left quadrant (low growth, low income) during fiscals 2013 to 2016.
- Only Jharkhand moved marginally up from the bottom left quadrant in fiscal 2005 to 2012 to the upper left quadrant in fiscal 2013 to 2016 (indicating some progress towards convergence).

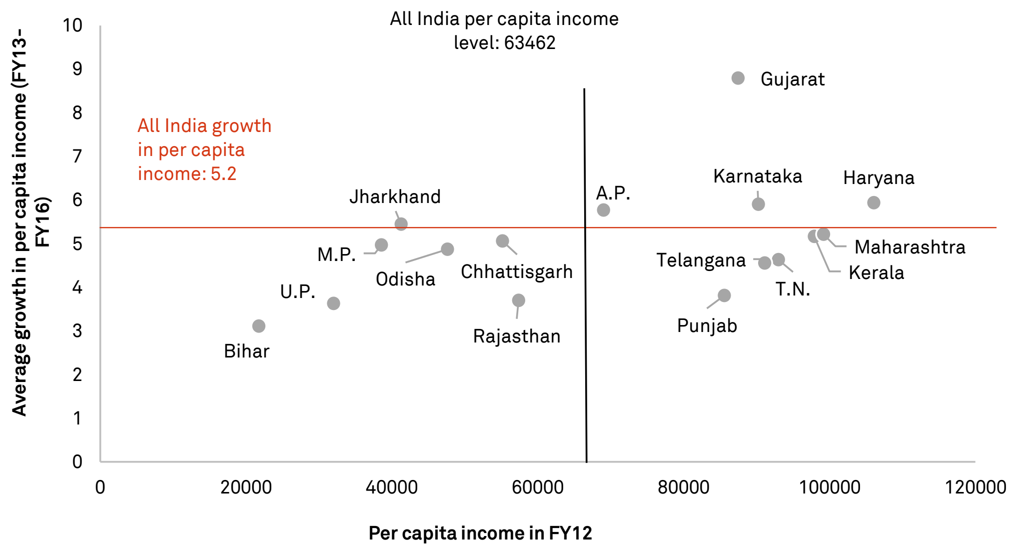
Eight states trailed the national mark between fiscals 2005 and 2012…



Note: Data is from 2004-05 GDP series, in 2004-05 prices.

Source: CSO, CRISIL Research

…most of these were still short as of FY16



Note: Data is from 2011-12 GDP series. All figures are in 2011-12 prices. Per capita income in Rs, average growth in %

Source: CSO, CRISIL Research

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Implications of growth patterns across states for job creation

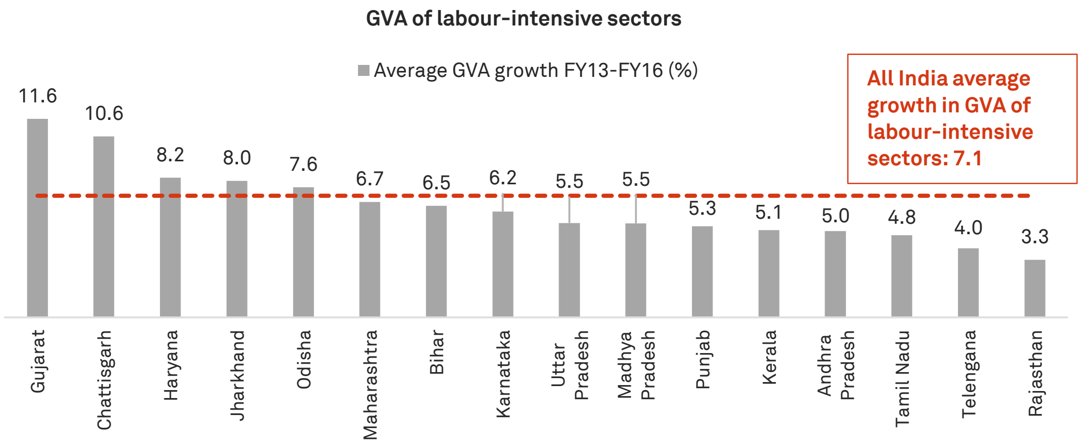
If a state sustains high growth in labour-intensive sectors, it is likely to be more successful in creating jobs. In this section, we see which states have recorded the highest growth in labour-intensive sectors (excluding agriculture), using our estimates (defined as the number of workers required to produce Rs 1 million of real output), at the all-India level, for each sector.

To get a broad sense of how states are performing, we have constructed an aggregate gross value added (GVA) measure by adding up the GVA of the three sectors that rank the highest in labour intensity – construction (labour intensity of 12), manufacturing (labour intensity of 7), and trade, hotels, transport & communication services (labour intensity of 5). The time period considered for this analysis is fiscals 2013 to 2016, since sectoral data for fiscal 2017 is not available for all states.

Key trends in aggregate GVA of labour-intensive sectors during fiscals 2013 to 2016[5]:

- Three states – Gujarat, Chhattisgarh and Haryana – show the highest growth in aggregate GVA of labour-intensive sectors.
- Among the poorer states (per capita income lower than national average), Chhattisgarh, Jharkhand, and Orissa are the top performers, recording growth higher than the all-India average.
- Rajasthan, Telangana and Tamil Nadu recorded the lowest growth in these sectors.
- Individually, Gujarat is among the top performers in construction as well as manufacturing GVA growth. Chhattisgarh is among the top-performing states in manufacturing GVA growth as well as GVA growth of trade, transportation and communication services. Haryana has the fourth-highest growth in manufacturing and the sixth-highest growth in trade, transport and communication services (*for detailed analysis of GVA growth in individual sectors, please refer to Annexure 1*).

How do states rank in GVA of labour-intensive sectors?



Note: Special states (as per the RBI categorisation), union territories, and states having less than 1% share in overall GVA of the given sector have not been considered for growth comparison

Source: CSO, CRISIL Research

[5] *Sectoral data is not available for fiscal 2017 for all states*

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How do sectoral findings compare with overall GDP growth of these states?

In the following table, we compare the performance of states in labour-intensive sectors with their overall GDP growth for fiscals 2013 to 2016. Of the six states recording higher GDP growth than national average in this period, four had higher than average growth in GVA of labour-intensive sectors. In fact, Gujarat and Haryana figure among the top 3 growing states in GVA of labour-intensive sectors as well as overall GDP in this period.

On the other side, out of ten states which had lower or equal GDP growth than national average, nine states recorded lower than national average GVA growth in labour-intensive sectors.

These findings suggest that growth of top performers has been labour-intensive, while it was not so for the laggards.

How labour-intensive has the GDP growth of states been?

<table>
<tr><th colspan="2" rowspan="2">Fiscals 2013 to 2016</th><th colspan="2">GVA of labour-intensive sectors in states</th></tr>
<tr><th>Low growth</th><th>High growth</th></tr>
<tr><td rowspan="2">Overall GDP of the state</td><td>Low growth</td><td>Maharashtra
Bihar
Uttar Pradesh
Punjab
Kerala
Andhra Pradesh
Tamil Nadu
Telangana
Rajasthan</td><td>Odisha</td></tr>
<tr><td>High growth</td><td>Karnataka
Madhya Pradesh</td><td>Gujarat
Chhattisgarh
Haryana
Jharkhand</td></tr>
</table>

Note: Low growth is defined as lower than or equal to national average growth in FY13-FY16, and vice-versa.

Source: CSO, CRISIL Research

Make in India: How have states progressed in manufacturing?

Other than construction, manufacturing is a huge employment generator. Also, several manufacturing processes can employ people with relatively low skillsets. Therefore, growth of this sector is vital to ensure that overall growth remains employment-intensive.

In this section, we analyse which states were successful in increasing the share of manufacturing in their own GVA from fiscals 2012 to 2016. Chhattisgarh, Gujarat, and Bihar have seen the most significant increase

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of manufacturing share in their respective GVA due to high manufacturing growth during this period. On the other side, Telangana, Rajasthan and Andhra Pradesh have seen a decline in the share of manufacturing.

States in which manufacturing's share in GVA rose significantly

	% share of manufacturing in state's total GVA		Average share in national manufacturing GVA, FY12 – 16
State	**FY12**	**FY16**	
Chhattisgarh	16.4	22.6	2.1
Gujarat	28.4	34.4	13.1
Bihar	6.1	9.8	1.2

States in which manufacturing's share in GVA declined

	% share of manufacturing in state's total GVA		Average share in national manufacturing GVA, FY12 -16
State	**FY12**	**FY16**	
Telangana	18.5	12.9	3.4
Rajasthan	16.0	11.0	3.5
Andhra Pradesh	14.5	10.2	2.7

Source: CSO, CRISIL Research

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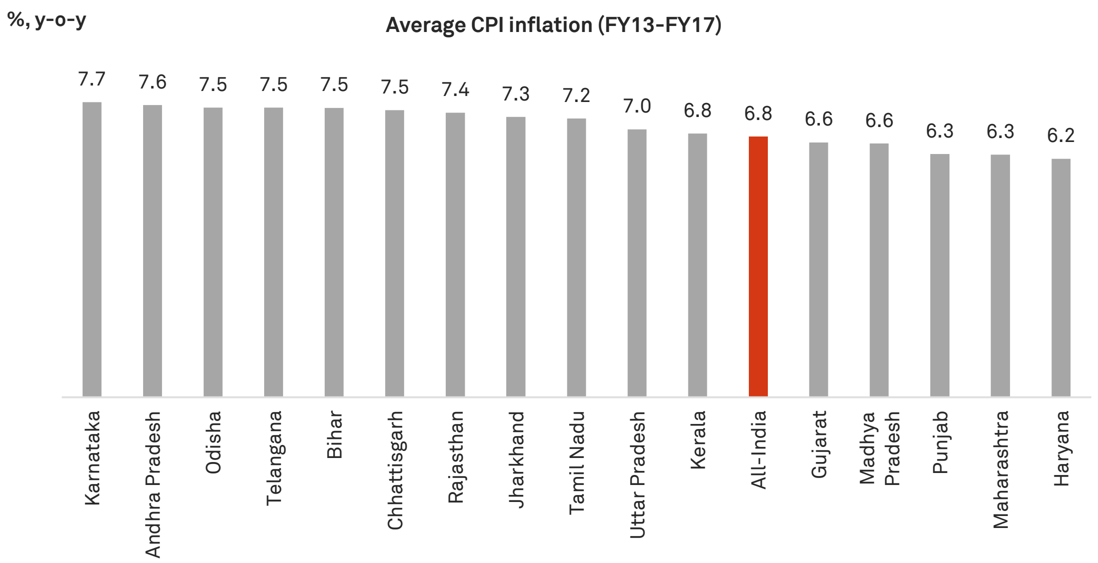
Was there a growth-inflation trade-off at the state level?

Between fiscals 2013 and 2017, inflation at an all-India level fell sharply from 9% to 4.5%. Food inflation fell faster than non-food. The decline in food inflation was supported by good monsoons and bumper food production, lower hikes in minimum support prices, softer global food prices and resort to imports. Benign global fuel prices kept domestic fuel inflation low, while core inflation (inflation excluding food and fuel) headed down on weak domestic demand conditions. This is the picture at an all-India level.

But what happened at the state level?

The pace of increase in prices is seen to vary significantly across states. The good news is that it has fallen all across. States with faster pick-up in growth rates do not see a growth-inflation trade-off. But in some states, high growth has correlated with high inflation.

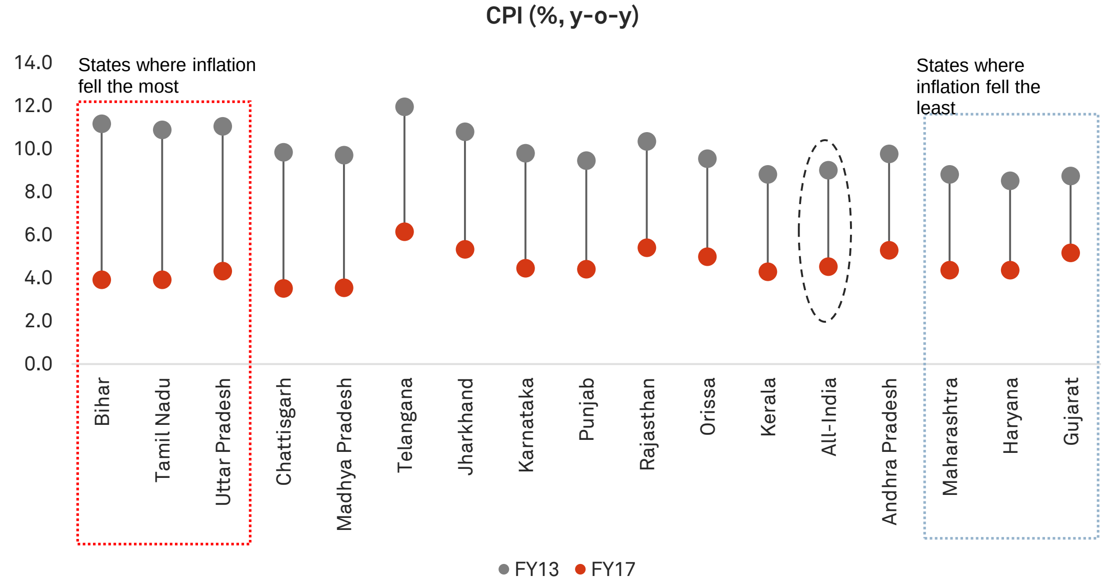
How they stack up on inflation



Source: CSO, CEIC, CRISIL

Exhibit 3

Inflation has fallen across states…

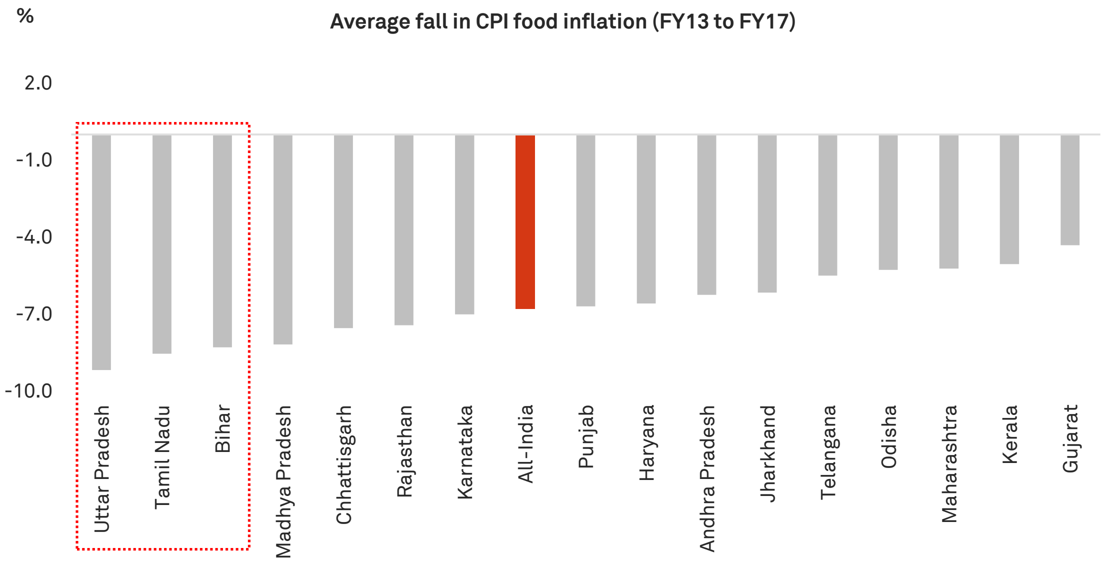


Source: CSO, CEIC, CRISIL

Between fiscals 2013 and 2017, inflation in 11 major states fell faster than all-India. Among these, Bihar, Tamil Nadu and Uttar Pradesh saw the most decline, while Gujarat, Haryana and Maharashtra saw the least. Most of the fall in inflation came from a dip in food inflation.

Gujarat, Haryana and Maharashtra are also among the states where average inflation during these fiscals was lower than all-India average.

…mostly led by a sharp dip in food inflation



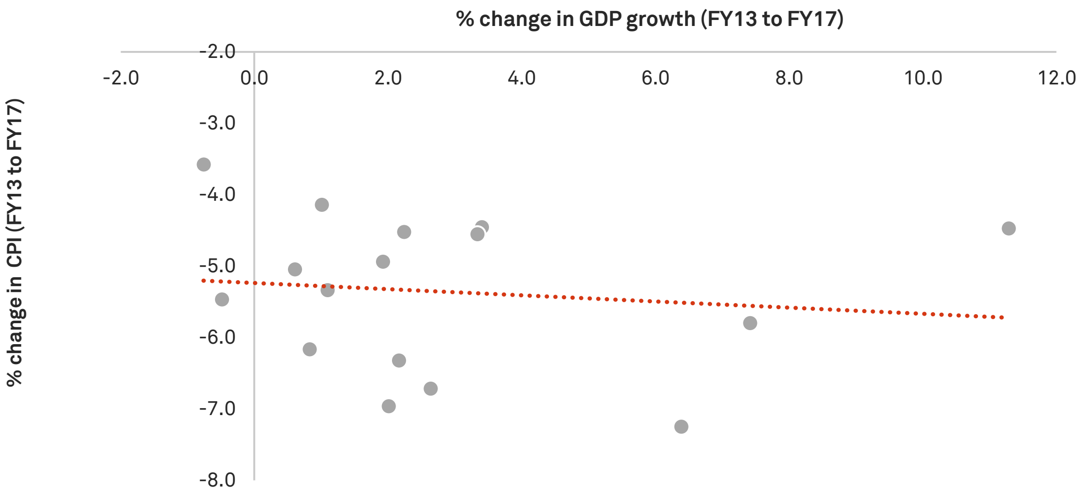
Source: CSO, CEIC, CRISIL

Interestingly, for the five-year period, Gujarat, Haryana and Madhya Pradesh were also the states where average GDP growth was the highest and also higher than the all-India average.

So, broadly, states where inflation stayed low were those where GDP growth was faster. This is quite contradictory to the typical growth phenomenon where high growth is associated with high inflation.

Meanwhile, inflation was high in Telangana, Odisha, Tamil Nadu, Bihar, Rajasthan, Uttar Pradesh and Kerala – states where GDP growth was nearly the same as the all-India average.

Inflation also appears to have fallen faster where growth was fastest



Source: CSO, CEIC, CRISIL

Fiscal check

The fiscal health of the Centre has seen a marked improvement with the fiscal deficit to GDP ratio coming down from 4.9% in fiscal 2013 to 3.5% in 2017. However, the states have seen their combined fiscal deficit positions worsen – from 2% in fiscal 2013 to 3% in 2017 (BE), as per the Reserve Bank of India's (RBI) report on state finances.

To better understand how individual states have fared in terms of fiscal health, we evaluate these on key parameters such as their debt to GDP ratio and fiscal deficit to GDP ratio. The debt to GDP ratio helps us gauge the stock of debt the states already have, while fiscal deficit helps us get an idea of the annual addition to the stock of debt. This would help us understand how constrained these states are in terms of their ability to support further investment and growth.

Indebtedness and deficit of states

Taking the average debt to GDP ratio for all states (23.7%) as a benchmark, we assess the level of indebtedness of the states based on their accumulated debt until the end of fiscal 2017, i.e. debt to GDP ratio at the end of March 2017.

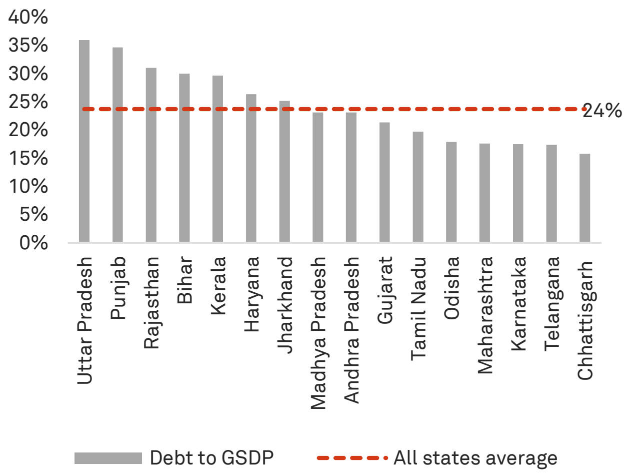
Uttar Pradesh, Punjab and Rajasthan are the worst performers, with debt to GDP ratio of over 30%. On the other hand, Chhattisgarh, Telangana, Karnataka and Maharashtra have low debt to GDP ratio (below 18%).

To better understand the states' fiscal positions, we also evaluate their fiscal deficits against the benchmark of fiscal deficit to GDP ratio of 3% as prescribed by the FRBM Act and recommended for the states by the Fourteenth Finance Commission. While we analyse the data for fiscals 2013 to 2017, we also compare the performance of states between fiscals 2013 and 2014 and fiscals 2014 and 2017 to understand if fiscal deficits have improved or worsened over time.

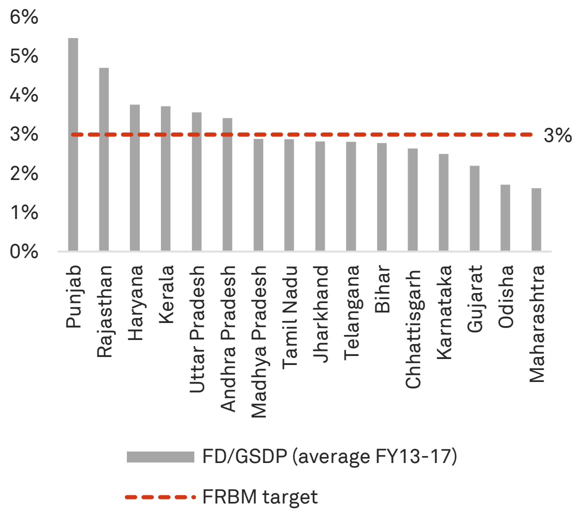
As can be seen, the fiscal deficit to GDP ratio worsened for Punjab, Rajasthan, Haryana, Andhra Pradesh, Uttar Pradesh and Jharkhand, and breached the FRBM target. Of these, Punjab, Rajasthan and Uttar Pradesh already had a high stock of debt. On the bright side, all these states except Punjab have increased their share of development expenditure in total expenditure.

Exhibit 3

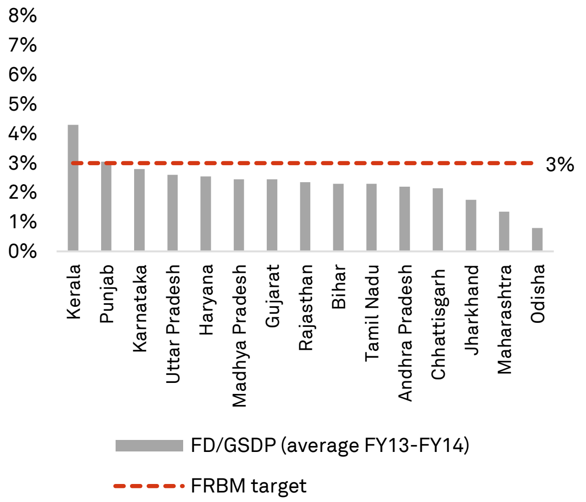
Debt to GDP ratio as on March 2017



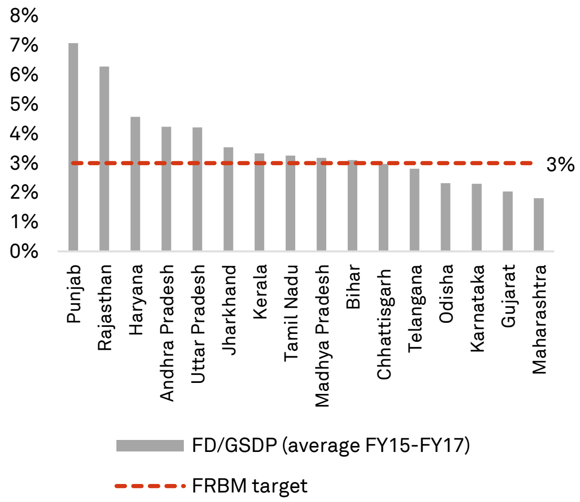
States' fiscal deficit/GDP (FY13-FY17)



States' fiscal deficit/GDP (FY12-FY14)



States' fiscal deficit/GDP (FY15-FY17)



Source: RBI Handbook of Statistics on Indian States, CSO Respective States Budget FY18

Fiscal performance of states

Using the debt to GDP ratio for all states (23.7%) and the fiscal deficit to GDP ratio (3%) prescribed by the FRBM as a benchmark, we have categorised states as better off, vulnerable and worse off. The better off states are the ones with debt levels and fiscal deficit to GDP ratio below or equal to the benchmark (debt/GDP ≤ 23.7%, and FD/GDP ≤ 3%). These include Chhattisgarh, Gujarat, Karnataka, Maharashtra, Odisha and Telangana. The worse off states, on the other hand, have both debt and deficit levels exceeding the benchmark (debt/GDP > 23.7%, and FD/GDP > 3%). Bihar, Haryana, Jharkhand, Kerala, Punjab, Rajasthan and Uttar Pradesh. The vulnerable states are the ones that have managed to keep their debt positions in check so far, but whose fiscal deficits exceed the benchmark (debt/GDP ≤ 23.7%, and FD/GDP > 3%). Andhra Pradesh, Madhya Pradesh and Tamil Nadu, form the vulnerable states.

The following states emerge as the top performers and laggards amongst the better off and worse off states, respectively. A detailed analysis explaining the fiscal position of the states is provided in Annexure 2.

Fiscal health check

Top 3 states	**Bottom 3 states**
Chhattisgarh: With the lowest debt to GDP ratio of ~16% and a fiscal deficit to GDP ratio of 3%, the state tops the charts in terms of fiscal performance. It also runs a revenue account surplus and has significantly improved its development expenditure (from 18% of total expenditure in fiscal 2013 to ~33% in fiscal 2017). It is also one of the fast-growing states	**Uttar Pradesh:** With a debt to GDP ratio of ~36%, Uttar Pradesh tops the list of highly indebted states. It also runs a high fiscal deficit to GDP ratio and is one of the slowest growing states. However, on the bright side, the state runs a revenue account surplus and significantly increased development expenditure share (from ~8% in fiscal 2013 to ~28% in fiscal 2017)
Karnataka: The state has a debt to GDP ratio of ~18%. It also maintains a fiscal deficit to GDP ratio below 3% and runs a revenue account surplus. The state has also modestly pushed up its development expenditure (from ~21% of total expenditure in fiscal 2013 to ~23% in fiscal 2017)	**Punjab:** The state comes across as one of the weakest in terms of fiscal prudence. It runs a high debt to GDP ratio of ~35%. Its fiscal deficit breaches the FRBM threshold and is one of the non-special category states with high revenue deficit. What's worse, the share of development expenditure in the state's total expenditure has declined over the years (from ~22% in fiscal 2013 to ~14% in fiscal 2017). It is also one of the slower growing states
Maharashtra: The state's debt to GDP ratio is at ~18% and it also has the lowest fiscal deficit to GDP ratio among the states evaluated. It is also one of the fastest growing and has improved its share of development expenditure in total expenditure (from ~18% in fiscal 2013 to ~21% in fiscal 2017)	**Rajasthan:** The state runs a high debt to GDP ratio (31%), breached the FRBM threshold for fiscal deficit and is growing slower than the all-India mark. However, on the upside, the state's share of development expenditure in total expenditure has declined over the years (from ~16% in fiscal 2013 to ~30% in fiscal 2017)

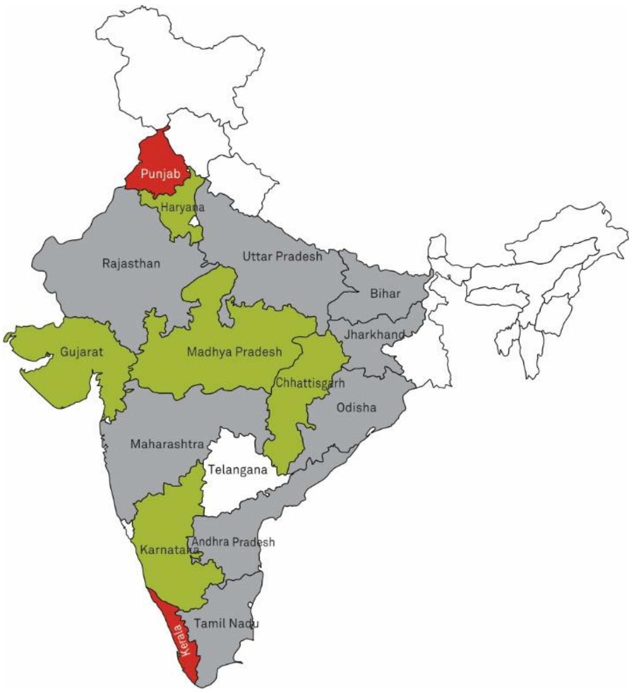
Note: *Given that Telangana was formed in 2014, and it is difficult to compare it with the other states for the period prior to that, we have kept it out of the assessment for the top 3 states in terms of fiscal position.*

Exhibit 3

The dynamics of growth versus fiscal deficit

We now juxtapose the fiscal position of the states with their respective GDP growth rates. Assuming a threshold of 6.9% (average real GDP growth rate between fiscals 2013 and 2017) growth, the ideal situation is one where the state has been able to grow fast while keeping its fiscal deficit in check. At the other end are states that exceeded the fiscal deficit limits but still have not been able to achieve higher growth. The following heatmap clearly brings out the achievers and the laggards:

Growth-deficit dynamics (FY13-FY14)



Growth-deficit dynamics (FY15-FY17)

Low growth (<=6.9%), low deficit (<=3%)

High growth (>6.9%), low deficit (<=3%)

Low growth (<=6.9%), high deficit (>3%)

High growth, high deficit (>3%)

Source: CRISIL

States in the green are ideally placed, whereas the ones in red are falling behind. Those in orange have been able to channel their higher deficit towards inducing growth. Fiscal deficits of Andhra Pradesh, Bihar and Jharkhand have shot up above the FRBM target, though they have successfully managed to push up growth. On the contrary, for Rajasthan, Tamil Nadu and Uttar Pradesh, which breached their FRBM fiscal deficit target, growth rates have been subdued, indicating that the increase in development expenditure hasn't manifested as higher growth. In the case of Madhya Pradesh and Haryana, while fiscal deficit has increased, growth has remained high. On the other hand, Maharashtra has moved from low to high growth while maintaining its fiscal deficit below the FRBM target.

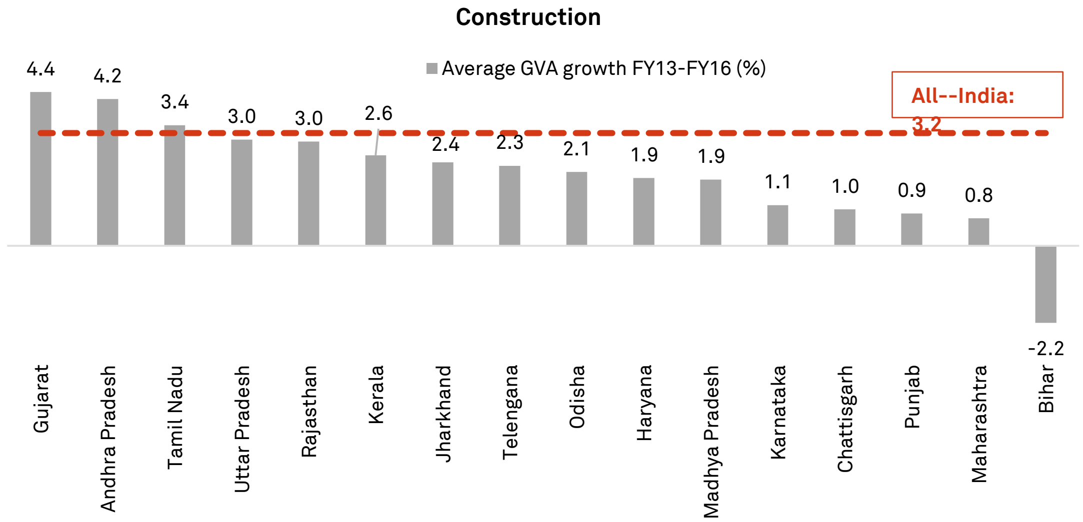
Exhibit 3

Annexure

Annexure 1: Performance of states in individual sectors

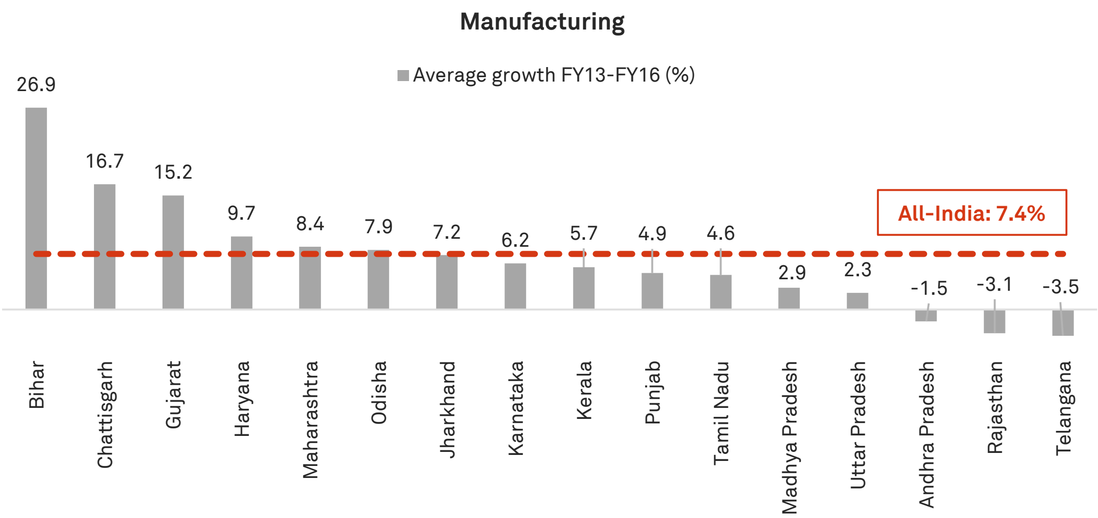
1. Construction:

Labour intensity: 12[6]



2. Manufacturing:

Labour intensity: 7

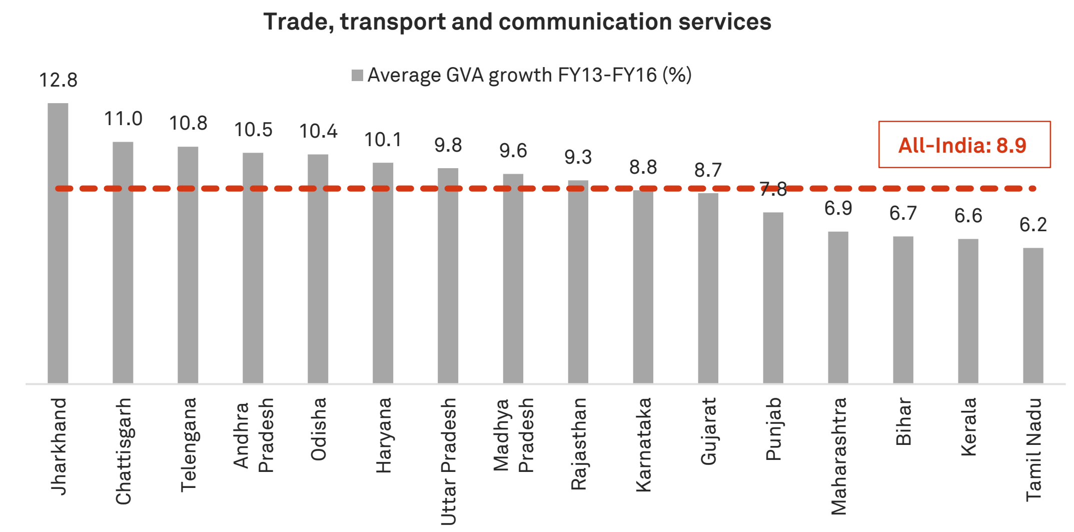


[6] *CRISIL estimate*

Exhibit 3

3. Trade, hotels, transport, and communication and services related to broadcasting:

Labour intensity: 5



4. Public administration and other services:

Labour intensity: 3

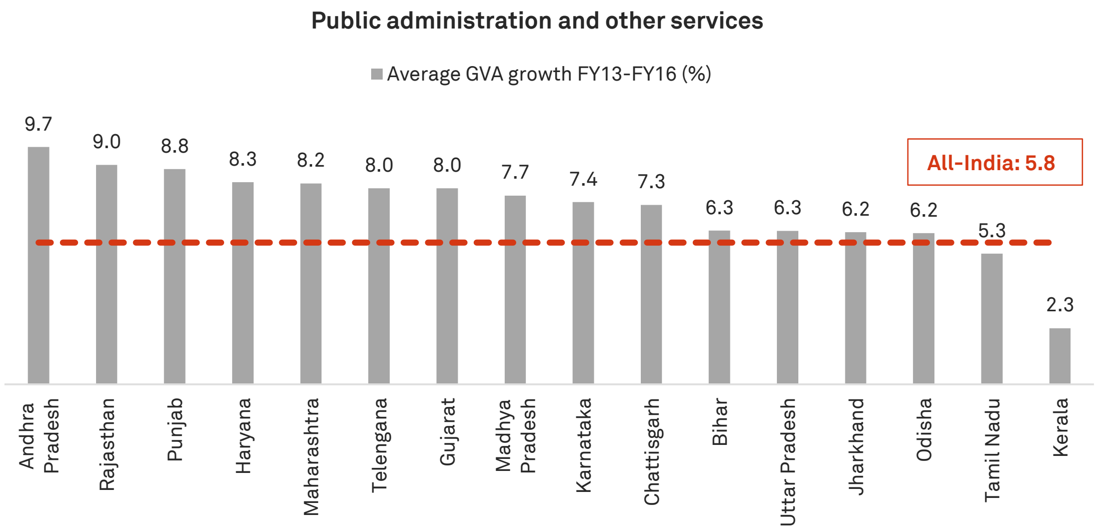
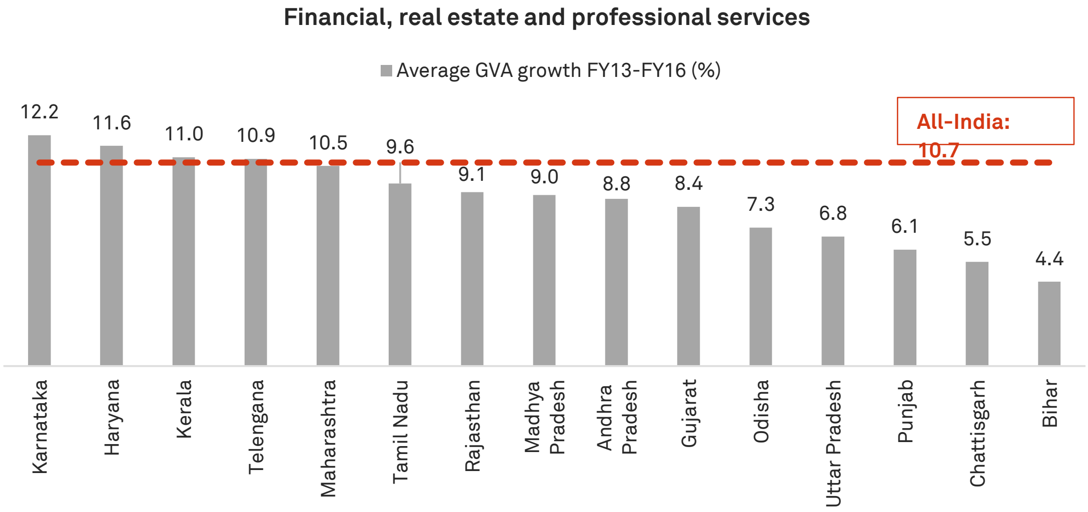


Exhibit 3

5. Financial services, real estate, and professional services:

Labour intensity: 1



6. Electricity, gas, water supply & other utility services:

Labour intensity: 1

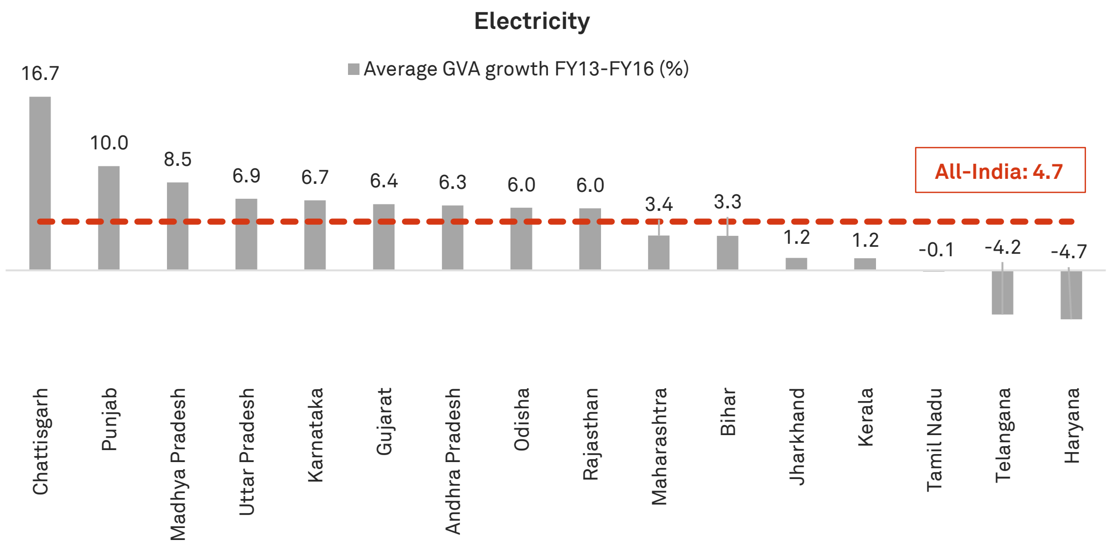
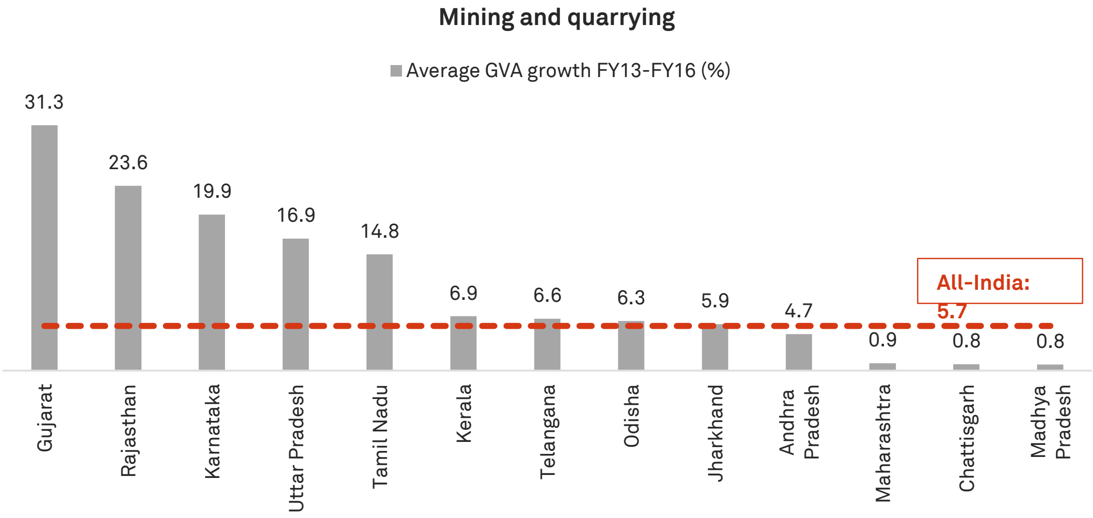


Exhibit 3

7. Mining and quarrying:

Labour intensity: 1



Note: Special states (as per the RBI categorisation), union territories, and states having less than 1% share in overall GVA of the given sector have not been considered for growth comparison

Source: Ministry of Statistics and Programme Implementation

Exhibit 3

Annexure 2: Fiscal position

Based on their debt to GDP and fiscal deficit to GDP ratios, states have been categorised as better off, vulnerable, and worse off. The better-off states are the ones which not only have debt levels below the all-states average (23.7%) but also have fiscal deficit to GDP below the FRBM prescribed limit (3%). The weak states, on the other hand, have both debt and deficit levels exceeding the benchmark. The vulnerable states are the ones that have managed to keep their debt positions in check so far, but whose fiscal deficits exceed the recommended level.

Key:

Better off
(Debt to GDP ≤ 23.7%); and (Fiscal deficit to GDP ≤ 3%)

Vulnerable
(Debt to GDP ≤ 23.7%); and (Fiscal deficit to GDP > 3%)

Worse off
(Debt to GDP > 23.7%); and (Fiscal deficit to GDP > 3%)

Benchmarks: *23.7% All States Debt to GDP ratio as on March 2017; 3% Fiscal Deficit to GDP average for FY15-FY17*

Fiscal position of states, arranged in descending order of debt to GDP ratio

State	Debt to GDP (as on Mar'2017)	Fiscal deficit to GDP			Remark
		Average FY13-FY14	Average FY15-FY17	FY18 BE	
Uttar Pradesh	35.9%	2.6%	4.2%	3.0%	Uttar Pradesh runs a high debt to GDP ratio and a fiscal deficit above the FRBM target (113 bps above FRBM target on average between fiscals 2015 and 2017 [RE]), In addition, the farm loan waiver worth ~Rs 36,359 crore further poses as a risk to the state's fiscal health
Punjab	34.6%	3.1%	7.1%	5.0%	While Punjab runs a high debt to GDP ratio and a fiscal deficit above the FRBM target (410 bps above FRBM target on average between fiscals 2015 and 2017 (RE)), its fiscal position would be further jeopardised by the farm loan waiver worth ~Rs 10,000 crore (spread over 2-3 years starting fiscal 2018)
Rajasthan	31.0%	2.4%	6.3%	3.0%	Rajasthan runs a high debt to GDP ratio and a fiscal deficit above the FRBM target (330 bps above FRBM target on average between fiscals 2015 and 2017 (RE)), indicating fiscal stress in the state.
Bihar	30.0%	2.3%	3.1%	2.9%	Bihar has a high debt to GDP ratio and a fiscal deficit above the FRBM target (10 bps above FRBM target on average between fiscals 2015 and 2017 (RE)). However, the state has issued all of its UDAY bonds as targeted in the MoU and runs a revenue surplus.

Exhibit 3

State	Debt to GDP (as on Mar'2017)	Fiscal deficit to GDP			Remark
		Average FY13-FY14	Average FY15-FY17	FY18 BE	
Kerala	29.6%	4.3%	3.3%	3.4%	Kerala has a high debt to GDP ratio and fiscal deficit above the FRBM target (30 bps above FRBM target on average between fiscals 2015 and 2017 (RE)), indicating fiscal stress in the state
Haryana	26.3%	2.6%	4.6%	2.8%	Haryana runs a high debt to GDP ratio and a fiscal deficit above the FRBM target (160 bps above FRBM target on average between fiscals 2015 and 2017 (RE)), indicating fiscal stress in the state its fiscal
Jharkhand	25.2%	1.8%	3.5%	2.3%	Jharkhand has a high debt to GDP ratio and a fiscal deficit above the FRBM target (50 bps above FRBM target on average between fiscals 2015 and 2017 (RE)). However, the state has issued all of its UDAY bonds as targeted in the MoU.
Madhya Pradesh	23.1%	2.5%	3.2%	3.5%	While Madhya Pradesh's debt to GDP ratio is below the average for all states put together, it runs a fiscal deficit above the FRBM target (20 bps above FRBM target on average between fiscals 2015 and 2017 (RE)). Due to this, the state's fiscal position is vulnerable and may worsen if it continues to have a high fiscal deficit.
Andhra Pradesh	23%	2.2%	4.2%	3.0%	While Andhra Pradesh's debt to GDP ratio is below the average for all states put together, it runs a fiscal deficit above the FRBM target (120 bps above FRBM target on average between fiscals 2015 and 2017 (RE)), keeping its fiscal position vulnerable.
Gujarat	21.4%	2.5%	2.0%	1.8%	Gujarat's debt to GDP ratio is below the average for all states put together. It also runs a fiscal deficit to GDP ratio below the FRBM target and has a surplus on the revenue account. In addition, as per the MoU for UDAY, it has not taken over the debt of the distribution companies (discoms) and hence does not have to issue bonds for the same. Therefore Gujarat is one of the better performing states in terms of fiscal position.
Tamil Nadu	19.7%	2.3%	3.3%	2.8%	Tamil Nadu's debt to GDP ratio is below the average for all states put together, but it has been rising in the last few years. It also runs a fiscal deficit above the FRBM target (30 bps above FRBM target on average between fiscals 2015 and 2017 (RE)) which keeps its fiscal position vulnerable. However, on the bright side, Tamil Nadu has issued all of its targeted UDAY bonds as per the MoU and has budgeted the fiscal deficit for fiscal 2018 at 2.8% of GDP, lower than last three year's average and within the FRBM limit

Exhibit 3

State	Debt to GDP (as on Mar'2017)	Fiscal deficit to GDP			Remark
		Average FY13-FY14	Average FY15-FY17	FY18 BE	
Odisha	17.9%	0.8%	2.3%	3.5%	Odisha's debt to GDP ratio is below the average for all states put together. It also runs a fiscal deficit to GDP ratio below the FRBM target and has a surplus on the revenue account, making it one of the better performing states.
Maharashtra	17.6%	1.4%	1.8%	1.5%	Maharashtra's debt to GDP ratio is below the average for all states put together and it runs a fiscal deficit below the FRBM target. It also runs the lowest fiscal deficit to GDP ratio amongst the non-special states. Given this cushion, Maharashtra's fiscal position may not be jeopardised despite the state's loan waiver scheme worth Rs 32,022 crore (spread over 2-3 years starting fiscal 2018).
Karnataka	17.5%	2.8%	2.3%	2.6%	Karnataka's debt to GDP ratio is below the average for all states put together. The state also runs a fiscal deficit to GDP ratio below the FRBM target and has a surplus on the revenue account. In addition, as per its MoU for UDAY, it has not taken over the debt of the discom and hence does not have to issue bonds for it. Therefore, Karnataka is one of the better performing states in terms of fiscal position. The only downside risk to the state's fiscal position is the Rs. 8,615 of farm loan waiver announced by it (spread over 2-3 years starting fiscal 2018).
Telangana	17.4%	N/A	2.8%	3.5%	Telangana's debt to GDP ratio is below the average for all states put together. It also runs a fiscal deficit to GDP ratio below the FRBM target and has a surplus on the revenue account.
Chhattisgarh	15.8%	2.2%	3.0%	3.5%	Chhattisgarh's debt to GDP ratio is below the average for all states put together. It also runs a fiscal deficit to GDP ratio below the FRBM target and has a surplus on the revenue account. It has already issued its targeted UDAY bonds, too. Therefore, Chhattisgarh is one of the better performing states in terms of fiscal position.
All States	23.7%		3.1%	2.6%	-

Source: State Budgets 2017-18; RBI Handbook of Statistics on Indian States, MOSPI

Note: *If we consider the debt to GDP ratio target of 20% recommended by the FRBM review committee for all states put together, we observe that Madhya Pradesh, Andhra Pradesh and Gujarat also join the list of states with high level of indebtedness. Of these, only Andhra Pradesh breaches the FRBM target of fiscal deficit, mainly on account of the significant rise in development expenditure of the state.*

Exhibit 3

About CRISIL Limited

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