

2022
**INDIA
DEBT
CAPITAL
MARKET
SUMMIT**



TRUST

In Partnership. With Trust.



**STATE FINANCING:
ENTERING A NEW ERA**





TABLE OF CONTENT



Foreword	01
CRISIL Industry Outlook	02
TRUST Bond Market Perspective	43
Expert Opinion	50
Issuer Profiles	56
About TRUST	66

FOREWORD



India is an idea whose time has come. Against the challenging global environment, elevated inflation and monetary policy tightening across nations, economic activity in India remains stable. With the target GDP growth of India at 8%, we foresee Indian Debt Capital Markets to play a pivotal role to support this growth.

The Indian debt capital market has been evolving rapidly, and we believe is at an inflection point. The last few years has witnessed the debt market expanding boundaries, deepening the availability of credits, and reaching new heights of volume and spread of transaction structures. As we say, Latius (Wider), Altius (Deeper) and Altior (Higher).

Since 2002, Trust has been pivotal in supporting the growth of the Indian bond market, being at the forefront of innovation and continually aligning ever-evolving investor and issuer requirements. We have been collaborating across all stakeholders on innovative product offerings, agility in solutions and work towards deepening the Indian Debt Capital Market.

TRUST India Debt Capital Market Summit will showcase the emerging growth pillars of the Indian economy and the Indian bond market's contribution to the growth. The summit aims to provide a platform for issuers and investors to interact and showcase the spread of credits available across sectors for investors to understand and assess the opportunities.

One of the key pillars for India's growth is State Finances. State Government owned Institutions/ undertakings play a vital role in catalyzing a balanced growth & development of the State. These entities are pivotal for the state economy often acting as a pivot in generation & distribution of utilities, waste management, transportation and for providing financial support particularly to the small scale industries in the state. Since the direct funding from the state is often limited to the equity capital, these entities are expected to leverage through external funding to augment their resource base. Till date the significant share of such external funding has come from the banking sector. Since the basic priority of these institutions focus on catalyzing the developmental activities including maintenance of essential services in the state, the revenue generation aspect sometimes gets compromised leading to occasional financial stress situations. In view of this fragility in financial health the lending banks insists for an unconditional & irrevocable default guarantee from the state for their comfort which also significantly reduces capital allocation of the banks on these exposures.

In view of increasing demand for funds for these institutions & exposure and the regulatory related constraints on banks for providing incremental funding, it is increasingly becoming imperative for these entities to raise a substantial portion of their borrowings from Debt Capital Market. However, their efforts of raising bonds on similar structure as bank loans got a very tepid response. A plain vanilla default guarantees from the state did not lead to the desired level of credit enhancement resulting in majority of the big investors staying away from such offerings. Under these circumstances, a number of big state level issuers have taken the initiative in the last few years to structure their bonds with significantly stronger credit enhancement features comprising, inter alia, escrow of cherry picked receivables for debt servicing, completely ring fenced security structure, defined liquidity buffers & provisions for proactive invocation of state guarantee linked to erosion of such buffers rather than post default scenario. These covenants resulted in superior credit ratings, lowering of interest costs and acceptance across a wider set of investors.

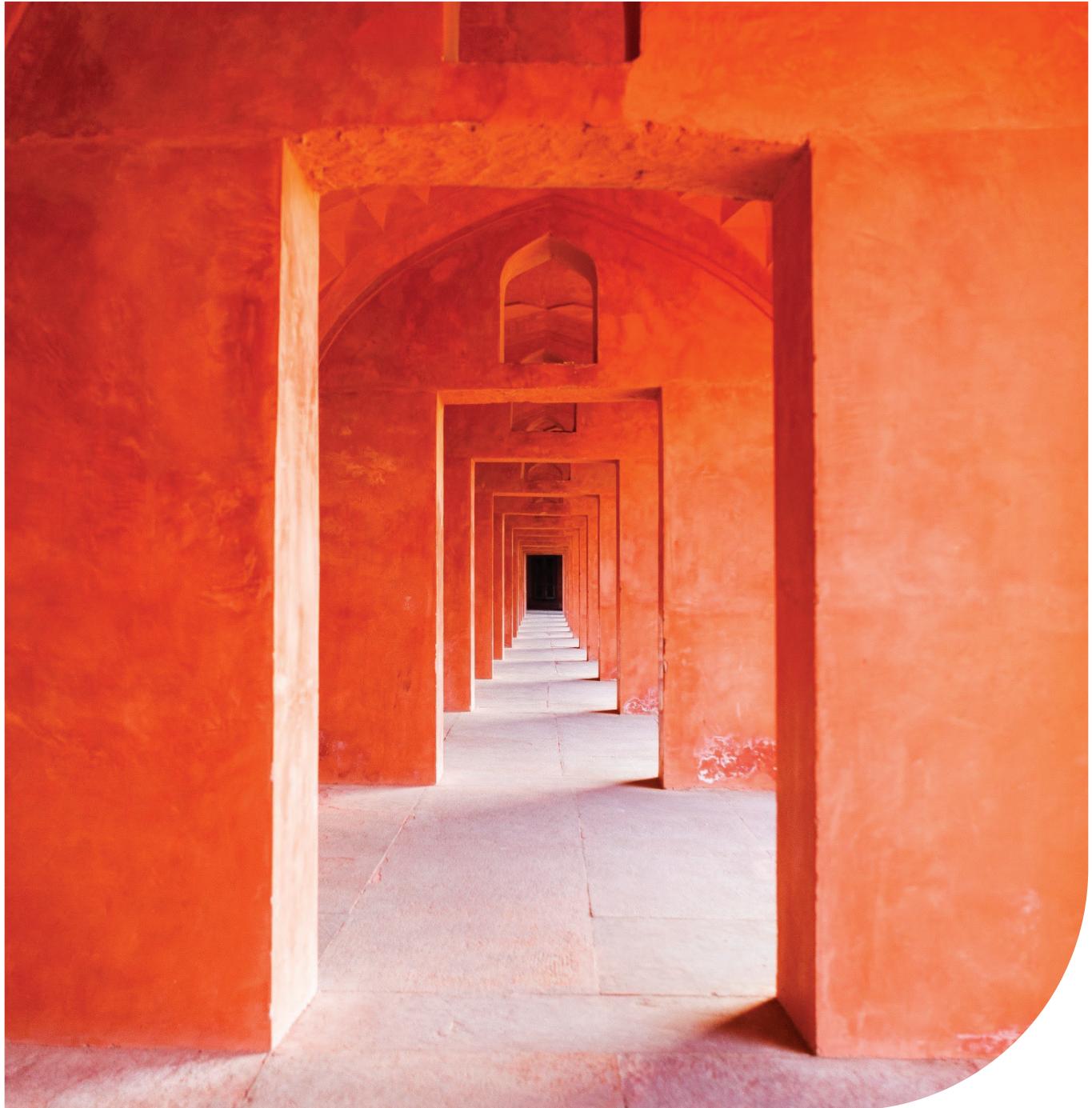
We believe with the emergence of structured credit enhanced products in this segment, the accessibility to enhance mobilization of funds through debt capital markets by State Government owned Institutions has been established.

The state finance compendium aims to share an industry overview, bond market issuance analysis, profile of select issuers and opinion from industry experts. We are pleased to have CRISIL as our Knowledge Partner for part of the compendium covering the industry and the players.

We believe, it's an opportune time to explore the new phase of growth and development of the Indian Debt Capital Markets at TRUST's "India Debt Capital Market Summit"- a platform to engage and understand the perspectives from issuers and investors to better align the requirements, mitigate risks and support the development of capital pools. The evolving and developing trends bring the Indian debt market at an inflection point which can aid to achieving the dream of making India a USD 5 trillion economy.

Landscape of state dynamics

November 2022



Knowledge Partner

CRISIL
An S&P Global Company

Summary

Financially prudent states to lead investment in key infrastructure segments

Capital expenditure (capex) undertaken by Indian states adds significantly to — and often exceeds — central government capex, enhancing the multiplier on investments in productive activity in the country.

For instance, last fiscal, states spent up to twice the combined spend of Rs 1.2 trillion by the Ministry of Road Transport and Highways–National Highways Authority of India (MoRTH–NHAI) and National Highways and Infrastructure Development Corporation Ltd (NHIDCL) last fiscal on roads — one of the largest infrastructure sectors.

Capital outlay has been budgeted at Rs 3.94 trillion for this fiscal for key large state combined, a rise of ~16% on-year.

Investment in infrastructure segments leads to benefits such as job creation, which, in turn, boosts economic activity and incomes.

However, between fiscals 2018 and 2022, the aggregate capex has been increasingly used for debt repayment of states, rather than creation of physical assets by investing in infrastructure. As a result, the actual capital outlay for key infrastructure segments has been lower than the overall budgeted capex. This fiscal, too, growth in the capital outlay for key infrastructure is likely to undershoot the overall capital outlay. The largest infrastructure segment, i.e. roads and bridges, is likely to see moderation in spends over a high base of last fiscal.

Thus, the debt burden of a state directly impacts its ability to spend on infrastructure. Given this, states with relatively lower debt burdens are projected to spend nearly 40% or 1.4x times higher capex on infrastructure activities than the average of the past five fiscals.

Hence, it is crucial for states to exercise financial prudence and find ways to maintain moderate debt levels while spending on asset creation.

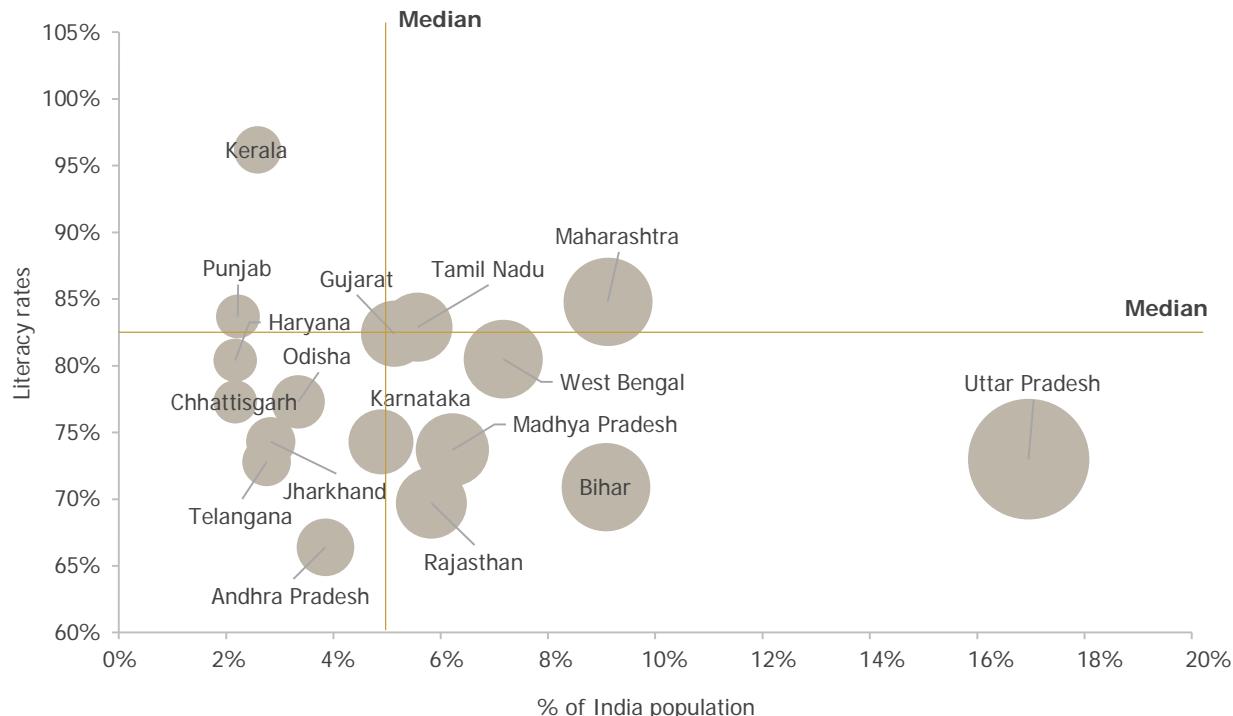
Demographics key to understand growth potential of states

Along with investment in infrastructure, environment-friendly policies, tax structure, and mix of agriculture, manufacturing and services in a state's economy, demographic parameters such as age mix (a healthy share of youth and working class is favourable in terms of employment and income generation), literacy ratio, and extent of urbanisation are key indicators of overall economic prospects of states. They also hold important clues regarding states' long-term growth potential.

Knowledge Partner

CRISIL
An S&P Global Company

Uttar Pradesh is the largest state by population, but lags in terms of literacy rate

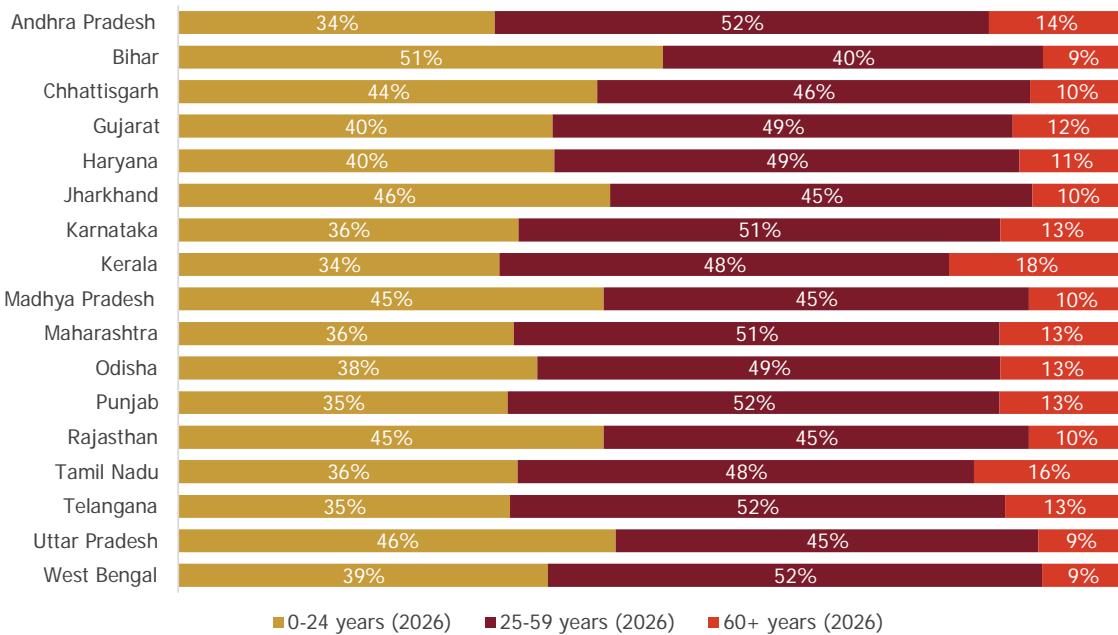


Note: Key 17 states in terms of gross state domestic product (GSDP) size; size of bubble indicates population of respective states as of March 2022; average literacy rate includes male and female literacy rates

Source: Census data, CRISIL Research

For instance, a state's literacy ratio and its share in the country's population is one indicator of the employability and potential of its working class. Uttar Pradesh, the country's most populated state, has a share of ~17% in India's population and an average literacy rate of ~73%, lower than the national average of ~77%. Maharashtra, the second-most populated state, has a share of ~9% in the country's population and a high average literacy rate of ~85%, making it one of the best-placed states in terms of literate demographics. On the other hand, Andhra Pradesh has the lowest literacy rate among the key 17 states, at ~66%.

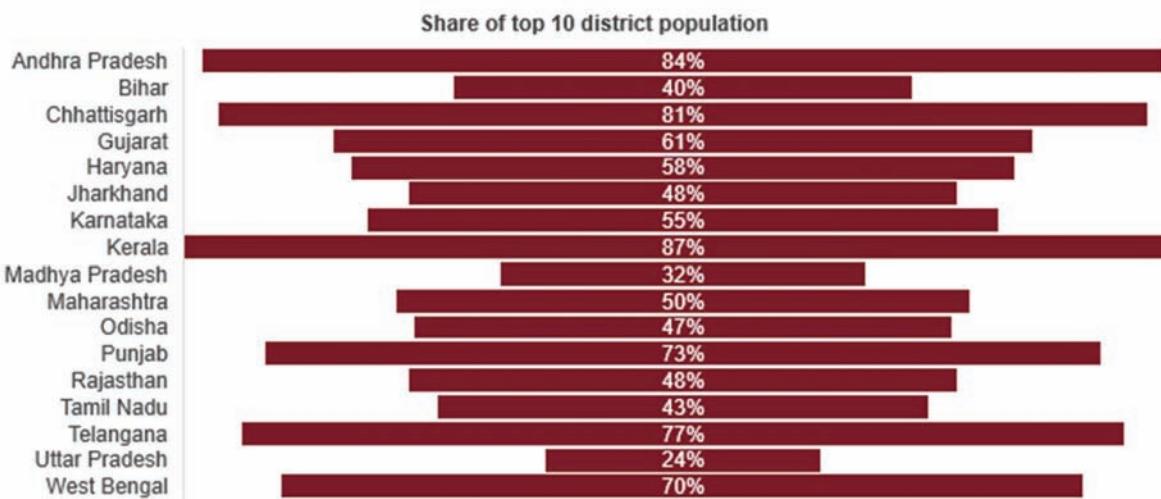
Working-age population mix to be mostly favourable in southern and western states



Source: Ministry of Health and Family Welfare report, CRISIL Research

Another indicator is the share of youth (0-24 years) and working-class (25-59 years) population. States which have a higher share of youth and working-class population are estimated to have favourable characteristics in terms of employment opportunities and income generation in general. While most of the southern and western states — Andhra Pradesh, Telangana, Maharashtra, Karnataka, Gujarat, and Tamil Nadu — are forecast to have a high share of employable population, along with a high share of youth, which works in their favour.

Population concentrated in top 10 districts for southern and eastern states; diversified for central states



Note: The chart represents the share of the population of the top 10 districts of each state as a percentage of their respective total population.

Source: Census data, CRISIL Research

The population of most of the key 17 states is concentrated in their top 10 districts. Andhra Pradesh, Telangana, and West Bengal are a few states where the population is highly skewed towards the top 10 districts, highlighting a mismatch in development across the districts in these states. In Uttar Pradesh, which has the largest number of districts (75), only 24% of the population resides in the top 10 districts.

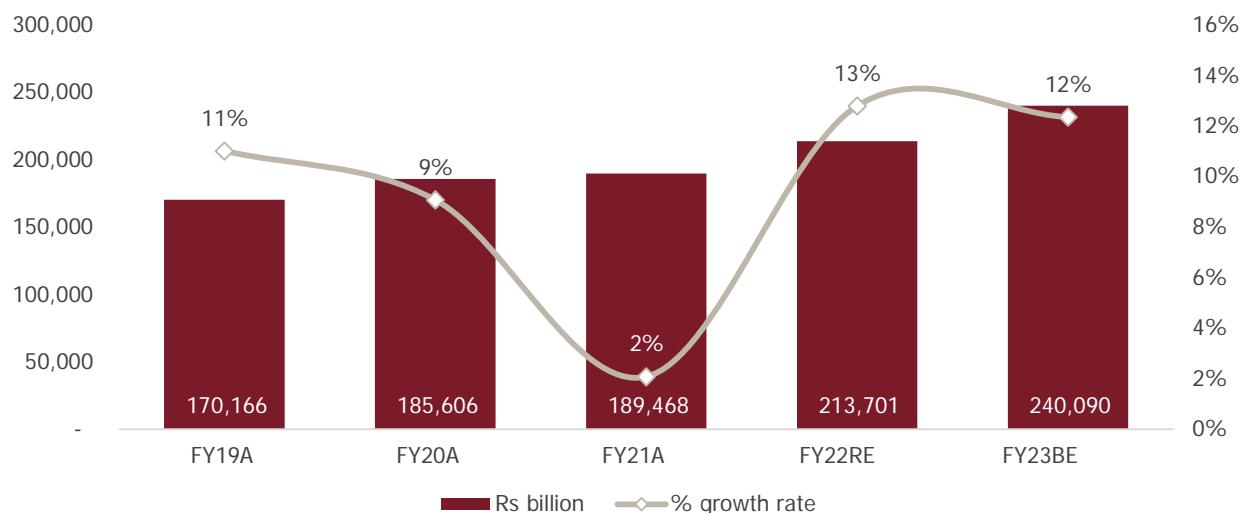
Maharashtra is the leader in demographic parameters — it has a 9% share in the country's population, with a high proportion of youth and working-class population (85-90%) and a decent extent of urbanisation (50% of the population resides in its top 10 districts). On the other hand, Uttar Pradesh is the weakest-performing state despite having the highest share of ~17% in India's population, due to low literacy rate and low urbanisation. The only silver lining for Uttar Pradesh is that ~90% of its population comprises youth and working class, which could bode well in terms of potential employment opportunities and income generation as literacy rate improves in the state.

States to grow way past pre-pandemic levels this fiscal

Aggregate GSDP of large states to clock ~9% CAGR between fiscals 2019 and 2023

Gross state domestic product (GSDP) is viewed as the most important indicator for measuring economic growth of a state. It is measured in monetary terms as the sum of total volume of all finished goods and services produced during a given period of time, usually a year, within the geographical boundaries of the state, accounted for without duplication. These estimates of an economy over a period of time reveal the extent and direction of the changes in the level of economic development.

Trend in aggregate GSDP for key 17 states



Note: A – actual, RE – revised estimate, BE – budgeted estimate

Source: Budget documents, industry, CRISIL Research

GSDP for the key 17 states grew at ~9% in the years before the pandemic (fiscals 2019 and 2020). It saw a modest uptick in fiscal 2021 owing to the pandemic, as states curtailed expenditure leading to a marginal growth of ~2%. With the pandemic waning, aggregate GSDP rebounded 13% and 12% in fiscals 2022RE and 2023BE, respectively, as economic activity recovered.

States crossed pre-pandemic GSDP levels last fiscal, to overshoot by 141% this fiscal

Of the key 17 states, most southern and western states are estimated to have been the standout performers based on their overall GSDP and CAGR between fiscals 2018 and 2023. For instance, Telangana, West Bengal, Andhra Pradesh, Gujarat, Tamil Nadu, and Odisha logged over 10% CAGR over the period, due to a swift recovery in GSDP. Most of these states are heavily reliant on the manufacturing and services sectors, which saw an upturn post the first Covid-19 wave.

In terms of recovery as a percentage of pre-pandemic GSDP of fiscal 2019, CRISIL Research expects the aggregate set to witness a 141% increase in fiscal 2023 with states like Andhra Pradesh, Tamil Nadu, Telangana, and West Bengal seeing recovery of over 150%. States like Punjab, Karnataka, Kerala, and Uttar Pradesh are seeing slower recovery but are also above the pre-pandemic levels.

Trend in state-wise GSDP and recovery for key 17 states

States	GSDP CAGR (FY18-23)	% recovery from pre-pandemic level
Andhra Pradesh	11%	153%
Bihar	10%	141%
Chhattisgarh	9%	141%
Gujarat	11%	148%
Haryana	9%	142%
Jharkhand	8%	131%
Karnataka	7%	127%
Kerala	7%	128%
Madhya Pradesh	10%	142%
Maharashtra	9%	139%
Odisha	11%	146%
Punjab	2%	110%
Rajasthan	10%	146%
Tamil Nadu	11%	152%
Telangana	12%	152%
Uttar Pradesh	8%	129%
West Bengal	12%	158%
Overall set	9%	141%

Note: Pre-pandemic year refers to fiscal 2019 and current year refers to fiscal 2023BE

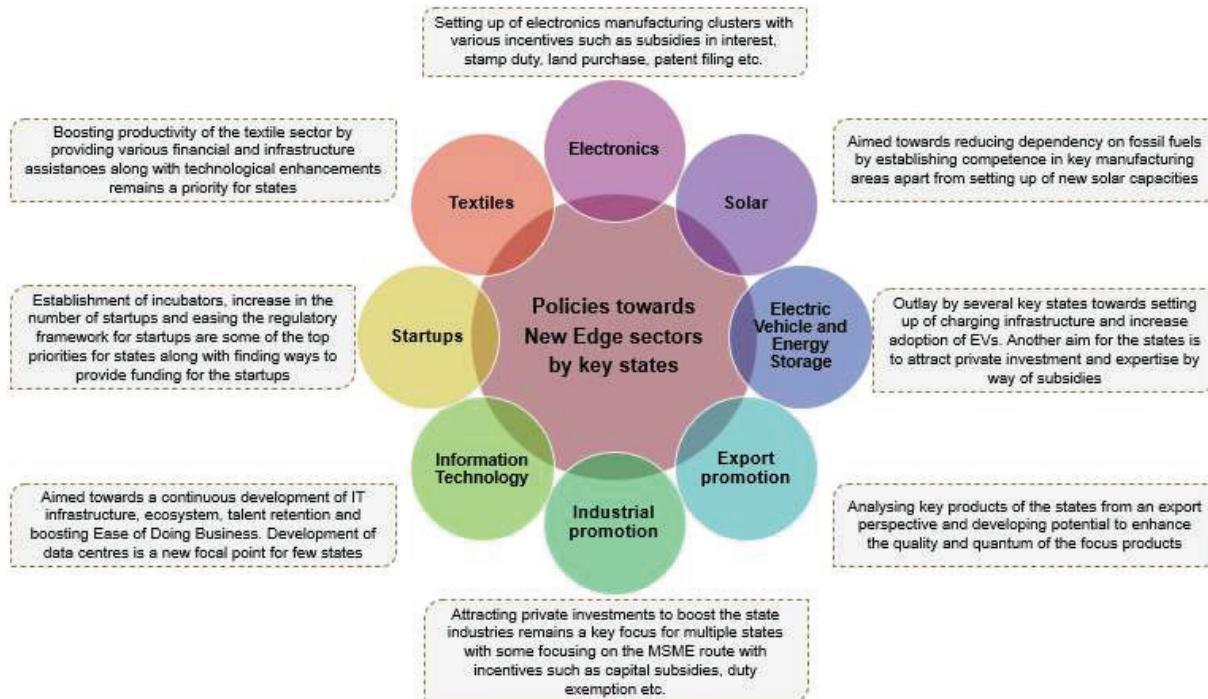
Source: Industry, CRISIL Research

Investor-friendly state policies to aid development in key states

The path of progress for states is also significantly influenced by the policies and initiatives taken by them.

States that are quick to adopt changes in the industrial and investment scenario have an edge over their more traditional and slow-moving counterparts. With the constantly changing business environment and social infrastructure demand, new sectors such as electric vehicles and energy storage, start-ups, information technology (IT), solar energy, and electronics manufacturing have come to the forefront of development, even as states are looking to reduce their dependency on more traditional sectors such as commodities and agriculture.

Many states are focusing on incentives to increase visibility in new-age sectors



Source: State documents, CRISIL Research

Thus states are focussing on continuing supportive policies for existing sectors such as IT and textiles, as well as formulating newer policies and initiatives for fast-growing sectors such as technology start-ups, solar energy, and electric vehicles, with an eye to propel growth in export and industrial manufacturing.

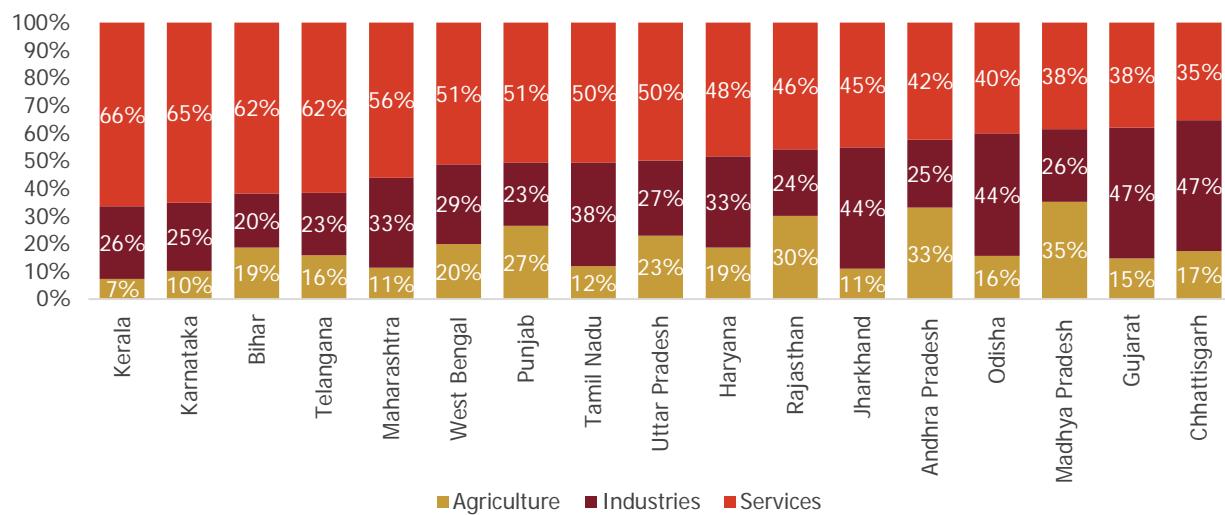
Various incentives take the form of capital and interest subsidies, regulatory easing, and land grants for these sectors. Increasing private participation through investments in the sectors remains a focal point.

Most southern states largely dominated by service segment pre-pandemic

Gross state value added (GSVA), a concept closely related to GSDP, is broadly derived from three sectors — agriculture, manufacturing, and services sector. While typical agrarian state economies have been stable even during the pandemic due to the essential nature of the activities, it is the manufacturing and services sectors which drive GSDP growth in the country due to the higher value of their output.

Most southern states have a very high share of services in their GSVA. Sectors such as IT/IT-enabled services, banking, financial services and insurance (BFSI) and consulting contribute a high share of revenues in these states. On the other hand, states such as Andhra Pradesh, Uttar Pradesh, Madhya Pradesh, Punjab, and Rajasthan still have a relatively higher share of agriculture in their GSVA.

Breakup of components in GSVA for fiscal 2020



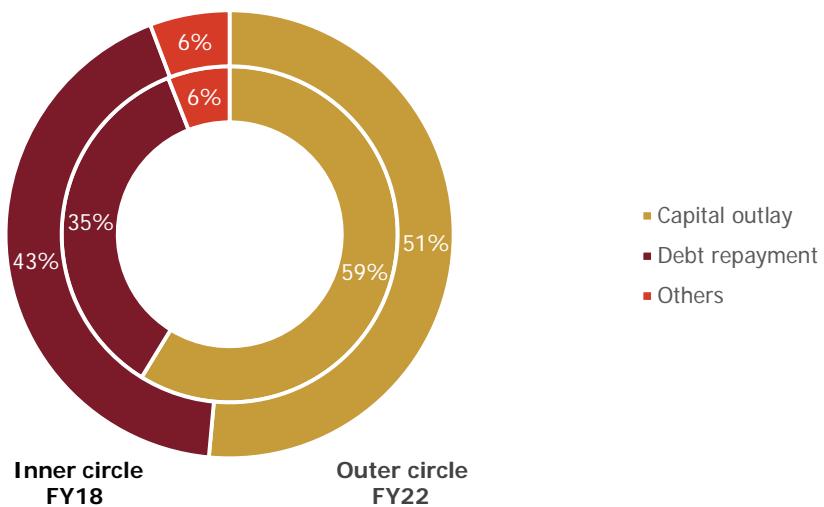
Source: RBI, CRISIL Research

Capital outlay lower due to high debt repayment, trend to largely continue

Key infrastructure outlay impacted by rising debt; spending on irrigation and power fell

Capital outlay or capital expenditure is the spending incurred by a state government for the development and expansion of long-term capital assets or infrastructure. Total capital outlay typically has three components – capital outlay, which is the actual expenditure towards building infrastructure; debt repayment including interest, which is the repayment of loans taken in the past by the state government; and others, which is mainly non-development expenditure and loans and advances by states, forming a minor share in overall capital outlay.

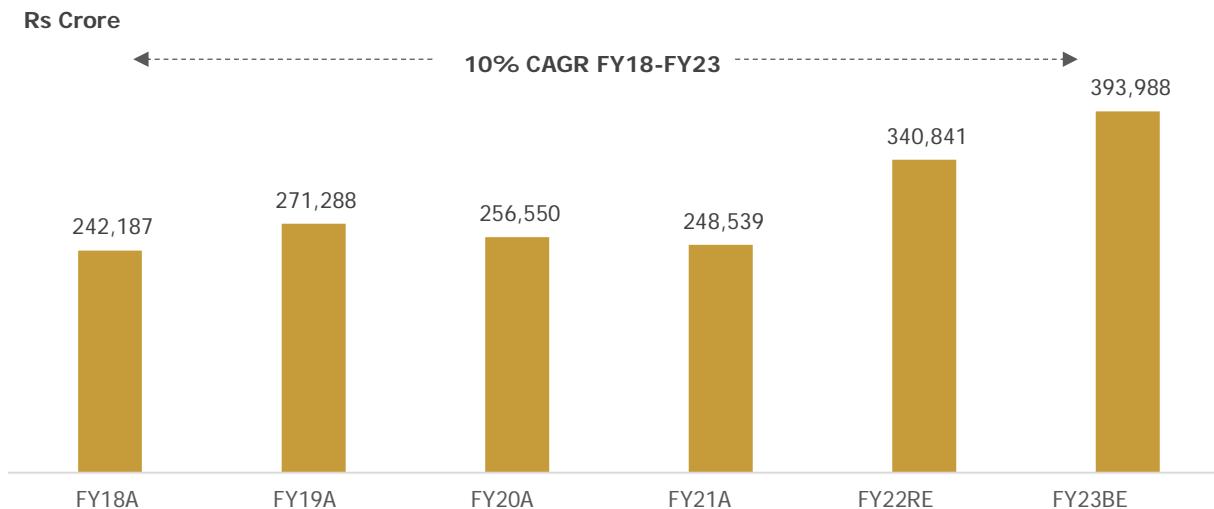
Share of total capital outlay reduced in overall spend



Source: Budget documents, CRISIL Research

The share of capital outlay in the overall pie fell from 59% to 51% as the share of debt repayment component rose from 35% to 43% in the period. This was despite a 14% CAGR in total capital outlay between fiscals 2018 and 2022. With higher debt dependency in the past few years, the share of debt repayment has increased and is expected to remain elevated in the medium to long term.

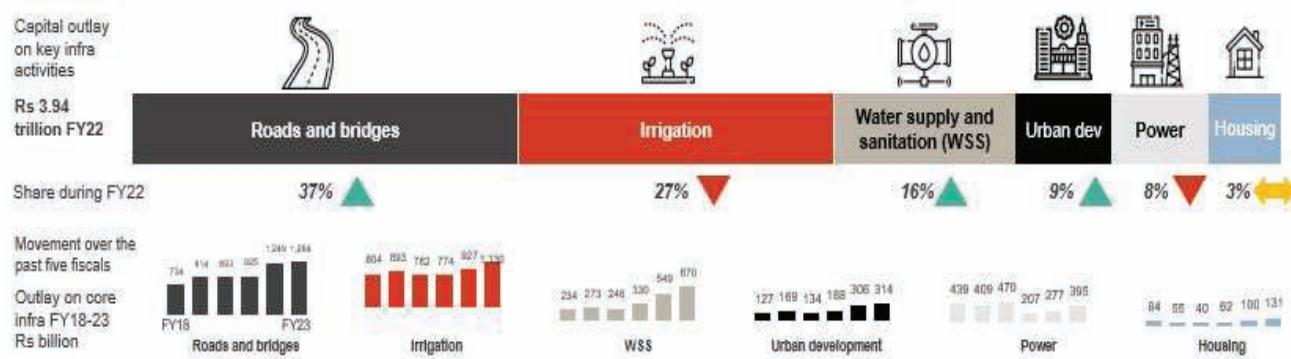
Trend in aggregate infra capital outlay



Source: Budget documents, CRISIL Research

Infrastructure capital outlay was subdued at 1% CAGR between fiscals 2018 and 2021. Improved economic activity after the first wave of the Covid-19 pandemic saw the state governments feel the need to invest in social infrastructure apart from industrial. Consequently, capital outlay in fiscal 2022RE improved 35-40% over the previous year. A further uptick of ~15-20% is anticipated in fiscal 2023BE, which will take the CAGR between fiscals 2018 and 2023 to 10%.

Breakup of key infrastructure verticals and movement in share over past five fiscals



Source: Budget documents, CRISIL Research

The share of the irrigation and power verticals had fallen in fiscal 2022RE as priority was given to social infrastructure, including roads and bridges through the Bharatmala programme, water supply and sanitation (WSS), and urban development. CRISIL Research believes the share of these segments would remain rangebound in the medium term as infrastructure development remains a focus area for states.

Breakup of key infrastructure verticals by states in overall key infrastructure capital outlay fiscal 2022

States	Roads and Bridges	Major and Medium Irrigation and Flood Control	Water Supply and Sanitation	Urban Development	Power	Housing
Andhra Pradesh	10%	72%	14%	4%	0%	0%
Bihar	34%	35%	17%	0%	10%	5%
Chhattisgarh	49%	18%	18%	6%	8%	1%
Gujarat	26%	28%	22%	3%	18%	3%
Haryana	28%	19%	17%	30%	6%	1%
Jharkhand	64%	22%	10%	0%	2%	2%
Karnataka	27%	55%	6%	11%	1%	1%
Kerala	61%	8%	28%	2%	0%	1%
Madhya Pradesh	26%	37%	27%	6%	4%	0%
Maharashtra	56%	34%	0%	5%	4%	2%
Odisha	36%	30%	13%	1%	17%	3%
Punjab	22%	24%	16%	34%	4%	1%
Rajasthan	24%	19%	29%	16%	11%	0%
Tamil Nadu	44%	12%	15%	28%	2%	0%
Telangana	26%	46%	17%	10%	0%	1%
Uttar Pradesh	43%	10%	18%	3%	17%	9%
West Bengal	31%	17%	28%	15%	8%	1%
Grand Total	37%	27%	16%	9%	8%	3%

Source: Budget documents, CRISIL Research

Infrastructure capital outlay has traditionally been dominated by 5-6 major heads — roads, irrigation, WSS, urban development, power, and housing. The first three account for the majority of spending.

For most states, capital outlay is heavily tilted towards 1-2 key sectors where they are lacking. For example, 72% of Andhra Pradesh's infrastructure capital outlay is directed towards irrigation. Almost a third of the state's GSVA depends on agriculture. Similarly, Jharkhand and Kerala have a high allocation towards roads and bridges.

High share of debt may act as a deterrent for investment plans of states

Only three out of 17 large states report revenue surplus in fiscal, aggregate debt at ~31% of GSDP

Revenue and fiscal deficits indicate the efficiency of states in managing the gap between their income and expenditure, and indicates the level of borrowing necessary to bridge it. Revenue deficit is a subset of fiscal deficit; it is calculated as the difference between a state's revenue income and expenditure. If the revenue expenditure is higher than revenue receipts, the state is said to have a revenue deficit. Fiscal deficit is calculated by subtracting total expenditure and borrowings from total receipts. Total expenditure and receipts include all revenue and capital receipts. A state is said to be in a fiscal deficit if its total expenditure and borrowings are higher than its total receipts, and vice versa.

Assessment of fiscal deficit, revenue deficit and debt of large states

	Fiscal Deficit as % of GSDP FY22RE	Revenue Deficit as % of GSDP FY22RE	TOL as % of GSDP FY22RE
Andhra Pradesh	-3.2%	-1.6%	32.5%
Bihar	-11.3%	-5.5%	38.6%
Chhattisgarh	-3.8%	-0.3%	26.2%
Gujarat	-1.5%	0.0%	19.0%
Haryana	-3.0%	-1.4%	29.4%
Jharkhand	-3.0%	0.1%	33.0%
Karnataka	-2.8%	-0.4%	26.6%
Kerala	-4.2%	-2.6%	37.0%
Madhya Pradesh	-4.2%	-0.6%	31.3%
Maharashtra	-2.8%	-1.0%	17.9%
Odisha	-0.4%	3.3%	18.8%
Punjab	-5.7%	-3.6%	53.3%
Rajasthan	-5.2%	-3.0%	39.5%
Tamil Nadu	-3.8%	-2.5%	27.4%
Telangana	-3.9%	0.4%	24.7%
Uttar Pradesh	-4.3%	1.3%	34.9%
West Bengal	-3.5%	-2.1%	34.4%
Median	-3.8%	-1.0%	31.3%

Note: There can be a minor difference in deficits of up to 0.1% from actual reporting due to a marginal difference in GSDP estimate.

The cells highlighted in red and green indicated the bottom 5 and top 5 performers in the category: RE – revised expenditure

Source: Budget documents, CRISIL Research

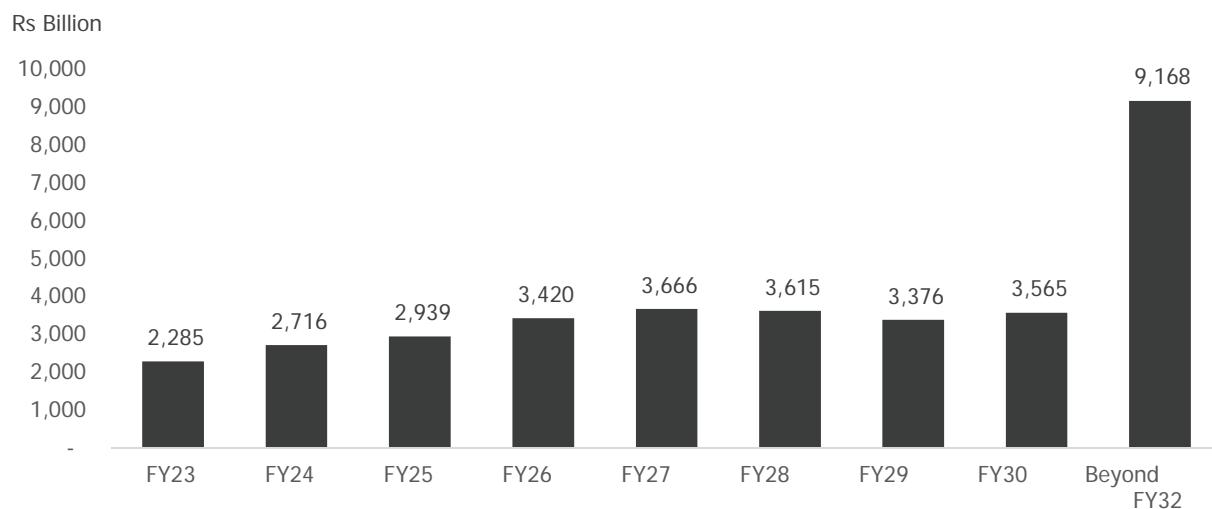
Some states such as Punjab, Rajasthan and Bihar are lagging in all parameters since their total outstanding liabilities (TOL) as a percentage of GSDP is the highest. This means there is huge reliance on external debt to fund their revenue deficit. On the other hand, Odisha, Maharashtra, and Gujarat are able to manage their finances better with low fiscal and revenue deficits and relatively low reliance on debt.

States to repay state development loans of ~Rs 8 trillion over next three fiscals

A state development loan (SDL) is a bond issued by a state government to fund its fiscal deficit. Each state is allowed to borrow funds up to a set limit. States generally service the interest on these SDLs on a semi-annual basis and repay the principal amount on maturity. The average tenure for such instruments is ten years.

Data from the Reserve Bank of India show that as of March 2021, states had to repay SDLs worth nearly Rs 38 trillion between fiscals 2023 and 2060. In the near to medium term — between fiscals 2023 and 2025 — 17 states collectively had to repay SDLs Rs 8 trillion. Almost a fourth of this is by Maharashtra and Tamil Nadu. Similarly, Andhra Pradesh, Rajasthan, and West Bengal will collectively repay another one-fourth.

Breakup of key infrastructure verticals by states in overall key infrastructure capital outlay (fiscal 2022)



Note: Data as of March 2021 as reported by RBI

Source: RBI

Overall guarantee utilisation stands at nearly 80%, Gujarat and Odisha fare better

Guarantees are provided by states for debt raised by their entities. These are similar to lines of credit accessed for funding public projects. These guarantees do not form a part of the debt burden of the state government, but in the event of a default by the borrowing organisations, the state will be required to repay the debt as the guarantor.

Assessment of off-balance sheet debt by states and utilisation

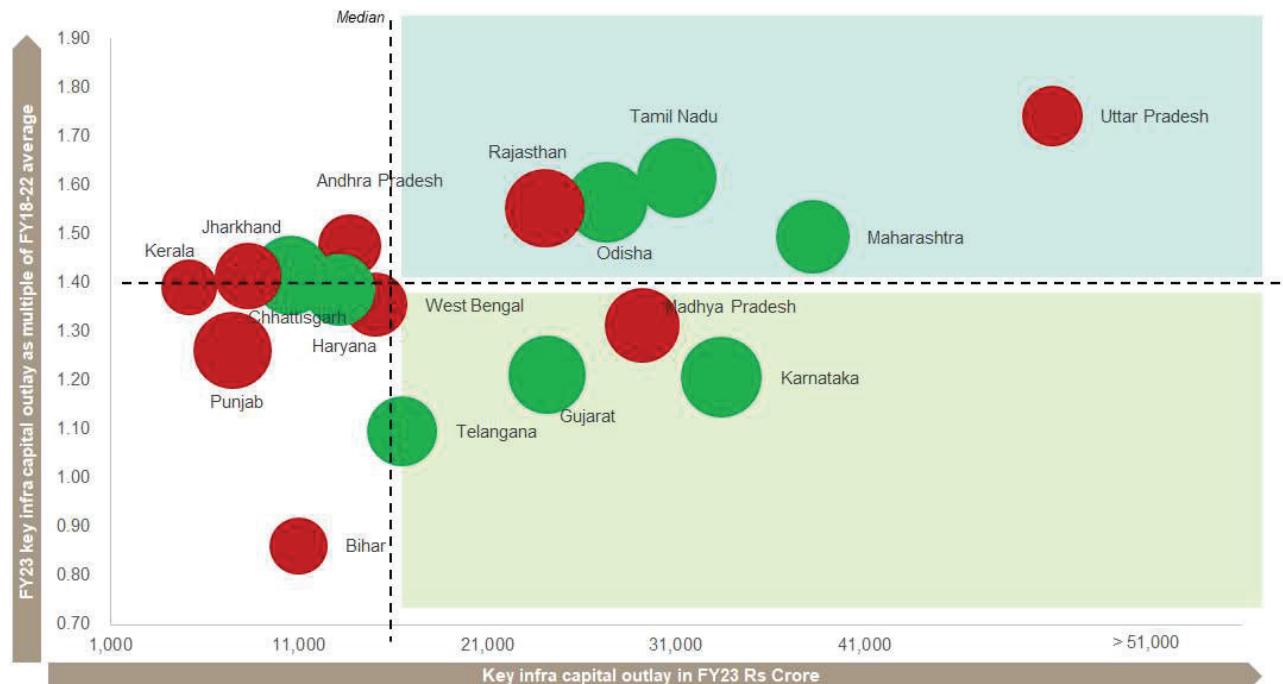
States	Sum of Maximum Amount Guaranteed (Rs Crore)	Sum of Outstanding at the end of March 21/ Sept/ Dec 21 (Rs Crore)	% Utilisation
Andhra Pradesh	119,230	91,330	77%
Bihar	25,114	16,408	65%
Chhattisgarh	28,738	19,611	68%
Gujarat	11,751	3,656	31%
Haryana	25,492	23,053	90%
Jharkhand	607	607	100%
Karnataka	45,104	32,733	73%
Kerala	54,957	39,855	73%
Madhya Pradesh	54,464	37,010	68%
Maharashtra	85,715	41,774	49%
Odisha	19,336	7,086	37%
Punjab	30,538	22,261	73%
Rajasthan	156,822	82,612	53%
Tamil Nadu	44,656	65,659	147%
Telangana	89,601	105,007	117%
Uttar Pradesh	152,307	153,836	101%
West Bengal	15,292	7,821	51%
Total	959,725	750,318	78%

Source: Budget documents, CRISIL Research

With an overall guarantee utilisation at 78%, a few states such as Tamil Nadu, Telangana and Uttar Pradesh have seen entities default leading to a greater than 100% utilisation of guarantees. Meanwhile, states such as Gujarat, Maharashtra and Odisha are faring better since their utilisation is below 50%, indicating better efficiency of their enterprises

Large states with better debt profiles to lead key infrastructure spend

Spend 40% higher this fiscal over past 5-year annual average spends on key infrastructure outlay



Note: Size of the bubble represents absolute key infra outlay as % of overall capital outlay in FY23; TOL data for FY22RE Bubbles in green- TOL* as a % of GSDP less than set median; Bubbles in red- TOL* as a % of GSDP more than set median

Source: State budget documents, CRISIL Research

The total debt level of a state determines its ability and appetite to spend on infrastructure activities. Approximately 40% of the aggregate outlay on infrastructure activities is led by states with a debt-to-GSDP ratio lower than the median/average.

States with a better debt levels are estimated to have spent almost 40% higher, or 1.4x times' capex, on infrastructure activities in the past five fiscals. Five out of eight states placed towards the right side of the chart are relatively better positioned, while the remaining three have relatively poor positions due to higher indebtedness.

Compared with that, majority of states with relatively higher debt levels and lower spend on key infrastructure activities are placed towards the left side of the chart and marked in red.

States such as Odisha and Maharashtra are estimated to have spent 1.5 to 1.6 times more in the past five fiscals than the previous comparable period.

Urban development, power and WSS to lead opportunity for investments

We have analysed the critical parameters for each infrastructure vertical in each state that represents an opportunity for capital investment on the basis of current progress of key schemes/projects.

For instance, in the power segment, we have analysed discom losses and progress of the Revamped Distribution Sector Scheme (RDSS)/ government support; for urban development, we have analysed project execution under AMRUT; for water supply sanitation, the progress of Jal Jeevan mission; and PMAY for housing, density for road and penetration or capex achievement for irrigation.

Andhra Pradesh, Rajasthan and Bihar have seen the lowest development progress so far across projects. Therefore, they represent the maximum opportunity for capital investments under urban development, power (due to higher discom losses), PMAY (due to poor achievement), and Jal Jeevan Mission. These opportunities are medium term in nature.

However, higher opportunity will not necessarily lead to a proportionate rise in capex. That will depend on the fiscal health of the state.

Maharashtra and Karnataka can potentially maximise the opportunity because of a better debt profile



Source: Industry, Government portals, CRISIL Research

Annexure

1. Key state indicators

States	Revenue deficit as a % of GSDP FY23BE	Fiscal deficit as a % of GSDP FY23BE	GSDP at current price FY23 BE (Rs Crore)	TOL (Rs Crore)	TOL as a % of GSDP FY23BE
Andhra Pradesh	-1.3%	-3.7%	1,333,927	437,528	33%
Bihar	0.6%	-3.5%	745,310	288,435	39%
Chhattisgarh	0.2%	-3.3%	438,478	NA	NA
Gujarat	0.0%	-1.6%	2,202,605	NA	NA
Haryana	-1.0%	-3.0%	994,195	NA	NA
Jharkhand	1.7%	-2.8%	401,934	108,522	27%
Karnataka	-0.8%	-3.3%	1,885,750	518,581	28%
Kerala	-2.3%	-3.9%	999,643	371,867	37%
Madhya Pradesh	-0.3%	-4.6%	1,151,049	383,299	33%
Maharashtra	-0.7%	-2.4%	3,581,516	648,254	18%
Odisha	2.7%	-3.0%	726,701	135,166	19%
Punjab	-2.0%	-3.8%	629,834	NA	NA
Rajasthan	-1.8%	-4.4%	1,334,889	531,286	40%
Tamil Nadu	-2.1%	-3.6%	2,484,807	688,292	28%
Telangana	0.3%	-4.0%	1,304,992	330,163	25%
Uttar Pradesh	2.1%	-4.0%	2,048,234	665,676	33%
West Bengal	-1.6%	-3.6%	1,745,142	596,839	34%

Note: NA – not available, there can be marginal difference in ratios/ absolute figures

Source: RBI, Budget documents, CRISIL Research

2. Key state indicators

States	RR FY23BE (Rs Crore)	CR FY23BE (Rs Crore)	RE FY23BE (Rs Crore)	CE FY23BE (Rs Crore)	Population FY22 (Thousand)	% Of urban population FY22	Sex Ratio (FY22)
Andhra Pradesh	191,225	64,853	208,261	47,995	52,972	36%	1.0
Bihar	196,705	41,187	191,957	45,734	124,919	12%	0.9
Chhattisgarh	89,073	16,839	88,372	21,641	29,836	27%	1.0
Gujarat	182,045	51,251	181,040	59,394	70,648	48%	0.9
Haryana	106,425	61,224	116,199	61,057	29,846	42%	0.9
Jharkhand	83,025	18,076	76,273	24,828	38,969	26%	1.0
Karnataka	189,888	72,090	204,587	61,133	67,268	44%	1.0
Kerala	134,098	83,427	157,066	71,720	35,633	73%	1.1
Madhya Pradesh	195,180	75,968	198,916	73,258	85,548	29%	0.9
Maharashtra	403,427	130,317	427,780	118,614	125,411	48%	0.9
Odisha	163,967	25,033	144,349	55,651	45,987	19%	1.0
Punjab	95,378	55,751	107,932	47,927	30,535	41%	0.9
Rajasthan	214,977	123,098	238,466	107,717	80,153	26%	0.9
Tamil Nadu	231,407	126,209	284,188	76,191	76,631	53%	1.0
Telangana	193,029	59,732	189,275	67,497	37,907	47%	1.0
Uttar Pradesh	499,213	91,739	456,089	159,430	233,297	24%	0.9
West Bengal	198,046	115,144	226,327	94,897	98,604	36%	1.0

Note: There can be marginal difference in ratios/ absolute figures; BE – budgeted estimates

Source: RBI, Budget documents, CRISIL Research

3. GSDP at constant prices (2011-12 series) y-o-y growth

S. No.	State\UT	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1	Andhra Pradesh	0.32	6.96	9.20	12.16	8.34	10.09	5.36	6.89	0.08
2	Bihar	3.93	4.98	3.65	6.08	7.52	7.91	10.86	4.43	-3.15
3	Chhattisgarh	5.00	10.00	1.77	2.57	12.13	3.01	7.98	5.12	-1.77
4	Gujarat	10.89	7.56	10.51	10.23	9.71	10.72	8.88	6.95	-1.35
5	Haryana	7.86	8.29	6.63	11.57	10.48	5.55	8.74	7.99	-5.27
6	Jharkhand	8.17	1.57	12.49	-6.25	10.46	9.01	8.87	1.08	-5.52
7	Karnataka	7.21	9.49	5.22	11.08	13.29	8.28	6.17	6.21	-0.52
8	Kerala	6.50	3.89	4.26	7.44	7.56	6.36	7.37	2.22	-9.20
9	Madhya Pradesh	11.45	3.82	5.15	9.06	12.40	5.62	9.28	5.95	-1.92
10	Maharashtra	6.06	6.90	6.31	7.20	9.23	4.52	4.46	3.60	-7.57
11	Odisha	5.36	9.26	1.80	7.97	15.44	7.05	7.09	2.91	-4.15
12	Punjab	5.32	6.63	4.23	5.74	6.87	6.43	5.76	4.10	-3.27
13	Rajasthan	4.54	6.97	7.26	8.02	5.93	5.24	2.37	5.70	-2.86
14	Tamil Nadu	5.37	7.60	4.92	8.24	7.15	8.59	7.01	3.25	0.14
15	Telangana	2.97	5.36	6.76	11.58	9.34	9.74	9.15	5.40	-4.88
16	Uttar Pradesh	4.72	5.79	4.03	8.85	11.37	4.44	3.88	3.91	-5.51
17	West Bengal	4.17	3.01	2.84	6.13	7.20	6.36	6.35	6.13	1.06

Source: RBI, CRISIL Research

4. NSDP at constant prices (2011-12 series) y-o-y growth

S. No.	State\UT	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1	Andhra Pradesh	0.39	5.54	10.22	12.58	6.84	10.27	6.12	6.58	-0.30
2	Bihar	3.69	4.21	3.57	5.26	7.45	8.07	10.54	3.95	-4.18
3	Chhattisgarh	4.56	9.90	1.14	2.13	11.05	3.48	7.80	5.46	-2.49
4	Gujarat	11.98	7.51	10.00	9.80	8.93	12.16	9.29	7.33	-0.98
5	Haryana	6.86	8.69	5.85	11.80	10.56	5.42	8.27	7.96	-5.38
6	Jharkhand	8.84	0.72	13.25	-7.23	11.46	8.62	8.94	0.58	-6.41
7	Karnataka	6.89	9.04	3.79	11.72	13.53	7.55	6.46	5.70	-0.34
8	Kerala	6.28	4.62	4.78	7.59	7.90	6.66	7.95	2.09	-9.43
9	Madhya Pradesh	8.67	5.13	5.16	9.28	13.15	5.36	9.14	5.35	-3.52
10	Maharashtra	5.60	6.54	6.14	7.97	9.89	4.07	4.06	3.14	-7.28
11	Odisha	5.91	7.78	1.20	7.32	15.86	7.79	7.00	2.30	-5.74

S. No.	State\UT	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
12	Punjab	5.26	6.24	4.10	5.89	7.08	6.10	5.64	3.85	-4.14
13	Rajasthan	3.66	5.98	7.16	7.85	5.52	5.28	1.88	5.36	-2.49
14	Tamil Nadu	5.17	5.79	5.53	8.91	6.92	8.48	7.13	2.59	-0.45
15	Telangana	2.79	4.60	6.67	11.80	9.32	9.31	9.29	5.20	-6.11
16	Uttar Pradesh	4.41	5.04	3.14	8.55	12.17	3.83	2.90	3.26	-7.15
17	West Bengal	4.16	2.24	2.33	6.07	6.93	6.65	5.69	5.80	1.30

Source: RBI, CRISIL Research

5. Per capita NSDP at constant prices (2011-12 series) y-o-y growth

S. No.	State\UT	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1	Andhra Pradesh	-0.20	4.92	9.58	11.92	6.21	9.63	5.50	5.96	-0.88
2	Bihar	2.08	2.59	1.96	3.62	5.78	4.97	8.88	2.41	-5.60
3	Chhattisgarh	2.90	8.16	-0.47	0.51	9.29	1.84	6.09	3.78	-4.04
4	Gujarat	10.52	6.11	8.56	8.36	7.50	10.69	7.86	5.92	-2.28
5	Haryana	5.37	7.17	4.37	10.24	9.02	3.95	6.75	6.45	-6.70
6	Jharkhand	7.08	-0.90	11.43	-8.73	9.66	7.07	7.38	-0.85	-7.71
7	Karnataka	5.74	7.86	2.67	10.52	12.30	7.29	5.61	4.86	-1.12
8	Kerala	5.76	4.15	4.26	7.06	7.36	6.14	7.41	1.58	-9.89
9	Madhya Pradesh	6.87	3.42	3.47	7.55	11.47	3.87	7.62	3.89	-4.84
10	Maharashtra	4.43	5.37	4.98	6.81	8.79	3.08	3.09	2.18	-8.13
11	Odisha	4.92	6.78	0.28	6.34	14.89	6.95	6.18	1.51	-6.45
12	Punjab	3.90	4.86	2.75	4.52	5.70	4.73	4.27	2.50	-5.37
13	Rajasthan	2.19	4.47	5.64	6.31	4.02	3.09	0.54	3.99	-3.74
14	Tamil Nadu	4.45	5.07	4.82	8.18	6.33	7.97	6.63	2.12	-0.91
15	Telangana	1.77	3.57	5.61	10.69	8.23	8.22	11.62	4.48	-6.74
16	Uttar Pradesh	2.83	3.45	1.58	6.91	10.48	2.26	1.35	1.70	-8.55
17	West Bengal	3.13	1.23	1.32	5.02	5.87	5.59	6.57	5.14	0.67

Source: RBI, CRISIL Research

6. State-wise average inflation % (CPI-general)

S. No.	State/Union Territory	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1	Andhra Pradesh	5.5	7.4	5.2	3.4	1.1	3.5	9.0
2	Bihar	6.7	4.5	3.9	2.7	3.9	2.2	7.3
3	Chhattisgarh	6.4	6.8	3.5	2.7	2.4	2.5	8.0
4	Gujarat	5.5	4.9	5.1	2.6	2.5	3.7	5.9
5	Haryana	5.6	4.0	4.4	4.1	2.9	4.3	5.9
6	Jharkhand	4.7	5.1	5.3	3.9	3.7	4.1	6.0
7	Karnataka	6.5	6.7	4.4	3.0	3.3	5.6	5.8
8	Kerala	7.3	4.2	4.3	6.0	4.9	6.1	6.0
9	Madhya Pradesh	5.5	4.4	3.5	2.7	3.5	5.5	7.6
10	Maharashtra	5.5	4.4	4.4	4.1	3.1	4.4	6.8
11	Odisha	6.8	6.4	4.9	2.2	2.6	4.6	7.9
12	Punjab	5.7	3.5	4.4	3.7	3.8	5.0	5.3
13	Rajasthan	6.6	5.7	5.4	3.2	2.3	5.3	4.4
14	Tamil Nadu	6.2	5.7	3.9	4.9	3.7	5.7	7.5
15	Telangana	4.7	5.5	6.1	3.9	2.6	4.5	8.7
16	Uttar Pradesh	5.9	4.1	4.3	2.4	3.8	5.9	6.1
17	West Bengal	5.4	3.5	5.0	3.7	5.1	4.6	8.7

Source: RBI, CRISIL Research

7. GSVA at constant prices - agriculture (Rs lakh)

S. No.	State/Union Territory	Base: 2011-12									
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1	Andhra Pradesh	5,204,052	5,256,943	6,062,373	6,098,300	5,845,963	6,430,367	7,411,840	6,936,553	7,743,777	8,056,157
2	Bihar	4,260,778	4,749,271	3,710,714	3,525,385	3,532,967	3,878,079	4,171,384	3,926,570	3,675,747	3,608,062
3	Chhattisgarh	1,798,258	1,923,736	1,982,691	2,045,885	1,978,955	2,454,184	1,994,483	2,265,037	2,291,605	2,397,597
4	Gujarat	7,950,972	6,301,794	8,650,200	8,421,258	7,789,790	8,369,156	9,365,086	7,857,307	8,962,827	-
5	Haryana	4,088,737	3,856,332	3,915,654	3,597,425	3,656,573	4,080,548	4,202,452	4,286,284	4,390,209	4,420,079
6	Jharkhand	1,342,099	1,498,008	1,430,467	1,507,393	1,133,574	1,459,455	1,564,348	1,258,632	1,215,496	1,644,101
7	Karnataka	5,339,456	4,919,527	5,397,980	5,651,754	4,827,055	4,927,233	6,386,466	5,862,460	6,543,267	6,745,737
8	Kerala	2,904,593	2,869,263	2,599,876	2,474,420	2,278,769	2,319,185	2,354,343	2,247,791	2,147,193	-

S. No.	State/Union Territory	Base: 2011-12									
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
9	Madhya Pradesh	7,333,369	9,395,310	9,213,657	9,332,505	8,949,745	11,775,864	11,506,489	11,159,219	12,529,419	12,987,587
10	Maharashtra	10,192,975	10,005,668	11,865,366	9,883,332	9,142,618	11,431,358	10,850,708	10,297,508	11,164,836	-
11	Odisha	2,555,039	3,153,542	2,864,360	3,154,054	2,454,137	3,025,226	2,416,515	2,636,536	3,094,805	2,994,569
12	Punjab	5,007,937	5,014,188	5,173,765	4,824,441	4,794,550	5,119,470	5,295,174	5,301,378	5,262,252	5,493,970
13	Rajasthan	7,346,942	7,565,947	8,192,234	7,828,218	7,315,288	7,594,885	7,257,975	7,640,966	8,491,791	8,667,562
14	Tamil Nadu	5,375,639	4,218,362	5,048,372	5,248,786	5,004,574	3,503,454	4,493,518	4,622,819	5,024,271	5,370,312
15	Telangana	3,236,819	3,554,096	3,723,456	2,954,636	2,418,653	2,847,772	3,139,537	2,951,166	4,572,368	4,655,652
16	Uttar Pradesh	12,415,418	13,040,500	12,747,030	12,055,193	12,645,300	13,474,757	13,984,951	14,564,157	14,770,417	15,527,814
17	West Bengal	7,245,329	7,539,404	7,401,140	7,914,584	7,858,815	8,055,480	8,470,069	8,459,381	8,522,533	9,010,712

Source: RBI, CRISIL Research

8. GSVA at constant prices- manufacturing (Rs lakh)

S. No.	State/Union Territory	Base: 2011-12									
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1	Andhra Pradesh	5,070,622	4,018,820	3,857,458	4,882,841	5,496,895	6,054,494	6,570,059	6,690,056	7,305,605	6,811,877
2	Bihar	1,466,570	971,402	1,889,284	2,595,799	2,338,424	2,917,563	3,058,795	3,018,233	3,101,454	3,183,345
3	Chhattisgarh	2,435,032	2,660,179	3,588,922	3,313,429	3,402,519	3,168,509	3,504,001	3,816,831	3,881,717	3,902,145
4	Gujarat	15,681,931	19,338,449	19,838,758	24,024,735	27,820,644	30,825,273	34,308,529	38,665,712	40,892,857	-
5	Haryana	5,328,609	6,331,166	6,745,901	7,232,084	8,493,638	9,715,752	9,898,757	10,320,106	11,025,074	9,988,717
6	Jharkhand	3,016,583	3,614,824	3,356,361	3,672,018	2,726,440	3,656,754	4,168,279	5,101,204	5,051,768	4,688,041
7	Karnataka	9,713,888	10,278,581	10,790,066	10,737,587	13,009,332	16,646,176	16,906,030	17,636,474	17,264,268	16,370,662
8	Kerala	3,420,404	3,846,915	3,668,087	3,772,760	4,845,374	5,726,838	6,074,124	6,182,346	6,277,622	-
9	Madhya Pradesh	3,828,625	3,950,229	3,665,391	3,758,955	4,823,080	5,320,558	5,732,036	6,013,449	6,355,349	6,127,630
10	Maharashtra	24,603,175	26,616,569	29,276,153	30,765,117	34,088,245	36,416,354	39,410,042	41,592,550	41,160,095	35,703,978
11	Odisha	4,116,404	3,985,120	4,830,204	4,374,503	4,840,719	6,449,059	7,772,888	9,215,764	8,817,712	8,074,866
12	Punjab	3,750,728	3,892,533	4,096,020	4,298,654	4,559,941	4,881,747	5,167,533	5,418,035	5,421,918	4,911,716
13	Rajasthan	6,666,606	5,330,888	4,900,336	5,548,790	6,976,098	7,184,463	7,331,370	7,702,938	7,718,056	7,100,114
14	Tamil Nadu	15,176,801	16,945,553	16,632,909	16,209,238	19,970,561	22,451,412	24,898,500	26,968,103	28,936,387	29,067,989
15	Telangana	6,215,158	5,259,759	5,218,160	4,827,558	6,375,078	6,494,309	7,095,034	8,270,757	7,957,755	7,711,023
16	Uttar Pradesh	8,763,582	9,127,051	10,381,954	9,341,794	11,805,778	17,352,921	15,452,199	16,248,059	15,672,297	14,801,392
17	West Bengal	6,952,409	6,969,505	6,994,457	6,423,027	7,805,565	9,089,555	10,135,979	11,917,620	12,606,494	11,636,588

Source: RBI, CRISIL Research

9. GSVA at constant prices- construction (Rs lakh)

S. N	State/Union Territory	Base: 2011-12									
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1	Andhra Pradesh	3,702,645	3,557,072	3,707,561	3,996,330	3,994,701	4,365,728	4,385,791	4,556,261	4,752,751	4,485,096
2	Bihar	2,701,685	2,560,762	2,726,067	2,601,943	2,866,880	2,986,235	3,172,458	3,463,299	3,495,011	3,534,673
3	Chhattisgarh	1,901,330	1,787,106	1,760,222	1,763,809	1,641,223	1,874,831	2,015,930	2,264,355	2,510,770	2,533,404
4	Gujarat	4,469,267	4,612,284	5,004,328	5,142,692	5,122,121	5,135,761	5,371,002	6,034,321	6,094,664	-
5	Haryana	2,975,966	2,761,498	3,068,676	3,014,678	2,958,179	3,152,208	3,363,705	3,599,690	3,915,592	3,422,227
6	Jharkhand	1,439,526	1,344,315	1,484,303	1,490,431	1,514,673	1,599,270	1,691,133	1,806,449	1,796,088	1,641,624
7	Karnataka	5,033,145	4,772,392	5,381,967	5,400,228	5,549,240	5,579,969	5,811,742	6,151,917	6,435,546	6,021,099
8	Kerala	5,308,794	5,144,715	5,615,519	5,744,060	5,741,786	6,190,002	6,389,058	7,026,607	7,286,730	-
9	Madhya Pradesh	3,495,447	3,249,077	3,519,458	3,573,333	3,603,975	3,741,354	4,029,161	4,439,827	4,858,193	4,473,029
10	Maharashtra	8,055,213	7,751,740	8,046,688	8,680,703	8,847,319	9,326,105	9,513,159	9,665,312	9,824,983	8,741,132
11	Odisha	2,059,629	2,009,633	2,144,855	2,138,636	2,146,416	2,300,759	2,490,911	2,587,428	2,543,092	2,340,550
12	Punjab	1,978,423	1,942,098	1,997,838	2,025,364	2,071,872	2,132,174	2,234,487	2,404,013	2,448,201	2,139,728
13	Rajasthan	4,359,171	4,269,383	4,506,320	4,569,177	4,495,952	4,635,357	4,766,570	5,045,154	5,204,555	4,904,193
14	Tamil Nadu	9,247,221	9,268,389	10,030,098	10,122,449	10,666,070	11,337,286	11,780,600	12,450,920	13,084,239	13,132,095
15	Telangana	2,279,090	2,314,468	2,136,705	2,333,163	2,398,644	2,435,509	2,784,477	2,901,962	2,771,015	2,709,681
16	Uttar Pradesh	8,487,701	8,573,758	8,671,279	9,232,528	9,716,501	10,356,801	10,727,560	11,737,202	12,108,581	10,584,769
17	West Bengal	4,440,021	4,586,293	5,047,938	5,012,952	4,533,856	5,746,116	5,968,809	6,334,469	6,976,082	7,646,374

Source: RBI, CRISIL Research

10. GSVA at constant prices- industry (Rs lakh)

S. No.	State/Union Territory	Base: 2011-12									
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1	Andhra Pradesh	11,265,978	9,738,722	9,934,466	11,184,156	12,385,518	13,931,570	14,732,826	14,704,466	16,210,312	15,681,634
2	Bihar	4,554,000	3,955,530	5,166,760	5,682,444	5,811,391	6,452,333	6,763,566	7,329,941	7,780,714	7,682,169
3	Chhattisgarh	7,016,612	7,326,445	8,468,830	8,337,415	8,499,275	8,940,226	9,772,387	10,691,067	11,057,952	10,473,691
4	Gujarat	24,192,354	28,667,968	29,310,763	33,942,258	39,511,588	42,852,793	47,162,997	52,397,630	55,295,580	-
5	Haryana	8,661,061	9,439,365	10,133,536	10,606,630	11,817,401	13,343,238	13,811,910	14,493,457	15,619,525	14,124,822
6	Jharkhand	6,317,718	6,975,967	6,852,301	7,451,350	6,516,511	7,084,484	7,760,856	9,077,613	9,118,197	8,440,372
7	Karnataka	16,280,170	16,500,915	17,848,442	18,111,579	20,830,024	24,250,802	24,904,128	26,095,513	26,116,753	24,775,170
8	Kerala	9,469,578	9,683,751	10,128,080	10,543,757	11,239,427	12,587,171	13,321,594	14,082,398	14,382,735	-
9	Madhya Pradesh	9,398,394	9,469,736	9,529,265	9,917,767	11,443,201	11,914,669	13,074,838	14,162,729	15,545,355	14,787,709
10	Maharashtra	40,988,240	43,074,568	44,411,243	47,968,559	52,192,116	55,285,010	59,260,861	62,352,190	62,447,596	56,217,890
11	Odisha	9,600,472	9,516,379	11,060,447	10,284,597	11,767,248	14,119,724	15,241,162	17,041,709	16,735,577	15,433,710
12	Punjab	6,447,735	6,589,569	6,902,906	7,253,879	7,696,616	8,170,455	8,663,993	9,160,353	9,264,442	8,483,728
13	Rajasthan	13,630,579	13,635,793	13,736,174	15,076,043	17,605,337	18,677,826	19,189,558	17,984,222	18,273,741	16,902,825
14	Tamil Nadu	25,546,469	27,310,251	27,781,443	27,393,094	31,813,843	35,054,682	38,116,505	41,011,132	43,538,107	43,608,234
15	Telangana	10,383,862	9,384,634	9,306,422	9,083,520	10,903,697	11,017,301	12,370,500	14,243,380	13,746,835	13,560,150
16	Uttar Pradesh	18,831,646	19,330,910	20,876,854	20,666,043	23,984,444	30,465,882	30,507,877	32,243,723	32,118,600	29,492,904
17	West Bengal	13,251,365	13,565,591	14,090,806	13,595,862	14,670,805	17,146,911	18,628,587	20,875,835	22,334,728	22,114,958

Source: RBI, CRISIL Research

11. GSVA at constant prices- banking and insurance (Rs lakh)

S. No.	State/Union Territory	Base: 2011-12									
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1	Andhra Pradesh	1,425,608	1,563,462	1,651,530	1,806,300	1,908,142	1,980,317	2,151,824	2,266,618	2,404,340	2,589,000
2	Bihar	883,932	958,003	1,027,313	1,165,283	1,225,818	1,157,413	1,342,555	1,832,426	2,045,596	2,289,288
3	Chhattisgarh	537,699	601,331	657,470	682,236	772,556	692,048	742,683	762,724	803,878	839,859
4	Gujarat	2,942,743	3,392,892	3,768,414	4,039,740	4,395,237	4,615,025	5,201,133	5,913,688	6,273,832	-
5	Haryana	1,165,659	1,304,010	1,432,685	1,591,068	1,830,994	2,010,042	2,231,137	2,374,220	2,628,262	2,697,492
6	Jharkhand	414,386	453,306	466,489	493,239	608,198	599,813	626,257	625,003	665,400	655,419
7	Karnataka	2,879,395	3,169,902	3,481,860	3,976,689	4,538,028	4,813,754	5,072,332	5,355,503	5,830,662	5,781,285
8	Kerala	1,430,848	1,527,917	1,696,260	1,838,230	2,081,052	2,176,956	2,193,637	2,210,445	2,227,383	-
9	Madhya Pradesh	1,593,654	1,709,455	1,851,951	1,894,142	2,162,322	2,073,191	2,094,959	2,121,812	2,183,965	2,207,326
10	Maharashtra	11,783,628	12,740,105	14,437,695	15,560,592	16,511,000	17,421,073	17,897,893	18,744,877	19,523,640	20,135,837
11	Odisha	796,303	898,381	929,172	1,018,384	1,097,064	1,065,757	1,206,326	1,207,167	1,298,036	1,421,217
12	Punjab	1,464,304	1,552,557	1,602,959	1,651,615	1,731,383	1,800,057	1,893,649	2,000,451	2,102,474	2,089,649
13	Rajasthan	1,364,042	1,475,027	1,652,756	1,813,500	1,858,091	1,905,555	2,192,395	2,291,819	2,397,243	2,378,065
14	Tamil Nadu	4,019,599	4,407,747	4,920,896	5,424,269	5,569,766	5,715,879	6,387,307	6,637,789	7,031,336	7,792,585
15	Telangana	2,126,507	2,332,282	2,564,472	2,869,868	3,090,552	3,378,179	3,511,919	3,724,762	3,868,614	4,011,753
16	Uttar Pradesh	2,518,198	2,775,193	3,027,442	3,366,247	3,653,412	3,607,454	3,880,369	3,983,630	4,083,221	4,099,554
17	West Bengal	3,194,965	3,484,158	3,302,705	3,522,773	3,760,460	3,917,706	4,079,512	4,087,314	4,245,160	3,428,793

Source: RBI, CRISIL Research

12. GSVA at constant prices- services (Rs lakh)

S. No.	State/Union Territory	Base: 2011-12									
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1	Andhra Pradesh	14,308,520	15,579,577	16,788,771	18,296,985	20,507,959	20,869,391	22,534,915	24,391,439	25,904,197	24,166,445
2	Bihar	13,409,195	14,401,467	14,947,842	15,324,452	16,724,038	17,574,910	19,528,591	22,250,586	23,875,604	23,849,660
3	Chhattisgarh	5,140,420	5,380,078	5,859,043	6,064,312	6,423,198	6,775,483	6,896,577	7,470,518	8,046,614	8,106,591
4	Gujarat	20,263,330	22,776,651	24,124,649	26,194,234	28,222,253	30,455,949	33,344,233	37,022,484	39,986,508	-
5	Haryana	12,292,516	13,594,193	14,969,816	16,532,620	18,321,178	19,891,197	21,532,397	23,116,303	25,200,240	23,771,664
6	Jharkhand	5,361,695	5,689,676	5,998,783	6,641,159	7,085,921	7,497,274	8,246,454	9,030,372	9,773,327	8,797,143
7	Karnataka	31,386,326	34,841,904	38,664,525	42,264,865	47,473,658	52,816,447	56,300,064	61,206,819	65,327,651	63,332,237
8	Kerala	19,322,139	21,044,915	22,439,908	23,444,940	25,044,795	26,614,463	28,326,851	30,530,378	31,778,122	-
9	Madhya Pradesh	11,863,234	13,011,009	13,682,614	14,420,526	15,570,721	16,723,193	17,833,951	19,610,136	21,316,880	19,411,729
10	Maharashtra	58,450,931	63,324,460	68,450,933	74,685,393	80,220,792	87,223,399	92,261,396	98,942,471	107,145,804	97,545,240
11	Odisha	8,488,159	9,117,405	9,827,201	10,588,381	11,585,388	12,047,474	13,145,256	13,440,130	14,572,492	14,425,358
12	Punjab	11,112,867	12,063,717	12,874,958	13,889,371	14,847,996	15,839,220	16,923,837	18,100,452	19,114,444	17,318,081
13	Rajasthan	16,157,472	17,552,092	19,080,457	20,563,745	21,598,501	22,753,026	24,624,527	27,377,404	28,591,448	25,461,471
14	Tamil Nadu	34,982,521	37,378,289	40,725,561	44,270,500	46,001,730	48,966,757	52,205,510	55,157,012	58,132,746	58,776,738
15	Telangana	17,759,661	19,259,624	20,943,951	23,642,720	26,319,052	29,204,169	31,421,367	33,906,779	35,837,203	34,426,871
16	Uttar Pradesh	31,032,616	33,141,214	35,484,525	38,741,980	41,693,882	44,069,602	47,652,688	51,294,621	55,254,127	50,559,485
17	West Bengal	24,885,034	26,295,613	27,547,464	29,362,695	31,254,696	32,864,839	35,109,536	37,172,005	40,048,954	40,284,245

Source: RBI, CRISIL Research

13. State-wise production of total food grains (thousand tonne)

S. No. . .	State/Uni on Territory	2011- 12	2012- 13	2013- 14	2014- 15	2015- 16	2016- 17	2017- 18	2018- 19	2019- 20
1	Andhra Pradesh	10,868	10,430	10,522	10,494	10,634	10,365	12,160	10,839	12,357
2	Bihar	14,047	15,940	12,906	13,209	14,508	16,531	17,037	15,600	14,233
3	Chhattisgarh	6,871	7,644	7,598	7,463	6,654	9,324	5,959	7,559	7,502
4	Gujarat	8,874	7,056	9,180	7,109	6,279	7,422	7,665	6,804	8,153
5	Haryana	17,959	16,226	16,974	15,235	16,359	17,163	16,192	18,145	17,864
6	Jharkhand	4,175	4,558	4,286	4,777	4,092	5,664	6,001	4,400	4,792
7	Karnataka	15,133	10,863	12,209	12,138	9,924	9,795	11,791	10,888	12,784
8	Kerala	572	512	512	564	554	439	524	581	608
9	Madhya Pradesh	20,395	23,690	22,978	28,687	30,386	33,224	33,450	32,209	33,523

10	Maharashtra	12,544	10,973	13,846	11,312	8,754	15,332	13,247	10,304	12,820
11	Odisha	6,412	8,009	8,359	8,981	6,408	9,061	7,151	8,315	9,030
12	Punjab	28,389	28,543	29,480	26,698	28,401	28,537	31,692	31,532	29,857
13	Rajasthan	19,470	18,368	17,900	19,622	18,040	19,354	19,957	21,289	23,227
14	Tamil Nadu	10,152	5,593	8,783	9,624	11,479	4,142	10,714	10,390	11,270
15	Telangana	7,495	8,233	9,143	7,115	5,129	8,485	9,421	9,275	11,125
16	Uttar Pradesh	50,284	50,745	50,028	39,594	42,551	49,903	51,370	54,643	56,169
17	West Bengal	15,986	16,547	17,079	16,532	17,981	17,146	16,878	18,690	18,794

Source: RBI, CRISIL Research

14. State-wise production of non-food grain production- oil seeds (thousand tonnes)

S. No.	State/Union Territory	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
1	Andhra Pradesh	724	928	1,023	597	873	664	1,097	504	901
2	Bihar	140	143	146	127	127	126	124	125	125
3	Chhattisgarh	170	215	185	174	150	170	123	146	159
4	Gujarat	5,035	2,705	6,870	4,887	4,179	4,789	5,860	3,734	6,653
5	Haryana	771	993	899	743	830	965	1,123	1,277	1,175
6	Jharkhand	156	197	183	178	177	264	297	228	289
7	Karnataka	942	920	1,162	959	750	806	971	783	1,040
8	Kerala	2	1	1	1	1	1	1	0	0
9	Madhya Pradesh	7,728	9,276	6,635	7,724	6,171	8,224	6,949	8,294	6,452
10	Maharashtra	4,485	5,087	5,294	2,850	2,436	5,114	4,206	4,885	5,177
11	Odisha	166	170	169	142	120	121	93	91	100
12	Punjab	68	69	64	58	57	58	60	60	58
13	Rajasthan	5,745	6,365	6,034	5,314	5,693	6,240	6,111	6,899	6,769
14	Tamil Nadu	1,114	817	964	985	932	604	1,038	941	1,075
15	Telangana	541	723	863	630	496	723	670	589	639
16	Uttar Pradesh	935	1,031	896	787	865	1,050	1,146	1,331	1,146
17	West Bengal	672	851	910	901	927	909	1,134	1,164	1,016

Source: RBI, CRISIL Research

15. State-wise production of non-food grain production- cotton (thousand bales)

S. No.	State/Union Territory	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
1	Andhra Pradesh	1,367	2,025	1,411	2,841	1,888	1,564	2,087	1,491	2,508
2	Bihar	-	-	-	-	-	-	-	-	-
3	Chhattisgarh	-	-	-	-	-	-	-	-	-
4	Gujarat	12,000	8,850	10,150	10,500	9,400	8,575	10,187	6,279	8,617
5	Haryana	2,650	2,500	2,302	2,300	993	2,041	1,627	2,013	2,484
6	Karnataka	1,200	1,255	1,875	2,311	2,000	1,010	1,844	1,400	2,330
7	Kerala	-	-	-	-	-	-	-	-	-
8	Madhya Pradesh	2,000	2,200	1,730	1,750	1,800	2,051	1,620	2,329	1,646
9	Maharashtra	7,200	7,655	8,834	7,000	7,500	10,619	6,094	6,593	6,639
10	Odisha	325	400	299	400	300	382	408	455	579
11	Punjab	2,300	2,000	1,968	1,600	750	1,031	1,283	1,222	1,206
12	Rajasthan	1,335	1,400	1,287	1,527	1,214	1,402	1,893	2,026	2,788
13	Tamil Nadu	450	500	408	686	369	359	445	269	418
14	Telangana	3,533	5,325	5,545	3,800	3,661	3,444	5,195	3,847	6,833
15	Uttar Pradesh	-	-	-	-	-	-	-	-	-
16	West Bengal	-	-	-	-	-	-	-	-	-

Source: RBI, CRISIL Research

16. State-wise production of non-food grain production- sugarcane (thousand tonne)

S. No.	State/Union Territory	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
1	Andhra Pradesh	12,843	11,993	12,009	9,987	9,353	7,830	7,790	8,095	6,724
2	Bihar	11,289	12,741	12,882	14,034	12,649	13,036	13,825	20,116	13,579
3	Chhattisgarh	24	37	22	49	68	848	1,159	1,452	1,759
4	Gujarat	12,750	12,690	12,550	14,330	11,120	11,950	12,072	11,326	11,570
5	Haryana	6,959	7,437	7,499	7,169	6,692	8,223	9,633	8,505	7,730
6	Jharkhand	457	462	463	470	709	513	575	-	-
7	Karnataka	38,808	35,732	37,905	43,776	37,834	27,378	31,135	42,408	38,181
8	Kerala	263	166	222	149	138	113	115	106	121
9	Madhya Pradesh	2,677	2,642	3,174	4,567	5,281	4,730	5,430	5,282	7,434

10	Maharashtra	86,733	69,648	76,901	84,699	73,680	52,262	82,984	89,768	69,312
11	Odisha	885	952	937	723	577	344	240	418	505
12	Punjab	5,653	5,919	6,675	7,039	6,607	7,152	8,024	7,774	7,302
13	Rajasthan	451	402	363	409	531	489	382	448	326
14	Tamil Nadu	38,576	33,919	32,454	28,093	25,494	18,988	17,154	17,140	14,119
15	Telangana	3,844	3,574	3,376	3,343	2,405	2,061	2,605	3,184	2,013
16	Uttar Pradesh	128,819	132,428	134,689	133,061	145,385	140,169	177,033	179,715	179,539
17	West Bengal	1,681	1,617	1,945	2,106	2,075	1,550	1,437	1,335	1,528

Source: RBI, CRISIL Research

17. State-wise production of non-food grain production- jute (thousand tonne)

S. No.	State/Union Territory	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
1	Andhra Pradesh	202	127	83	50	44	63	47	30	21
2	Bihar	1,739	1,718	1,745	1,637	1,630	1,571	1,280	1,085	802
3	Chhattisgarh	3	3	2	2	2	2	2	2	2
4	Jharkhand	-	-	-	-	-	-	-	-	-
5	Karnataka	1	-	-	1	-	0	-	-	-
6	Madhya Pradesh	2	2	3	9	6	7	11	-	2
7	Maharashtra	19	31	35	-	-	-	-	-	-
8	Odisha	101	84	82	68	57	33	44	2	25
9	Rajasthan	-	-	-	-	-	-	-	-	-
10	Tamil Nadu	-	-	-	-	-	-	-	-	-
11	Telangana	-	1	1	1	-	-	-	-	-
12	Uttar Pradesh	-	-	-	-	-	-	-	-	-
13	West Bengal	8,623	8,311	8,882	8,454	7,777	8,350	7,638	7,770	8,067

Source: RBI, CRISIL Research

18. Wages- construction (Rs)

S. No.	State/Union Territory	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1	Andhra Pradesh	238	258	277	291	304	324	353
2	Bihar	227	241	254	269	276	304	326
3	Gujarat	231	234	237	249	256	270	285
4	Haryana	357	364	368	371	387	408	404

5	Karnataka	286	304	320	330	343	341	366
6	Kerala	788	777	788	815	836	839	830
7	Madhya Pradesh	173	186	201	220	221	224	264
8	Maharashtra	268	266	282	296	305	326	348
9	Odisha	199	209	232	256	264	275	294
10	Punjab	296	318	321	338	347	371	382
11	Rajasthan	303	339	351	351	361	364	365
12	Tamil Nadu	364	397	421	431	436	453	468
13	Uttar Pradesh	216	236	250	270	286	300	314
14	West Bengal	230	242	266	282	291	301	308

Source: RBI, CRISIL Research

19. Wages- agriculture (Rs)

S. No.	State/Union Territory	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1	Andhra Pradesh	217	213	249	270	282	303	319
2	Bihar	199	207	213	223	240	258	273
3	Gujarat	160	178	184	188	199	209	213
4	Haryana	340	353	359	361	392	390	385
5	Karnataka	205	228	252	267	289	292	313
6	Kerala	575	609	644	660	682	701	707
7	Madhya Pradesh	151	160	173	191	196	199	218
8	Maharashtra	197	196	197	207	214	232	268
9	Odisha	180	191	209	223	227	233	256
10	Punjab	284	305	319	325	338	349	357
11	Rajasthan	270	285	286	287	293	298	327
12	Tamil Nadu	334	357	379	386	399	410	434
13	Uttar Pradesh	192	200	212	230	247	259	275
14	West Bengal	216	220	238	256	263	268	289

Source: RBI, CRISIL Research

20. Wages- non-agriculture (Rs)

S. No.	State/Union Territory	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1	Andhra Pradesh	221	223	232	248	271	291	305
2	Bihar	210	220	229	237	251	269	289
3	Gujarat	183	194	204	216	224	235	239
4	Haryana	334	349	353	356	362	377	384

5	Karnataka	212	227	239	242	261	263	279
6	Kerala	610	617	616	626	657	670	678
7	Madhya Pradesh	151	166	184	198	202	206	233
8	Maharashtra	205	207	216	227	230	240	262
9	Odisha	171	186	208	221	228	242	271
10	Punjab	269	286	301	313	319	332	344
11	Rajasthan	273	295	300	301	316	312	329
12	Tamil Nadu	373	374	390	402	414	439	450
13	Uttar Pradesh	207	214	223	245	261	272	287
14	West Bengal	218	237	260	279	287	291	306

Source: RBI, CRISIL Research

21. State-wise availability of power (Net crore units)

S. No.	State/Union Territory	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1	Andhra Pradesh	8,217	8,904	5631*	5,037	5,426	5,829	6,380	6,541	6,208
2	Bihar	1,284	1,476	1,876	2,366	2,513	2,660	2,983	3,153	3,402
3	Chhattisgarh	1,700	1,880	2,123	2,531	2,370	2,583	2,642	3,011	3,045
4	Gujarat	9,351	8,849	9,621	10,354	10,370	10,997	11,636	11,394	11,162
5	Haryana	3,821	4,321	4,643	4,744	4,889	5,078	5,367	5,449	5,311
6	Jharkhand	677	701	739	756	791	775	849	887	968
7	Karnataka	5,704	5,805	5,993	6,097	6,654	6,770	7,170	7,280	6,883
8	Kerala	2,039	2,105	2,213	2,319	2,426	2,492	2,490	2,627	2,510
9	Madhya Pradesh	4,683	4,939	5,308	6,238	6,576	6,993	7,605	7,617	8,344
10	Maharashtra	11,997	12,367	13,308	14,136	13,923	14,953	15,816	15,517	15,066
11	Odisha	2,432	2,455	2,605	2,660	2,676	2,871	3,212	2,969	2,985
12	Punjab	4,612	4,708	4,814	4,968	5,310	5,481	5,532	5,677	5,838
13	Rajasthan	5,387	5,804	6,531	6,721	6,742	7,060	7,963	8,122	8,521
14	Tamil Nadu	7,616	8,798	9,275	9,659	10,449	10,584	10,938	10,881	10,119
15	Telangana	.	.	4,064	4,995	5,302	6,024	6,643	6,830	6,699
16	Uttar Pradesh	7,645	8,161	8,706	9,303	10,570	11,830	11,615	12,100	12,338
17	West Bengal	4,184	4,276	4,683	4,719	4,781	5,057	5,129	5,282	5,154

Source: RBI, CRISIL Research

22. State-wise per capita power consumption (kilowatt-hour)

S. No.	State/Union Territory	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1	Andhra Pradesh	971	1,052	1,140	1,020	1,099	1,180	1,289	1,322	1,255
2	Bihar	124	142	181	228	242	256	287	304	328
3	Chandigarh	1,552	1,492	1,532	1,524	1,560	1,518	1,480	1,632	1,435
4	Gujarat	1,549	1,465	1,593	1,715	1,717	1,821	1,931	1,890	1,852
5	Haryana	1,507	1,704	1,831	1,871	1,929	2,003	2,117	2,149	2,095
6	Jharkhand	205	213	224	229	240	235	257	268	293
7	Karnataka	933	950	980	997	1,089	1,108	1,173	1,191	1,126
8	Kerala	611	631	663	695	727	746	746	787	752
9	Madhya Pradesh	610	680	731	859	906	963	1,042	1,044	1,144
10	Maharashtra	1,068	1,101	1,184	1,258	1,239	1,331	1,407	1,381	1,341
11	Odisha	580	585	621	634	638	684	758	700	704
12	Punjab	1,665	1,700	1,738	1,793	1,917	1,979	1,995	2,048	2,106
13	Rajasthan	785	846	952	979	983	1,029	1,161	1,184	1,242
14	Tamil Nadu	1,056	1,220	1,286	1,339	1,448	1,467	1,515	1,507	1,401
15	Telangana	-	-	1,152	1,416	1,503	1,707	1,888	1,942	1,905
16	Uttar Pradesh	383	409	436	466	530	593	582	606	618
17	West Bengal	458	468	513	517	523	554	570	587	573

Source: RBI, CRISIL Research

23. State-wise power requirement (net crore units)

S. No.	State/Union Territory	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
1	Andhra Pradesh	9,969	9,566	5920	5,044	5,430	5,838	6,374	6,545	6,208
2	Bihar	1,541	1,539	1,929	2,396	2,571	2,702	3,005	3,163	3,417
3	Chandigarh	164	157	162	161	165	161	156	173	152
4	Gujarat	9,366	8,850	9,624	10,354	10,370	10,999	11,659	11,394	11,162
5	Haryana	4,141	4,346	4,662	4,751	4,889	5,078	5,367	5,451	5,316
6	Jharkhand	704	714	760	774	796	791	868	894	995
7	Karnataka	6,627	6,415	6,264	6,430	6,690	6,787	7,176	7,280	6,885
8	Kerala	2,124	2,158	2,246	2,332	2,430	2,500	2,503	2,632	2,512
9	Madhya Pradesh	5,178	4,941	5,337	6,238	6,576	6,993	7,567	7,617	8,344
10	Maharashtra	12,398	12,629	13,490	14,182	13,929	14,976	15,829	15,517	15,068

S. No.	State/Union Territory	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
11	Odisha	2,516	2,496	2,648	2,676	2,676	2,880	3,181	2,969	2,985
12	Punjab	4,872	4,782	4,863	4,969	5,310	5,481	5,529	5,678	5,845
13	Rajasthan	5,554	5,820	6,572	6,742	6,784	7,119	7,983	8,128	8,531
14	Tamil Nadu	9,230	9,351	9,576	9,728	10,451	10,601	10,938	10,882	10,119
15	Telangana	.	.	4334**	5,025	5,303	6,032	6,670	6,831	6,700
16	Uttar Pradesh	9,165	9,489	10,318	10,635	10,757	12,005	11,710	12,255	12,437
17	West Bengal	4,214	4,289	4,709	4,736	4,795	5,076	5,224	5,295	5,164

Source: RBI, CRISIL Research

24. State-wise length of national highways (km)

S. No.	State/Union Territory	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2018-19	2020-21
1	Andhra Pradesh	4,537	5,022	6,590	4,670	5,465	6,383	6,912	7,340
2	Bihar	4,106	4,168	4,467	4,701	4,839	4,839	5,358	5,421
3	Chhattisgarh	2,289	2,289	3,031	3,079	3,078	3,523	3,605	3,620
4	Gujarat	4,032	3,828	4,694	4,971	4,971	5,456	6,635	7,744
5	Haryana	1,633	1,633	2,050	2,307	2,622	2,741	3,166	3,237
6	Jharkhand	2,170	2,374	2,968	2,632	2,654	2,661	3,367	3,367
7	Karnataka	4,396	4,642	6,177	6,432	6,503	6,991	7,335	7,412
8	Kerala	1,457	1,457	1,700	1,811	1,812	1,782	1,782	1,782
9	Madhya Pradesh	5,064	5,116	5,116	5,184	5,194	8,053	8,772	8,941
10	Maharashtra	4,257	4,498	6,249	7,048	7,435	16,239	17,757	17,931
11	Odisha	3,704	4,416	4,550	4,645	4,838	5,413	5,762	5,897
12	Punjab	1,557	1,557	1,699	2,239	2,769	3,228	3,274	4,099
13	Rajasthan	7,130	7,180	7,646	7,886	7,906	8,972	10,342	10,350
14	Tamil Nadu	4,943	4,943	4,975	5,006	4,946	5,918	6,742	6,858
15	Telangana	.	.	.	2,687	2,696	3,786	3,795	3,974
16	Uttar Pradesh	7,818	7,818	7,986	8,483	8,483	9,017	11,737	11,831
17	West Bengal	2,681	2,681	2,908	2,910	2,956	3,004	3,664	3,665

Source: RBI, CRISIL Research

25. State-wise length of state highways (km)

S. No.	State/Union Territory	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
1	Andhra Pradesh	10,491	10,650	10,700	6,480	6,485	6,485	6,485	13,604

S. No.	State/Union Territory	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
2	Bihar	3,989	4,857	4,483	4,389	4,426	4,253	4,006	4,006
3	Chhattisgarh	5,240	5,240	5,240	5,080	4,374	4,462	4,438	4,176
4	Gujarat	18,421	18,480	18,506	18,017	18,017	17,201	17,201	17,201
5	Haryana	2,521	2,521	2,416	2,098	2,128	1,801	1,801	1,801
6	Jharkhand	1,886	1,886	1,960	1,596	1,358	1,296	1,339	1,232
7	Karnataka	20,770	20,774	20,749	20,774	19,721	19,578	19,556	19,521
8	Kerala	4,341	4,341	4,341	4,341	4,341	4,342	4,342	4,342
9	Madhya Pradesh	10,249	10,501	10,934	10,934	10,934	10,934	11,389	11,389
10	Maharashtra	32,823	32,596	38,765	39,588	40,144	39,000	39,000	38,999
11	Odisha	3,576	3,654	3,607	5,125	4,109	4,187	4,139	4,138
12	Punjab	1,477	1,477	1,477	1,315	1,133	1,133	1,103	1,103
13	Rajasthan	11,300	10,456	10,465	11,292	10,941	15,188	15,019	15,085
14	Tamil Nadu	10,561	10,764	10,764	11,594	11,752	11,752	12,095	11,830
15	Telangana	.	.	.	3,385	2,744	2,731	2,553	2,149
16	Uttar Pradesh	7,941	7,876	7,703	7,544	7,543	7,147	7,201	6,810
17	West Bengal	4,505	4,505	3,952	3,893	3,697	3,612	3,262	3,262

Source: RBI, CRISIL Research

26. State-wise length of state roads (km)

S. No.	State/Union Territory	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
1	Andhra Pradesh	256,448	261,657	178,096	179,022	174,367	176,474	218,190
2	Bihar	138,517	197,239	209,758	206,010	206,484	209,549	290,571
3	Chhattisgarh	75,742	89,236	94,580	97,534	95,809	97,845	102,578
4	Gujarat	163,149	165,640	179,063	182,287	179,144	180,927	201,742
5	Haryana	42,638	42,476	42,685	46,287	48,482	81,386	50,021
6	Jharkhand	26,277	37,064	41,258	42,705	66,786	69,871	79,062
7	Karnataka	303,128	305,448	313,184	321,808	345,515	361,041	354,505
8	Kerala	215,438	185,030	193,460	194,854	200,808	240,562	257,085
9	Madhya Pradesh	201,261	228,816	279,996	288,931	289,940	342,654	363,972
10	Maharashtra	396,685	589,625	608,690	608,140	613,418	623,972	626,521
11	Odisha	254,709	277,659	283,165	283,692	288,083	303,669	307,976
12	Punjab	93,871	98,442	104,160	105,368	108,379	139,492	142,635
13	Rajasthan	248,604	226,124	241,243	248,156	254,279	265,599	313,390

14	Tamil Nadu	230,200	238,004	254,205	261,100	261,035	261,436	270,007
15	Telangana	-	-	92,215	100,251	123,572	126,135	128,071
16	Uttar Pradesh	403,102	435,969	397,224	415,383	422,412	428,055	436,333
17	West Bengal	315,404	309,692	313,750	295,997	316,730	322,067	329,126

Source: RBI, CRISIL Research

27. State-wise length of railways (km)

S. No.	State/Union Territory	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
1	Andhra Pradesh	5,264	5,322	3,593	3,657	3,703	3,817	3,817	3,822	3,965
2	Bihar	3,598	3,656	3,639	3,652	3,731	3,714	3,653	3,720	3,794
3	Chhattisgarh	1,188	1,196	1,197	1,196	1,213	1,216	1,211	1,212	1,152
4	Gujarat	5,257	5,257	5,259	5,259	5,259	5,259	5,285	5,320	5,301
5	Haryana	1,553	1,630	1,630	1,630	1,711	1,710	1,710	1,703	1,703
6	Jharkhand	2,040	2,113	2,182	2,294	2,394	2,455	2,585	2,571	2,596
7	Karnataka	3,090	3,228	3,281	3,281	3,281	3,424	3,499	3,540	3,542
8	Kerala	1,050	1,050	1,050	1,050	1,045	1,045	1,045	1,045	1,045
9	Madhya Pradesh	4,954	4,955	4,976	4,979	5,000	5,113	4,829	4,899	5,148
10	Maharashtra	5,602	5,725	5,725	5,725	5,745	5,784	5,733	5,819	5,829
11	Odisha	2,469	2,507	2,516	2,529	2,572	2,598	2,608	2,622	2,652
12	Punjab	2,156	2,215	2,269	2,269	2,269	2,269	2,269	2,265	2,265
13	Rajasthan	5,822	5,872	5,870	5,898	5,893	5,894	5,929	5,937	5,998
14	Tamil Nadu	3,943	4,027	4,027	4,027	4,027	4,028	4,030	4,031	4,036
15	Telangana	-	-	1,753	1,676	1,737	1,823	1,823	1,823	1,828
16	Uttar Pradesh	8,800	8,832	8,920	8,950	9,077	9,167	10,324	8,823	8,808
17	West Bengal	4,000	4,037	4,070	4,070	4,135	4,139	4,139	4,230	4,217

Source: RBI, CRISIL Research

28. State-wise number of factories (units)

S. No.	Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	Andhra Pradesh	27,708	15,358	15,719	16,012	16,340	16,246	16,296	16,739
2	Bihar	3,231	3,345	3,419	3,529	3,623	3,531	3,461	3,422
3	Chhattisgarh	2,472	2,441	2,534	2,809	3,037	3,109	3,352	3,576
4	Gujarat	22,220	22,587	22,876	23,433	24,426	25,966	26,586	26,842
5	Haryana	6,142	6,163	6,117	8,243	7,953	8,503	8,891	11,835
6	Jharkhand	2,556	2,697	2,688	2,738	2,831	2,858	2,866	2,857
7	Karnataka	11,460	11,753	12,107	12,566	12,973	13,344	13,518	13,789
8	Kerala	7,031	7,129	7,132	7,320	7,580	7,697	7,649	7,696
9	Madhya Pradesh	4,286	4,206	4,047	4,240	4,426	4,494	4,533	4,640
10	Maharashtra	28,215	28,949	29,123	28,601	28,210	27,010	26,393	25,972

S. No.	Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
11	Odisha	2,678	2,854	2,714	2,803	2,948	3,051	3,066	3,063
12	Punjab	12,593	12,427	12,278	12,413	12,521	12,489	12,726	12,825
13	Rajasthan	8,444	8,782	8,820	8,986	9,049	9,026	9,212	9,424
14	Tamil Nadu	36,996	36,869	37,378	37,878	37,331	37,220	37,787	38,131
15	Telangana	.	13,656	14,110	14,427	14,874	15,028	15,263	15,167
16	Uttar Pradesh	14,090	14,440	14,463	14,867	15,291	15,294	15,830	15,854
17	West Bengal	8,402	8,607	8,859	9,112	9,300	9,587	9,534	9,420

Source: RBI, CRISIL Research

29. State-wise number of workers (units)

S. No.	Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	Andhra Pradesh	1,110,866	406,048	415,127	424,075	417,989	456,946	486,846	512,694
2	Bihar	108,963	100,512	96,122	125,557	103,267	98,971	104,057	111,181
3	Chhattisgarh	138,269	137,950	131,032	142,799	137,914	146,551	147,310	170,823
4	Gujarat	1,059,789	1,046,462	1,049,725	1,103,204	1,191,406	1,246,650	1,403,204	1,489,877
5	Haryana	436,925	431,425	467,741	580,933	559,426	650,051	674,373	802,213
6	Jharkhand	135,795	127,287	130,450	143,595	141,763	144,620	153,026	172,842
7	Karnataka	706,123	665,597	705,941	748,372	768,736	827,665	828,689	842,367
8	Kerala	330,402	319,582	290,055	294,325	273,038	249,935	241,789	275,123
9	Madhya Pradesh	233,511	223,790	239,212	256,924	268,004	280,373	281,063	314,728
10	Maharashtra	1,320,995	1,233,341	1,328,688	1,305,350	1,371,245	1,365,361	1,414,565	1,473,792
11	Odisha	223,571	213,079	206,788	214,836	209,153	222,789	229,036	233,064
12	Punjab	484,320	468,127	485,520	467,951	491,609	531,365	569,266	564,103
13	Rajasthan	357,888	339,700	356,006	375,780	392,721	412,774	432,434	464,518
14	Tamil Nadu	1,595,342	1,602,447	1,641,460	1,741,427	1,930,431	2,003,759	2,095,223	2,112,058
15	Telangana	.	585,728	629,361	585,456	577,386	605,994	669,220	659,251
16	Uttar Pradesh	670,748	635,759	701,782	673,431	730,630	783,541	839,121	859,032
17	West Bengal	534,838	537,284	522,241	504,148	497,149	497,977	516,740	551,871

Source: RBI, CRISIL Research

30. State-wise gross fixed capital formation-GFCF (Rs lakh)

S. No.	Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
1	Andhra Pradesh	2,333,338	1,401,341	1,374,620	1,517,315	2,272,830	2,403,902	1,499,563	2,100,851
2	Bihar	165,489	104,357	91,763	134,790	139,208	247,166	323,458	195,917
3	Chhattisgarh	1,061,516	1,072,289	1,232,281	1,407,004	1,253,597	1,291,546	866,708	990,668
4	Gujarat	5,209,375	5,347,358	7,421,402	9,964,916	8,440,358	9,308,444	6,072,768	6,733,738
5	Haryana	1,033,740	2,521,418	1,121,834	1,392,938	1,163,554	1,580,198	1,664,762	2,240,823
6	Jharkhand	1,837,512	989,424	867,950	501,836	1,270,086	516,686	148,830	12,855
7	Karnataka	3,133,526	2,785,952	2,147,479	2,005,780	2,256,594	2,059,482	2,088,495	2,708,962
8	Kerala	223,436	266,860	779,284	628,397	999,315	1,114,921	479,360	673,658
9	Madhya Pradesh	812,232	1,158,554	1,585,007	1,385,579	1,281,517	1,120,014	1,331,975	1,451,712
10	Maharashtra	4,655,774	5,653,066	5,609,945	5,519,930	4,464,331	4,161,132	4,805,518	5,822,360
11	Odisha	3,036,259	2,851,057	2,760,953	821,641	1,665,272	1,889,743	614,540	(355,371)
12	Punjab	772,143	629,156	620,476	477,032	537,532	434,391	730,978	724,993
13	Rajasthan	1,227,138	1,229,130	1,176,942	1,050,554	1,113,861	1,215,571	1,432,726	1,376,804
14	Tamil Nadu	2,989,866	3,170,411	3,409,081	1,328,090	3,833,378	3,702,782	3,177,538	3,316,174
15	Telangana	-	780,671	664,178	669,686	2,117,453	993,043	1,305,245	1,366,208
16	Uttar Pradesh	1,812,262	2,393,767	1,402,191	1,469,569	1,612,711	1,553,185	1,456,168	1,767,906
17	West Bengal	926,607	1,115,878	934,224	696,020	782,415	1,158,168	1,343,104	1,076,847

Source: RBI, CRISIL Research

31. State-wise no. of MSME units (lakh)

S. No.	State/Union Territory	NSS 73rd round (2015-16)
1	Andhra Pradesh	33.87
2	Bihar	34.46
3	Chhattisgarh	8.48
4	Gujarat	33.16
5	Haryana	9.70
6	Jharkhand	15.88
7	Karnataka	38.34
8	Kerala	23.79
9	Madhya Pradesh	26.74
10	Maharashtra	47.79
11	Odisha	19.84

S. No.	State/Union Territory	NSS 73rd round (2015-16)
12	Punjab	14.65
13	Rajasthan	26.87
14	Tamil Nadu	49.48
15	Telangana	26.05
16	Uttar Pradesh	90.00
17	West Bengal	88.68

Source: RBI, CRISIL Research

TRUST BOND MARKET PERSPECTIVE

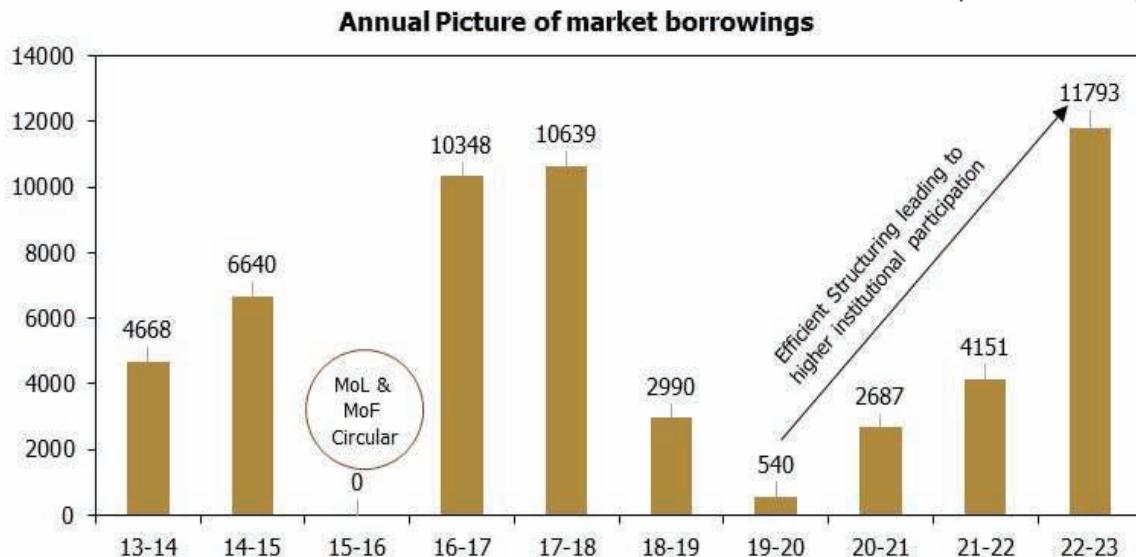


PROGRESSIVE TRENDS OF STATE LEVEL ENTITIES RAISING FUNDS THROUGH BOND MARKET

State Government owned entities generally raised funds through equity infusion by Government, low interest rate or interest free loans from State Government, bank borrowings and only marginal additional requirement through tapping the bond market with or without Government guarantee. High capital expenditure usually requires raising funds from diversified sources. Therefore, these entities cannot rely only on State Government funding and would want to fund their requirements independently. State entities with weaker financial health got support from state government in the form of government guarantees. The efficient structuring of such borrowing through liquidity buffer, collateral support, and business continuity of the bonds enables larger institutional participation.

MARKET PICTURE OF BORROWINGS

(INR in Crores)



- In the past, retirement funds were the only investors in such bonds. In May 2016, Ministry of Labour & Ministry of Finance capped retirement funds' investment in guaranteed bonds to a maximum 10% of their portfolio. This led to a decline in the bond issuances by the state level entities.

- In the recent years, efforts have been made at efficient structuring with generic ring fencing to service bond cash flows in timely manner. This has given confidence to the institutional investors leading to higher participation.



TRUST
In Partnership. With Trust.

Number of Issuances (Size-wise Frequency Distribution)

Size (INR in Crores)	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	Grand Total
0-250	8	5	0	3	3	6	3	5	2	0	35
251-500	2	4	0	0	0	0	0	0	0	0	6
501-1000	4	3	0	0	0	0	0	0	0	0	7
1001-5000	0	1	0	0	0	1	0	1	1	1	5
5001-10000	0	0	0	1	1	0	0	0	0	1	3
	14	13	0	4	4	7	3	6	3	2	56

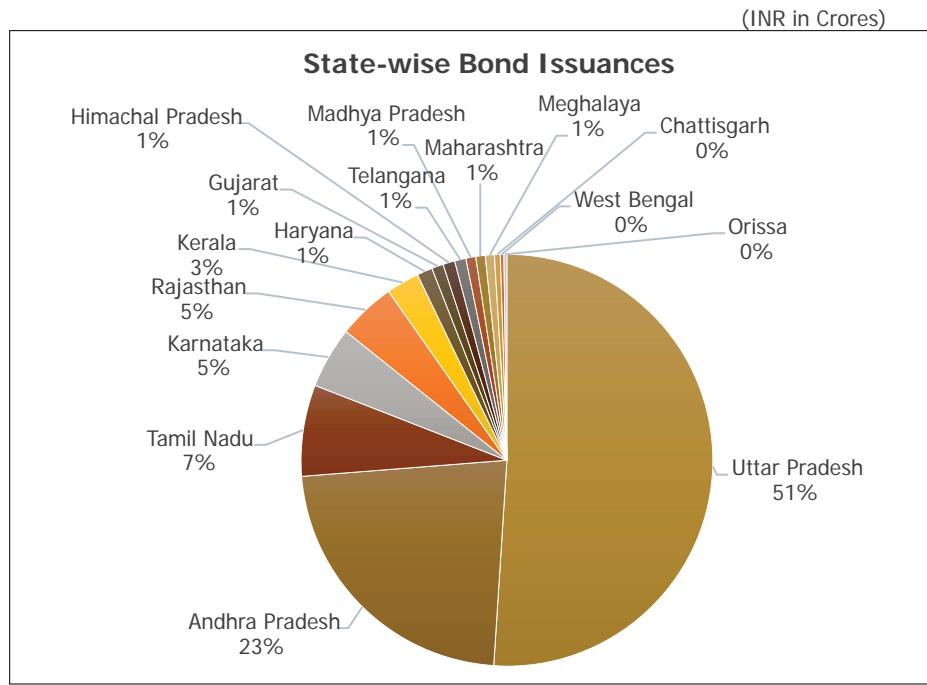
- In the past there was preponderance of bond issuances in lower ticket sizes.
- Recently, through adequate structuring and ring fencing of the bond cash flows, state level entities are able to raise higher quantum of funds from institutional investors.

STATE-WISE BOND ISSUANCES

Size (INR in Crores)	13-14	14-15	15-16	17-18	18-19	19-20	20-21	21-22	22-23	Grand Total
Uttar Pradesh			10000	9989			350	3951	3488	27778
Andhra Pradesh	208				2080		1790		8305	12383
Tamil Nadu	1834	2000	73							3907
Karnataka	685	1935								2620
Rajasthan	925	1550								2475
Kerala	200	200	250	250		250	250			1400
Haryana	400	266								666
Gujarat					400			100		500
Himachal Pradesh	266	234								500
Telangana				200	195	100				495
Madhya Pradesh		100			315					415
Maharashtra				200			100	98		398
Meghalaya						190	199			389
Chattisgarh		258								258
West Bengal	23	98	25							146
Orissa	128									128
Grand Total	4668	6640	10348	10639	2990	540	2689	4149	11793	54456



TRUST
In Partnership. With Trust.

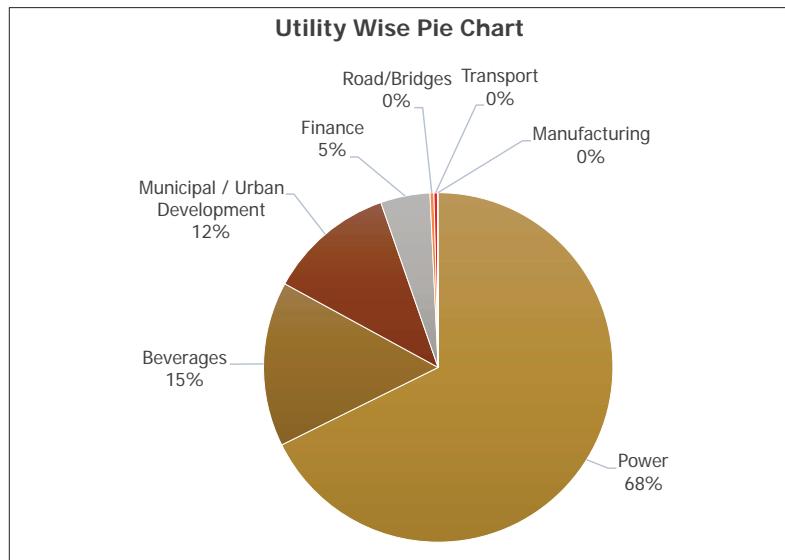


- Uttar Pradesh and Andhra Pradesh tapped the debt capital market with highest participation with both contributing to 74% of the total SLU bond issuances

UTILITY-WISE BOND ISSUANCES

Sectors	13-14	14-15	15-16	17-18	18-19	19-20	20-21	21-22	22-23	Grand Total
Power	3176	4007	10073	9989		190	1989	3951	3488	36864
Beverages									8305	8305
Municipal / Urban Development	696	1750		400	2990	100	350	100		4386
Finance	581	883	275	250		250	250			2489
Road/Bridges							100	98		198
Transport	175									175
Manufacturing	40									40
Grand Total	4668	6640	10348	10639	2990	540	2689	4149	11793	54456

(INR in Crores)

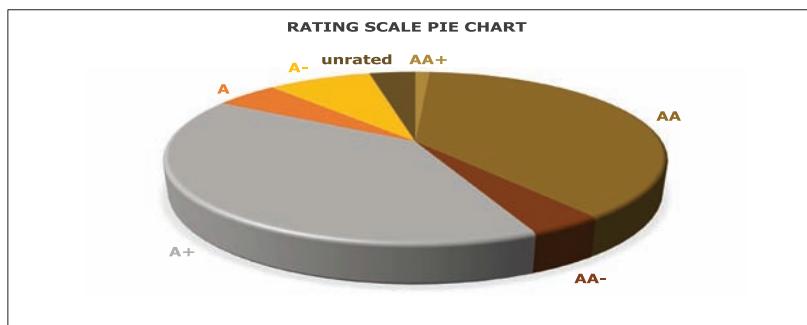


- Power Sector dominated the debt capital market SLU Bond issuances with 68% of the total industry wise bond issuances.

ORDINAL RATING SCALE MATRIX OF BOND ISSUANCES OVER THE PAST DECADE

(INR in Crores)

Ratings	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	Grand Total
AA+					200	400					600
AA	51			10250	450	590	350	600	198	8305	20794
AA-	685	1433						100			2218
A+	608	1816			9989	2000			3951	3488	21852
A	1191	1492									2683
A-	2111	1802		73			190	199			4375
unrated	23	98		25				1790			1936
TOTAL	4668	6640	0	10348	10639	2990	540	2689	4149	11793	54456



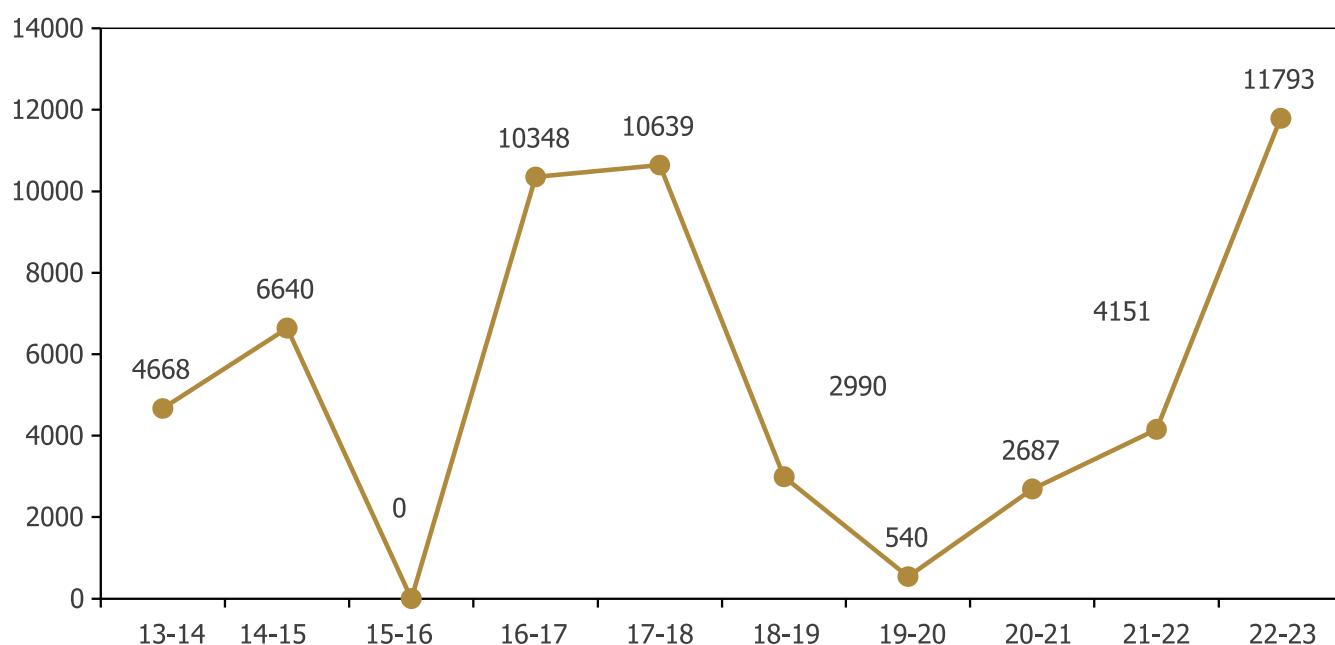
- 84% of the Bond Issuances were in the category of A+ and above ratings.

EVOLUTION OF GOVERNMENT GUARANTEE

In the past, a single page letter guarantee was issued by the state governments. There was inadequate structuring of the bond to ensure timely service of interest or principal. Further, there were no defined benchmark to trigger post default actions. The guarantee would commence only after actual default, compelling investors to hold defaulted paper until effective resolution by the concerned government. Only investors in these bonds would be the Retirement Funds. In May 2016, Ministry of Labour & Ministry of Finance capped retirement funds' investments in guaranteed bonds to a maximum 10% of their portfolio. The general ticket size for bond issuance ranged between 100-1000 crores.

(INR in Crores)

Annual Market Picture of Borrowings



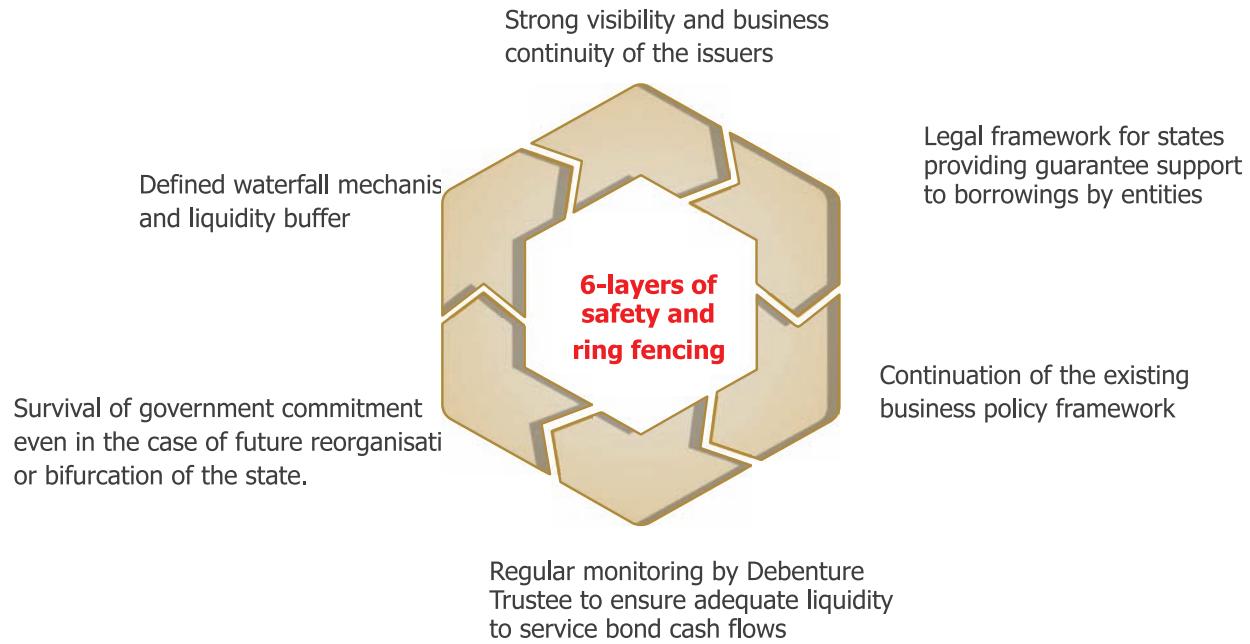
Source: All the data and statistics are transformed from Prime Database

Recently several developments have taken place in the manner in which state level entities raise funds from the bond market. The guarantee enforcement is prospective rather than retrospective. The covenants relating to the funding of bond servicing account mandate funding of such accounts on defined number of days prior to the date of actual servicing through periodic trapping of cash from the revenue of the issuer or from the concerned government or through a mix of both. The creation of DSRA served as a liquidity buffer in case of shortfall in bond servicing account. Widened scope and responsibility of Debenture Trustee includes regular monitoring of bond servicing account and DSRA impairment if any. Proactive structure of guarantee leads to funding support from the guarantor in time to avoid default which gives great comfort to the investors. The average ticket size for bond issuance has now increased to the range between 2000-10000 crores.



In Partnership. With Trust.

Innovative Generic Ring fence based Credit Enhanced Structure...



Such Credit Enhanced Structure leads to broader investor participation...

- Provident/Pension Funds
- Mutual Funds
- Banks/Finance Companies/Primary Dealers
- Insurance Companies
- Corporates
- Family Offices and High Net-worth Individuals

BENEFITS OF TAPPING DEBT CAPITAL MARKETS



KEY TAKEAWAYS

States are facing huge requirements to fund growth in socio-economic goals which would encourage state owned entities to look beyond bank loans and look at tapping bond market. Raising larger quantum of funds through the bond market is possible only by broadening investor participation. Investors seeking diversification in portfolio along-with yield pickup would be interested in such relatively low credit risk investment option. Price discovery would depend on matching of demand and supply from time to time.



TRUST
In Partnership. With Trust.

EXPERT OPINION





Devendra Kumar Pant

Chief Economist and Head-Public Finance
India Ratings & Research Private Limited

State Public Finances – Constitutional Setup, Recent Performance and Outlook

Devendra Kumar Pant¹

State public finances and budgets are not scrutinised at the same level as union budget is analysed. The major reasons of this is lag in data availability. While state budget documents are now available for most states on their respective government websites, monthly financial performance of states is now available on Comptroller and Auditor General's website with a lag. However, they are not as detailed as the central government's monthly financial data.

Constitutional Setup

Constitution of India defines roles and responsibility of central and state governments. Similarly, taxation powers and expenditure responsibilities are also defined in the constitution of India. While central government undertakes most of the non-developmental expenditure, state governments undertake most of the developmental expenditure.

Article 293 of the Constitution of India deals with the borrowing of State Governments. Section 293 (1) states that "Subject to the provisions of this article, the executive power of a State extends to borrowing within the territory of India upon the security of the Consolidated Fund of the State within such limits, if any, as may from time to time be fixed by the Legislature of such State by law and to the giving of guarantees within such limits, if any, as may be so fixed" and section 293 (3) states that "A State may not without the consent of the Government of India raise any loan if there is still outstanding any part of a loan which has been made to the State by the Government of India or by its predecessor Government, or in respect of which a guarantee has been given by the Government of India or by its predecessor Government".

This suggests that according to Article 293 (1) States though have the autonomy to borrow as per their need and requirement; de facto their borrowing is under the control of the Central Government. This allows Central Government to have knowledge and control of the State borrowings as it is also responsible for ensuring macroeconomic stability in the country. On behalf of Central Government this control is exercised by the Department of Expenditure in the Ministry of Finance.

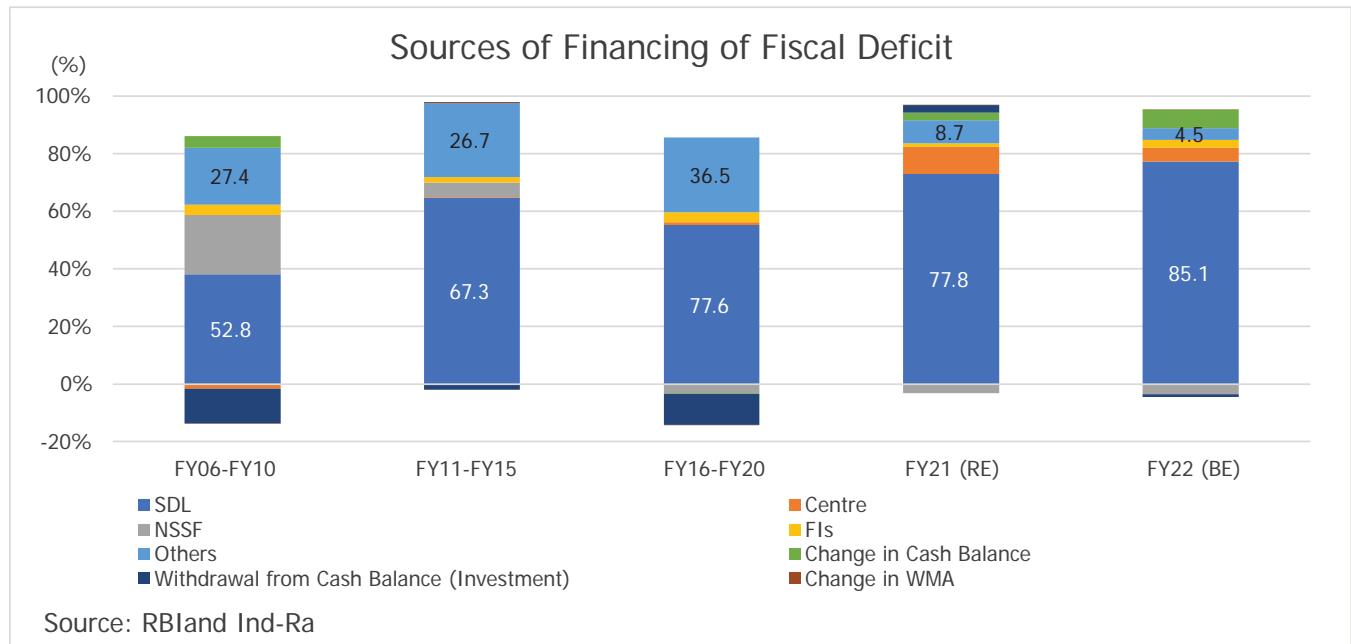
Changing Pattern of Deficit Financing

The composition of State Government borrowings has changed considerably over the years. States mainly borrowed from the Central Government till FY99 and thereafter from National Small Savings Fund (NSSF) till FY07. FY07 onwards focus shifted to market borrowing via State Government securities - State Development Loan (SDL). Recourse to SDL by States to fund their fiscal deficits has increased steadily since then. In FY20, 94.8% of States' aggregate gross fiscal deficit was financed by the market borrowing. In FY22 (budget estimates) it declined to 85.1%.

When 13th Finance Commission recommended disintermediation of the Central Government for raising of public debt by State Governments and 14th Finance Commission recommended State governments to take recourse to market borrowings instead of NSSF, the idea was to expose State Government borrowing to market discipline.

¹ Chief Economist and Head – Public Finance, India Ratings & Research Private Limited (Ind-Ra).
The views are personal.

Central government does not explicitly guarantee SDLs. However, RBI besides being the banker of the state government also manages the SDL issuances, ensures its service by the states and is believed to have even the powers to service the SDL liability out of the central government allocation to states. There is no record of default on SDL payment till date. Any delay/default on SDL will also act as a moral hazard and will have implication for debt market. SDLs also qualify for statutory liquidity requirements (SLR), carry zero risk weightage under the CRAR prudential norm and are eligible as collaterals for borrowing through market repo as well as under the Liquidity Adjustment Facility (LAF) of RBI. Further RBI oversees the Consolidated Sinking Fund (CSF) and Guarantee Redemption Funds (GRF) that have been created by the states to act as buffers for repayment of their liabilities. Due to these security features SDLs are considered to be a risk-free investment and the yield spread on SDLs does not reflect the actual economic, social and fiscal performance of states.

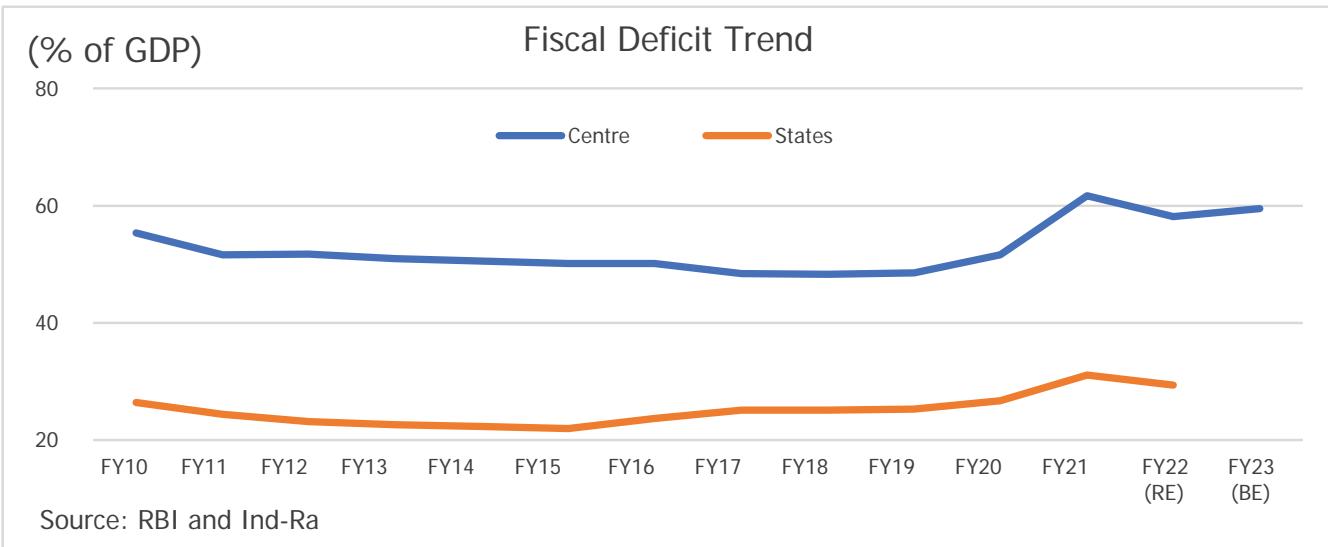
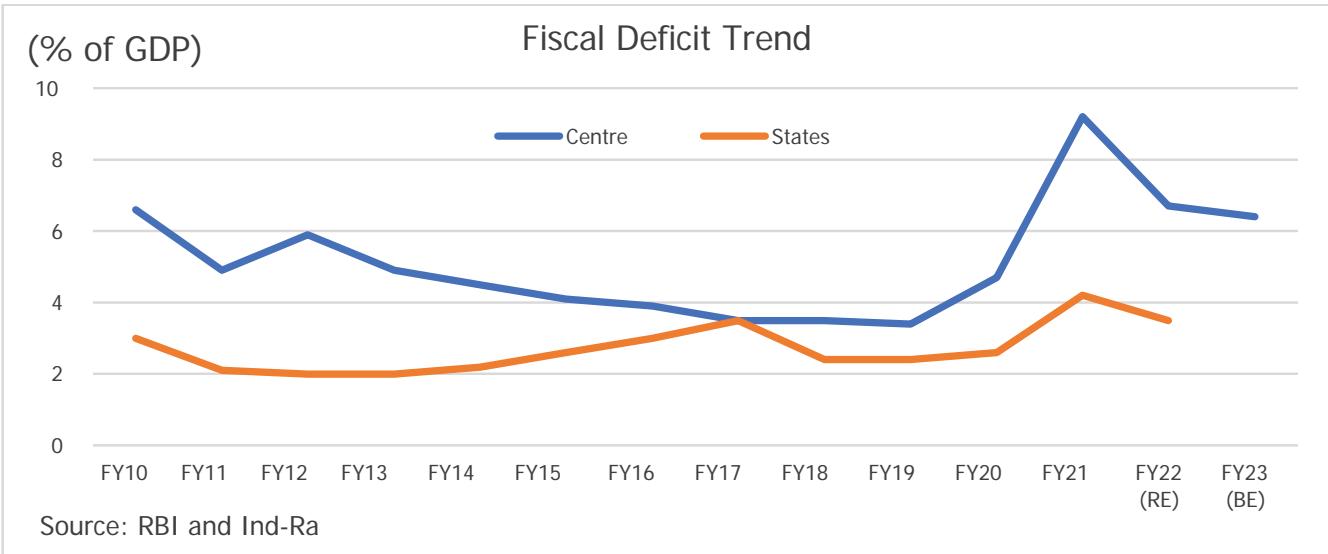


To promote differential and market-based pricing of SDLs, RBI's circular "Statement on Developmental and Regulatory Policies" dated 6 June 2018 stated that the initial margin requirement under LAF for rated SDLs starting 1 August, 2018 has been set at 1.0% lower than that of other SDLs for the same maturity buckets". This has been done with the objective of encouraging state governments to get a public rating on their SDLs. With this practice in place RBI hopes that SDL yields would reflect more sensitively the risk asymmetries across states, enabling fiscally sound states to borrow at a cheaper rate and nudging other states to become fiscally more prudent and disciplined.

States' Recent Fiscal Performance

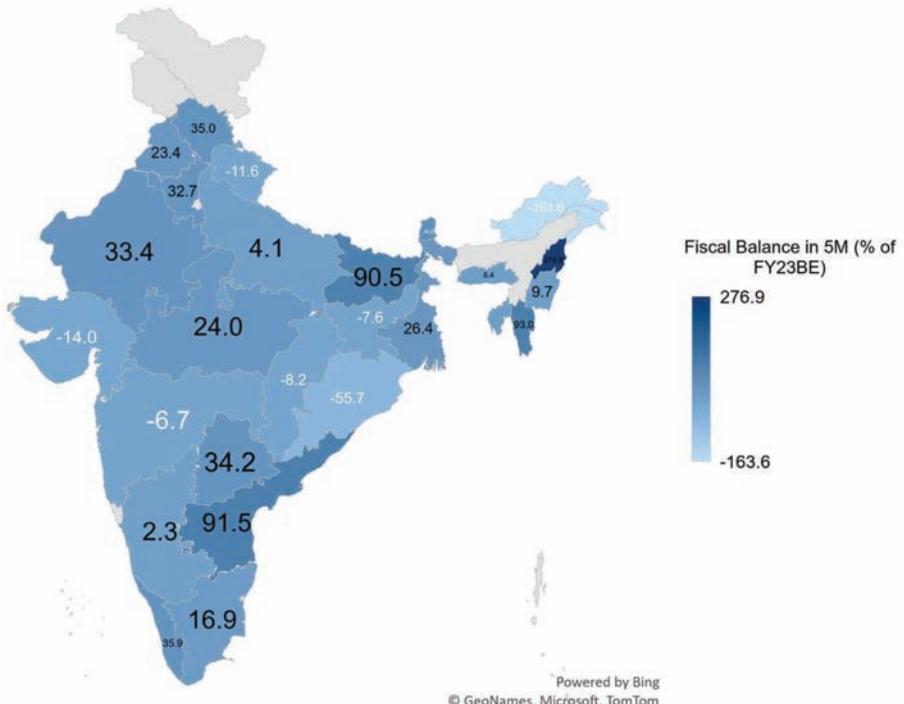
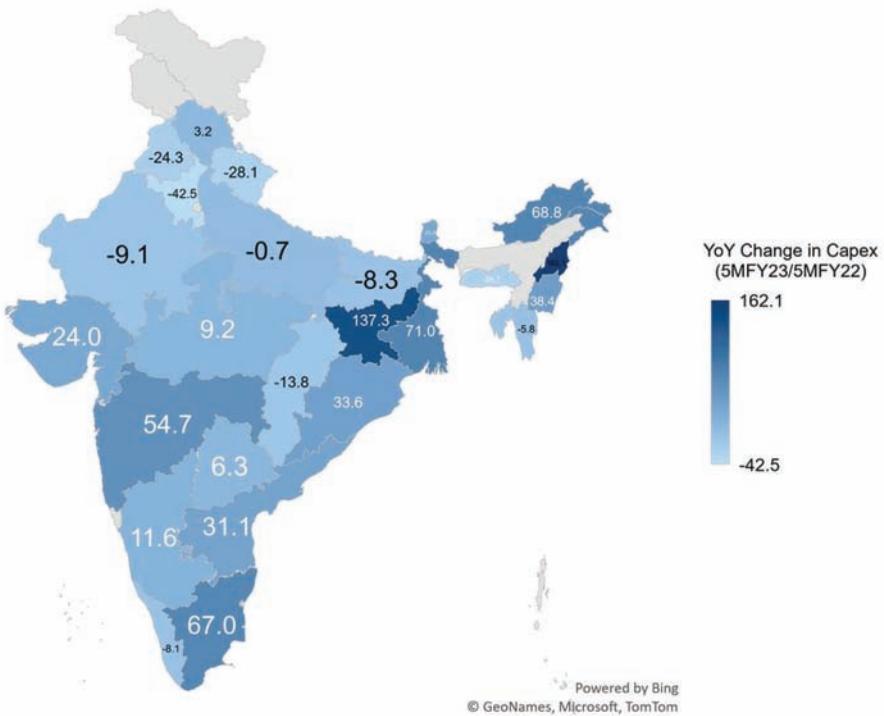
State's economic, social and infrastructure profiles vary a lot and as a result despite being in the same economic policy environment, the economic and fiscal outcomes vary a lot. The role of the government is to provide social and physical infrastructure to its citizens, hence states which lags in social and physical infrastructure development have in built pressure on state budget to improve it.

Similar to the finances of central government, state government fiscal profile also gets a decadal shock in terms of salary revision of its employees in line with the recommendations of the central pay commissions which are constituted once in every 10 years. In FY16 and FY17, state governments in aggregate absorbed discom debt on their balance sheet. This has led to aggregate fiscal deficit of the states widening to 3.1% and 3.5% of GDP respectively in FY16 and FY17 from 2.6% in FY15. This further deteriorated to 4.7% in FY21 (revised estimate) due to COVID and were budgeted at 3.7% in FY22. Aggregate debt of states and Union territories was budgeted at 31.2% of GDP in FY22 up from 31.1% in FY21 (revised estimate). However, aggregate fiscal deficit and debt levels masks inter-state variation in fiscal deficit and debt. While Maharashtra had debt/GSDP of 20.4% in FY22 (RE), the same for Punjab was 53.3%. Similarly, fiscal deficit/GSDP in FY22 (BE) varied from 1.6% (Gujarat) to 4.8% (Tamil Nadu).



Public sector enterprises (PSEs) is an integral part of Indian economy. Both central government and state governments have a number of PSEs. These PSEs plays a crucial role in delivery of social/public good to the citizens. As per latest data available from the Comptroller and Auditor General of India in this regard is for FY19, in FY19 states had 1,460 state PSEs (SPSEs), of which 1,144 were working. Total equity, loan and grants/subsidy outgo from the state budget in FY19 was INR2,236.6 billion. These SPSEs had INR8,098.9 billion aggregate debt including INR6,217.8 billion market debt (excluding debt from state and central governments), which was 3.3% of GDP in FY19 (declined from a peak of 4.4% in FY14). Nearly three-fourth (73.6%) of SPSEs aggregate debt was in state power sector entities (3.1% of GDP). Power sector SPSEs market debt was 77.0% of SPSEs market debt (2.5% of GDP).

Higher inflation is inflation tax and despite no increase in tax rate, governments' revenue collections, both central and state, has been strong. Most states in FY23 (unaudited numbers till August) have shown good revenue buoyancy and are on track to meet their FY23 fiscal deficit targets. In case of capex, while the southern and western states have shown good growth, it lags in northern and central India.



Outlook

Indian public finances suffer from the expenditure rigidities, a large part of expenditure – salary, pension, interest payment on debt – is committed in nature. It is difficult to reduce current expenditure in short-run. Hence the onus of fiscal consolidation lies squarely on revenue augmentation. A sustained period of high growth is a pre-requisite for sustaining high revenue growth. Revenue performance in FY22 and FY23 till date is good. However, a large part of it due to base effect (FY22) and high inflation (FY23 till date). Higher inflation in turn is an obstacle for the economy to sustain high growth momentum in medium- to long-run. Unless growth momentum in general and its spread over states in particular is sustained, it is unlikely that improvement in state finances will sustain.



Sandeep Bagla
Chief Executive Officer
TRUST Mutual Fund

The US Fed and the Indian RBI have both started tightening monetary conditions in an attempt to bring down inflation, which has gone far higher than their comfort levels. For the last 14 years, ever since the Global Financial Crisis in 2008, central banks have kept rates low and liquidity easy to support growth. The conventional wisdom that excess supply of money causes inflation was seriously challenged as inflation remained by and large subdued all these years. In response to Covid 19, the central bankers globally sprayed money generously to support demand, which led to a massive expansion in their balance sheets. This time the monetary expansion resulted in rip-roaring inflation, which has since gotten broad based gradually and led to a sharp turnaround in thinking of central banks, who rapidly increased policy rates and reduced money supply. The US rates have gone up by almost 4% and the bloated balance sheet has reduced marginally so far.

In response to the regulatory measures, market yields too rose, with yield curves flattening as the shorter end rates rose more sharply than longer-term bonds. In the US, the 10 year yield has risen to 4.20%, while in India the 10 year Government bond yield is at 7.50%. Credit offtake has started rising as liquidity is tight and the funding from the foreign exchange route has simply dried up. The Rupee has depreciated against the Dollar, though less than most other currencies, but is expected to depreciate more in the near term.

Now we are at a true inflection point.

Most of the market participants seem to believe that the worst is behind us. Central banks are in control of inflation. Inflation will cool down gradually and investors will all live happily ever after.

Another group believes that it is going to be long drawn battle against inflation, one that could see many more casualties. Bond yields could rise more from here; the equities could see a sharp correction in valuations and in terms of prices.

There are many moving parts in the current market conundrum. There are geo political risks, which could take a turn for the worse. There has been unprecedented wage hikes and labour shortages that could easily lead to an upward wage price inflation spiral upwards, taking services inflation higher. If inflation expectations were to get entrenched at higher levels, central bankers would have to tighten much more, much faster and for a longer period.

While on the surface it appears that storm may have passed and it is time to take out the boat for a pleasure cruise, it is quite possible that there is trouble brewing beneath the still waters which could create further mayhem.

In the recent years, state government entities have been able to raise large amounts of money through innovative structures. Investors are warming up to the idea as such bonds provide a higher return without the commensurate risk.



TRUST

In Partnership. With Trust.

Player profile of State Financing And Utilities

November 2022



Knowledge Partner

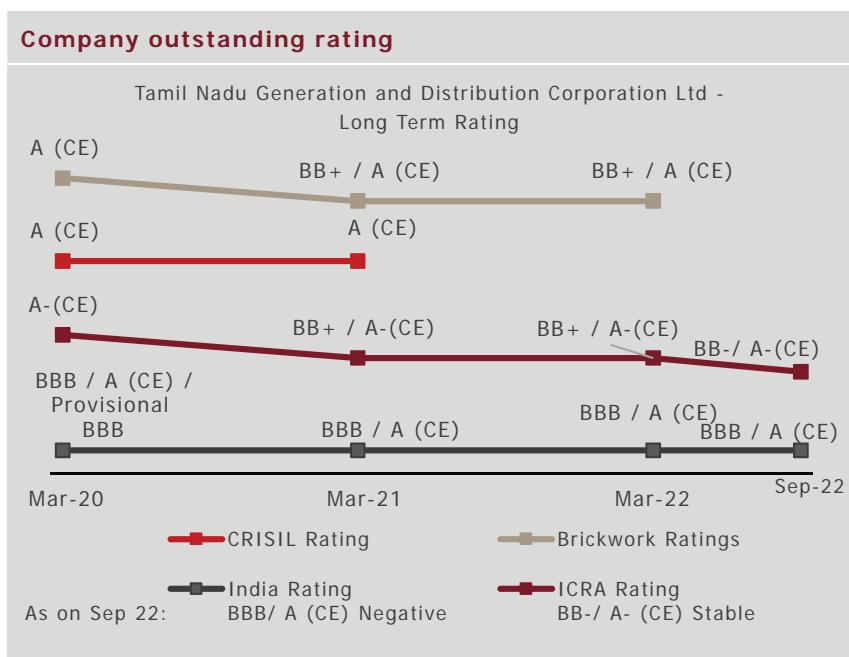
CRISIL

An S&P Global Company

Player profile of State Financing And Utilities

Tamil Nadu Generation and Distribution Corporation Ltd

Company name	Tamil Nadu Generation and Distribution Corporation Ltd
Incorporation year	2010
Promoter	Government of Tamil Nadu
About the company	<p>Tamil Nadu Generation and Distribution Corporation Ltd (TANGEDCO) generates and distributes electricity in the state of Tamil Nadu. The company is under the administrative control of the Energy Department of the state government. TANGEDCO was formed on November 1, 2010, following the restructuring of the erstwhile Tamil Nadu Electricity Board (TNEB).</p>



Key financial parameters (FY21)

Figures in Rs billion

	Total revenue	632		Net profit / (loss)	(134)
	Total debt	1,443			

Note: The above parameters represent standalone financials of the company as of March 2021 and may include, as applicable, reclassification/adjustments to the reported financials by the entity.
Source: CRISIL Quantix, company reports, CRISIL Research

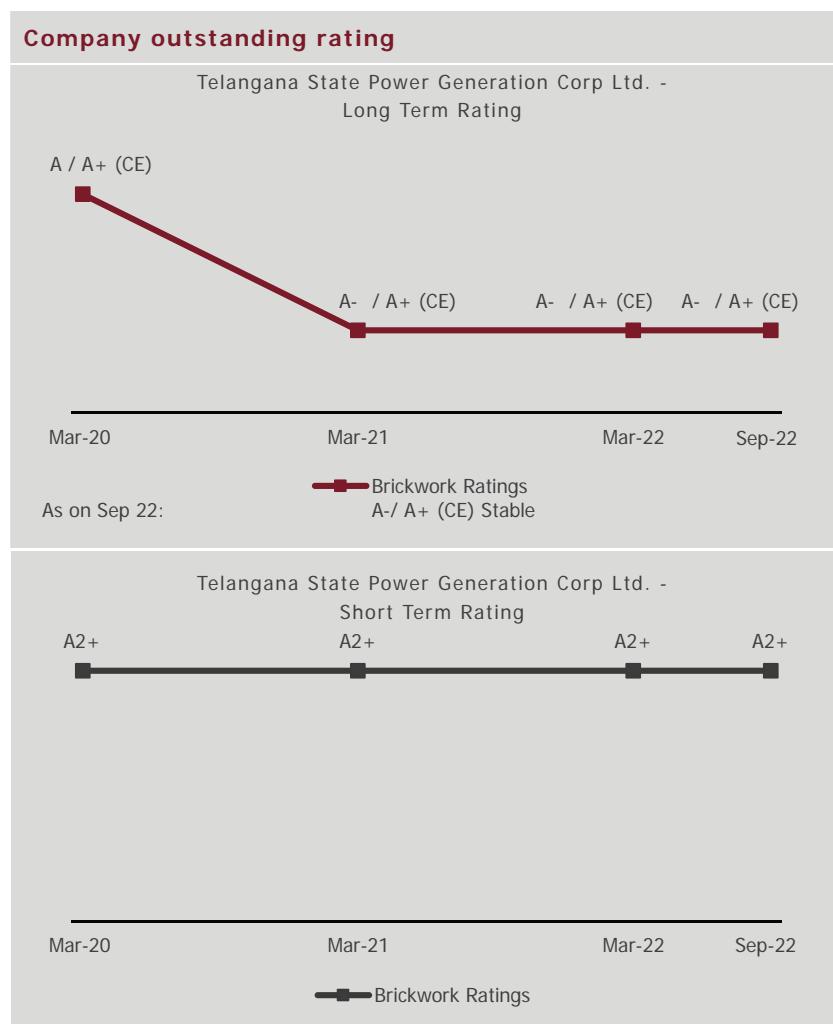
Formed in July 1957, TNEB was engaged in power generation, transmission and distribution in Tamil Nadu. With effect from November 1, 2010, TNEB was restructured into three companies: TNEB Ltd, the holding company, and its two subsidiaries, TANGEDCO for generation and distribution activities, and Tamil Nadu Transmission Corporation Ltd for transmission of electricity and grid operations. TANGEDCO is under the administrative control of the Energy Department of the Tamil Nadu state government.

Tamil Nadu's gross state domestic product (GSDP) composition compares favourably with the national gross domestic product (GDP) composition. For fiscal 2022, Tamil Nadu derived 33% and 54% from the secondary and tertiary sectors, respectively. With the primary sector accounting for only about 13% of the state's GSDP, which is below the national average of ~20%, Tamil Nadu has relatively lower dependence on agriculture. Strong secondary and tertiary sectors should lead to continuous improvement in state revenue.

On a standalone basis, the financial profile of TANGEDCO, remains weak as it continues to incur substantial losses owing to the inadequate tariff rates, subdued utilisation of its generation assets and the high cost of power purchase. AT&C losses (including open access wheeling) reduced to 12.09% in fiscal 2021 from 12.39% in fiscal 2020 and 15.08% in fiscal 2019. Improving operating efficiency would decrease the quantum of power required to meet the demand. Its financial profile is supported by improving operational efficiency and state ownership while this support is offset by inadequate tariff rates and lack of tariff orders filed consistently.

Telangana State Power Generation Corporation Limited

Company name	Telangana State Power Generation Corporation Limited
Incorporation year	2014
Promoter	Government of Telangana
About the company	Telangana State Power Generation Corporation Limited was incorporated in 2014 and registered at Hyderabad. The company is a state government entity.



Key financial parameters (FY21)

Figures in Rs billion

	Total revenue	110
	Net profit / (loss)	2

	Total debt	270
--	------------	-----

Note: Above parameters represent financials of the company as of March-2021 and may include, as applicable, reclassification / adjustments to the reported financials by the entity.

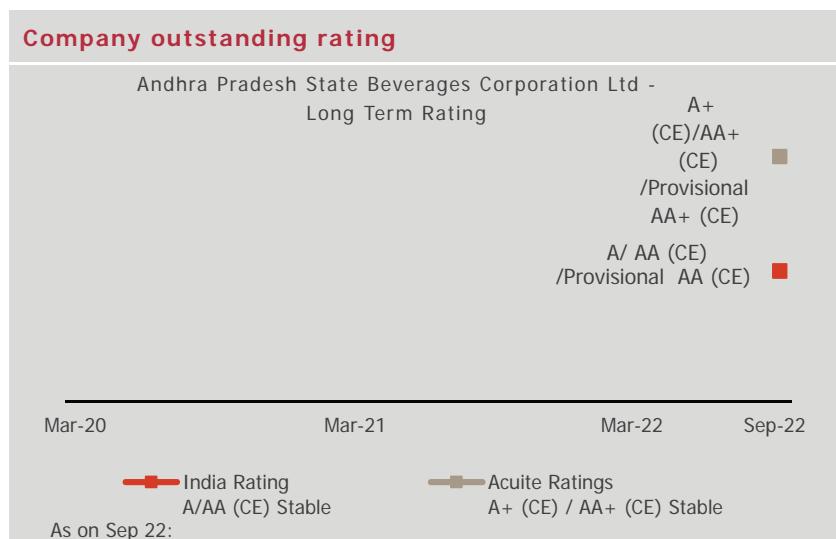
Source: CRISIL Quantix, Company Reports, CRISIL Research

Telangana State Power Generation Corporation Limited (TSGENCO), wholly owned by the Government of Telangana, was incorporated on May 19, 2014 under the Companies Act, 2013. It started functioning from June 2, 2014 as per the AP Reorganization Act, 2014. Based on the geographical location, power projects in Telangana were transferred to TSGENCO, and those in residual Andhra Pradesh remained with Andhra Pradesh Power Corporation, w.e.f. June 2, 2014.

In fiscal 2022, TSGENCO commissioned the Bhadravati Thermal Power Plant of 540 MW. The company's installed thermal capacity improved to 4042.50 MW from 3502.50 MW as a result. Due to the addition of a thermal unit of 540 MW and increase in the plant load factor, TSGENCO reported an improvement in the unit's generation in fiscal 2022. Overall unit generation improved to 30,456 MU in fiscal 2022 as against 24,405 MU in fiscal 2021. The company's average thermal plant load factor slightly improved to 73.87% in fiscal 2022 as against 72.35% in the previous fiscal. Its financial profile is supported by improved operating profitability and support from state government offset by deterioration of debt metrics and delay in traffic orders

Andhra Pradesh State Beverage Corp Ltd

Company name	Andhra Pradesh State Beverage Corp Ltd (APSBCL)
Incorporation year	2015
Promoter	Government of Andhra Pradesh (GoAP)
About the company	
APSBCL was incorporated to trade in alcohol and spirits on behalf of the GoAP. The corporation was granted exclusive privilege of retailing liquor in AP effective from October 1, 2019. It is the sole liquor distribution agent for the GoAP. In December 2021, it was provided statutory status to implement welfare programmes	



Key financial parameters (FY21)

Figures in Rs billion

	Total revenue	231
	Total debt	14

	Net profit / (loss)	1
	Geographical diversification (districts)	13

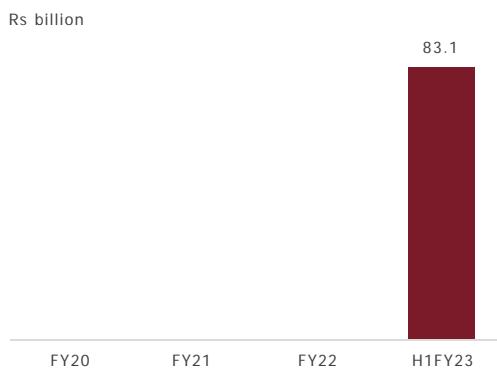
Note: Above parameters represent operational details and standalone financials of the company as of March 2022 and may include, as applicable, reclassification / adjustments to the reported financials by the entity.

Source: CRISIL Quantix, company reports, CRISIL Research

Trend in revenue



NCD Issued



Source: Prime database, CCIL-FTRAC, Crisil Research

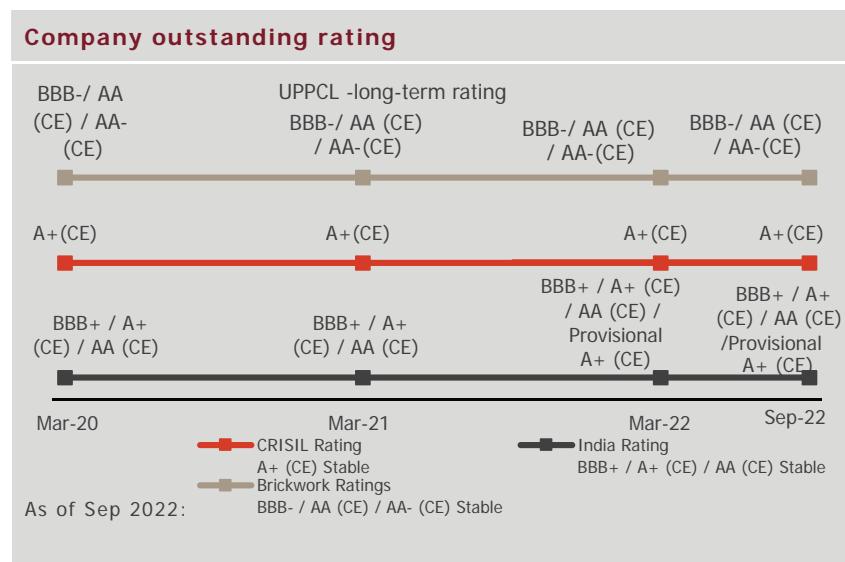
APSBCL has the exclusive privilege of retailing liquor in AP. It is the sole liquor distribution agent for the GoAP and carries out its operations through wholesale and retail outlets throughout the state. In addition, since 2021, it is also entrusted by the state government, for promoting the interests of the members of scheduled castes, scheduled tribes, and backward classes. Principal objectives of the corporation are: 1) the monopoly in liquor and 2) implementing welfare programmes entrusted to the corporation by the GoAP from time to time.

Income from operations, which accounts for more than 99% of total income, grew by 27% and was led by increase in sales and prices of alcoholic beverages. Other income, which is generated from implementing welfare programmes and schemes, accounts for less than 1% of the total income and grew by only 6%.

Financial profile of APSBCL is supported by its ownership by the GoAP, which has adequate capitalisation and liquidity. This is partially offset by a weaker asset quality and increasing NPAs as APSBCL also provides financial assistance to MSMEs and industries in backward regions of the state.

Uttar Pradesh Power Corporation Ltd

Company name	Uttar Pradesh Power Corporation Ltd (UPPCL)
Incorporation year	1999
Promoter	Government of Uttar Pradesh
About the company	<p>UPPCL was formed on January 14, 2000, by unbundling the Uttar Pradesh State Electricity Board into three separate entities: UPPCL, holding the transmission and distribution business; Uttar Pradesh Rajya Vidyut Utpadan Nigam Ltd that houses thermal generation; and Uttar Pradesh Jal Vidyut Nigam Ltd, which holds the hydro generation business. The transmission business was subsequently carved out of UPPCL into an independent government company in 2007, Uttar Pradesh Power Transmission Company Ltd.</p>



Key financial parameters (FY22)

Figures in Rs billion

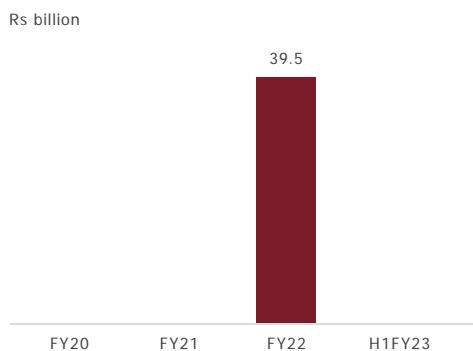
	Total revenue	553
	Total debt	756

Note: Total debt data taken from Annual report of entity as on fiscal 2022, which includes financial borrowings (current and non-current) and other such financial liabilities.

Above parameters represent operational details and standalone financials of the company as of March-2022 and may include, as applicable, reclassification/adjustments to the reported financials by the entity.

Source: CRISIL Quantix, Company Reports, CRISIL Research

NCD Issued



Source: Prime database, CCIL-FTRAC, Crisil Research

UPPCL was formed on January 14, 2000, by unbundling the Uttar Pradesh State Electricity Board into three separate entities: UPPCL, holding the transmission and distribution business; Uttar Pradesh Rajya Vidyal Utpadan Nigam Ltd that houses thermal generation; and Uttar Pradesh Jal Vidyut Nigam Ltd, which holds the hydro generation business. The transmission business was subsequently carved out of UPPCL into an independent government company in 2007, Uttar Pradesh Power Transmission Company Ltd.

The aggregate technical and commercial (AT&C) loss remained high at 31.3% and 27.2% in the first half of fiscal 2022 and fiscal 2021, respectively, similar to 30.4% in fiscal 2020. The gap in average cost of supply and average revenue requirement (ACS-ARR) continued to be high at Rs 0.98 per kilowatt hour (kWh) and 0.94 per kWh in the first half of fiscal 2022 and fiscal 2021 respectively, compared with Rs 0.34 per kWh in fiscal 2020, mainly due to lower revenue realisation, adverse customer mix and higher power purchase expenses.

Uttar Pradesh is the third-largest Indian state in terms of gross state domestic product (GSDP) with consistent revenue surpluses, benefitting from the high share in central tax devolutions (CTD) and healthy own-tax revenue. Because of the large population base, the state gets the largest share of tax devolutions at 17.9% as recommended by the 15th Finance Commission; a marginal decrease from the earlier share of 17.96%

(recommended by the 14th Finance Commission). The devolutions contribute to 30-35% of the overall revenue receipts. However, Uttar Pradesh has weak demographic and socio-economic positioning with a low per capita income compared with other states. The contribution from the secondary sector has also been declining, with high dependence on the primary sector. The state also has the fourth-highest population density and low literacy and urbanisation rates. The weak social indices will necessitate considerable outlays for eventual convergence to the national average level over a longer term. Its financial profile is supported by state government, however, the adequate liquidity is offset by high indebtedness and inefficient operations.

Peer comparison

S. No.	Company Name	Parameters		
		Total revenue (Rs billion)	Total debt (Rs billion)	Net profit / (loss) (Rs billion)
1	Tamil Nadu Generation and Distribution Corporation Ltd^	632	1443	-134
2	Telangana State Power Generation Corporation Limited^	110	270	2
3	Andhra Pradesh State Beverage Corp Ltd (APSBCCL)	231	14	1
4	Uttar Pradesh Power Corporation Ltd (UPPCL)	553	756	-83

Note: 1. Above parameters represent standalone financials of the company as of March-2022 and may include, as applicable, reclassification/adjustments to the reported financials by the entity.

2. ^financial data for these companies represent standalone financials of the company as of March 2021

Source: CRISIL Quantix

About TRUST



TRUST Group is India's leading full-service finance house with leadership in the debt capital markets along with fast-growing asset and wealth management vertical.

With over 20 year of experience, we provide solutions and services across multiple asset classes like debt, equity and real estate.

Partnership with clients. Value-creation beyond transaction. Longevity and long-term perspective. Above all, CLIENT FIRST. This is our DNA.



**Client reach across
375 Cities in India**



**Team strength of over
300 people**



**Demonstrated track
record of 20+ Years**

Honour Roll



Awarded 'Best Bond Adviser - Domestic' by The Asset Country Awards 2018



Awarded 'India Bond House' for the year 2017 & 2014 by IFR Asia



Won the Skoch BSE Award 2017 for Innovation and Market Leadership



Received BSE's Top Performer Award in Wholesale Debt Market (Corporate Bonds) - 8 years in a row (2011-12 - 2018-19) & 2021-22

Received BSE's Top Performer Award in Primary Market Segment (Debt Public Issue Bids - Members) for the year 2018-19, 2019-20, 2021-22

Received BSE's Top Performer Award in the Corporate Bonds Settlement for the year 2018-19, 2020-21, 2021-22

Received BSE's Top Performer Award in the Wholesale Debt Market (Government Securities) for the year 2020-21

Our Business



Investment Banking Solutions

Investment banking at TRUST is not just about transactions, we Offer comprehensive capital structure solutions across debts, equity and real estate markets. Innovation and structuring capabilities within defined time period differentiate us from our peers.

Debt

Capital Market Services

We are an active capital market intermediary offering value-added access. Intermediation and distribution services across debt, equity and real estate markets.

Equity

Asset Management & Advisory

We offer debt and equity asset management services to individuals, corporates and institutions. These services are focused on achieving disciplined and superior long term risk-adjusted returns for high quality capital.

Coverage Across

Real Estate

Wealth Management & Family Office Solutions

We provide a unique client-centric advisory platform offering bespoke solutions for wealth management and family office management, under the brand and entity of Trust Plutus Wealth Managers (India) Private Limited.

Compiled By:

Anindya Sen
Associate Director
Handset: +91-9167399925
a.sen@trustgroup.in

Dushyant Lalwani
Senior Vice President

Sales Contacts:

Pranav Inamdar
Director
Handset : +91-9820045537
pranav.inamdar@trustgroup.in

Parag Kothari
Associate Director
Handset : +91-9820683468
parag.kothari@trustgroup.in

Disclaimer

This report is for general information purpose only, without regard to specific objectives, financial situations and needs of any particular person. This report does not constitute an offer or invitation to purchase or subscribe for any shares/ bonds in any Company and neither any part of it shall form the basis of or be relied upon in connection with any contract or commitment whatsoever. Certain statements made in this report may not be based on historical information or facts and may be "forward looking statements", including those relating to a Company's general business plans and strategy, its future financial condition and growth prospects, and future developments in its industry and its competitive and regulatory environment. Readers are cautioned not to place undue reliance on such Forward Looking Statements, and should rely entirely on their own independent enquiries, investigations and advice regarding any information contained in this report. Any reliance placed by a reader/viewers on the information contained in this report is wholly at their risk. TRUST Group shall also not be liable for any damage or loss of any kind, howsoever caused as a result (direct or indirect) of the use of this data, including but not limited to any damage or loss suffered as a result of reliance on the contents contained in or available from this report.

The information contained in this report is only current as of its date. TRUST Group has taken due care and caution in obtaining the information in this report from various sources. In spite of this, if any omission, inaccuracy or printing errors occur with regard to data contained in this report, TRUST Group or its affiliates shall not be held responsible or liable. No representation or warranty, expressed or implied is made as to, and no reliance should be placed on, the fairness, accuracy, completeness or correctness of such information or opinions contained herein. No part of this material shall be copied or duplicated in any form by any means, or redistributed. Copyright of this report solely and exclusively belongs to Trust Group, and regardless of the purpose, any reproduction and/or use of this report in any shape or form without the prior written consent of Trust Group is strictly prohibited. TRUST Group may alter, modify or otherwise change in any manner the content of this report, without obligation to notify any person of such revision or changes.

About CRISIL Limited

CRISIL is a leading, agile and innovative global analytics company driven by its mission of making markets function better.

It is India's foremost provider of ratings, data, research, analytics and solutions with a strong track record of growth, culture of innovation, and global footprint.

It has delivered independent opinions, actionable insights, and efficient solutions to over 100,000 customers through businesses that operate from India, the US, the UK, Argentina, Poland, China, Hong Kong, UAE and Singapore.

It is majority owned by S&P Global Inc, a leading provider of transparent and independent ratings, benchmarks, analytics and data to the capital and commodity markets worldwide.

About CRISIL Market Intelligence & Analytics

CRISIL Market Intelligence & Analytics, a division of CRISIL, provides independent research, consulting, risk solutions, and data & analytics. Our informed insights and opinions on the economy, industry, capital markets and companies drive impactful decisions for clients across diverse sectors and geographies.

Our strong benchmarking capabilities, granular grasp of sectors, proprietary analytical frameworks and risk management solutions backed by deep understanding of technology integration, make us the partner of choice for public & private organisations, multi-lateral agencies, investors and governments for over three decades.

CRISIL Privacy Statement

CRISIL respects your privacy. We may use your personal information, such as your name, location, contact number and email id to fulfil your request, service your account and to provide you with additional information from CRISIL. For further information on CRISIL's privacy policy please visit www.crisil.com/privacy.

Disclaimer

This report is commissioned by Trust Group and prepared by CRISIL MI&A, a division of CRISIL Limited ("CRISIL"). By viewing, using or accessing this Report you ("user") agree and accept as follows: (i) While CRISIL uses reasonable care in preparing this Report based on the information obtained from sources it considers reliable ("Data"), CRISIL does not guarantee the accuracy, adequacy, completeness, authenticity or timeliness of the Data / Report and is not responsible for any errors or omissions or for the results obtained from the use of the Data / Report (ii) This Report is not a recommendation or investment advice. CRISIL especially states that it has no financial liability whatsoever to the subscribers/ users/ transmitters/ distributors of this Report. CRISIL Research operates independently of, and does not have access to information obtained by CRISIL Ratings Limited, which may, in their regular operations, obtain information of a confidential nature. The views expressed in this Report are that of CRISIL Research and not of CRISIL Ratings Limited; (iii) The user takes full responsibility for any use of the Report and CRISIL does not accept any liability whatsoever (and expressly excludes all liability) arising from or relating to the use of any part of the Data/Report by the user; (iv) The user will always use the Report 'AS IS' in its entirety and unless the user is specifically permitted by CRISIL in writing the user shall not in any manner: (a) copy, transmit, combine with other information, recompile, publish, reproduce or segregate any part or portion of the Report. The contents of this report are intellectual property and information of CRISIL. Altering or copying of the contents or distributing the report without attribution the source to CRISIL is strictly prohibited and violation will attract legal action.; (b) use the CRISIL brand name, logo or any other CRISIL intellectual property rights in relation to or in respect of the Report or in any manner that identifies or indicates that CRISIL is the author, developer, publisher or owner of the Report or that CRISIL has released the Report.

The report is for use within the jurisdiction of India only. Nothing in this report is to be construed as CRISIL providing, or intending to provide, any services in other jurisdictions where CRISIL does not have the necessary permissions and/ or registration to carry out its business activities. The user will be solely responsible for ensuring compliance for use of the report, or part thereof, outside India.



TRUST

In Partnership. With Trust.

1101, C-31, Naman Centre,
BKC, Bandra East, Mumbai - 400051

+91 22 4084 5000

www.trustgroup.in

www.indiadebtcapitalmarketsummit.com