Crisil Ratings

Crisil Ratings criteria for public finance

(Including approach for financial ratios)

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Section I.

Crisil Ratings methodology for Municipal and Urban Local Bodies (ULBs)

1 Executive summary

Municipal bodies have relied on both internal and external sources to fund expenses. While internal sources comprise tax and non-tax revenue, external consists of grants and transfers from governments, loans from institutions and concessional finance from multilateral agencies.

The emerging scenario indicates budgetary resources and recourse to institutional finance may not be adequate to meet the requirements for urban infrastructure, including critical services such as water supply and sewage. Hence, municipal bodies will need to explore alternatives such as promoting private sector participation in core services and accessing capital market to fund critical infrastructure projects.

The Crisil Ratings methodology for rating municipal and urban local bodies (ULBs) has been developed after an in-depth study of such bodies in India and abroad. Crisil Ratings was the first in Asia to award a rating to a municipal bond issued by an Indian municipal body in February 1998, and subsequent issuances by municipal bodies using this methodology.

Over the years, it has rated several municipal bodies to fulfil the requirements of AMRUT (Atal Mission for Rejuvenation and Urban Transformation) and National Smart Cities Mission. This has helped Crisil Ratings to fine- tune its rating methodology to factor in the latest trends in the sector.

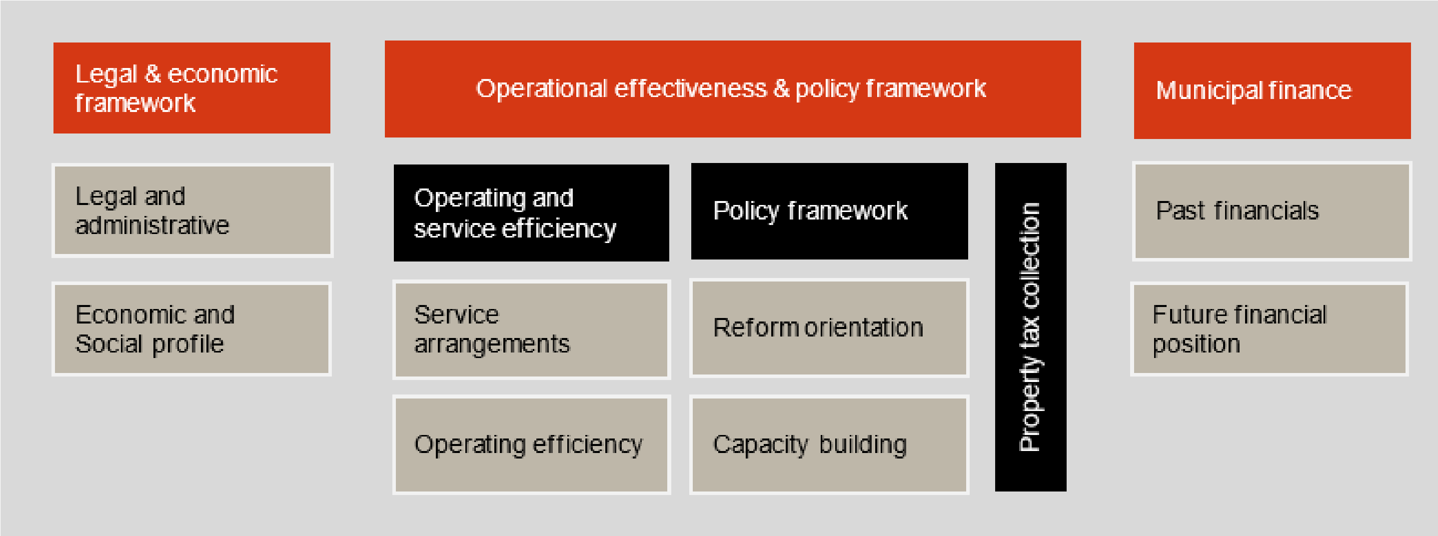
2 Scope

This section[1] covers rating methodology for instruments issued by municipal bodies and ULBs incorporated in India. The section also covers Crisil Ratings' methodology to financial ratios used for analysing these entities, including adjustments, if any, carried out to the reported metrics in the financial statements.

[1] *Link to previous criteria:*
https://www.crisilratings.com/content/dam/crisil/criteria_methodology/utilities/archive/crisil-ratings-criteria-for-municipal-and-urban-local-bodies-nov2023.pdf

3 Methodology

Crisil Ratings' methodology for municipal bodies entails an assessment of the following key factors:



4 Legal and economic framework

4.1 Legal and administrative framework

The analysis of the legal and administrative framework is based on the relevant Act that defines these elements of a municipal body. The Act also outlines the obligatory and discretionary services to be extended by a municipal body. Crisil Ratings believes a clear legal and administrative framework − incorporating matters relating to the functional domain, tax and non-tax powers, administrative and fiscal linkages with the state government, and the organisation and audit of accounts and borrowing powers – augurs well for managing the operations and finances of a municipal body. The key features, as defined in the Act and evaluated by Crisil Ratings, include:

4.1.1 Election of municipal authorities and decision-making process

Crisil Ratings studies the constitution of the municipal corporation, elections to the standing and working committees, and terms of office. It also studies the decision-making practices of municipal authorities, which provide insights into the time involved in taking important decisions, as also the transparency and responsiveness of the corporation to pertinent issues.

4.1.2 Municipal functional domain

Crisil Ratings evaluates the obligatory and discretionary services that have to be extended by a municipal body to determine its operational responsibilities and the constraints imposed therein. Specifically, if the Act envisages services such as public transport and hospitals as obligatory, it may negatively affect the credit risk profiles of the ULB as these services are typically run at commercially unviable user charges.

4.1.3 Tax-levying powers

This is evaluated in relation to the functional domain and tax effort of the municipal body, in terms of deploying all sanctioned tax options. A comparison of the municipality's functional domain versus its revenue-raising powers largely determines the potential fiscal strength of the corporation and its ability to maintain acceptable levels of services. The minimum and maximum tax rates and specific-user charges it levies constitute key inputs in assessing its flexibility and autonomy.

4.1.4 Borrowing powers and administrative requirements for mobilising funds from the capital market, as specified in the Act

Crisil Ratings assesses the flexibility of the municipal body to raise funds for projects. Checks imposed on borrowing are a critical consideration and include ceiling on debt, provisions available for earmarking revenue, sustaining a sinking fund and the manner in which such funds are maintained.

4.1.5 Funding support from state government

The Act specifies the revenue that a municipal body will receive by way of loans, grants or transfers from the state government. Crisil Ratings studies the method of such fund transfer and analyses the extent to which these are discretionary. Formula-linked transfers are viewed favourably as they are assumed to constitute a steady future revenue stream for the corporation largely independent of the political dispensation. Clarity and transparency in the transfer arrangement define the stability of grant receipts. This assumes importance in the light of the large share of state government grants in the revenue profiles of municipal bodies.

4.2 Economic and social profile

Crisil Ratings studies the economic base of the service area of a municipal body to assess the tax base, elasticity of tax income and the possibility of enhancing the body's tax base and revenue-generating potential. Some of the key indicators examined include:

- Population base and its growth rate and the proportion of slum population
- Industrial activity: This covers an assessment of the presence of industrial estates or major industries and of indicators such as sanctions and disbursements made by financial institutions, and industrial water connections in the service area
- Commercial activity: An assessment is made of economic activities being carried out in the service area
- Importance of the service area within the state as it will drive industrial and commercial activities in future
- Connectivity: Proximity to major economic centers
- Per capita property tax levels indicate the overall economic buoyancy in the area

An analysis of the economic base of the service area is particularly relevant with respect to cost recovery in services rendered. Crisil Ratings anticipates that most municipal entities would gradually get into a regime of full cost recovery. The economic base of the service area would thus be a strong indicator of the citizens' ability to bear increase in taxes and user charges. Furthermore, non-tax revenue from activities such as commercial property development would also depend to a large extent on the economic base. However, the economic base only indicates the potential revenue base and is less critical than the municipal body's efficiency in collecting taxes and controlling expenses.

5 Operational effectiveness and Policy framework

Key parameters evaluated by Crisil Ratings are:

- Operating efficiency and service arrangements – An understanding of the range of services (both obligatory and discretionary) provided by the municipal body and the level of penetration or adequacy of such services. The cost recovery from such services is also taken into consideration, measured in terms of the efficiency of tax collection.
- Policy framework – The functioning of the municipal body and its financial health depend on the initiatives taken by management to improve the internal processes and level of municipal services, and enhance the resource base. The ability to implement necessary reforms as well as organisational capability building is evaluated in detail.
- Property tax collection efficiency – Property tax is typically the largest own revenue source for most municipal bodies. An efficient collection mechanism of such taxes is central to its revenue and has a bearing on the overall financial independence. The frequency of property tax rate revision and undertaking of surveys are also studied in detail.

5.1.1 Service arrangements

In this, Crisil Ratings attempts to understand the existing operations of the municipal body by studying the range of services it provides and comparing its obligatory and discretionary services as defined in the Act. Crisil Ratings takes a positive view of municipal bodies that focus on providing mandatory services, against those that focus more on discretionary services.

An in-depth evaluation is conducted of core services that include water, sewage and drainage (area and population coverage, per capita supply and treatment capacity), primary education and health services (number of schools and hospitals). A low level of existing services indicates pressure on the body to spend extensively on infrastructure.

Services provided in terms of area or population coverage and quantum of per capita water supply are carefully benchmarked to arrive at a relative standing of the service arrangements.

5.1.2 Operating efficiency

Crisil Ratings evaluates the track record of collecting property and water taxes. The cost of services recovered from collection of charges levied is also studied. The ability of the municipal body to increase revenue collection and recover costs indicates stability in income and hence the financial capability to improve existing services or widen service base.

5.1.3 Reform orientation

Crisil Ratings analyses the efforts the local body takes to improve its operations and accounting quality. Providing better services gives greater satisfaction to citizens and increases their willingness to pay user charges. This is important as local bodies are striving to improve cost recovery in the services offered. Local bodies that focus on operational reforms have better prospects of improving revenue.

5.1.4 Capacity building

It has been the experience of Crisil Ratings in municipal bond ratings that a corporation’s financial health is, to an extent, linked to the initiatives undertaken by its management to enhance the resource base and improve municipal services. In Crisil Ratings opinion, it is therefore important to analyse: (1) organisational structure; (2) administrative systems and procedures; (3) project management skills; (4) the control exercised on expenditure; (5) the ability to manage political forces and resist political interference; and (6) the initiative taken to enhance resources, implement reforms and improve collection mechanisms.

5.1.5 Property tax collection efficiency

In this, Crisil Ratings evaluates the per capita property tax collection, which is a comprehensive indicator of the economic activity in the area and the service level of the corporation. It also examines the details of the trend in tax rate revisions, administrative structure and systems and procedures for improving collection, such as GIS mapping or surveys.

6 Municipal finances

Crisil Ratings analyses municipal finances in detail in the prevailing framework of revenue and capital accounts.

6.1.1 Own revenue receipts

Crisil Ratings analyses own revenue receipts closely as they provide an understanding of the efforts of municipal bodies to generate revenue for the services rendered. Own revenue receipts are broadly classified into tax and non- tax revenue. Tax revenue includes own taxes (collected by the local body within the municipal limits) and shared taxes (may be levied by either the local body or the state government and shared by both). Non-tax revenue comprises user charges and other own sources, such as rent from municipal properties and revenue from town planning. Crisil Ratings regards greater reliance on own revenue a positive factor as the local body has better control on income. Therefore, this is considered to be a more stable revenue source.

The main source of own tax revenue for municipal corporations across the country is property tax. Crisil Ratings places emphasis on the property tax assessment and collection mechanisms adopted by a municipal body. Growth in property tax collection is evaluated in the context of the increase in the number of eligible properties and their assessed rental values. Crisil Ratings also studies the simplicity and ease of applicability of the taxation rules. Finally, the track record of the corporation with respect to the frequency and extent of rate revisions and collection efficiency is analysed. Additionally, there are grants received from the state government that are quite stable, considering the extent of support most municipal bodies receive from state governments. With GST (Goods and Services Tax) subsuming own revenue such as octroi and local body tax, the dependence of municipal bodies on state government grants has increased. While analysing grants from state governments, greater importance is attached to stable and non-conditional grants that do not impose a burden on the corporation in terms of performing additional functions. The likelihood of a reduction in state government grants due to deterioration in financial health, and the stability and transparency of the transfer mechanism are also assessed. The recommendations of relevant state finance commissions, if available, are also evaluated.

6.1.2 Revenue receipts

A corporation’s revenue receipt is a reflection of its size. The revenue base of the corporation can be classified into tax revenue, non-tax revenue, shared tax revenue and grants. Larger the revenue receipts of the corporation, higher is its ability to meet the increase in expenditure.

Revenue receipt = tax revenue + non-tax revenue + shared tax revenue + grants

6.1.3 Own revenue / Revenue receipts

This indicates the degree of self-reliance in terms of revenue generation that limits dependence of a corporation on state government grants. Most municipal corporations receive financial support in the form of state governments grants to meet current expenses. Own revenue, over which the local body has greater control, is considered a more stable source as it is largely in control of the municipal corporation.

Higher share of grants compared to own revenue sources indicates greater dependency of ULBs on state governments. This is also because key revenue grants such as octroi, which was earlier levied by ULBs, is now abolished and replaced with state government grant as compensation for loss of revenue.

Own revenue / revenue receipt = (tax revenue + non-tax revenue) / total revenue receipt

6.1.4 Revenue expenditure

Crisil Ratings carries out an activity- and head-wise assessment of the revenue expenditure incurred by a municipal body. The activity-wise analysis focuses on the stability and consistency in expenditure allocations made for providing core services. The service quality is also measured by comparing the per capita expenditure on core services across municipal corporations.

The Crisil Ratings analysis of revenue expenditure considers the allocations made under various functions such as wages and salaries, operating expenses, repairs and maintenance, and debt servicing. This analysis indicates the causes of any increase in expenditure, and the flexibility and controls that can be exercised by the municipal body. Crisil Ratings believes in cases where wages and salaries and debt-servicing components constitute a major proportion of the total cost, the extent of flexibility and the potential for expenditure control are limited.

6.1.5 Operating revenue surplus/deficit (revenue receipts less revenue expenditure)

The surplus position is examined to see whether it accrues from an increase in revenue or the control exercised over expenditure, or a mix of both. In Crisil Ratings' experience, this parameter is a better indicator since it has a greater control over income and expenditure. Also, the level of operating surplus provides a sense of funds available with the body for debt-servicing and part-funding any infrastructure addition. Mostly, a better operating revenue surplus over the years should improve capacity over and above the capital income-related additions. This would augment revenue base, thereby ensuring sustainability in income.

6.1.6 Operating revenue surplus/Revenue Receipts

The amount of surplus generated by the corporation is considered critical as it indicates its ability to fund capital expenditure (capex), and its operating efficiency. A high ratio of surplus to revenue receipts is considered favourable as it implies that a large part of the revenue receipts can be directed towards productive capital works.

Operating surplus/revenue receipt = (revenue receipt – revenue expenditure)/total revenue receipt

6.1.7 Capital account

Crisil Ratings assesses the stability of a municipal body's capital receipts as well as its judicious deployment towards capacity building. It does not look favourably at forced capital surpluses arising from cutbacks in capex to fund revenue deficits. A track record of consistent and rising developmental capex is viewed positively as this would build the economic infrastructure in the municipal domain, thereby improving the civic services provided in the service area and the overall investment climate of the corporation.

6.1.8 Debt servicing

The debt profile of a municipal body is assessed with reference to the source, tenure, interest rates, and repayment arrangements of all its major loans. The loan repayment schedule and average interest cost are also examined in detail. The operating surplus as a proportion of net debt (total debt-sinking fund) is looked at to understand the operational capability of the municipal body to service debt. Interest coverage (operating revenue surplus to interest expense) and debt service coverage (operating revenue surplus to principal and interest repayments) ratios are also assessed.

Interest coverage ratio represents the extent of cushion a corporation has to meet interest obligation from its revenue surplus. This ratio provides an indication of the debt servicing and liquidity stress from the revenue account perspective. This ratio is akin to the interest coverage ratio of manufacturing and services entities, and hence links a corporation's interest and finance charges to its ability to service them from own revenue surplus.

The ratio implies that the corporation should generate adequate operating surplus for it to be able to meet its interest obligation. Corporations with a higher interest coverage ratio can better absorb adversity and are more likely to pay interest on time.

Interest cover = (revenue receipt – revenue expenditure)/interest and finance charges

Debt service coverage ratio (DSCR) measures the availability of cash to meet interest and principal obligations. DSCR measures the ability of the corporation to produce enough cash to cover its debt payment. The ratio captures the internal resource capacity of the corporations to repay debt. A higher DSCR would suggest better debt-servicing capacity.

DSCR = operating surplus/(interest + principal repayment)

With respect to projects undertaken by corporations for which funds are being raised, Crisil Ratings assesses the existing level of service, improvements envisaged through the project, project cost, means of funding, and the effect of debt-funding on the municipal body's DSCR.

6.1.9 Liquidity

The availability of unencumbered cash balance or liquid investment adds to the financial flexibility of a municipal body and provides cushion for meeting operational expenses and debt repayment in case of cash flow mismatches. Hence, a greater quantum of such balances are viewed favourably by Crisil Ratings.

7 Conclusion

The Crisil Ratings' methodology for rating municipal and urban local bodies focus on their legal and economic profiles, operational efficiency and capability building, and financial position. It is based on the Crisil Ratings understanding of, and experience in, rating municipal bodies and on studies conducted of such bodies in other geographies.

Rating methodology for municipal and ULBs

Legal and economic framework

Legal and administrative framework

- Municipal functional domain
- Taxation powers
- Tax collection ability and experience in managing the arrears in collections
- Borrowing powers
- Ability to pledge revenue for servicing debt or creation of sinking fund

Economic and social profiles

- Demographics and area covered
- Industrial and commercial activities
- Population growth rate
- Importance of the city
- Per capita property tax or creation of sinking fund

Municipal finances

- Accounting quality
- Analysis of surplus/deficits
- Growth in tax and non-tax revenue
- Collection efficiency, debtor analysis
- Dependence on state governments for discretionary grants and fund transfers
- Expenditure on core services
- Past/projected debt-servicing requirement
- Past/projected DSCR
- Liquidity
- Projected revenue/expenditure growth

Current and future financial positions

- Own revenue/revenue receipts
- Grants from the state government/total revenue
- Operating surplus/deficit
- Operating surplus/revenue receipt
- Non-debt capital income/capex
- Operating surplus/net debt
- Interest coverage ratio
- Debt-service coverage ratio

Project-specific issues

- Proposed projects
- Project tenure and funding pattern
- Servicing of debt contracted for new projects
- Existing services and improvements envisaged

Operational effectiveness and policy framework

Operating and service efficiency

- Expenditure on core services/total expenditure
- Establishment cost/revenue expenditure
- Water supplied per capita
- Area and population coverage for each of the core services
- Per capita expenditure on primary education
- Capex in relation to existing services
- Per capita expenditure on health services
- Collection efficiency of taxes and user charges

Policy framework

- Organisational structure and responsibility division
- Systems and procedures: level of computerisation
- Project management capabilities and track record of execution
- Reform orientation
- Initiatives adopted to enhance resources
- Level of control exercised on expenditure
- Level of disclosures and transparency

Property tax collection

- Level of tax collection per capita

Section II.
Crisil Ratings methodology for State Governments

1 Executive summary

While assigning ratings to the debt instruments of public sector enterprises backed by guarantees, letter of comforts (LoC), and shortfall undertakings from state governments, Crisil Ratings evaluates the credit quality of state governments. The rating on the guaranteed instrument is typically equated to the rating of the state government with the suffix, 'CE' (indicating credit enhancement).

Crisil Ratings evaluates a state government's credit quality on the following factors:

- Economic structure of the state
- State government finances
- Economic management of the state government

2 Scope

This section elucidates Crisil Ratings' methodology for assessing the credit quality of state governments. It primarily highlights the methodology[2] adopted by Crisil Ratings in rating the instruments issued by state government enterprises and backed by guarantees, LoCs, and shortfall undertakings from state governments. The section also covers Crisil Ratings' methodology to financial ratios used for analysing state governments, including adjustments it carries to the reported metrics in the financial statements.

Crisil Ratings assigns CE ratings for debt instruments backed by guarantee, LoCs, and shortfall undertakings issued by state governments.

Crisil Ratings also analyses the adequacy of the payment mechanism to ensure timely debt repayment to investors. However, this section does not deal with the analysis of the payment mechanisms which is covered in detail in other criteria: *'Basics of Ratings', published under 'Criteria and methodology'* www.crisilratings.com.

3 Crisil Ratings assessment framework

Crisil Ratings' ratings are forward looking and essentially relative. Assessment is based on evaluation of three factors and relative comparison with other states with a specific focus on future outlook. A brief description of the parameters used to assess the credit quality of state governments is highlighted below:

3.1 Economic structure

A state's economic structure impacts its finances and debt-servicing capacity. Well-developed economic and social infrastructure and abundant natural resources are the right ingredients for economic development. Crisil Ratings believes economic development will translate into improvement in state government finances over the medium to long term, given the enhanced tax revenue from increased economic activity and the reduced need for development expenditure. Conversely, weak socio-economic infrastructure and a socially under-developed population will limit the state's future economic development and necessitate higher developmental expenditure.

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[2] *The previously published article may be accessed on the following link: https://www.crisilratings.com/content/dam/crisil/criteria_methodology/criteria-research/archive/rating-criteria-for-state-governments-june2023.pdf*

The states need to strike the right balance between developing social and economic infrastructure to foster economic development. Both social infrastructure and a socially developed population are required for economic development. Social infrastructure (such as literacy and health services) takes longer to develop and to effect economic development than do economic infrastructure (such as roads and power). However, investments in social infrastructure are necessary to sustain the benefits derived from developing economic infrastructure.

3.1.1 Gross state domestic product

Crisil Ratings, in its analysis of a state's credit quality, considers the following as the most critical features of economic structure:

- Sectoral composition of gross state domestic product (GSDP)
- Growth rates of aggregate and per capita GSDP
- Shifts in composition of GSDP

A vibrant economy with strong secondary (manufacturing, construction, electricity, gas, and water supply) and tertiary (trade, hotels, transport and communication, financing, insurance, real estate, business services, public administration, defence, and other services) sectors in the organised segment leads to continuous improvement in the state government's tax revenue. Over-dependence on the primary sector (comprising agriculture, forestry, fishing, mining and quarrying), on the other hand, limits the tax resources. However, significant competitive advantage in the primary sector may translate into higher disposable incomes, and tax and other revenue for the state, and substantial tertiary sector development. Diversity in a state's economic activities mitigates the impact of large fluctuations in economic output by any one sector. Hence, over-dependence on one or two industries or agricultural crops is viewed unfavourably by Crisil Ratings.

Other socio-economic indicators evaluated in assessing a state's likely future economic growth, and thus, the likely growth in its tax revenue potential, are:

3.1.2 Demographic profile

A socially developed population indicates the availability of trained and healthy manpower, and augurs well for future economic growth. In addition, it minimises the need for expenditure on social development in future. The state's demographic profile is assessed on the basis of per capita income, population below poverty line, level of urbanisation, employment rate, literacy, and birth, death, and infant mortality rates.

3.1.3 Social infrastructure

The availability of educational institutions and health facilities is examined to assess the state's likely social and economic development. Social infrastructure has a critical bearing on demographic profile, which, in turn, plays a key role in economic development.

3.1.4 Economic infrastructure

A state's economic infrastructure indicates its ability to take on greater economic activity and also increases its attractiveness as an investment destination for the private sector. Evaluating these parameters on a per capita basis facilitates a one-to-one comparison with other states. Specific attention is accorded to projects that are coming up in the state to evaluate its outlook. The major parameters evaluated under economic infrastructure are:

3.1.4.1 Power

The availability of power is a key input for any state's industrial development. Installed capacity, actual power generated, and the augmentation in installed capacity are key determinants of the state's economic structure.

3.1.4.2 Irrigation

The extent of irrigation facilities available in a state determine its ability to improve agricultural output.

3.1.4.3 Transport facilities

A well-developed transport sector facilitates smooth intra- and inter-state movement of goods and people. The availability of roads, railways, ports, and airports are key indicators used to evaluate the quality of transport sector infrastructure.

3.1.4.4 Industry profile

The level of industrial development and diversification, and the prospects for industrial growth have a critical bearing on economic development.

3.1.4.5 Investment attractiveness

States need to attract fresh investments to achieve strong growth in economy. The flow of private investments (both domestic and foreign) indicates the attractiveness of investment opportunities in the state. The state's ability to attract private sector investments is assessed *vis-a-vis* the size of its economy. A comparison on this parameter with other states is a valuable input to assess investment attractiveness.

3.1.4.6 Labour market

The availability of trained and skilled manpower, the industrial relations environment, employment rate, and occupational patterns are some key indicators assessed under labour market conditions.

3.1.4.7 Natural resources

The indicators of natural resources considered in analysing economic structure are:

- Forest cover
- Water and irrigation resources, rivers, and rainfall
- Mineral reserves
- Accessibility (terrain); accessibility to coastline and port facilities

3.1.4.8 Agriculture

Agriculture remains the primary occupation in most states in India. Stability and growth in agricultural output are, therefore, key factors for economic structure, with the following being the major parameters:

- Cropped and irrigated land under various crops
- Trends in composition of agricultural produce
- Growth trends in total and per hectare output
- Use of modern techniques and inputs such as fertilizers, pesticides, and high yield variety seeds

3.2 State government finances

Analyses of state government finances include assessment of fiscal management, resource availability, expenditure management, indebtedness, and the medium-term outlook on these parameters.

3.2.1 Revenues

The four basic categories of revenue sources for a state government are the state's own tax revenues (SOTR), the state's own non-tax revenues (SONTR), the state's share in central taxes (SCT) and grants from the centre (GFC). Of these, Crisil Ratings considers SOTR as the most important indicator of a state's ability to generate revenue and support expenditure. While SONTR is fairly limited in size and primarily comprises interest income and user charges on various services, Crisil Ratings considers it an important source for revenue enhancement in future, when more and more state governments would resort to higher recovery of user charges. SOTR depends upon:

- Tax potential
- Tax effort

With the advent of goods and services tax (GST), states no longer enjoy the autonomy to fix tax rates for a variety of goods. Sales tax on several goods, along with other state taxes, which formed a significant portion of the SOTR of a state, is currently subsumed under GST. The tax rates are currently being fixed by the GST Council, comprising representatives from the central government and state governments. However, states will continue to exercise powers to levy tax on items that do not fall under the purview of GST, like liquor, stamps and registration duties, electricity duties and motor vehicle tax, or on items that are proposed to be brought under the purview of GST on a later date, like crude petroleum, high speed diesel, natural gas. Although state's powers to levy taxes on goods has been curtailed following GST, taxes on services have been brought under GST, which was earlier exclusive to the central government.

The tax potential (per capita and aggregate) of a state depends on income levels, and also on the GSDP's sectoral composition. For instance, an economy based predominantly on agriculture and an unorganised industrial sector would normally have a low tax potential. The exceptions would be states where a substantial proportion of the families receive remittances from relatives residing outside the state, resulting in increased purchasing power and consumption patterns, which, in turn, would lead to an increase in tax-based revenues.

The tax effort is an indicator of the state's performance on tax collections, given the tax potential. A superior tax effort results in better tax revenues for the state government. An inferior tax effort, on the other hand, indicates an untapped resource potential, which hinges on the state government's ability to augment its own tax revenues further.

SCT is determined on the basis of the Finance Commission's (FC) recommendations. As the FC is a constitutional body, and the share in central tax is determined on the basis of a formula, Crisil Ratings believes that this resource can be concluded to be fairly sustainable and non-discretionary in nature. Thus, even though a high dependence on SCT may not be considered to be as favourable as a high reliance on SOTR and SONTR, Crisil Ratings believes it is better than a dependence on discretionary and nondiscretionary grants.

GFC comprises post devolution revenue deficit grants prescribed by the FC, and other discretionary grants from the centre like centrally sponsored schemes (CSS). Crisil Ratings views a significant dependence on GFC as unfavourable for state governments as it indicates an insufficiency in the states' own resources, and majority of the GFC are tied to specific end-uses, limiting the flexibility of state governments to deploy these funds as per their discretion.

Revenue Receipts (RR):

The revenue receipts (RR) of states comprise states' own tax revenues (SOTR), states' non-tax revenues (SONTR), share in central taxes and grants from center (revenue deficit grants and grants tied to end use).

Revenue receipts are those receipts that do not produce any liabilities and result in a claim against the state government. Share of state's own revenues (SOTR + SONTR) in its RR, is an important indicator of the state's ability to generate revenue and support expenditure requirements.

SOTR comprises of direct taxes and indirect taxes (such as customs duties, excise taxes). SONTR primarily comprises interest income and user charges on various services – these are important sources for revenue enhancement, if a state resorts to higher recovery of user charges.

Grants from Centre / Revenues:

GFC comprises post devolution revenue deficit (PDRD) grants prescribed by the FC, and other grants from the center like centrally sponsored schemes (CSS). A significant dependence on GFC may be seen as unfavourable for state governments as it indicates insufficiency in the states' own resources, and majority of the GFC are tied to specific end-uses, limiting the flexibility of state governments to deploy these funds as per their discretion.

3.2.2 Expenditure

Crisil Ratings addresses two major issues while analysing state government expenditure: whether the overall expenditure level has been under control, that is, whether the state government has been spending in line with its revenue sources; Crisil Ratings also examines if the state government has made and implemented any specific election promises, which have affected its expenditure in the past. Crisil Ratings believes it is important to examine if the state government has undertaken any specific expenditure control programs. These issues are highlighted by the general level of subsidy and user charges in the state and the government's policy on subsidies.

The other issue that deserves attention is the composition of expenditure. Sizeable developmental expenditure should lead to social and economic development. However, state governments need to achieve a judicious mix between economic and social development expenditure as neglecting either of them could have a serious implication on the state's economy.

State expenses:

State expenses are broadly segregated into two categories revenue and capital expenditure.

- The portion of government spending that does not result in the generation of assets is known as revenue expenditure. Revenue expenditure includes employee costs, subsidies payments, support to public sector units, and debt-servicing. If a significant portion of the revenue expenditure is committed expenditure, the fiscal space of the state government to incur developmental expenditure gets constrained, thereby limiting the future economic growth prospects of the state. Hence, a low share of committed revenue expenditure is considered favourable.
- Capital expenditure is associated with investment or development spending, where expenditure has benefits extending years into the future. Capital expenditure includes money spent by the government on the development of machinery, equipment, building, health facilities, education, etc. It also includes the expenditure incurred on acquiring fixed assets like land and investment by the government that gives profits or dividend in future.

3.2.3 Deficit management

Deficit levels are indicative of the quality of economic management. An increasing revenue deficit level, as a proportion of revenue receipts or revenue expenditure, is a cause for concern. The quantum of gross fiscal deficit (GFD) as a proportion of GSDP is another important input that differentiates the credit quality of state governments.

The GFD's composition in terms of the capital expenditure, net lending, and revenue deficit provide an insight into the quality of fiscal and economic management. If the revenue deficit has a lower share in the GFD, it indicates a higher contribution towards capital formation in the state. The states' tax potential should improve if capital formation facilitates increase in economic activity over the medium to long term.

3.2.4 Indebtedness

A state government's level of indebtedness in relation to its revenue receipts, the size of its economy and the debt service coverage by revenue receipts are key indicators of its debt-bearing capacity. Indebtedness factors in debt and outstanding guarantee stocks. Crisil Ratings evaluates the state's overall level of indebtedness with ratios such as (Debt + guarantee)/Revenue receipts, [(Revenue receipts - (revenue expenditure - interest)]/Interest and [(Revenue receipts - (revenue expenditure - interest)]/ (Interest + debt servicing). In addition, Crisil Ratings looks at the composition of the debt, its growth rate, its terms in respect of interest rates and tenure as well as other factors such as bunching of repayments, existing quantum and future availability of debt on concessional terms from multilateral and bilateral institutions. Crisil Ratings also analyses the composition of guarantee stock and the likely impact of its devolution on state finances.

Revenue Deficit (RD) / Revenue Receipts (RR):

RD/RR indicates the revenue deficit as a percentage of revenue receipts of state government.

Revenue deficit refers to the excess of total revenue expenditure over total revenue receipts. It means that govt. is unable to meet its revenue expenditure from its revenue receipts. If the fiscal deficit is constant, a higher revenue deficit means the government bears a higher load of repayment.

Fiscal Deficit:

Fiscal deficit is defined as the gap between the total revenue and total expenditure of a government in a financial year. It is an indication of the total borrowings needed by the government, which will help to cover the fiscal deficit. It serves as an indicator of management of finances by the government.

Capital outlay/fiscal deficit:

Capital outlay to fiscal deficit ratio helps to analyse the contribution of capital outlay to fiscal deficit. Capital outlay is defined as capital expenditure carried out to maintain, upgrade, acquire, or repair capital assets. A critical aspect of analysing a state’s expenditure management is assessing its flexibility to curtail expenses in case of an economic downturn or revenue decline. With this perspective, a higher share of capital expenditure normally indicates greater flexibility for curtailment in the immediate term; however, sustained cut-back of capital investments may likely have an adverse impact on the state’s infrastructure and hence economic prospects in the long term.

Gross Fiscal Deficit (GFD)/Gross State Domestic Product (GSDP):

Gross State Domestic Product (GSDP) is a measure in monetary terms, the sum 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 without duplication.

A fiscal deficit is calculated as a percentage of gross domestic product (GDP) to understand the trend of borrowing by the government. Lower values of the ratio signify that financial management is better for the government.

(Debt + Guarantees) / Gross State Domestic Product (GSDP):

The ratio measures the financial leverage of the state government and helps to understand the state government’s ability to pay back its debts. Generally, the lower the debt-to-GSDP ratio, better is the financial risk profile of the state government. The guarantees given by the state government for repayment of borrowings is also included to arrive at the overall debt profile of the state government.

(Debt + Guarantees) / Revenue Receipts:

(Debt + Guarantees)/Revenue Receipts measures state government's level of indebtedness in relation to its revenue receipt. Generally, lower the debt-to-RR ratio, better is the financial risk profile of the state government.

Revenue Receipts/Interest:

Revenue Receipts (RR) /Interest measures state government's ability to timely honour its interest obligations in relation to its revenue receipt. Generally, higher the Revenue Receipts (RR)/Interest ratio, better is the financial risk profile of the state government.

[Revenue Receipts - (Revenue Expenditure - Interest)] / Interest:

This ratio measures state government's ability to honour its **interest** obligations in relation to its revenue receipt after accounting for other revenue expenditure (excluding interest). Generally, higher the ratio, better is the financial risk profile of the state government.

[Revenue Receipts - (Revenue Expenditure - Interest)] / (Interest + Debt Servicing):

This ratio measures state government's ability to honour its debt obligations in relation to its revenue receipt after accounting for other revenue expenditure (excluding interest). Generally, higher the ratio, better is the financial risk profile of the state government.

3.3 Economic management of the state government

Crisil Ratings analyses the state government's economic policies in order to assess their impact on the state's finances and economic development. The key elements of economic management that have an impact on the state government's rating are:

- Consistent focus on economic reforms
- Guarantee and debt management
- Industry and infrastructure policy
- Liquidity
- Performance of state-owned enterprises
- Political risk

3.3.1 Consistent focus on economic reforms

Consistent focus on economic reforms is the bedrock for sustained economic growth. Any reversal of reforms not only affects the state's fiscal health but also limits its prospects. Events such as providing free power to the agriculture segment, giving away freebies, or waiving off interest and principal on loans are viewed negatively and directly affect the state government's credit risk profile. Conversely, efforts to contain wasteful expenditure and to enhance revenue base support the states' credit risk profile. Consistent adherence to economic reforms strengthens the state's credit risk profile and instils reforms on a sustained basis. This plays a key role in improving a state government's fiscal health.

3.3.2 Guarantee and debt management

Considerable emphasis is placed on the guarantee management systems deployed by state governments. The states have traditionally extended guarantees to the borrowing programs of state-owned enterprises. Therefore, the state government's policy in terms of its criteria for extending guarantees, for guarantee monitoring systems and maintaining prudent limits on contingent liabilities are significant rating factors. The state government's ability and willingness to honour financial commitments arising from contingent liabilities are considered. Moreover, adequate funding of the guarantee redemption fund is a rating comfort as it helps in timely servicing of obligations arising from an unexpected devolvement of guarantees.

3.3.3 Industry and infrastructure policy

A state government's industry and infrastructure policy determines the pace of economic growth, with better growth prospects possible in a period of competitive federalism. It is, therefore, important to understand the state government's policy on the development of roads, rail links, ports, airports, power, telecom, water supply, irrigation and the like. A well-developed infrastructure permits state governments to employ their limited funds for other developmental purposes.

3.3.4 Liquidity

State governments have access to ways and means advances (WMA) and an overdraft facility from the Reserve Bank of India (RBI) to bridge their short-term funding gaps. The number of times a state has had to approach the RBI for WMA and the interest paid on this account reflects the state government's financial flexibility and funding management. Sustained use of this facility in large amounts indicates poor liquidity management, or a liquidity crisis on account of a resource crunch.

3.3.5 Performance of state-owned enterprises

The performance of state-owned enterprises, especially the state power utilities and road transport corporations, can significantly affect state government finances. Hence, it is important to analyse the pricing policy and estimate the quantum of direct and indirect subsidies extended by the state government to the transport and energy sectors.

Most states have undertaken power sector reforms under the Ujwal Discom Assurance Yojana (UDAY). While UDAY is expected to improve the viability of the electricity sector, the financial burden on state governments has increased.

3.3.6 Political risk

The political situation in the state is assessed to evaluate its potential impact on the state's finances and economic development. Political risk is generally driven by political instability. Frequent changes in government may disrupt continuity in the state's economic policies; this is because political instability is known to lead to the implementation of populist schemes, which considerably weaken state government finances. Changes in government have often also led to a cancellation or review of large private-sector projects in the state in the absence of a broad political consensus on major economic policies among the various parties in a state.

4 Conclusion

Crisil Ratings believes the future direction of state government finances will determine its ability to meet financial commitments. Past trends are, to some extent, indicative of future financial performance. The credit quality, and therefore, the ratings of state governments will be driven by their economic structure, finances, and economic management.

State government ratings: key indicators

Economic structure

- GSDP composition and growth rate
- Per capita GSDP and growth rate
- Demographic profile
- Availability of power, roads, railways, irrigation etc.
- Availability of education and health facilities
- Industry growth rate
- Natural resources
- Infrastructure index

State government finances

- Revenue Receipts (RR) and Expenditure
- State's Own Revenues / Total Revenues
- Grants from Centre / Revenues
- Revenue Deficit (RD)
- RD / RR
- Fiscal Deficit and its Composition
- Capital Outlay / GFD
- GFD / GSDP
- (Debt + Guarantees) / GSDP
- (Debt + Guarantees) / Revenue Receipts
- [(Revenue Receipts - (Revenue Expenditure - Interest)] / Interest
- [(Revenue Receipts - (Revenue Expenditure - Interest)] / (Interest + Debt Servicing)
- Revenue Receipts / Interest
- Debt profile: interest & principal repayments

Economic management

- Economic and administrative reforms
- Guarantees and debt management
- Utilisation of Ways & Means Advances
- Performance of state-level PSUs
- Power sector reforms
- Political stability

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About Crisil

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