

Rating Methodology - Urban Infrastructure Projects

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The term 'Urban Infrastructure Projects' is used to describe projects providing water supply, sanitation, solid waste management, bridges and roads, urban transport, bus terminals, public housing, shopping complexes and other public facilities. Urban infrastructure services in India have been traditionally provided by public agencies operating at different levels of government, viz, local, state and central. These include municipalities, utility boards, development authorities and government departments. For instance, in India, water supply and sanitation is provided by different institutions in different areas. While generally, municipal corporations are responsible for capital works and maintenance, a few cities have metropolitan utility boards that undertake this function. In smaller cities, project implementation is done by state-level utility boards or the state's Public Health Engineering Department, whereas the maintenance function is done by the local bodies. The term 'municipal bodies' is used to describe local administrations or statutory undertakings providing civic or infrastructural services.

Urban infrastructure financing has been traditionally done through internally generated resources of municipal bodies, grants and transfers from central and state governments and funds from international organisations and domestic financial institutions like HUDCO and LIC.

In the present scenario, budgetary allocations to municipal bodies cannot be expected to increase substantially and may even decrease, with the control of fiscal deficit becoming a critical area of economic management. Concessional funding from financial institutions can be ruled out. Access to multilateral and bilateral funding is also going to be difficult, as there is increasing pressure from the donor countries to bring about greater accountability and market orientation in the projects financed by them. Municipal bodies, therefore, need to explore alternatives such as private sector participation and identify new sources of funds, such as municipal bonds, for financing core infrastructure projects.

Financial instruments issued by municipal bodies to raise resources from capital markets are commonly known as municipal bonds. Municipal bonds may be of many types, with varying durations and for different purposes, with fixed or variable interest rates. There are mainly two types of municipal bonds, viz, general obligation bonds and revenue bonds:

a) General Obligation Bonds (GOBs)

These bonds are backed by a pledge of the full faith and revenue raising powers (mainly taxing powers) of the municipal corporation. The use of General Obligation bonds may be appropriate for financing general municipal functions, where it may not be possible to ensure direct cost recovery from specific projects [like roads, street lighting, public health, etc.], Through a GOB issue, a municipal corporation with a good financial position can use its overall credit worthiness for raising finance for projects, each of which may not be commercially viable on its own.

b) Revenue Bonds

These are primarily backed by the user fees or service charges paid by the users of a particular service. Revenue bonds are normally off-balance sheet liabilities of municipal corporations. They are used primarily for funding revenue-producing public services such as housing, water supply, toll highways, ports, airports, etc.

The municipal bond market is a specialized segment of the debt market. In the US, most urban infrastructural projects such as water supply and sewerage are funded through issue of municipal bonds. Also, the secondary market for municipal bonds is active, with sufficient liquidity. Some municipal bonds are tax exempt, thereby lowering the cost of borrowing of the issuer. In India also, some measures have been introduced to attract investments in infrastructural projects which include a five-year tax holiday to BOOT operators in infrastructure projects, tax benefits to financial institutions on interest and dividend income earned from financing infrastructure projects and tax benefits on investments in infrastructure.

The parameters that are considered in credit rating of municipal bodies may be broadly classified under the following heads:

Economic base

The basis of a community's fiscal health is its economy which affects its major revenue sources such as property taxes, etc. Economic conditions dictate the quantity and quality of services delivered. Therefore, the first step is the study of the issuer's location, infrastructure, natural assets, liabilities, etc. The other factors would include the tax base, its composition and the employment base.

The ability to repay debt without excessive reliance on government grants ultimately depends on income levels in the local area. Hence, from a rating angle, an area having an economically diverse tax and service base is a positive factor. However, these base strengths need to be tapped through an efficient tax structure. Also, a strong service base needs to be reflected in commercially priced urban services. Generally, those communities with higher income levels and diverse economic bases have superior debt repayment capabilities.

Legal factors

The revenue-raising powers of municipal bodies and the degree of actual control over some of these revenues, considering consumer resistance to tax and user charge hikes, need to be analysed. Borrowing and repayment powers are studied with reference to the authorization(s) required for raising debt and the overall limits on borrowing. Also, the effectiveness of collection enforcement mechanisms of municipal bodies needs to be studied.

Administrative factors

The organizational structure of the municipal body is analysed to evaluate the depth of management and extent of delegation of powers. The track record in project implementation is studied to evaluate the project management capability as well the likelihood of completion of future projects without cost and time overruns. The ability to revise taxes and user charges and effectiveness in ensuring compliance is also reviewed. The management information systems are studied to evaluate the control and planning processes. Timeliness of budget adoption is another factor considered since the budget is an expression of administrative capability. Timely adoption reflects cohesiveness in both the administrative and political processes. Late budgets are a hindrance to planning and an indication of political difficulty. The administration is expected to exhibit a willingness to make revenue and expenditure adjustments to ensure a realistic operating budget.

Debt factors

The analysis of debt focuses on the debt structure, the current debt burden, the future financing needs of the issue and the nature of any commitment or dedication of cash flows. The analysis includes a study of the current and past trends in the composition of debt, in terms of the cost and maturity. Track record of past debt servicing and debt service capability for future debt are analysed to assess both the capability and the willingness to service debt. The impact of any prior charges on cash flows on future debt servicing is evaluated.

Financial factors

The financial condition of the issuer is evaluated through an analysis of financial statements and budget. The quality and nature of assets and liabilities as well as composition, trends and stability of revenue and expenditure and their composition are studied. The ability of the issuer to maintain buoyancy of revenues through regular increases in taxes and user charges and better collection efficiency is studied. Furthermore, the ability of the issuer to curtail wasteful expenditure and improve operational efficiency is analysed. The ability of the issuer to maintain revenue surplus and service current and future debt is evaluated. The prioritization of past capital expenditure as well as their financial implications are studied to evaluate the financial planning process of the issuer. Also, flexibility of the issuer in raising resources to meet unforeseen contingencies is studied. The budgetary and planning processes are studied while actual performance is measured against each year's budget. Accounting and reporting methods peculiar to municipal bodies are noted. Budgetary support from the state government in the form of grants form a large component of revenues in some municipal bodies. The stability of these revenues would depend on the finances of the respective state government. Hence, for assessing the creditworthiness of these municipal bodies, the finances of the state government need to be analysed. Parameters to be analysed include the economic condition of the state, major sources of revenue and expenditure, stability and trends of major revenue streams, current and past trends of revenue surplus/deficit, tax base, stability and trends of transfers from the centre, current and past debt profile, debt servicing capability, disbursement schedules for grants and their timeliness, etc.

Project viability

This involves an in-depth study of the project being funded including committed sources of finance, assumptions behind projected revenue and expenditure over the tenure of the instrument, extent of

cost recovery through user charges, availability of general revenues for debt servicing and committed budgetary support, if any, for the above project. Credit enhancement measures, if any, are evaluated to assess impact on timely servicing of debt. Also, sensitivity analyses may be conducted for cost and time overruns; the cost of borrowing and user charge increases. In the case of a revenue bond, only revenue streams from the project are used for debt servicing. Considering the above factors, the important parameters to be studied in the credit rating of municipal bonds could include the following:

A. Economic factors

- Nature of local economy;
- Local employment and income characteristics;
- Development indicators and current availability of urban services.

B. Legal set-up

- Borrowing powers and limits;
- Pending litigation's or disputes;
- Powers of taxation;
- Powers to levy user charges;
- Actual control over revenue sources considering the political implications of tax and user charge hikes;
- Collection enforcement mechanisms under the Act and restrictions on operations.

C. Administrative factors

- Organizational structure;
- Division of responsibilities between the Administrative and Political wings;
- Quality and continuity of management, extent of delegation;
- Depth of management; extent of delegation;
- Tax billing, collection and enforcement mechanism;
- Track record in project implementation;
- Degree of autonomy enjoyed by the local body;
- Management Information System;
- Industrial relations.

D. Accounting and Auditing Practices

- Systems of accounting;
- Industrial relations;

- Nature and quality of audit.

E. Debt Factors

- Composition of current debt burden;
- Interest and debt service coverage ratios;
- Past debt service performance;
- Evaluation of credit enhancement mechanisms, if any;
- Commitments/encumbrances on cash flows;
- Degree of reliance on short-term borrowings;
- Maturity matching profile.

F. Financial Indicators

- Fiscal data on the issuer;
- Budgetary and planning processes;
- Tax base and past trends;
- Composition and timing of revenue and expenditure, past trends;
- Trends in tax rates and user charges;
- Extent of cost recovery on various urban services;
- Financial flexibility to meet unforeseen contingencies;
- Revenue surplus/deficit;
- Extent of State budgetary support;
- Operating and collection efficiency;
- Sources and allocation of capital expenditure, trends;
- Extent of borrowings, if any, from non-governmental sources and the degree of compliance with the credit discipline imposed by such lenders.

G. Finances of state government

- Trends of revenue surplus/deficit, revenue deficit/Gross Fiscal Deficit;
- Interest payment/Revenue expenditure; Debt servicing/Gross transfers;
- Non-development exp./Aggregate disbursement; Tax revenues/Revenue exp.;
- Gross transfers/Aggregate disbursements;
- Trends in overall deficits and Gross Fiscal Deficits.

H. Project Viability

- Constitution of the project as a departmental project or an SPV;
- Sources and uses of funds for project being financed;

- Analysis of projected revenues and expenditure for the tenure of the instrument as well as the underlying assumptions;
- Revenue flow pattern from the project and extent of cost recovery;
- Committed budgetary support and other credit enhancement measures;
- Sensitivity analyses to user charge hikes, cost of borrowing, etc.;
- Evaluation of credit enhancement measures, if any.

Conclusion

The rating outcome is ultimately an assessment of the fundamentals and the probabilities of change in the fundamentals. CARE Ratings analyses each of the above factors and their linkages to arrive at the overall assessment of credit quality of an issuer. While the methodology encompasses comprehensive technical, financial, commercial, economic and management analysis, credit rating is an overall assessment of all aspects of the issuer.

[For previous version please refer 'Rating Methodology – Urban Infrastructure Projects' issued in [August 2019](#)]

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