

## Rating Methodology - Toll Road Projects

CARE's rating methodology for debt issues of road projects(RPs) is designed to facilitate appropriate credit risk assessment, keeping in view the characteristics of the Indian road sector. CARE examines the following critical areas while rating the RPs:

### Overview of the project

CARE examines the broad parameters of the project based on the detailed projects are port submitted the client. The major areas covered are:

- The nature of the project and its scope: By-pass, Lane expansion, Additional bridge, Road modernisation etc.
- Project Sponsors.
- Location of the project.
- Traffic demand and pricing study from a reputed consultant.
- State of the local economy.
- Implementation schedule.
- Provisions in the Concession Agreement (CA)
- Engineering Procurement and Construction (EPC) Contractor and terms of the contract
- Operation & Maintenance (O & M) agency and terms of the contract
- Environmental and social impact
- Project financing structure
- Credit enhancements

### Demand analysis, Competition and Toll pricing

The viability of the road project is critically dependent on the extent and nature of benefits enjoyed by the users of the facility and their willingness to pay for the same. CARE's analysis focusses on traffic demand and potential variation of demand due to economic changes and competition. The linkage of demand to toll pricing and the users' willingness to pay is also examined critically.

### **Demand Analysis**

Demand analysis involves analysis of the toll road region in terms of economic strength and diversity. For this, regional wealth indicators like level of industrialisation, availability of facilitating infrastructure etc. are examined. A sound and growing local economy assures a high level of commercial and business travel, the mainstay for revenue generation. Demand analysis is crucial as wrong estimation of demand or deterioration in the economic base would adversely affect viability and debt servicing capability of a project. CARE's traffic demand analysis is based on studies carried out by traffic consultants who are reputed with adequate experience.

The nature and composition of traffic as well as volatility of traffic due to business cycles, natural factors (floods, landslides, etc.), social unrest and escalation in fuel prices is studied critically.

While commercial traffic tends to serve as a stabilising force, CARE would favorably consider a balance between commercial and private vehicle traffic. Commercial traffic is less sensitive to toll increases than private traffic, since additional cost (tax deductible), can be passed on to customers. As a general rule, a diverse traffic mix cushions the impact of a decline in any one segment.

### **Competition**

Toll roads are generally developed in areas with high traffic density to ease traffic congestion or cut down on distance between destinations. This is to justify levy of tolls, either on account of savings in distance or time, or both.

Toll roads may encounter little competition in the initial years. However, subsequent development of toll-free roads can divert traffic away from a toll facility and disturb the projected traffic growth and subsequent revenues. In such a case, the capital programmes of the appropriate state, regional and local authorities are examined to factor in any possible competing facility. Covenants in the Concession Agreement (CA) which explicitly prohibit the government from setting up competing facilities upto a stipulated period will mitigate 'diversion risk' of the project to a large extent.

### **Toll pricing**

Appropriate toll pricing, which is based on user's 'willingness to pay' is crucial for the success of any road project. Typically, a toll road project would result in benefits in form of (i) savings in vehicle operating costs (VOC), (ii) savings in time and (iii) savings in distance covered. CARE considers savings in VOC as the most important criteria in determining the users' willingness to pay.

A Concession Agreement which provides for 'automatic' revision with pre-defined formula for revision in toll rates e.g. linkage to inflation index along with requisite authority to the project directors to implement toll rate revisions is considered as a credit strength for the project. An important prerequisite in this regard is favourable socio-political climate for revision of tolls and such decisions being shielded from normal political processes.

### **Project implementation risk**

- The risk associated with implementation of a road project can be quite high considering the long gestation period and large investments required. CARE analyses the following factors to estimate the risks associated with the completion of the project.
- The extent to tie-up for finance
- The Capability of the road project to raise additional resources in case of cost over-runs
- The capability of the Engineering, Procurement and Construction (EPC) contractor, based on technical and financial strengths as well as past experience.
- Status off land acquisition
- Dependence of the project on access roads or connecting roads not under the direct control of the project directors. The risk of these roads not being ready prior to the completion of the project is examined.
- Environmental, social and political issues.
- Cushion provided in the financing plan and construction schedule for possible delays
- Insurance arrangements.

Appointment of reputed contractors and use of proven technology increases the chances of successful and timely implementation of the project. Other tools to mitigate construction risks include: fixed-price contracts with suitable clauses to motivate the contractor to complete the

project ahead of time; liquidated damages upon delay; performance bonds; a favourable contractor payment schedule, including partial withholding or subordination of contract repayment during construction etc. During project implementation, CARE would monitor the progress vis-à-vis the initial cost and time estimates to determine the effect of variations from schedule on the ability to meet debt servicing obligations.

### **Management evaluation**

CARE evaluates the management from different perspectives like financial capabilities, track record in implementing and operating project of similar nature and size and availability of technical manpower. In a road project, management's ability to accurately assess operating and maintenance expenses is important to protect future revenue streams for debt servicing. Managements which are unable to budget funds for maintenance from operating revenues would have to defer repair programmes lead in to poor service quality of the road and consequent lower traffic volumes and thus revenues. CARE examines the constitution of the Special Purpose Vehicle (SPV) company set up for implementing the project and the credentials of the operating management. In case the O&M function is sub-contracted, the credentials of the contractor are evaluated.

### **Evaluation of Concession Agreement (CA)**

The right to implement the project and to levy and collect tolls emanates from the Concession Agreement (CA). Hence, the terms of the CA are carefully examined, especially those relating to:

- Tenor of concession and provision of extension of concession period in case of short fall in revenues
- Levy of tolls and their periodic revision
- Termination of CA.
- Issues relating to land acquisition.

It is essential that the CA contains sufficient safeguards to provide disincentive to any of the contracting parties to default. Quantum of Compensation payments in the event of termination of the CA and their adequacy to repay outstanding debt servicing obligations of

the SPV is analysed critically. Covenants allowing assignability of the CA in the event of non-completion or non-satisfactory progress would be viewed favourably by CARE. Some CAs provide the SPV an option for seeking property development rights in case of insufficient revenue generation. This would have a positive impact from a credit perspective.

### **Financial analysis of projected operations**

An in-depth analysis of the projected operations is undertaken to get a clear indication of the SPV's ability to service debt. The analysis would include critical examination of the underlying assumptions, location of possible stress points and the extent of flexibility to tide over difficulties. A sensitivity analysis is carried out to evaluate the impact on debt servicing ability due to changes in assumptions. The financial analysis takes into account the following factors:

- Financial structure and leverage;
- Since road projects generate revenue in Indian Rupees, any foreign exchange debt by the project results in exchange risk.
- Earning capacity;
- Cash flow adequacy;
- Debt service coverage ratio; and
- Financial flexibility

### **Credit Enhancement**

- Private road projects in India so far have been either without recourse or with limited recourse to the sponsors. To the extent the project has some form of recourse to a strong sponsor, it serves as a source of credit enhancement. Forms of support may include undertaking to cover cost overruns, cash support in case of any shortfall in repayment of loan, undertaking to provide funds to SPV to maintain a level of DSCR etc.
- A debt service reserve, fully funded can provide significant protection to bondholders, especially if chances for delays in implementation of increase in toll rates exist.
- Guaranteed take-out financing via repurchase of bonds by highly rated entities has been used in India to serve as credit enhancement for the initial investors in the bonds.
- Traffic guarantees and Partial/ full exchange risk cover offered by the government has been used as a source of credit enhancement internationally.

- At times the relevant state, regional or local authority budgets may also provide for meeting short fall in debt servicing requirements.

### Qualified Investments

Pending redemption of debt obligations, surplus funds would have to be appropriately invested by the SPV. CARE would examine the proposed investment policies to ensure the safety of such investments. Liquidity aspects of the proposed investments also are considered. CARE analyses each of the above factors and their linkages to arrive at the overall assessment of credit quality. The reduction in credit risk due to any credit enhancements provided is carefully evaluated before assigning the rating.

### Conclusion:

The rating outcome is ultimately an assessment of the fundamentals and the probabilities of change in the fundamentals. CARE 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.

**[Last updated on December 28, 2016. Next review due in April-June 2018]**

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