



Rating Criteria – Rating of BOT (Toll) Road Projects

EXECUTIVE SUMMARY

The strength of an economy is greatly determined by its infrastructure and road infrastructure is of the most important tenets of a country's economic growth. Being an important stimulant of growth, it provides connectivity, helps enable trade and employs a significant proportion of the population.

Road projects in India are undertaken through a public private partnership under the Engineering, Procurement and Construction (EPC), Build-Operate-Transfer (BOT (Toll) or BOT (Annuity)), Toll-Operate-Transfer (TOT) and Hybrid Annuity Model (HAM) modes, where EPC remained the dominant mode of awarding the projects. Projects awarded under EPC mode remained at ~93% of the total projects awarded during 2019-20, whereas BOT mode contributed ~6% of the total project awards and rest was awarded under HAM.

A BOT (Toll) road project is one in which a road developer, usually a private sector entity, enters into a contractual agreement, usually with a government entity and undertakes the operational risks, and is allowed to recover his investment through toll collection. The toll collected therefore, forms a major part of the revenues earned by the project specific Special Purpose Vehicle (SPV). The onus of funding for these projects falls on the SPV and in the event of a shortfall in cash flow/toll collection, it may face hurdles towards funding its debt servicing.

Around 559 toll plazas are operational on national highways across the country, including public funded (under NHAI) and projects under build-operate-transfer and toll-operate-transfer models. As per the NHAI, the total toll collected through the 559 toll plazas in FY20 stood at 26, 851 Crore, with average revenues of 73.56 Crore per day, from 24, 396 Crore in FY19, with average revenues of 66.84 Crore per day.

SCOPE

This criteria document covers a brief analysis of the attributes considered by Brickwork Ratings (BWR), while assessing the overall risks towards rating of BOT (Toll) projects. It focuses on the credit risk assessment of the road developer and analyzes various pre- and post-implementation risks in detail. A brief summary of the effect of these attributes on the overall credit rating of SPVs is highlighted which helps ascertain the debt servicing capacity and the ability of these BOT developers to undertake large scale road infrastructure projects.

RISK ASSESSMENT AND RATING CRITERIA AT BRICKWORK RATINGS

Brickwork ratings factors in the various quantitative and qualitative risks that the road developers are exposed to, while assessing the risk in these projects to arrive at the rating. This document provides a risk assessment framework to analyse the qualitative and quantitative risk characteristics that are likely to affect the ratings of BOT (Toll) road projects. The methodology has many similar attributes as the underlying rating drivers are identical to other infrastructure projects (for example, EPC, BOT (Annuity) Road projects, TOT, HAM etc.). However, the sector specific criteria, such as payment mechanism and structure of financing vehicle, will determine the indicative rating along with the inherent underlying stresses in the project. As highlighted above, the key risks that developers face in a toll road project are the funding risk, underlying financing risks, legal risk, counterparty risk, operational and toll collection risk. These risks are considered to arrive at the rating of a BOT (Toll) road projects in the rating framework as follows:

Project risk

BOT Toll road projects are exposed to the following risks during the construction phase:

1. **Project Planning & completion risk:** This includes the evaluation of the risks associated with the financial closure of the project, any associated technology risks or the track record of the sponsor in completing similar projects in the past and current status of the project.
 - ❖ **Funding risk:** The financial closure of a project is one of the most critical factors determining timely project completion. The company's ability to tie up the requisite finances, current status of funding tie-up or financial closure and equity contribution by the sponsor is critical for timely completion of the project. In case of under construction road projects, a delay in funding can lead to huge time and cost overruns.
 - ❖ **Technology risk:** Technology/Design for road construction is widely accepted and hence the lifecycle of technology-in-use does not have much variation during the tenure of the project. However, appropriate road construction technology ensures adequate life-of-road and speed of project implementation to an extent. The increasing use of advanced level Information Technology and green initiatives in road construction has further widened the scope of such projects. Therefore, the usage of cutting-edge technology helps in faster execution, and a reduction in maintenance costs.
 - ❖ **Track record of sponsor:** An inexperienced sponsor with no prior experience of undertaking large and complex projects leads to huge time and cost overruns. In BOT projects, the ability of the sponsor to forecast traffic volume, toll revenue and various operating and maintenance costs is an important indicator of the viability of the project.
 - ❖ **Stage of project completion:** The backbone of a project is the way it is executed. Construction risk includes the intrinsic costs faced during construction like delays in obtaining approvals and clearances, obtaining RoW before the start of the project, land acquisition, labour management, shortage of material required, limited funding options or no funding tie-up/financial closure etc. The risk of completion varies with the stage of completion of project at the time of assessment of credit risk.
2. **Project implementation risk:** It Includes the availability of right of way or the level of land acquisition for the project and environment and forest or various statutory clearances obtained by the concessioner, the costs incurred, complexity of the project and the appropriateness of the bid price.
 - ❖ **Land acquisition:** Timely availability of various environmental/statutory and legal clearances plays critical role towards timely implementation of the project and reduces cost overruns. In most of the road projects, the Central or state government is responsible for obtaining various environment and statutory clearances and land acquisition. However, delays in land acquisition due to higher costs in obtaining right of way (area within which the sponsor has unrestricted entry to undertake the project) may lead to a halt in the construction process and result in time and cost overrun.
 - ❖ **Environmental clearances:** A faster approval requires that the environmental cost of the project is kept low and the benefit to the general public is more than the environmental costs at the time of construction. In case of any road project's timely implementation depends upon its ability to acquire all environmental and statutory clearances before the start of project. This risk remains high where newly constructions are being proposed where majority of the clearances and required land is yet to be acquired and the risk will be lower where the project requires upgradation of an existing stretches.
 - ❖ **Terrain complexity:** The geographical conditions where the project is undertaken is assessed and its exposure to inhospitable terrains like mountainous regions, high rainfall belts is seen as problematic and construction as well as maintenance remained challenging and can lead to cost and time overruns.

- ❖ Bid aggression: Road projects are undertaken through a bidding process wherein the developer with the lowest bid gets the contract to take up the project. An inexperienced sponsor with no prior experience may indulge in aggressive bidding which leads to a huge difference between actual and expected costs of the project. Further, number of bids, type of bidder (L1, L2 or L3) or base price offered by the authorities and bid price by the concessionaire impacts the overall cost of the project and returns (IRR) or profitability.

Operational risk

1. Financial risk: These risks emphasize the ability of the entity or SPV to service its debt obligations on time, and maintenance of its operations and liquidity efficiently. Some of financial indicators are seen while assessing the financial risk as follows:
 - ❖ Debt service coverage indicators
 - ❖ Sensitivity of DSCR to cost escalation
 - ❖ Future financial risk profile
 - ❖ Liquidity and financial flexibility of sponsor
 - ❖ Level of Debt Service Reserve Account (DSRA)
 - ❖ Leverage and repayment structure
 - ❖ Adequacy of Termination Payment in Concession Agreement and/or Insurance
2. Criticality risk: This risk mainly evolves on account of regulatory risk, some of events such as force majeure and political instability within the region.
 - ❖ Impact of regulatory risk: Changes in laws and regulation relating to ethics, safety, environment etc. may hamper successful execution and implementation of projects. Frequent revision of toll charges, lower than expected tariff growth etc. may leads to cash flow mismatch for the SPV.
 - ❖ Impact of national security, Force majeure and event risk: It includes the shift in climatic conditions and occurrence of uncertain events which are beyond the control of the SPV. For example, due to the lockdown imposed during April-May 2020, toll collections were severely impacted on account of imposition of force majeure clause.
 - ❖ Geographical risk and contingency plan: It include stalling of a project due to an adverse political outcome or protests by the local population.
3. Counterparty risk: The counterparties involved in a road project are government entities (NHDP, MoRTH, NHAI) that have a decent payment history. Notwithstanding, there might be delays in payments of annuities that could prompt both liquidity criss-crosses and time esteem misfortunes, along these lines affecting the capacity to support obligation on schedule.
4. Business risk: The ability of an SPV to predict toll collection, demand and traffic volume at the stretch and undertake various steps to minimize operating and maintenance costs is a major indicator of profitability of the project and is one of the main criteria influencing the rating of the project. Followings are the various risk associated with business of SPV or the company.
 - ❖ Toll collection and pricing risk
 - ❖ Demand and traffic volume prediction risk
 - ❖ Operational performance, O&M expenses and track record

- ❖ Delay in receiving raw material supplies and availability.
- ❖ Adequacy of stated O&M and MMR costs

CONCLUSION

In the pre-implementation phase, track record of sponsor and construction risks such as approval of clearances, land acquisition or RoW and other statutory clearances significantly affect the rating of the project. In the post implementation, the focus shifts towards financial parameters such as level of DSRA, O&M risks, repayment structure, DSCR etc. A major source of revenue for BOT projects is the proceeds from toll collection and that is reflected in the final rating output as well.

ABOUT BRICKWORK RATINGS

Brickwork Ratings (BWR), a Securities and Exchange Board of India [SEBI] registered Credit Rating Agency and accredited by Reserve Bank of India [RBI], offers credit ratings of Bank Loan, Non- convertible / convertible / partially convertible debentures and other capital market instruments and bonds, Commercial Paper, perpetual bonds, asset-backed and mortgage-backed securities, partial guarantees and other structured / credit enhanced debt instruments, Security Receipts, Securitisation Products, Municipal Bonds, etc. BWR has rated over 11,400 medium and large corporates and financial institutions' instruments. BWR has also rated NGOs, Educational Institutions, Hospitals, Real Estate Developers, Urban Local Bodies and Municipal Corporations. BWR has Canara Bank, a leading public sector bank, as one of the promoters and strategic partner. BWR has its corporate office in Bengaluru and a country-wide presence with its offices in Ahmedabad, Chandigarh, Chennai, Hyderabad, Kolkata, Mumbai and New Delhi along with representatives in 150+ locations.

Disclaimer: It must be clearly understood that a Rating opinion is based on various factors/aspects which includes application of certain Rating criteria. The particular criteria applied depends on a number of factors, inter alia, sector/Industry, historical performance, cyclical trends, prevailing economic condition, group support etc. Rating opinions factor many assumptions and the application of any particular criteria or a set of criteria may be full or partial depending upon peculiarity of each case. Application of any Rating criteria should not therefore be considered as rendering finality or completeness to a Rating assessment. A reference to criteria needs to be perceived in broad terms, only as an aid to a rating decision.

Brickwork Ratings India Pvt. Ltd. (BWR), a Securities and Exchange Board of India [SEBI] registered Credit Rating Agency and accredited by the Reserve Bank of India [RBI], offers credit ratings of Bank Loan facilities, Non- convertible / convertible / partially convertible debentures and other capital market instruments and bonds, Commercial Paper, perpetual bonds, asset-backed and mortgage-backed securities, partial guarantees and other structured / credit enhanced debt instruments, Security Receipts, Securitisation Products, Municipal Bonds, etc. [hereafter referred to as "Instruments"]. BWR also rates NGOs, Educational Institutions, Hospitals, Real Estate Developers, Urban Local Bodies and Municipal Corporations.

BWR wishes to inform all persons who may come across Rating Rationales and Rating Reports provided by BWR that the ratings assigned by BWR are based on information obtained from the issuer of the instrument and other reliable sources, which in BWR's best judgement are considered reliable. The Rating Rationale / Rating Report & other rating communications are intended for the jurisdiction of India only. The reports should not be the sole or primary basis for any investment decision within the meaning of any law or regulation (including the laws and regulations applicable in Europe and also the USA).

BWR also wishes to inform that access or use of the said documents does not create a client relationship between the user and BWR.

The ratings assigned by BWR are only an expression of BWR's opinion on the entity / instrument and should not in any manner be construed as being a recommendation to either, purchase, hold or sell the instrument.

BWR also wishes to abundantly clarify that these ratings are not to be considered as an investment advice in any jurisdiction nor are they to be used as a basis for or as an alternative to independent financial advice and judgement obtained from the user's financial advisors. BWR shall not be liable to any losses incurred by the users of these Rating Rationales, Rating Reports or its contents. BWR reserves the right to vary, modify, suspend or withdraw the ratings at any time without assigning reasons for the same.

BWR's ratings reflect BWR's opinion on the day the ratings are published and are not reflective of factual circumstances that may have arisen on a later date. BWR is not obliged to update its opinion based on any public notification, in any form or format although BWR may disseminate its opinion and analysis when deemed fit.

Neither BWR nor its affiliates, third party providers, as well as the directors, officers, shareholders, employees or agents (collectively, "BWR Party") guarantee the accuracy, completeness or adequacy of the Ratings, and no BWR Party shall have any liability for any errors, omissions, or interruptions therein, regardless of the cause, or for the results obtained from the use of any part of the Rating Rationales or Rating Reports. Each BWR Party disclaims all express or implied warranties, including, but not limited to, any warranties of merchantability, suitability or fitness for a particular purpose or use. In no event shall any BWR Party be liable to any one for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs) in connection with any use of any part of the Rating Rationales and/or Rating Reports even if advised of the possibility of such damages. However, BWR or its associates may have other commercial transactions with the company/entity. BWR and its affiliates do not act as a fiduciary.

BWR keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of the respective activity. As a result, certain business units of BWR may have information that is not available to other BWR business units. BWR has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

BWR clarifies that it may have been paid a fee by the issuers or underwriters of the instruments, facilities, securities etc., or from obligors. BWR's public ratings and analysis are made available on its web site, www.brickworkratings.com. More detailed information may be provided for a fee. BWR's rating criteria are also generally made available without charge on BWR's website.

This disclaimer forms an integral part of the Ratings Rationales / Rating Reports or other press releases, advisories, communications issued by BWR and circulation of the ratings without this disclaimer is prohibited.

BWR is bound by the Code of Conduct for Credit Rating Agencies issued by the Securities and Exchange Board of India and is governed by the applicable regulations issued by the Securities and Exchange Board of India as amended from time to time.