

SECTOR RESEARCH

Road

www.brickworkratings.com



Road Construction: On the Path to Recovery

Contact

Rajee R
Chief Ratings Officer

Vipula Sharma
Sr Director – Ratings

Chintan Lakhani
Director – Ratings

Anita Shetty
Sr Research Analyst

Diya Roy
Jr Research Analyst

Investor & Media Contact
91 95133 99706
1-860-425-2742
investordesk@brickworkratings.com
media@brickworkratings.com

Executive Summary

Indian road network is the world's second largest, with a length around 63.71 lakh kms. Despite the pandemic, road execution witnessed a robust 29% rise y-o-y in FY21, with a pace of 37 kms per day, which was the highest ever achieved. However, in FY22, due to the reinforcement of the lockdown and a longer monsoon season, there was a decrease in the length of the road constructed. Although the length of road projects allocated increased to 12,731 kms in FY22 (FY21: 10,467 kms), the length of roads constructed reduced to 10,457 kms in FY22 (FY21: 13,327 kms). In FY23, however, BWR expects the length of roads constructed to rise by 9-11%, backed by various government initiatives in this sector such as Gati Shakti, the National Infrastructure Pipeline (NIP), Bharatmala Pariyojana and a change in the Model Concession Agreement (MCA) of the Hybrid Annual Model (HAM) of road project implementation.

Recent modifications in the HAM disconnecting the Operation and Maintenance (O&M) costs from submitted bids would enhance the model's efficiency as developers would remain committed throughout the project tenure. This would also help do away with significantly lower O&M costs being bid mainly on account of intense competition in the sector. In FY22, the overall private players' participation increased as the Government of India (GOI) also raised Rs 8,012 crore through InVITs and allocated various projects under the Toll Operate Transfer (TOT) model. Going forward, the NHAI also plans to award TOT bundles 9 and 10 worth Rs 4,200 crore in FY23. Notwithstanding the cancellation of bundle 6 and 8 due to lower bids in FY22 and bundle 4 in FY21 due to the pandemic impact, the TOT model still remains an attractive option for private sector players.

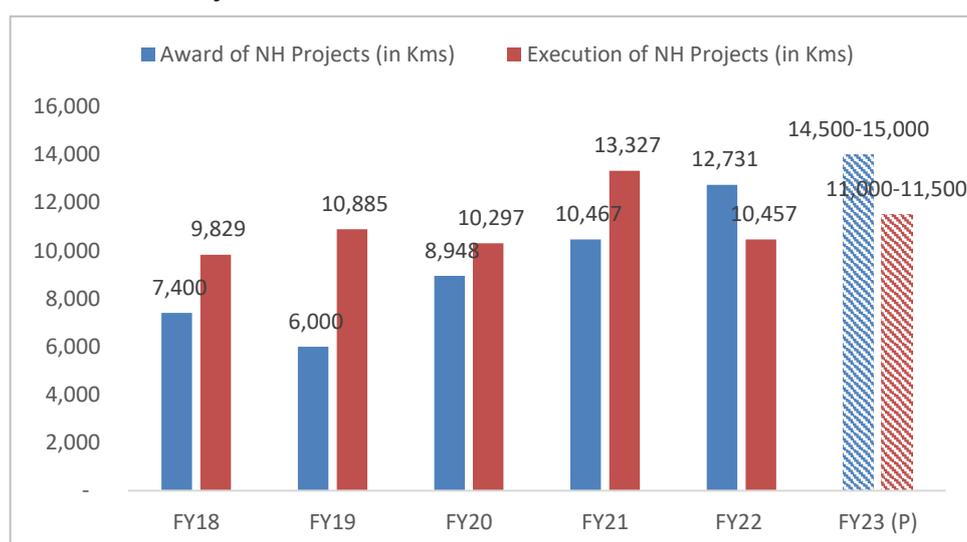
The introduction of FASTag led to a notable rise in toll revenues in FY21 and FY22. With the rise in the number of toll plazas under the asset monetisation method, hike in toll rates and rise in public mobility, BWR expects Electronic Toll Collection (ETC) to further increase by 20-25% in FY23.

Led by government initiatives, road construction to increase by 9-11% in FY23

Road projects awarded and executed is expected to pick up pace in FY23 after a dip in FY22, which was impacted by longer monsoon.

The Indian road sector, after having observed a dramatic rise in the construction pace at a rate of 36.5 kms per day in FY21, declined y-o-y by 21.64% to 28.6 kms per day in FY22. Despite the economic distress caused by the pandemic, FY21 was a notable year for the NHAI as it witnessed robust growth in terms of a higher pace of road construction, project allocations and toll collections. With the gradual removal of lockdown restrictions, construction gained pace, and the NHAI was able to construct a total length of 13,327 kms of NH at a record pace. In anticipation of the road industry doing well, the NHAI set an ambitious target of 14,600 kms in FY22, which was revised to 12,000 kms during year-end 2021. While the NHAI awarded 12,731 kms in FY22, the road constructed remained restricted to 10,457 kms due to the third wave of Covid-19 and extended monsoon season.

Trend in NH Projects Awarded vs Executed



Note: P- Projected,

Source: NHAI, MoRTH and BWR Research

In FY23, the NHAI plans to further increase the total awarded length to 18,000 kms at a pace of 50 kms per day, supported by renewed focus on infrastructure with initiatives such as NIP, higher budgetary allocation and thrust on the development of greenfield expressways under Bharatmala Pariyojana. In addition, further changes have been made in the MCA under the HAM, funds have been raised by NHAI InvITs and new projects under the TOT model have been issued, which would increase the private players' participation. BWR expects the total road execution to improve by 9-11% in FY23, backed by the above initiatives. In FY23 so far, the NHAI has completed 6,100 kms of road construction, consisting mostly of six-lane and eight-lane expressways. Currently, the target pace of construction of 50 kms per day looks

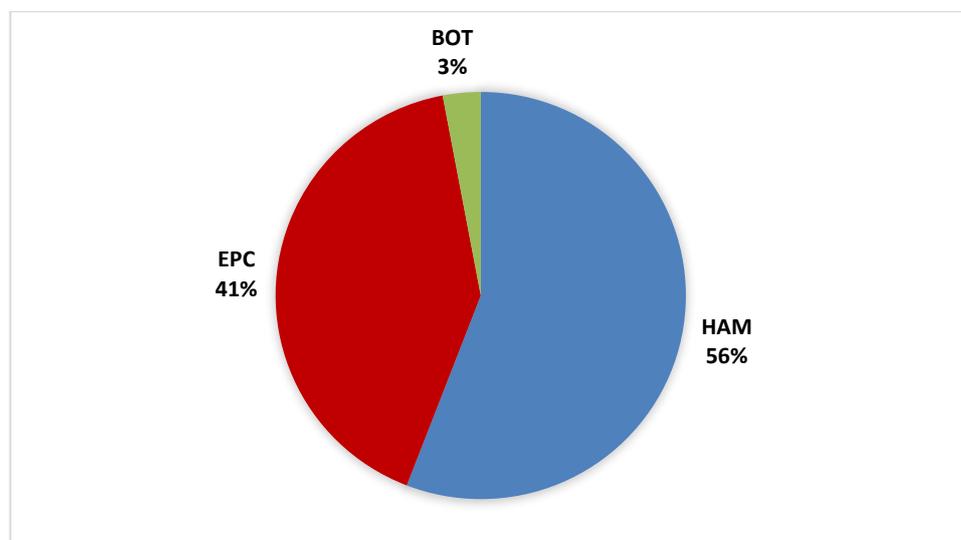
aspirational, but the NHAI could target achieving a higher pace of construction than that in the previous years.

Connecting O&M to BPC would increase the HAM efficiency

The recent amendment made in HAM MCA would increase the overall efficiency of the projects.

The success story of the roads and highways projects is largely a function of the model being used as it impacts the funding pattern, ownership and pace of construction, among other aspects. Currently, HAM and EPC are the two most preferred models for road construction, with the BOT share being negligible due to higher implementation and financial risk for road developers.

Share in Projects Awarded by the NHAI in FY22



Source: NHAI, MoRTH and BWR Research

As per the recent changes, 0.40% of the bidding cost would be given out in the second, third and fourth years, and no maintenance charges would be paid for the first year. Moreover, any O&M expenses incurred over and above the O&M payments will be borne by the concessionaire. These initiatives would discourage developers from bidding impractical prices and ensure the private players' association throughout the tenure. BWR expects these changes would smoothen the operation of the road projects awarded under the HAM, thereby further increasing the market share.

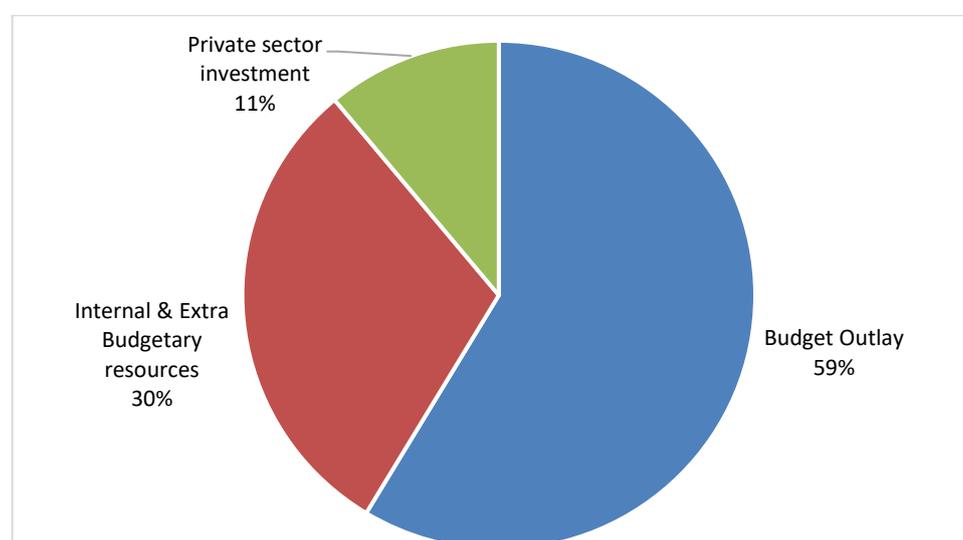
Private investment would continue to steadily increase in FY23

Attracting private funds in the road sector has always been challenging, however we see NHAI has some success in attracting private players.

The road sector has always relied on public funding for its project execution. However, the GOI has been using asset monetisation, InvITs and the HAM to increase private participation. In FY23, the NHAI has allocated ~56% of the total projects through the HAM, thereby increasing private funding.

Asset monetisation using the TOT model has been another successful method used by the NHAI to increase private participation. Under the TOT Bundle 1, Bundle 3, Bundle 5A1 and Bundle 5A2, 20 stretches (1407 kms) have been monetised and a sum of Rs 15,703.5 crore already realised. Although the NHAI cancelled Bundles 6 and 8 due to lower bids, it expects to raise Rs 6,267 crore for 135 kms under Bundle 7. Furthermore, the NHAI plans to float Bundles 9 and 10 with a combined value of Rs 4,200 crore for a 200 km stretch. In addition, a NHAI InvIT worth Rs 8,012 crore was released in November 2021 after being delayed in the past due to weak investor sentiments. The InvITs were not only successful in attracting two major international pension funds, but also increased the number of domestic investors (pension funds, insurance companies, mutual funds, banks and financial institutions).

Share in Source of Funding (Expenditure in FY22)



Sources: MoRTH, BWR Research

Overall, although private allocation decreased by 30% in FY22 from Rs 26,400 crore in FY21, the overall expenditure increased by 70% to Rs 16,337 crore in FY22. While the NHAI has been using various methods to increase private participation, the GOI has also increased the budget allocation in FY23 by 68% to Rs 199,107.71 crore. BWR expects private investment to witness steady growth in FY23.

TOT model to ease the asset monetisation process of the road sector

The first wave of the pandemic in FY21 led the market to crash as investors were seeking extra time to bid on the bundles. Although the second bundle had not received desired bids, the auction of the first and third bundles was successful enough to continue the usage of this mode of asset monetisation. The fourth round of the TOT auction was initially announced for a total of 7 stretches, for 400 kms, with the reserve

price of Rs 4,170 crore. Later, it was downsized to 6 stretches with a concession period of 20 years, a total length of 341 kms, for a reserve price of Rs 2,165 crore, in a bid to attract higher participation. However, the fourth bundle was again deferred in Sept 2020. This was mainly on account of a lack of visibility of toll collections due to extended lockdowns across the country.

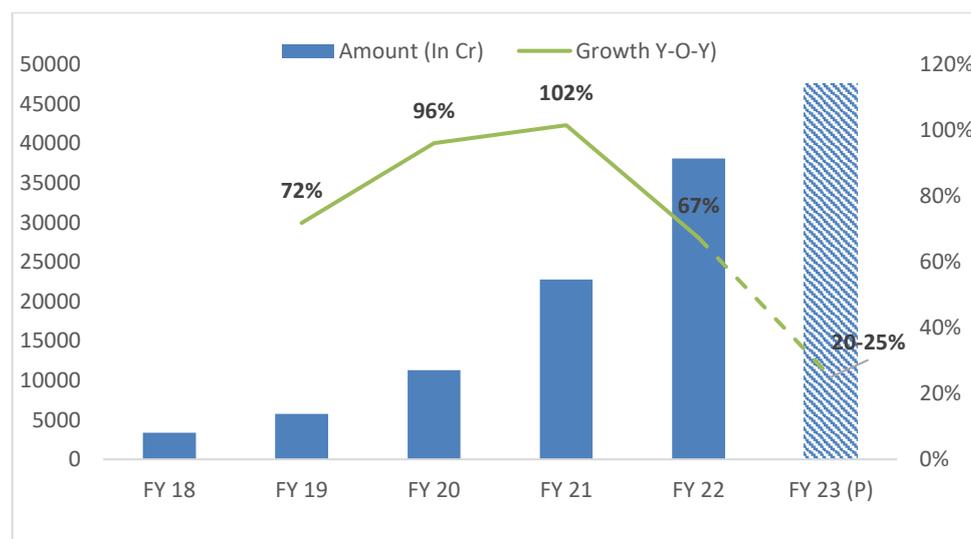
With the condition ameliorating for road construction developers in Q4FY21, the NHAI launched the fifth bundle of the TOT model in two tranches. Both these tranches were well-received, with a 38% premium over the reserve price of Rs 1621 crore. Seeing the success of the fifth bundle, the NHAI plans to offer 1500 kms under 32 projects for the sixth tranche. However, the offers will be released only after the stabilisation of the pandemic situation to safeguard against Covid-19 induced risks.

NHAI toll collection to continue to increase in FY23

The implementation of FASTag significantly increased toll revenues in FY21 and FY22. As per the MORTH, ETC penetration was around 96% in December 2021 compared to 76% in the same period the previous year. While vehicle traffic was less during the pandemic, the introduction of FASTag allowed the NHAI to keep a systematic track record of transactions, thereby reducing manual errors. Currently, there is still one lane dedicated to cash transactions in these toll plazas; however, the convenience of the electronic mode has attracted the public towards FASTag lanes. To further encourage the usage of FASTag, the NHAI has launched the NETC website dedicated to FASTag transactions and provides information about the modes of recharge and partner banks, among other things.

After the implementation of electronic toll collection in FY21, there has been a robust increase in toll revenue due to elimination of human error. BWR expects the revenue to further supported by hike in toll prices and rise in road traffic.

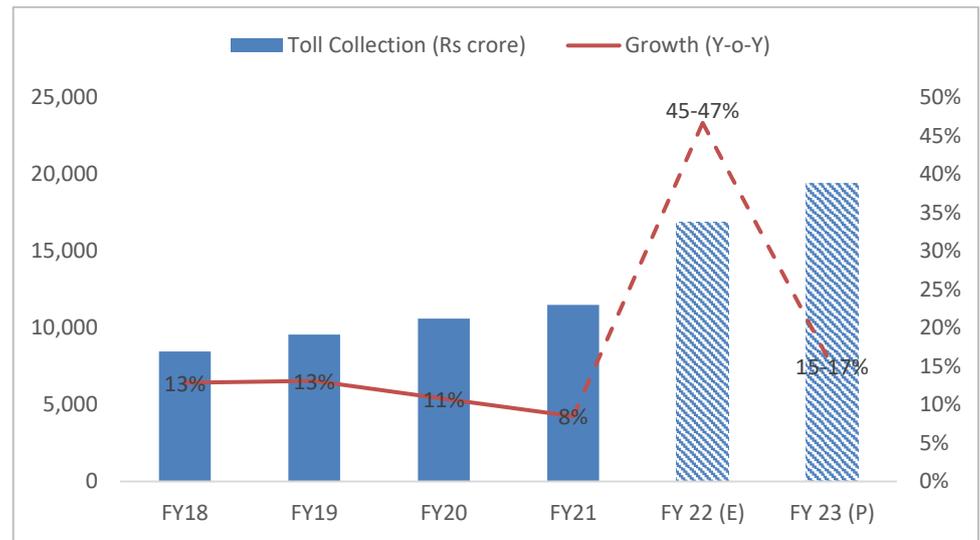
Trend in Electronic Toll Collection



P-Projected

Source- NETC and BWR Research

Trend in Total Toll Collection



P-Projected, E-Estimated

Source- MORTH, NHAI and BWR Research

Furthermore, in FY23, the adaptation of the hybrid mode of working has led to a rise in vacations, which would support the increase in road traffic. BWR expects toll revenues to increase by 15-17% in FY23, backed by the rise in road traffic and hike in tolls.

ABOUT BRICKWORK RATINGS

Brickwork Ratings (BWR) is India's home-grown credit rating agency built with the superior analytical prowess of the industry's most experienced credit analysts, bankers and regulators. Established in 2007, BWR aims to provide reliable credit ratings by creating new standards for assessing risk and by offering accurate and transparent ratings. BWR provides investors and lenders timely and in-depth research across the structured finance, public finance, financial institutions, project finance and corporate sectors. BWR has employed over 339 working professionals including credit analysts and credit market professionals across 8 offices in India. Our experienced analysts have published over 13200 ratings across asset classes. BWR is committed to providing the investment community with products and services needed to make informed investment decisions. BWR is a registered credit rating agency by Securities and Exchange Board of India (SEBI) and a recognised External Credit Assessment Agency (ECAI) by the Reserve Bank of India (RBI) to carry out credit ratings in India. BWR is promoted by Canara Bank, India's leading public sector bank. More information on Canara Bank is available for reference at www.canarabank.com

BWR Rating Criteria are available at <https://www.brickworkratings.com/ratingscriteria.aspx>

Brickwork Ratings, a SEBI-registered credit rating agency, has also been accredited by the RBI, and it offers rating services for bank loan, NCD, commercial paper, bonds, securitised paper etc. BWR has Canara Bank, a nationalised bank, as its promoter and strategic partner.

BWR has its corporate office in Bengaluru and a country-wide presence, with offices in Ahmedabad, Chandigarh, Chennai, Hyderabad, Kolkata, Mumbai and New Delhi, along with representatives in 150+ locations. BWR has rated debt instruments/bonds/bank loans, securitised paper of over ₹19,02,200Cr. Additionally, fixed deposits and commercial papers, among others, worth over ₹83,555 Cr have been rated.

DISCLAIMER

Copyright ©2022 by Brickwork Ratings India Pvt Ltd., 3rd Floor, Raj Alkaa Park, 29/3 & 32/2, Bannerghatta Main Rd, Kalena Agrahara, Bengaluru, Karnataka 560076. Telephone: +91 80 4040 9940. Fax: +91 80 4040 9941. Reproduction or retransmission in whole or in part is prohibited except by permission. All rights reserved. In issuing and maintaining its ratings, Brickwork Ratings relies on factual information it receives from issuers and underwriters and from other sources Brickwork Ratings believes to be credible. Brickwork Ratings conducts a reasonable investigation of the factual information relied upon by it in accordance with its ratings methodology, and obtains reasonable verification of that information from independent sources, to the extent such sources are available for a given security or in a given jurisdiction. The manner of Brickwork Ratings' factual investigation and the scope of the third-party verification it obtains will vary depending on the nature of the rated security and its issuer, the requirements and practices in the jurisdiction in which the rated security is offered and sold and/or the issuer is located, the availability and nature of relevant public information, access to the management of the issuer and its advisers, the availability of pre-existing third-party verifications such as audit reports, agreed-upon procedures letters, appraisals, actuarial reports, engineering reports, legal opinions and other reports provided by third parties, the availability of independent and competent third-party verification sources with respect to the particular security or in the particular jurisdiction of the issuer, and a variety of other factors. Users of Brickwork Ratings' ratings should understand that neither an enhanced factual investigation nor any third-party verification can ensure that all of the information Brickwork Ratings relies on in connection with a rating will be accurate and complete. Ultimately, the issuer and its advisers are responsible for the accuracy of the information they provide to Brickwork Ratings and to the market in offering documents and other reports. In issuing its ratings Brickwork Ratings must rely on the work of experts, including independent auditors with respect to financial statements and attorneys with respect to legal and tax matters. Further, ratings are inherently forward-looking and embody assumptions and predictions about future events that by their nature cannot be verified as facts. As a result, despite any verification of current facts, ratings can be affected by future events or conditions that were not anticipated at the time a rating was issued or affirmed.

THE INFORMATION IN THIS REPORT IS PROVIDED "AS IS" WITHOUT ANY REPRESENTATION OR WARRANTY OF ANY KIND. A Brickwork Ratings rating is an opinion as to the creditworthiness of a security. This opinion is based on established criteria and methodologies that Brickwork Ratings is continuously evaluating and updating. Therefore, ratings are the collective work product of Brickwork Ratings and no individual, or group of individuals, is solely responsible for a rating. The rating does not address the risk of loss due to risks other than credit risk, unless such risk is specifically mentioned. Brickwork Ratings is not engaged in the offer or sale of any security. All Brickwork Ratings reports have shared authorship. Individuals identified in a Brickwork Ratings report were involved in, but are not solely responsible for, the opinions stated therein. The individuals are named for contact purposes only. A report providing a Brickwork Ratings rating is neither a prospectus nor a substitute for the information assembled, verified and presented to investors by the issuer and its agents in connection with the sale of the securities. Ratings may be changed or withdrawn at any time, for any reason in the sole discretion of Brickwork Ratings. Brickwork Ratings does not provide investment advice of any sort. Ratings are not a recommendation to buy, sell, or hold any security. Ratings do not comment on the adequacy of market price, the suitability of any security for a particular investor, or the tax-exempt nature or taxability of payments made in respect to any security. Neither Brickwork Ratings nor its affiliates, third party providers, as well as their directors, officers, shareholders, employees or agents (collectively, "BWR Reps") guarantee the accuracy, completeness or adequacy of the Report, and no BWR Reps 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 this publication. In no event shall any BWR Reps be liable to any party 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 Report even if advised of the possibility of such damages. Brickwork Ratings receives fees from issuers, insurers, guarantors, other obligors, and underwriters for rating securities.