



TOLL ROAD PROJECTS: CHALLENGES IMPEDING PRIVATE SECTOR PARTICIPATION

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Background

Road development in India has witnessed a significant scale-up since the formation of the National Highways Authority of India (NHAI) in 1988 and the commencement of the National Highway Development Programme (NHDP). Over the last decade, the Government of India (GoI) has launched several road development programmes, including the Pradhan Mantri Gram Sadak Yojna (PMGSY) and the Special Accelerated Road Development Programme.

According to the Committee on Infrastructure, Planning Commission, the road sector would require investment of an estimated Rs. 3,668.43 billion during the XIth Plan (2007-12). Given the magnitude of the required investment, private sector participation in road development is a very important policy objective. However, while in 2008-09, NHAI invited bids for 60 road projects to be built under the Public Private Partnership (PPP) model, it received bids for less than 50% of the projects and only eight projects were finally awarded. The diminished participation of the private sector is attributable not just to the economic downturn during the second half of calendar year 2008, but also to various other factors such as problems faced in acquiring land and obtaining the requisite approvals; ambiguity over certain clauses in the Model Concession Agreement (MCA); and lack of funding options. Apart from the above mentioned issues, private sector road developers are exposed to the risks inherent in toll road projects such as timely execution of the project; and variability in toll collections, which depends on traffic growth and the willingness of users to pay toll.

Over the last one year, NHAI has introduced several policy reforms to tackle the issues relating to MCA, process of awarding contracts, availability of finance and land acquisition. This along with the recovery in the general economic conditions has provided some impetus to the activity in the road sector as is also evident by the increase in the number of contracts awarded by NHAI in 2009-10, which stood at 38 covering 3351 km as opposed to only eight contracts covering 643 km in 2008-09. Nevertheless, the target of awarding 120 contracts in 2009-10 remained unachieved as the proposed reforms are yet to be implemented fully.

This paper discusses some of the major problems faced by developers during the various phases of a BOT project from the bidding stage to the operations stage that have been holding back growth of the road sector in India, and also covers the recent policy initiatives to address some of the problems in the road sector.

Phase I–Bidding Stage: Drawbacks in bidding process and MCA delayed award of contracts in the past; however, recent policy initiatives expected to provide some relief to developers

NHAI awards toll road projects to developers using a two-stage competitive bidding process: pre-qualification stage, wherein bidders are short-listed on the basis of their technical expertise, financial flexibility and past performance; and commercial bid stage, wherein the contract is awarded to the bidder quoting the highest revenue share or minimum grant. However, while the bidding process promotes transparency in the award of contracts, several procedural drawbacks were found to be delaying the award of contracts significantly.

Until recently, all road projects under PPP were first bid out as BOT Toll. As the risks faced in a toll road project are higher than those in alternative modes like BOT Annuity (as the developer assumes traffic risk in toll projects), some of the less attractive routes did not receive any bids under the BOT Toll mode. Subsequently, these projects were awarded under alternative modes like BOT Annuity and EPC. This led to delay in the award of contracts. In 2008-09, NHAI placed 60 projects under the BOT Toll mode, but only 22 of these (37%) received bids from private developers as the remaining projects were not considered commercially viable under BOT Toll. Further, in cases in which single bids were received, the projects concerned were not awarded by NHAI, which added to the delay.

The stringent criteria adopted for the selection of bidders led to the disqualification of several interested participants at the pre-qualification stage. For instance, a bidder needed to have executed works equal to twice the project cost during the preceding five years to be eligible for bidding. Also, only the top six companies that cleared the technical bids were eligible to make the financial bids. These companies were chosen on the basis of a scoring system that included criteria such as net worth, revenue, global experience and the number of projects handled. This tilted the balance in favour of global companies, and to overcome the handicap, local developers formed joint ventures (JVs) with global entities. However, while the experience of the global players enabled local developers to qualify, the foreign partner, very often, did not play any role in project execution. This defeated the basic purpose for which the regulation was enacted.

Apart from the bidding process, the uncertainty surrounding the MCA also discouraged many developers from bidding for road projects. The MCA was designed by NHAI to expedite the award of contracts by outlining the risk-sharing and regulatory framework for toll road projects. However, frequent changes in the MCA to address the concerns of various stakeholders affected the participation of developers. Further, certain clauses in the agreement such as the right to terminate the contract before the end of the concession period¹ and restrictions on dilution of shareholding until the end of the concession period stifled participation of the private sector.

Before inviting bids for a project, NHAI usually appoints consultants to prepare a Detailed Project Report (DPR), which includes design specifications, cost estimates and traffic projections for the project. Most private developers rely on the DPR to conduct a cost-benefit analysis before bidding for the project. In certain cases, there is a time gap between the preparation of the DPR and bid invitation, which reduces the relevance of the information provided in these reports for developers.

Drawbacks in the bidding process and MCA as well as the lukewarm response of private participants led to significant delays in the implementation of the NHDP. This is also reflected by the inability of NHAI to hit its targets during the three years till 2008-09 (refer *Table 1*), which in turn has hit the implementation of NHDP.

Table 1: Trend in Expenditure by NHAI

	Target (Rs. billion)	Achievement (Rs. billion)	Shortfall (%)
2006-07	101.95	89.71	12%
2007-08	176.15	156.40	11%
2008-09	280.83	175.71	37%

Source: NHAI website

To facilitate private sector participation in road projects, the GoI appointed the Chaturvedi Committee in 2009 to look into the MCA and the process of awarding contracts. Subsequently, the Chaturvedi Committee suggested several changes, the impact of which has been summarised in *Table 2*.

¹ For details regarding the conditions under which any NHAI contract can be terminated, please refer Annexure I.

Table 2: Issues in MCA, Proposed Changes, and their Impact

	Old Clause	Change in Clause	Impact
Termination clause	If the average daily traffic of passenger car units (PCUs) on the project stretch exceeds the designed capacity of the stretch for four consecutive years, NHAI may terminate the Agreement.	This clause has been removed from the new MCA.	The termination clause affected the financial closure of projects and limited the upside for developers. Besides, lenders were unsure about the tenure of the project.
Lowering of technical bid capability	The bidder should have executed contracts worth twice the cost of the project being bid for.	The bidder should have completed road development works equal to the value of the project during the preceding five years.	The new clause is expected to allow more companies to clear the technical criteria, thus increasing the execution capacity and also promoting healthy competition.
Viability gap funding	Grant by NHAI is limited to 20% of the project cost. Any excess grant is provided after the Commercial Operation Date (COD) as Operations & Maintenance (O&M) grant.	NHAI will merge the equity and O&M grant and extend the same as equity grant at a maximum of 40% of the project cost.	The revised clause is likely to improve project viability and provide a cushion to project cash flows during the construction stage itself.
Exit clause	The shareholding of the bidders in the Special Purpose Vehicle (SPV) cannot fall below 51% till the COD. The promoters need to hold 33% until three years after COD and 26% thereafter until the end of the concession period.	The new clause empowers NHAI to permit complete divestment two years post-completion of construction after a No Objection Certificate (NOC) has been obtained from the lenders.	Under the old clause, the promoter(s) were allowed to reduce their shareholding below 26% after COD. In cases where the developer diluted his shareholding below 51%, effective control was passed to the majority shareholder and developer, since a minority shareholder could only provide limited comfort to NHAI. Allowing the promoter to divest his stake will provide him with capital, which can be deployed in other projects. Also, the stake can be divested to companies that specialise in O&M of road works, thereby ensuring proper maintenance of roads after COD. Moreover, the amendment is expected to encourage financial investors take up stake in operational projects, as the construction risk will be eliminated post-COD.
Conflict of interest	A bid is disqualified in case a bidder or its associate holds more than 5% equity stake in another company that is applying for the same project.	The limit has been raised to 25%.	The old clause led to the disqualification of bidders with common investors, thereby reducing the number of private sector participants in a road project.
Premium payable to NHAI	The premium paid to NHAI is in the form of revenue share.	The premium is proposed to be fixed in monetary terms.	The impact of this change could be negative for developers in case traffic and toll collections turn out to be lower than anticipated, since the developer would have to pay a fixed premium to NHAI. However, if traffic and revenues are higher than anticipated, the upside would also remain with the developer.

Source: *The Chaturvedi Committee Report, ICRA's Analysis*

Other than the changes in the MCA, some amendments have also been proposed in the bidding process. These include suggestions for empowering NHAI to accept single-tendered bids after examining the reasonability of the same; allowing pre-qualification assessment of the developer, which will be valid for a period of 12 months and change in the mechanism for deciding the mode of the project (BOT Toll, BOT Annuity or EPC).

Many of the concerns of developers have been addressed by the Chaturvedi Committee report and the suggestions accepted by the Cabinet Committee on Infrastructure (CCI). However, there are some issues that would continue to impact developers, such as the absence of a proper dispute resolution mechanism, the compensation payable for project delays because of problems in land acquisition, etc. While some of the pending issues have been covered in the second part of the Chaturvedi Committee report published recently, NHAI is yet to approve the same.

Phase II–Financial Closure Stage: Lack of long-tenure project loans and of alternatives to bank financing affect financial closure; aggressive bidding delayed funding tie-ups in some cases

The capital-intensive nature of road projects implies that project developers are heavily reliant on banks and financial institutions for funding. Since the concession period for road projects is usually long (15-30 years), project developers look for long-tenure loans extending up to 10-15 years. However, the appetite of Indian lenders for long-tenure loans is low because such loans create asset-liability mismatches in their books; for most commercial banks, the average tenure of their funding sources is three to four years. The GoI has taken several policy initiatives like “takeout financing” by India Infrastructure Finance Company Limited (IIFCL) to alleviate the problem of long-term project finance being unavailable to the developers. However, the scheme has not picked up yet, pending resolution of some contentious issues between banks and IIFCL. One such issue arises from the fact that IIFCL proposes to refinance only standard assets and that too after four years of project completion; this would expose the banks concerned to a credit default. Besides, the commission to be charged by IIFCL is also awaiting decision. Once these issues are resolved, the flow of long-term credit to the sector is likely to improve.

The problem in achieving financial closure is also aggravated by the lack of alternatives to bank financing in the absence of corporate bond market. To encourage participation of foreign investors in India’s road sector, the GoI had raised the limit on Foreign Direct Investment (FDI) in road projects from 74% to 100% in 1999. However, because of the several hurdles that the Indian road sector continues to face, only US\$955 million came in via FDI between January 2000 and March 2009.

Another problem in financing road projects is that the lenders cannot create a charge over roads, as the ownership of roads vests with the Government rather than the developer. Therefore, loans for road projects are classified as unsecured loans in the lenders’ books, which require higher provisioning. This makes lending for road projects less attractive for banks and also raises the interest costs for the developer. To tackle this issue, the Chaturvedi Committee has proposed that the lenders to road projects be allowed to create a charge on the escrow account having toll receivables to the extent permissible in accordance with their priority in the waterfall². This would provide a tangible security to the lenders and help in classifying the loans as secured loans in the books of banks. Acting on the recommendation, the Reserve Bank of India (RBI) in its recently announced annual policy statement has proposed to treat annuities under the BOT model (in the case of road/highway projects and toll collection rights) as tangible securities, subject to the condition that the banks’ right to receive annuities and the toll collection rights are legally enforceable and irrevocable.

Further, NHAI has included certain clauses in the MCA to address the default related concerns of lenders. For instance, the MCA now envisages all toll revenues being credited to a separate escrow account. The toll receipts are utilised in accordance with the pre-specified cash waterfall mechanism, under which the dues of senior debt have priority over the following: the premium and any damages payable to NHAI; debt service in respect of subordinated debt; and the reserve requirements set forth in the financing agreements. This ensures that toll revenues are appropriated in the manner specified in the CA. Besides, most of the lenders insist on creation of Debt Service Reserve Account, whereby a part of the cash flows are set aside by the developer to repay the debt in case the toll revenues are insufficient. Further, in the case the CA is terminated due to default by the concessionaire or NHAI or due to any force majeure event³, NHAI compensates the lenders. These steps, along with the RBI’s recent announcement on loans for road

² The waterfall mechanism specifies the order in which toll receipt have to be appropriated. As per the MCA, senior lenders are paid after payment of taxes, construction related payments, operation and maintenance expenses and concession fee payable to NHAI.

³ For details regarding the conditions under which any NHAI contract can be terminated, please refer to Annexure - I

projects being considered secured (subject to certain conditions), are expected to improve credit flow to the sector, although the actual impact remains to be seen.

Given the large number of road projects that are expected to be awarded over the next five years, the amount of debt financing would have to increase substantially, as *Table 3* brings out.

Table 3: Bank Financing of Road Projects—Required Growth

NHAI Borrowings during 2009-10 to 2016-17 (1) [#]	1070
NHAI Repayment during 2009-10 to 2016-17 (2) [#]	409
Private sector contribution during 2009-10 to 2016-17 (3) [#]	2113
Assuming 3:1 debt-equity ratio, debt required by private sector (4 = 3*.75)	1585
Total funding required over 2009-10 to 2016-17 (5 = 1–2 + 4)	2246
Banking sector exposure to infrastructure sector at end-2008-09	2700
Current share of road sector (~12.5%)	338
Annual growth required for credit to road sector	30%

Note: Amounts in Rs. billion

[#]Source: Work plan from Chaturvedi Committee Report

Gross bank credit to the roads and ports sectors reported a compounded annual growth rate (CAGR) of 34% from Rs. 260.46 billion in 2006-07 to Rs. 470.60 billion in 2008-09. Given the past trends, the annual growth rate of 30% required in road sector credit (refer *Table 3*) appears achievable, provided the pending issues are resolved. Moreover, the GoI is also opening up other avenues of finance such as FDI and refinance of bank loans through IIFCL, and these initiatives are likely to provide a fillip to road sector credit.

Another issue hampering the financial closure is aggressive bidding by developers, which often vitiates the fundamental viability of projects. Thus, only six out of the 42 projects worth over Rs. 500 billion awarded by NHAI since January 2009 have achieved financial closure as on date. One possible reason for aggressive bidding is that in most cases, the developer (or the related party) also gets to do the EPC work on projects. Thus, the developer could be comfortable with a slightly lower internal rate of return (IRR) on a project if there is scope to make up for that from the EPC work. However, as the debt raised by the project SPV does not have any recourse on the developer, the lender appraises the project on a standalone basis. To address this anomaly, NHAI has come up with a policy to bar developers from bidding for new projects if they have not achieved financial closure of three or more projects.

Phase III—Execution Stage: Delays in transferring right of way, taking approvals by NHAI leads to overruns, which sans effective dispute resolution mechanisms can affect project viability

NHAI is responsible for handing over encumbrance-free work sites to private developers. In several projects, land acquisition gets significantly delayed because of protests by the local population or failure to negotiate the compensation package. Land acquisition becomes even more difficult in case there are buildings, places of worship, agricultural land, or encroachments on either side of the road.

According to the new policy, NHAI is required to acquire 80% of the project land even before awarding the Letter of Award (LoA) to the developer. Further, the MCA includes clauses that protect the interests of the concessionaire in case there are problems over land acquisition. Generally, NHAI is liable to pay damages if there is any delay in handing over the right-of-way to the concessionaire; the concessionaire also enters into a State Support Agreement to smoothen the process of land acquisition. However, while there are clauses that protect the concessionaire against land acquisition-related damages, the relief provided by such clauses is limited. Delays in obtaining the right-of-way often lead to time overruns in the overall commissioning of the road project. This in turn delays toll collection by the concessionaire, thereby affecting its cash flows and debt servicing capability. Moreover, time overruns often result in the overall project cost escalating. While the MCA states that NHAI shall pay damages at the rate of Rs. 50 per day for every 1,000 square metres commencing from the 91st day of the Appointed Date until such right-of-way is procured, the damages work out to be far less than the actual cost overruns and revenue loss to the concessionaire in case land acquisition gets delayed. To deal with the challenges related to land acquisition, NHAI had announced plans to set up 150 Special Land Units (SLUs) in various States to facilitate land acquisition. However, the plans are yet to be implemented.

Besides acquiring land, NHAI is also responsible for clearance of right-of-way like relocation of utility services, felling of trees and resettlement and rehabilitation of existing establishments. It has to coordinate with several entities to obtain the requisite approvals. For instance, NHAI may have to liaise with the State Electricity Boards concerned (for shifting electrical and transmission lines), the forest and other departments (for environmental clearances), and the Indian Railways (for construction of railway over-bridges) to get the necessary clearances. Thus, the process is cumbersome because of the involvement of several parties. Further, the developer too has to obtain several approvals and clearances from Government authorities, like clearance from the Pollution Control Board concerned, permission from the State Government to operate a quarry, and approvals for the installation of crushers, which can hinder project implementation.

The problems associated with land acquisition and liaising with multiple authorities for the requisite approvals often cause delays in the commencement of tolling, thereby affecting project viability. This along with the absence of an efficient arbitration mechanism to compensate developers for such delays increases the risks for developers. While disputes during project execution require quick and effective settlement, in most cases, they end up in courts and usually remain unresolved for long periods. According to estimates, for the construction industry as a whole, the arbitration claims currently awaiting resolution amount to around Rs. 96 billion.

Delays in construction and exposure to interest rate risk affect projects' leverage and return indicators

As is the case with all greenfield projects, BOT road projects are also exposed to risks of cost and time overruns. While the typical contractual mitigant for such risk is fixed-price, fixed-time EPC contracts with strong counterparties and adequate liquidated damage (LD) provisions for non-performance, in the case of many road projects, the developer (or the related party) also acts as the EPC contractor for the BOT project, which significantly dilutes the comfort that can be drawn from such penalty/LD clauses.

Typically, developers of BOT road projects are also exposed to interest rate risks, as funds are lent on floating interest rates. Interest costs constitute a high proportion of the total cost for road projects. Therefore, adverse movements in interest rates during the lifetime of the project can affect its viability. Assuming a debt-equity ratio of 3:1, a construction period of 2.5 years and drawdown of the entire loan at the beginning of the project, interest costs during construction constitute about 15-20% of the total project cost. Thus, a 1% rise in interest cost can increase the total project cost (including interest during construction) by 1.88%.

Table 4: Sensitivity of Project Cost to increase in Interest Rate

ASSUMPTIONS			
Project Cost	100		
Debt-Equity Ratio	3:1		
Construction Period	2.5 years		
SENSITIVITY ANALYSIS			
	CASE I	CASE II	CASE III
Rate of Interest	12%	13%	1%
Interest Cost during Construction (IDC)	22.50	24.38	1.88
IDC as proportion of Project Cost	22.5%	24.38%	1.88%

Phase IV—O&M Stage: Sensitivity of toll revenues to variations in traffic volumes and WPI movements and exposure to regulatory changes increase uncertainty of future cash flows

Under the BOT Toll model, developers have to recover their costs and returns from toll collections. To assess the viability of any project, all developers forecast toll revenues over the concession period, using estimates of base traffic volumes, traffic growth rates, and toll rates. All these three parameters are highly prone to estimation errors and are closely linked with business cycles and various macro-economic factors. Thus, significant negative deviations in any of the three can severely affect the project's viability and profitability.

Estimation of base traffic and growth rates

Most developers rely on independently conducted traffic studies to estimate traffic volumes. These traffic studies are constrained by the lack of reliable and comprehensive historical traffic data, which makes forecasting volumes especially difficult for new routes that have no traffic history. Moreover, some traffic studies are unable to capture the seasonal trend in traffic and fail to predict traffic composition accurately. For instance, traffic studies may understate the proportion of frequent users who would opt for monthly passes at concessional rates. Further, once toll collection commences on the project stretch, there may be some diversion of traffic to alternative un-tolled routes, which traffic studies may be unable to capture fully.

Traffic volumes for any project are susceptible to business cycles and to the level of economic development in the adjoining areas. For instance, a project stretch connecting major industrial cities to ports may witness lower traffic during recession as economic activity or exports decline. In such a case, the base traffic would reduce, affecting the expected cash flows and IRR of the project concerned. As for commercial traffic, the volumes in this case would be a function of the level of commercial and economic development in the adjoining regions. For instance, following the extensive development of office space in Gurgaon (Haryana), traffic volumes on the Delhi-Gurgaon expressway have been much higher than anticipated.

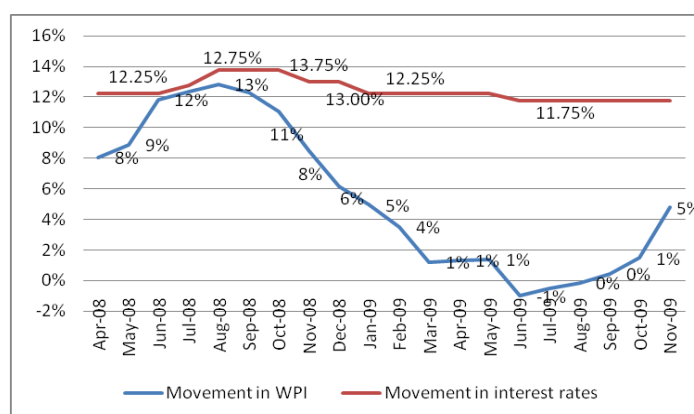
Historically, traffic in India increased a CAGR of around 10% between 1951 and 2006. However, similar growth rates may not sustain in the future because of both the higher base effect and stabilisation of the economic growth rate. ICRA has observed high variations (of as much as 50%) between estimated and actual traffic volumes in the case of some toll roads that commenced operations recently.

Estimation of toll rates

The toll fee payable by each category of vehicles is specified in the Concession Agreement (CA) between NHA and the developer. The toll fees are revised annually to adjust for inflation, as determined by the movement in the Wholesale Price Index (WPI), which links the revenues of developers to movements in the WPI.

Generally, interest rates and the rates of inflation in an economy move in tandem. Thus, an increase in interest cost usually gets compensated by an increase in toll collections (because of WPI-based toll fee revision). However, the risk of toll road users being unwilling to accept the increased toll rates (especially if the increase is steep) is always there. Moreover, there can be instances of short term disruptions between interest rates and inflation, as had happened during the economic slowdown post-September 2008 (refer *Chart 1*). In that event road developers were hit in the short term by rising interest costs on the one hand, and by static toll rates (there was no escalation) on the other. If such an anomaly persists over a long period, it could lead to cash flow mismatches and also affect the profitability of a toll road project.

Chart 1: Movement in WPI and Interest Rates

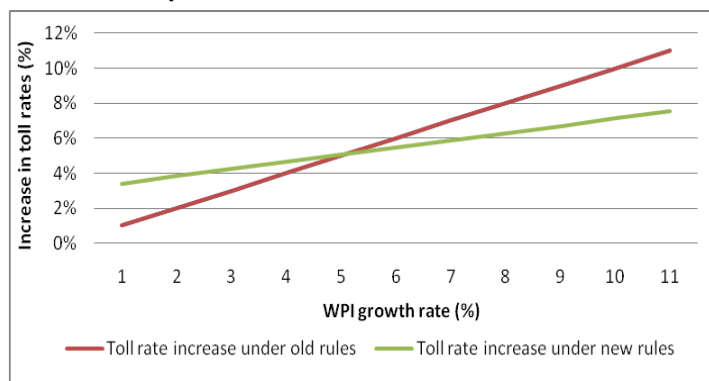


Note: Prime lending rate of State Bank of India taken as the benchmark for interest rates; year-on-year growth rate for WPI depicted

Source: Office of Economic Advisory, Ministry of Industry and Commerce

NHA has specified new guidelines for revision of toll rates under the New National Highways Fee Rules. According to the new norms, the base toll rate would be increased by a fixed amount (3% every year) plus 40% of the variation in WPI. The new rules also prescribe higher base toll rates for high-cost structures while the earlier rules specified a standard base toll rate on a per passenger car unit (PCU) per kilometre basis for a highway project. By linking the toll rate to the cost incurred, the new rules provide greater comfort to developers. Moreover, the fixed annual increase of 3% protects developers from the impact of a lower WPI growth rate. However, the upside is also limited under the new rules as toll rates increase at a lower rate in case of higher WPI growth rate (refer *Chart 2*).

Chart 2: Comparison of Toll Rates under Old and New Rules



Source: ICRA's Analysis

Besides the traffic volumes and toll fees, toll revenues also depend on qualitative factors like willingness of users to pay toll and minimisation of toll leakage. Generally, road developers gauge the sensitivity of users to toll charges by conducting willingness-to-pay surveys; however, such surveys cannot always be relied upon because of sample size limitations and sampling errors. In the context of user resistance to toll, a case in point is the Coimbatore bypass road project. This project faced severe public resistance as it had no provision for monthly passes and frequent users found it expensive to pay toll on every trip. Moreover, the concession agreement allowed the concessionaire to levy toll on an existing bridge on which it had made no additional investment, and the public objected to this. Because of user resistance, the Coimbatore road project in its first four years of operations reported a cumulative loss of Rs. 126 million.

Other factors affecting project cash flows

In addition to possible variations in toll collections, there is also the possibility of outflows exceeding estimates because of changes in regulations and macroeconomic factors. All infrastructure projects are eligible for benefits under Section 80 IB of the Income Tax Act, 1961, which means the SPV implementing an infrastructure project does not have to pay income tax for a block of 10 years during the first 15 years of its operation. However, the SPV does have to pay Minimum Alternate Tax (MAT) on its profits. Any adverse change in the extant policy on taxation can affect project viability. Moreover, there have been regular increases in the MAT rate over the years (the rate for 2010-11 is 18% as against 7.5% in 1997-98). Taxes apart, the other major outflows such as those on routine and major maintenance are highly sensitive to inflation, and are therefore difficult to budget over the entire concession period (in many cases, creation of a major maintenance reserve is mandatory under the loan agreement). Overall, any significant increase in costs because of changes in taxation regulations and macro economic factors without a matching increase in toll revenues can put pressure on a project's cash flows.

Conclusion

In ICRA's view, while the potential for greater private sector engagement in developing the country's roads is significant, so are the challenges facing developers both at the pre- and post-bid stage. The problems relating to land acquisition and achieving financial closure remain the most daunting, even as several other concerns have been addressed by the Chaturvedi Committee report. On the whole, while the market, traffic and interest rate risks inherent in BOT projects cannot be eliminated, a stable and progressive policy regime can go a long way in providing comfort to both private-sector road developers and lenders.

Annexure I

Conditions under which NHAI can terminate a contract⁴

Any contract between the concessionaire and NHAI can be terminated by either party in case there is an event of default by NHAI or the Concessionaire. Also there is a provision in the CA under which an agreement may get terminated if a *force majeure* event has occurred. Some of the conditions under which a contract between the concessionaire and NHAI can be terminated are discussed in the following sections.

Events of Default by NHAI: The Concessionaire is entitled to terminate the Concession Agreement (CA) if NHAI fails to cure default within a Cure Period of 90 (ninety) days from the date of default. Following are the Events of NHAI Default under the CA:

- NHAI commits a material default in complying with any of the provisions of the CA.
- NHAI has failed to make any payment to the Concessionaire within the period specified in CA.
- NHAI repudiates the CA or otherwise takes any action that amounts to or manifests an irrevocable intention not to be bound by the CA.
- The State commits a material default in complying with the provisions of the State Support Agreement and such default has a Material Adverse Effect on the Concessionaire and the breach continues for a period of 90 (ninety) days from the date of notice given in this behalf by the Concessionaire to NHAI.

Events of Default by Concessionaire: NHAI can terminate the CA with prior notice if the Concessionaire fails to cure defaults within a Cure Period of 60 (sixty) days from the date of default. Following are the Events of Concessionaire Default:

- Financial Closure is not achieved within the stipulated time period.
- Performance Security has been encashed and appropriated and the Concessionaire fails to replenish or provide a fresh Performance Security within a Cure Period of 30 (thirty) days.
- Concessionaire fails to Cure within a period of 90 (ninety) days the default for which the Performance Security was encashed.
- Concessionaire fails to achieve the latest outstanding Project Milestone and continues to be in Default for 90 (ninety) days.
- Concessionaire abandons or manifests intention to abandon the construction or operation of the project highway without the prior written consent of NHAI.
- Project Completion Date does not occur within a specified time period from the Scheduled Four/Six Laning Date
- Punch List items have not been completed within a specified period from the date of issue of provisional certificate.
- The Concessionaire is in breach of the Maintenance Requirements.
- Concessionaire has failed to make any payments due to NHAI within the period specified in CA.
- Concessionaire fails to cure the Escrow Default within a Cure Period of 15 (fifteen) days.
- Upon the occurrence of Financial Default, the Lenders' Representative has by notice required the NHAI to undertake suspension in accordance with the Substitution Agreement and the concessionaire fails to cure the default within the cure period specified in the Substitution Agreement.
- Concessionaire is in breach of any of Project Agreements which has caused a Material Adverse effect.
- Concessionaire creates any Encumbrance in the breach of CA.
- Concessionaire repudiates the CA or takes any action or evidences or conveys an intention not to be bound by the CA.
- A change in ownership has occurred in breach of the provisions of the CA.
- There is a transfer, pursuant to law either of (a) the rights and/or obligations of the Concessionaire under any of the Project Agreements or of (b) all or part of the assets or undertaking of the Concessionaire, and such transfers causes a Material Adverse Effect.
- An execution levied on any of the assets of the Concessionaire has caused a Material Adverse Effect.

⁴ Source: MCA for Public Private Participation in National Highways

- Concessionaire is adjudged bankrupt or insolvent, or is in the process of being liquidated, dissolved, wound up, amalgamated or reconstituted in manner that would cause Material Adverse Effect in the opinion of NHAI.
- A resolution for winding up of the Concessionaire is passed, or any petition for winding-up of the Concessionaire is admitted by a court of competent jurisdiction and a provisional liquidator or receiver is appointed and such order has not been set aside within 90 (ninety) days of the date thereof or the concessionaire is ordered to be wound up by Court except for the purpose of amalgamation or reconstruction.
- Any representation or warranty of the Concessionaire which is found to be materially false or the concessionaire is found to be in breach of the Agreement.
- The Concessionaire submits to the Authority any statement, notice or other document, in written or electronic form, which has a material effect on the Authority's rights, obligations, or interests and which is false in material particulars.
- Concessionaire has failed to fulfil any obligation, for which failure Termination has been specified in the Agreement
- Concessionaire commits a default in complying with any other provision of the CA if such default causes Material Adverse Effect on NHAI.

Force Majeure: CA also provides that if a Force Majeure (FM) event subsists for a period of 180 (one hundred and eighty) days or more within a period of 365 (three hundred and sixty five) days, either party may at its sole discretion terminate the CA with a prior notice of 15 (fifteen) days. As per CA, FM shall mean occurrence in India of any or all of Non-Political Event, Indirect Political Event and Political Event as defined below:

Non-Political Event include acts of God or the events beyond the reasonable control of the affected party (such as exceptionally adverse weather conditions, earthquake, cyclone, flood, volcanic eruption or fire); radioactive contamination or ionizing radiation, strikes or boycotts (other than those involving the EPC Contractor and the Concessionaire) interrupting supplies for a continuous period of 24 (twenty four) hours and an aggregate period exceeding 7 (seven) days in an Accounting Year, and not being Indirect Political Event, any failure by the EPC Contractor only to the extent caused by another Non-Political Event, any judgment or order of any court made against the Concessionaire or NHAI (other than failure of the Concessionaire to comply with any Applicable Law or Applicable permit) or any event or circumstances of a nature analogous to any of the foregoing, etc.

Indirect Political Event shall mean an act of war (declared or undeclared), industry-wide or State-wide strikes or industrial action, civil commotion, boycott or political agitation which prevents collection of Fee by the Concessionaire, resulting in disrupting the work for a period exceeding 7 (seven) days in an Accounting Period, any failure or delay of EPC Contractor to the extent caused by any Indirect Political Event, any Indirect Political Event that causes a Non-Political Event, any event or circumstances of a nature analogous to any of the foregoing, etc.

Political Event shall mean Change in Law, compulsory acquisition in national interest, or expropriation of any Project Asset or the rights of Concessionaire or EPC Contractor, unlawful or unauthorised or without jurisdiction of or refusal to renew or grant without valid cause, any clearance, licence, permit, authorisation, no objection certificate, consent, approval or exemption required by the Concessionaire or any of the Contractors to perform their respective obligations under the CA, etc.

Compensation provided by NHAI in case of termination of CA: In case of termination of contract, NHAI compensates lenders and the concessionaire. The termination payments made by NHAI under different scenarios is given in the following table.

Table 5: Termination payment by NHAI under different scenarios

Event	Termination Payments
Default by	90% of debt due net of insurance claims* to lenders
Default by NHAI	100% of debt due to lenders and 150% of adjusted equity to concessionaire
Force Majeure Event	<ul style="list-style-type: none"> • Non-Political event: 90% of debt due less insurance cover* to lenders • Indirect Political Event: 100% of Debt due less insurance cover* to lenders and 110% of adjusted equity to concessionaire • Political Event: 100% of Debt due to lenders and 150% of adjusted equity to concessionaire

*If any insurance claims forming part of the Insurance cover are not admitted and paid, 80% of such unpaid claims are included in the computation of debt due

Annexure II

Table 6: List of Road Sector SPVs with ICRA-Assigned Ratings Outstanding (as on July 21, 2010)

Company Name	Long-	Short-term
Adilabad Expressway Private Limited	LBBB-	
GMR Ambala Chandigarh Expressway Private Limited	LBBB	A2
GMR Jadcherlla Expressway Private Limited	LBBB	A2
GMR Tambaram Tindivanam Expressway Private Limited	LA	
GMR Tuni Anakpalli Expressway Private Limited	LA	
GMR Ulundurpet Expressway Private Limited	LBBB	A3+
L&T- Chennai Tada Tollway Private Limited	LBBB-	
L&T Halol-Shamlaji Tollway Private Limited	LBBB-	
L&T Krishnagiri Thopur Toll Road Limited	LBBB	
L&T Narmada Infrastructure Construction Enterprise Limited	LAA-	
L&T Panipat Elevated Corridor Limited	LBBB+	
L&T Transportation Infrastructure Limited	LA+	
L&T Western Andhra Tollways Private Limited	LA-	
Madhucon Agra Jaipur Expressways Limited	LBBB-	
Madurai Tuticorin Expressways Limited	LBBB+	
Malegaon Manmad Kopergaon Infrastructure & Toll Road Private Limited	LBBB-	
Nagar Kopergaon Infrastructure Private Limited	LB-	
Pondichery Tindivanam Tollway Limited	LBB+	
Raj Infrastructure Private Limited	LBBB	
Salem-Ulunderpet Toll Road Private Limited	LBBB-	
Tamil Nadu Dindigul Karur Expressways Limited	LBBB-	
Trichy Thanjavur Expressways Limited	LBBB-	
Trichy-Dindigul Toll Road Private Limited	LBBB-	
Trichy-Karur Toll Road Private Limited	LBBB-	
Fekari Infrastructure Private Limited	LC+	
GF Toll Road Private Limited	LBBB	
Chennai Elevated Tollway Limited	LBB+	
Indu Navayuga Infraprojects Private Limited	LBBB-	
Navayuga Bengalooru Tollways Private Limited	LBBB	



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