

## Hybrid Annuity Model – Developing Cracks?

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The Road sector witnessed a series of government initiatives to tackle execution woes and resurrect investor confidence over last few years. However, FY19 (refers to the period April 1, 2018 to March 31, 2019) witnessed lower project award in contrast to expectations, while improved execution pace of roads salvaged the overall sector performance. CARE Ratings observes that while bidding prudence continues, the progress of ongoing HAM projects has been average.

As articulated in earlier CARE's report, a study of HAM projects with aggregate Bid Project Cost (BPC) of Rs.115,500 crore (**Sample 1**) shows that financial closure has been achieved in most of the cases albeit with some delays especially in case of projects belonging to weak sponsor. CARE Ratings also notes that sanction terms are relatively stricter which is expected to increase working capital intensity of the Engineering Procurement and Construction (EPC) contractor. Furthermore, declaration of Appointed Date is awaited in fifteen per cent projects out of sample 1 due to various issues in land acquisition.

Sponsors with demonstrated execution capabilities are expected to complete the ongoing HAM projects within time or ahead of schedule as reflected by ten percent of aggregate BPC of Rs.90,000 crore with total length of 4400 km (**Sample 2**) have either achieved provisional commercial operations date (PCOD) or achieved five project milestones and twenty per cent of sample 2 have achieved third or fourth project milestone and hence expected to achieve PCOD over next one year.

Nevertheless, proportion of projects progressing with delays in execution has increased to twenty four percent of sample 2 as against projects with fifteen per cent of BPC analyzed by CARE Ratings in January 2019. This is mainly attributed to persistent challenges on ground in de-scoping of un-available land as against favorable contractual features.

CARE Ratings estimate aggregate pending equity commitment for the sample 1 during FY20-FY22 to be ~Rs.10,500 crore (i.e., nine per cent), with significant equity commitment spilling over from FY19 to FY20 due to delay in the receipt of Appointed Date.

CARE Ratings also notes that quick reassessment and approval of revised bid project cost post approval of de-scoping of unavailable land poses another challenge from credit perspective. Prompt remedial action from NHAI on the above-mentioned impending issues is crucial to boost lenders' confidence and meet the target set for FY19-FY20.

Bank rate has steadily declined from 6.75% per annum in January 2019 to 5.65% per annum as in September 2019 without corresponding reduction in cost of borrowing which is expected to moderate the cash flow cushion of operational HAM projects. DSCR moderates from 1.28 times to 1.14 times (refer Table No.3) in case funding of the project is done at inflation indexed completion cost being higher than BPC coupled with decline in the bank rate. However, average DSCR for the projects bid with adequate O&M annuity and funded at BPC or less are expected to remain comfortable with marginal changes in DSCR.

**This report covers:**

1. Bidding analysis of awarded HAM projects
2. Status of completion of Financial Closure (FC) and receipt of Appointed Date (AD)
3. Expected equity commitment and its source of funding
4. Impact of change in bank rate in operational HAM Projects

**1. Bidding Analysis of awarded HAM projects:**

Adequacy of BPC vis-à-vis NHAI cost and adequacy of O&M cost are the important parameters for bidding. While rigid pavement structure increases BPC, it reduces O&M cost considerably due to lower wear and tear. However, significantly lower bidding in O&M cost can increase challenges in operational period and hence CARE Ratings has bifurcated its HAM projects rated portfolio into four categories based on the underlying bidding strategy and analyzed them as tabulated below:

Scenario	Bidding Scenarios	CARE Ratings' view
1	BPC > NHAI cost & Adequate bidding for O&M annuity	Adequate cash flow cushion
2	BPC > 1.10 times of NHAI cost & Lower bidding for O&M annuity	
3	BPC ≤ NHAI cost & Adequate bidding for O&M annuity	Moderate cash flow cushion in operational period albeit with execution challenges
4	BPC > NHAI cost and < 1.10 times of NHAI cost (nearer to NHAI cost) & Lower bidding for O&M annuity	Limited cash flow cushion due to increased O&M and execution risk

**Table No. 1: Bidding Analysis in various scenarios**

CARE Ratings estimates that eighty one per cent of aggregate BPC for the sample 86 HAM projects analyzed by CARE Ratings and awarded till March 2019 fall under scenario 1 and scenario 2 and hence considered as low risk projects. Further, around nineteen per cent of aggregate BPC for the projects awarded till March 2019 fall under scenario 4 and hence relatively risky.

The above analysis is largely in line with our previous analysis, in earlier coverage of CARE Ratings dated January 16, 2019, and titled: “Indian Road Sector – Geared to ride amidst headwinds?”

**Progress of ongoing HAM projects:**

Analysis of Sample 2 reveals that,

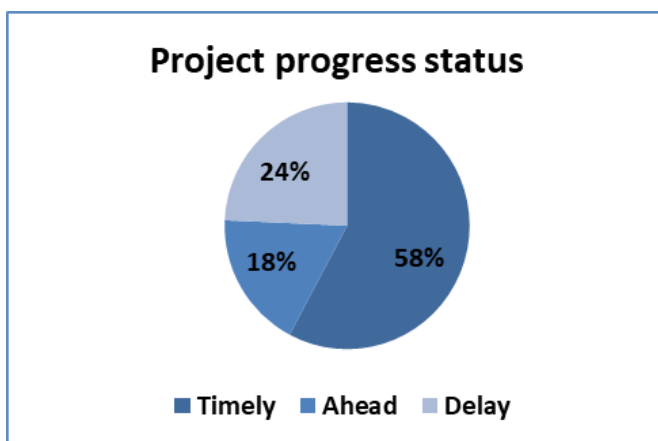
- Projects equivalent to five per cent of sample 2 have achieved provisional commercial operations date (PCOD) in timely manner and some of them are also expected to qualify for early completion bonus. Additionally, projects equivalent to five per cent of sample 2 have achieved five project milestones and are expected to achieve PCOD in

the near term. On an aggregate basis ten per cent of the sample BPC have either achieved PCOD or achieved five project milestones as against one per cent of sample BPC under this category one year ago.

- Projects equivalent to twenty per cent of sample 2 have achieved 3-4 project milestones and hence expected to achieve PCOD over next one year.
- NHAI has timely released construction annuity along with inflation indexation which is positive for the operators.
- Projects equivalent to twenty four per cent of sample 2 have been delayed, with more than half of them being delayed in meeting the first milestone.

Project Execution Status	On-time / Ahead	Delayed
Achieved COD	5%	-
Achieved 5 milestones	5%	-
Achieved 4 milestones	7%	-
Achieved 3 milestones	8%	5%
Achieved 2 milestones	8%	5%
Achieved 1 milestones	20%	5%
Awaiting for 1 <sup>st</sup> milestone	24%	9%

**Table No. 2: Status of project execution**



Delay in the project execution is mainly attributed to weak or modest credit profile of sponsor and non-availability of complete ROW as well as clearances. Furthermore, proportion of projects facing execution delays has increased from fifteen per cent to twenty three per cent of BPC analyzed by CARE Ratings in its earlier coverage titled: [“Indian Road Sector – Geared to ride amidst headwinds?”](#) dated January 16, 2019. The increase is attributable to persistent challenges on ground in de-scoping of unavailable land. This is despite a favorable contractual feature of issuing COD to projects where entire ROW could

not be made available within 180 days from Appointed Date. Besides, some of the projects have also faced hindrances to work on the available land post Appointed Date largely owing to delay in shifting the necessary utilities.

There is also a practice of de-linking of the work done from the overall scope of work to be done for achieving PCOD where ROW is handed beyond 180 days from Appointed Date. Under de-linking, PCOD may be declared upon completion of 100% work on available land, while concessionaire is required to execute the work on remaining land whenever it is handover by NHAI even post PCOD. Nevertheless, implementation of contractual terms is still awaited as most of the projects are awaiting approval of de-scoping or de-linking despite lapse of more than 180 days from Appointed Date while some projects nearing completion with project progress of around 90% due to unavailable ROW.

Furthermore, CARE believes quick reassessment and approval of revised bid project cost post de-scoping of unavailable land poses another challenge from credit perspective as delay in the former can result in deferral in term debt disbursement from lenders and in turn impede the project progress. Moreover, NHAI is required to grant extension of time (EOT) in timely manner in case the project is not delayed due to the reasons attributed to concessionaire. In case of delay in granting of EOT beyond schedule project completion date (SPCD), probability of deductions in the first annuity as well as reliance on sponsor heightens as door-to-door tenor of the project loans and their repayments are linked with SPCD. Prompt remedial action on these issues is crucial to boost lenders’ confidence and reinvigorate private players interest.

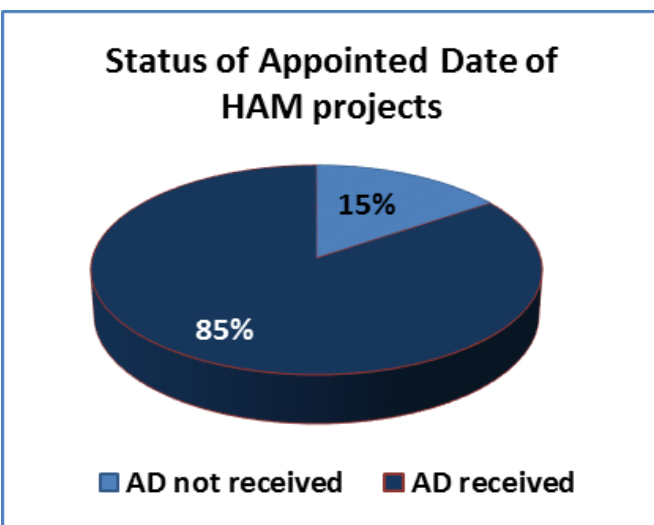
**2. Status of completion of Financial Closure (FC) and receipt of Appointed Date (AD):**

Analysis of HAM projects with sample 1 shows that financial closure has been achieved in most of the cases albeit with some delays especially in case of projects belonging to weak or moderate sponsor. Nevertheless, sanction terms are relatively stricter with pre-disbursement conditions linked to availability of eighty per cent land on 3H basis (i.e., handover of land post payment of compensation to land owner) and achievement of requisite project progress.

Under HAM, mobilization advances equivalent to 10% of BPC can be availed from NHAI at bank rate (currently 5.65% per annum) which is expected to provide cash flow cushion in the initial phase. However, there has also been some resistance from lenders for sanctioning and releasing bank guarantee for mobilization advances at project company (ie, Special Purpose Vehicle [SPV]) level in few instances. Availability of BG has also been restricted due to weaker health of PSU banks. It is on account of unconditional nature of BGs, large exposure of construction companies to non-fund-based limits as compared with fund-based limits and limited cash flow cushion available to honor BGs in

case of its invocation. Hence, stricter pre-disbursement conditions, challenging fund raising scenario resulting in delay in debt syndication and constraints in timely release of mobilization advances are expected to increase working capital requirement for the EPC contractors who are also the sponsors in most of the projects.

Declaration of Appointed Date is awaited in the projects with aggregate BPC of around Rs.18,000 crore (sixteen per cent); out of sample 1 due to various issues in land acquisition. However, shifting mindset of developers for availing Appointed Date only after grant of encumbrance free eighty per cent land on 3H basis, is expected to provide some relief in execution challenges to the developers.



**3. Expected Equity Commitment and funding avenues:**

- CARE Ratings estimate aggregate pending equity commitment for the HAM projects under sample 1 during FY20-FY22 to be approximately nine per cent with significant equity commitment spilling over from FY19 to FY20 due to delay in the receipt of Appointed Date.
- Flexibility to raise funds through QIP/IPO has become increasingly difficult in light of moderation in valuation of sponsors. Pace of release of arbitration claim is also not encouraging, due to difficulties in availing bank guarantees especially for moderate to weak sponsor, and longer judicial process post award declaration by

arbitration tribunal. All these have increased reliance on cash accruals, stake sale proceeds, up-streaming of surplus cash flow from operational projects and debt at sponsor level for funding equity commitment. However, it is also to be noted that pace of asset monetization for both operational and under construction SPVs have gained significant momentum in last six months ended August 2019. This has been reflected from five big stake sale deals announced in last six months ended August 2019 for 17 operational and 12 under construction HAM projects. Transferring assets to Infrastructure Investment Trust (InvIT) owned by large reputed global funds has become preferred route for asset monetization as InvIT also provides benefit of pooling of cash flow and revenue diversification due to bundling of assets to investors apart from easier route of unlocking sponsor’s equity. While track record of stake sale deal during construction phase is positive for the sponsors who have successful execution track record, significant traction in stake sale deals of operational assets shall pave way for unlocking capital of existing developers to fund new projects.

**4. Impact of change in bank rate in operational HAM Projects:**

- During operational phase, cash flow is assured in the form of annuity payments from NHAI (rated ‘CARE AAA; Stable’) on semi-annual basis covering sixty per cent of the inflation indexed completion cost along with interest at bank rate plus three per cent (i.e., 8.65% per annum as in September 2019). O&M risk is also partially offset due to fixed payment in the form of annuity which is also indexed to inflation movements with the base year considered as the year of bidding.
- Nevertheless, bank rate steadily declined from 6.75% per annum in January 2019 to 5.65% per annum as in September 2019 without corresponding reduction in cost of borrowing which is expected to moderate the cash flow cushion of operational HAM projects. This risk further elevates in case of increase in O&M costs. However, inflation indexed completion cost provides some comfort from the credit perspective in case cost of project is structured at BPC or less than BPC without assuming inflation. Assuming the tail period of one year, construction period of 2 years, yearly inflation of four per cent, O&M annuity covering the O&M expenses and interest rate of 9.25% per annum, impact of bank rate change on interest annuity and consequent average DSCR of the project is tabulated below:

Scenarios	Bank Rate	BPC (Rs. crore)	Completion Cost (Rs. crore)#	Project cost for funding (Rs. crore)	Average DSCR throughout the tenor of debt
Scenario 1	6.75%	1000	1080	1000	1.28
Scenario 2	6.75%	1000	1080	1080*	1.19
Scenario 3	5.65%	1000	1080	1000	1.22
Scenario 4	5.65%	1000	1080	1080*	1.14

#inflation indexed BPC; \*including inflation portion



**Table No.3 Illustration on debt coverage indicators in various scenarios**

- Average DSCR for the projects bid with adequate O&M annuity and funded at BPC or less are expected to remain comfortable with marginal changes in DSCR. DSCR moderates from 1.28 times to 1.14 times in case funding of the project is done at inflation indexed completion cost being higher than BPC coupled with decline in the bank rate; though adequate bidding in O&M shall provide some cash flow stability. Nevertheless, cash flow cushion shall moderate in case the project is structured at higher than BPC with inadequate bidding in O&M annuity.

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