

Hybrid Annuity Model (HAM) for PPP Projects

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In India, road projects are awarded via one of the three models: Build-Operate-Transfer (BOT)-Annuity, BOT-Toll, and EPC (engineering, procurement and construction) contract. After the BOT model of Public Private Partnership (PPP), an advanced version of the Model Concession Agreement (MCA), presently called as Hybrid Annuity Model (HAM) is paving way for road projects. The hybrid model is supposed to be a win-win situation for the government and developers. The government is expected to fund up to 40 percent of the project cost while the remaining 60 per cent to be funded by the private player, and thus easing the financial burden on the exchequer as well. This comes as a welcome step in the situation of dismal performance of highway construction projects awarded under MCA. This paper summarises the key changes and features which are brought under the new arrangement and provides a comparison with pat models.

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Background

The revised Model Concession Agreement (MCA), now called as Hybrid Annuity Model (HAM) is a welcome change over all the previous Build Operate Transfer (BOT) model of Public Private Partnership (PPP).

Since the new union government took over in May, 2014 the question of languishing BOT projects was on top priority due to dismal performance of high-way construction projects awarded under existing model concession agreement. In very short time, the government came up with new HAM to address the various concerns felt by the stakeholders. By now first 2 projects are being awarded and more projects under same model will be awarded in coming months.

In last decade, many variants of PPP were experimented. Commonly adopted models were BOT with toll and BOT with annuity. Some early projects were awarded with success, mainly connecting important cities with steady and growing traffic. But soon it was clear that in some road segments may not have adequate toll paying traffic thus requiring partial government support. This was achieved through offering Viability Gap Funding (VGF) from 20% to 40 % of project cost and the Contractor asking for minimum VGF Grant could get the project. While experimenting with this VGF model, Government realized that some road connecting important cities had good prospects of collecting toll more than required for recovery of investment including interest and profits. This resulted into negative grant i.e. Contractors were willing to give money to government for awarding the project and those paying highest grant to government could get project awarded to them. More than 10-12 projects were awarded on these lines, perhaps due to over-enthusiasm of Contractors to get the projects. But soon it was clear that reality was not rosy and Contractors started backing out of project, by returning the concession granted to them.

Still there were few projects in remote areas, which were not commercially viable due to their poor toll collection prospects. For such projects government decided to offer 100% support, by annuity payment over the concession period and the Contractor asking for lowest annuity was awarded project without toll collection responsibility. This idea was well received due to assured annuity without the responsibility of collecting toll. But soon Government felt that such annuity payment for large number of projects will create a permanent burden of annuity payout in all future budget and they decided to discontinue with this model unless very essential in rare cases.

In all this process, awarding of road construction projects slowed down. However to keep some nationally important linkage in remote areas going and to give some push to road construction, EPC/Turnkey projects were awarded with full payment by Government for construction, without any deferred payouts mechanism, to revive the road sector.

Hence all these combinations of payment arrangement needed a relook, as many of these were not working well and contractor stopped quoting for new BOT projects, due to various risks they were facing in the previously awarded projects.

How HAM is different?

The key changes and features which are brought in HAM MCA are summarised below. In general, HAM has brought in welcome change in the business environment due to the positive orientation of the government with a business friendly approach to achieve the speedy execution of long delayed highway projects.

1 The previous BOT model has structured the risk sharing with a major responsibility on the Contractor, managing financing risk, revenue risk and O&M risk apart from usual construction risk and government (or NHAI) was required to manage right of ways and granting toll collection rights to the Concessionaire. While in new HAM a

dramatic realignment of Risk sharing is brought in. In this model, the government is accepting revenue (toll) collection risk, along with partial sharing (40%) of financial risk, and only expecting Contractor to continue managing execution and O&M risks. This is definitely much better balance compared to past risk allocation. In the process, they have brought in hybrid combination of old Annuity and BOT model and also EPC contract risks strategies. The brief picture of Risk Allocation can be tabulated as in Table 1.

Table 1: Risk Allocation in Different Contract Models

Type of Risk → Type of Model ↓	Financing Risk	Revenue Risk or Toll collection Risk	O & M Risk
BOT Model	By Private	By Private	By Private
Annuity Model	By Private	By Govt.	By Private
BOT-VGF Model	By Govt. & Private	By Private.	By Private
EPC Model	By Govt.	By Govt.	By Govt.
HAM Model	By Govt. & Private	By Govt.	By Private

2 These changes though welcome are really favourable repackaging of various models in the past. For example, old annuity model was assuring minimum bi-annual release of payment to Concessionaire, with toll collection under government control while in some VGF models, there was willingness to pay up to 40% of Project cost (where toll collection prospects were low in uneconomic or backward areas). Actually both these earlier models were welcomed by construction community, but were discontinued by government because those good features relating to budgetary support to the project were putting financial pressure on short term budgeting and long term compulsions of financing.

3 This Hybrid combination of earlier ideas is presently welcome, when Infrastructure development has slowed down. However within 3-4 years, government financing may be stressed by necessary short term direct budgetary support to Infrastructure and long term annuity commitment. This is inevitable due to upfront

payments required, during execution and long term burden to be accepted in annual budgets for annuity payments over 15-20 years.

4 Also all nationalized banks' infrastructure related loan books are full or restricted due to either sectoral caps or non-performing loans. Hence though the terms of new HAM models are comforting to the banks, they may not have spare funds for at least 2-3 years to allocate to these

hybrid projects which are likely to be awarded now and in the next financial year.

5 Though this new hybrid model lowers the responsibility of Contractor to 60% of project cost to raise the money, the question of sufficient promoter participation by Contractors with 25 to 30% equity component within 60% project cost will be expected by banks. This would mean arranging of 15 to 18% participation of overall project cost by promoters before the balance amount of 40 to 45% are granted by public sector banks or financial institutions (private banks have mostly kept away from infrastructure loans).

6 It is well known that the balance sheets of most of the leading Infrastructure groups are stressed and over leveraged. They may not have the spare capacity to bring in equity participation in new projects, nor will the banks grant further project funding unless the balance sheets of these groups are deleveraged, by the existing projects

or selling the stressed project assets. This will take some time (say 2 to 3 years).

7 This stress of new equity on Infrastructure groups can be eased, if banks/financial institutions agree to offer full borrowing of 60% of the project costs, since annuity payments are fully secured by government commitment in this HAM model (this really means banks giving loans to infrastructure groups due to government guarantee of annuity payment).

8 The other concerns expressed by financial experts is about pricing of these projects under HAM. Since Contractors taking up such project will have to line up promoter's equity and loan component of this project, keeping in mind project execution and long term O & M risks, apart from making profit on the promoter's equity, these projects may be priced up at least 25 to 30% more than the price obtainable under full EPC model. This will result into higher annuity payouts and matching higher values of toll which government will have to charge to recover high annuity payouts, which is committed to Promoters.

9 These expectations of high toll collection may not be easy to recover for any democratically elected government. Recently Government of Maharashtra has to closedown many small and medium size toll collection plazas due to popular political pressure and they are now struggling to compensate the private Concessionaire to honour` the contractual commitment made to those Special Purpose Vehicles (SPVs) created by private contractors.

10 The O & M payouts provided in this model are well identified in new MCA but the rates provided are modest. These amounts might be sufficient for maintaining really high quality road over long period of time. But the problems of quality of construction are complicated due to misuse by road users. It is a common knowledge

that axle overloading by all heavy duty road carriers is rampant and axle over-loading up to even 30% is commonly noticed. The construction contractors have argued against this overloading as the cause of road damage and related repair costs, overshooting of O & M costs.

11 This dispute over appropriate causes for road repair costs during O&M period might become contentious issue in future. Since the O&M payments are modest, Contractors might delay or avoid carrying out proper and timely repairs to the road and make claims about heavy repair costs for reasons beyond their control, such as overloading of designed axle loads. Fortunately, O&M costs are delinked for annuity payment but failure in proper maintenance will attract penalties which might get disputed on the grounds of overloaded vehicles.

12 The broader issue of toll collection from public with their willingly cooperation is an unresolved problem. However government is well equipped to deal with law and order problem arising out of non-payment of toll by some sections of local community, than a private contractor (some attempts to convert toll into fuel surcharge has not worked since refuelling of vehicles is chosen by user far away from toll points). In recent past, existing companies operating under BOT model have reported toll leakage from 15 to 22 % due to demands from various pressure groups of end-users. The non-cooperation of frequently traveling local people is a well-known problem. The concept of paying end user charges for public utilities created by government or private agencies is not yet fully accepted in India. Also, economically weaker sections of society cannot bear the full cost of service as they cannot afford it.

13 For readers who would like to know more about other changes in HAM model and its comparison with provisions in earlier BOT and Annuity models, a detailed risk allocation chart is

prepared and attached below. It is conceded that no model (BOT/ Annuity/HAM) can be free from all risks, since executing Infrastructure projects is

always about striking a fair balance of risk between the parties who can manage it best, with minimum cost burden.

Table 2: Risk allocation amongst Toll, Annuity and Hybrid model

Risks	BOT Toll	BOT Annuity	Hybrid Annuity
Preconstruction			
a) Environment, forest clearances, Right of Ways	Responsibility of Handing over ROW on at least 80% of required area, Environmental protection& Conservations, Forest Clearances will be procured by the Authority.		
Construction Risk			
a) Cost overrun	Concessionaire to bear all risk		
b) Time overrun			
c) Quality			
Financing Risk			
a) Achieving Financial closure in time	Concessionaire to bear all risk		
b) Financing cost overruns			
a) Interest Rate			
b) Repayment			
c) Foreign Exchange			
Revenue			
a) Traffic volume	Shared by concessionaire & Authority. IF average Traffic volume falls below 2.5% of targeted traffic on targeted date (approx. 10 years after start of operations) Concession period is extended by 1.5% per 1% of shortfall. If Actual traffic exceeds the targeted traffic by 1% the Concession period is reduced by .75%.	Not relevant	NHAI to take all risks
b) Toll leakages	Concessionaire to bear all risk	Not relevant	NHAI to take all risks
c) Tariff Rates	Tariff rates are decided as per National Tariff Policy. Hence there is no ambiguity involved. However revenue may reduce if the WPI does not rise as per original expectations of the Concessionaire.	Not Relevant	NHAI to take all risks
d) Competing road	Concessionaire to be compensated suitably if traffic exceed capacity	Not Relevant	NHAI to take all risks
Operations Risk			
a) Annual O&M	Concessionaire to bear all risk		
b) Additional Periodic Maintenance			
Economic Risks			
a) Taxes	Concessionaire to bear all risk		
b) Inflation			
Force Majeure (FM) events			
Time extension			
a) Before Financial closure (Appointed Date)	Time set forth for achieving Financial closure extended by time of FM event		

Risks	BOT Toll	BOT Annuity	Hybrid Annuity
b) Between Appointed Date and Commercial Operation date (COD)	Time set forth for Project completion extended by time of FM event Non-political FM: Respective parties to bear the costs. Neither party is required to pay other party		
c) After COD	Concession period extended by time of FM event	...	Concession period not ex-tended. But Concessionaire will continue to receive Annuity
Cost arising out of FM event			
a) Before Appointed date	Cost to be borne by Concessionaire & Authority respectively		
b) After Appointed Date	Non Political Event : Cost to be shared by respective parties Indirect Political event : To be shared Direct Political : Cost compensated by Authority		
Hand Over Risks			
a) Quality of Road	Concessionaire to bear all risk		
b) Default of Concessionaire	Pay 90% of Debts due at that time	Pay 90% of Debts due at that time	During Operations: 65% of debt due; During construction: 50% to 80% of debt due of 9% to 32% of Bid project cost which ever lower
c) Default of Govt. / NHAI	Pay all debts plus 150% of equity	Pay all debts plus 150% of equity	Before COD : All debt due or 9% to 40.5% of PID Project Cost whichever lower plus 150% of equity; After COD: All annuity payments due till transfer date
Other risk			
a) Scope change during any stage	Authority to compensate if change cost increases beyond 0.25% of project cost.	Authority to compensate if change cost increases beyond 0.25% of project cost.	Authority to compensate costs fully

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