

Innovative Project Implementation & Finance Models Post-Financial Crisis

By

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1 – Introduction

Undoubtedly, there is growing demand for modern and efficient public transport systems. More people are on the move globally than ever before and existing infrastructure is unable to cope. From mass-transit, urban metros to intra-city, high-speed rail links, there is a global shift towards improved transit access. Highly efficient, low carbon mass transportation solutions are necessary to improve accessibility and support sustainable growth. At the same time there is a high demand for upgrading existing infrastructure. Rail lines are being extended, modernized and repaired. Metros are being upgraded and expanded. High speed rail is on the American agenda. Federal money (\$8 billion) has been allocated. California high speed rail is well on its way, with projects in the Eastern Corridor and Chicago Metro Area also being developed. This is a new era for public transportation, with new challenges and opportunities for delivering affordable, long-term project viability.

2 – Mass Transit Systems: Peculiarities of these Projects

Most, if not all the major mass transit systems involve multifaceted systems that incorporate:

- The integration of different complex components and systems, e.g. rolling stock, ground infrastructure (rail-lines), signaling components, ticketing systems, subsurface systems (tunnels, etc.);
- Challenging design choices that impact life cycle costs and project economics;
- Challenges in forecasting traffic volume and traffic revenue requirements that make it difficult to predict project economics accurately;
- Highly capital intensive efforts that the private sector cannot achieve on its own.

The extent of the high level of project risk (technical, economic, traffic, fiscal and financial) makes the implementation of these projects complex and difficult. At the same time governments, public authorities and legislative bodies face difficulty in making the right judgment calls and decisions when they are called upon to lead such efforts. Furthermore, the post-financial crisis has, in many cases, required the public sector to reconsider traditional project procurement and delivery.

The solution may lie in the emergence of partnering arrangements between the private and public sector in the form of public-private partnerships (“PPP”) supported by concessions. These structures can create an environment whereby major risks can be passed from the public sector to parties with extensive industry knowledge whom are best able to manage and control such risks. In addition to risk transfer, public sector project owners are seeing other benefits from switching away from traditional public finance design, bid, build (DBB) models to design, build, finance, operate and maintain (DBFOM) models. These benefits include accelerated project delivery, alternative financing arrangements, improved long term cost control and better management of liabilities and risks over the life of the project.

The current Denver RTD Eagle PPP Metro Expansion is a good example of a transit PPP based on availability payments. Bids due March 31, 2010 must present viable financial plans (60% of bid scoring), including proposed Base Annual Service Payments (BASP). The most attractive offer, providing the highest quality, long-term viability and lowest BASP will be selected. The concessionaire has incentive to value engineer and provide timely delivery and long-term viability; while the owner, RTD, has incentive to ensure ridership. In this way, the concessionaire takes on the construction, operation and maintenance risk, while the public owner takes on the farebox (user revenue) risk. In this way, each party is allocated risk it is best equipped to manage in line with its expertise.

3 – PPP: Hybrid Revenue / Availability Payment Structures

A variation of a PPP availability payment structure is a hybrid availability payment with the private sector assuming some revenue risk. The benefit of this structure is the optimization of the user-fee based revenues in a manner affordable for the public, while reducing availability payments payable by the public sector. Bringing the private sector in on the project's financing allows for financial innovation to be part of the bidding process or the development phase of the project with the objective of achieving the most efficient capital structure with an optimal weighted average cost of capital. Overall, the design philosophy of these structures is founded on a longer term, life-cycle approach. We believe that these hybrid revenue / availability payment structures are quite applicable for high speed rail and mass transit projects.

The fundamentals of the hybrid revenue risk & availability payment structure are relatively straight forward: Revenues = user fees (ticket price * volume) + availability payment by public sector

Revenues are equated to the annual breakeven running costs (ABERC) of the project, which include: i) operating and maintenance expenses; ii) senior debt service; and iii) return on capital for the private sector / sponsors.

Consequently, the **Availability Payment** = ABERC – forecast user fees

The application and mechanics of the above simplified formula can be quite complex, especially when it comes to the sharing of risks. Examples are residual traffic and revenue risk (i.e. if actual revenues are different than forecast, who takes the risk of lower revenue and/or who enjoys the benefit of higher revenue) and capping the availability payment for the public sector in a manner that it is fiscally acceptable. Another key risk to be addressed and resolved in these types of structures is fiscal appropriation risk, ensuring that the public sector (particularly the agency that is responsible for the payment) will have the necessary funds available to make such payment over the term of the contract.

Fundamental changes for credit availability and investment in the commercial and investment banking sectors have severely affected both debt and capital considerations, both in terms of cost of credit and availability, for the funding of these projects. However, the above hybrid availability/revenue PPP structures, with key risks properly addressed and managed (including proper safeguarding mechanisms such as credit enhancements) in a manner that satisfies lenders/capital markets and the rating agencies, could “elevate” the project credit rating to close to that of the public authority responsible for the payment. The result could be low cost of funding, longer term of debt and overall more affordable project service to the public. We have seen this happen on a number of hybrid availability project financing transactions in the rail and road infrastructure sectors in Europe.

4 – Conclusions: One Size Does Not Fit All!

The hybrid revenue availability model can present an efficient commercial and project delivery approach for governments, State DOTs and/or other public authorities for the implementation and delivery of complex infrastructure projects such as high speed rail programs. Such models, if applied properly, can aid in expediting and implementing projects and deliver practical innovation while improving the control and management of construction and operation and maintenance costs over the life cycle of the project. The approach is quite different from the present “status quo” of the public finance model, which comes back directly to the tax payer in a major way regardless of project performance. Under the public finance model, the public sector must generally borrow upfront to pay as it builds the project. With a PPP structure, the public sector pays over the life cycle of the project with payments tied to project performance. Naturally, before determining which route to take for any particular project, the public sector must carefully and diligently evaluate the benefits, costs and risks over the life of the project to ensure that it is choosing the best alternative.

The public sector is the principal and key project promoter in these transactions. As a result, to be successful, public sector authorities, regional governmental agencies and DOTs will need to have proper and experienced advisors with proven track records on similar complex projects to help them plow through the complexity of these transactions both in terms of selecting the optimal structure to deliver best value to their communities as well as to implement the project in a way that appropriately and optimally allocates risks to the various parties involved. The results can be beneficial for all parties while leading to modern transportation systems with 21st century technology and significant job creation – a true win-win outcome.