Integrated Financial, Technical and Managerial Planning for Transport Projects

Complexity is inescapable when implementing transport projects on a limited recourse basis. Increasingly, successful owners and their advisors are embracing an integrated approach to project development that assesses technical, financial, and managerial issues in parallel. Upfront risk identification is critical in the development of balanced projects and the creation of a program of integrated mitigants. This process is fundamentally different from the sequential approach most project sponsors have followed and, while it presents a number of challenges to traditional public sector sponsors, it is increasingly critical in formulating plans that are acceptable to the international finance community.

Using Risk Analysis as a Foundation

A key differentiation of this approach is that it is highly evaluative and analytical, rather than merely technical or managerial in nature. Even the most experienced traditional project sponsors often find themselves long on engineers and cost analysts and short on economists, risk managers and revenue modelers. In order to make grounded decisions, the use of analytical tools to identify and understand critical risk issues and identify strategies to manage uncertainties, evaluate sensitivities, and simulate different outcomes needs to go hand in hand with the early-on engineering and technical assessments. This holistic approach puts owners in a better position to understand the implications of various revenue, cost and timing assumptions and also test the viability of multiple debt and equity structures, technology applications, and other innovations enabling them to maximize revenues.

Several decision management tools, including Monte Carlo simulations, multivariate demand analysis, and risk matricing, are available to assist owners in these complex decision making processes. Simulations array possible outcomes for factors such as schedule or cost uncertainties, and then identify the distribution of all possible outcomes with a probabilistic approach, rather than a single outcome. This information is used to identify upper bound and most likely estimates, as well as the probability of an outcome falling within a given range. This information allows owners and their advisors to map acceptable risk levels and define conservative worst-case scenarios.

Establishing Managerial Credibility

With the increasingly competitive market for investment capital, owners embarking on costly and complex transport projects must also demonstrate that they have the technical, commercial, and managerial skills not just to build the asset, but also to manage it and make it productive under a variety of events. Assessing projects from the overall context of schedule, price, outside event risk and changing economic fortunes is an essential part of the basic analyses investors or lenders undertake even before running financial scenarios. In recent years, the tremendous market swings have made investors wary of projects whose success can only be assured in the best of times or only under “normal” conditions.

For projects in countries or regions not well known to the capital markets, a thorough evaluation and benchmarking of underlying legal foundations, the efficacy of specific remedies, and corporate governance constraints are essential early components, as investors will need assurances that these structures are adequate for owners to honor their promises. Lenders and investors will also scrutinize legal and political ability of owners to pledge revenues and assets, as well as the timeliness of exercising claims on such securities. An owner’s ability to act independently from governmental or regulatory control or to rely on the swiftness and fairness of any related proceedings are also important factors, as is the performance of other credits in the country in question.

Pulling the Pieces Together

No matter how beautiful the bridge or how busy the airport, weaving the answers to all of the queries raised during the project assessment phase into a cohesive whole is what separates the rendering on the designers' walls from what actually gets built. Today, development teams for successful projects require larger conference rooms than those of their predecessors, as planners, economists, risk managers, financial advisors, lawyers and politicians now join the engineers, schedulers, geologists, and constructors long before the bankers are invited in. It may be a simplistic conclusion, but one that bears noting: well-structured projects get financing and get built.

Case Studies

Found in disparate locations, and involving different installations, the following three projects demonstrate how markedly different owners are following a remarkably similar approach in moving complex projects forward.

Panama Canal Expansion

The Panama Canal Authority (ACP) is currently assessing aggressive plans to expand its facilities by preparing an integrated master plan that simultaneously addresses financial, market, managerial, and technical issues. The need to expand the existing Canal facilities is driven primarily by the shipping market's move to larger post-Panamax vessels, which cannot fit through the existing locks. ACP has completed numerous technical feasibility studies to determine what that expansion should entail: a new set of locks to accommodate the next generation of vessels, improved operational procedures and navigation aids to enhance capacity of the existing locks, or even the development of a trans-shipment port.

As a newly created, self-sustaining authority which contributes excess revenues to the Republic of Panama, the ACP has recognized the need to integrate the technical, economic, operational, managerial and financial aspects of its program into a cohesive plan. As part of this effort, the ACP has engaged consultants to review the entire range of issues it is confronting as it seeks to make decisions governing the next 100 years, including its own internal structure and ability to oversee the expansion, as well as the financial and market implications of its actions. Initially, the ACP is seeking to integrate the development/technical/financial elements of its study program, in order to develop an expansion program that is able both technically and economically to stand up to the rigorous questions of the international capital markets as the plan proceeds. Once the Authority has finalized its integrated strategy, its needs will refocus on its ability to first sell and then to deliver the program to both its customers and to the financial community.

Metro Manila Skyway

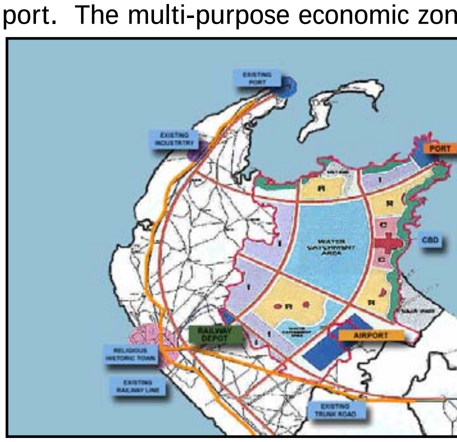
The Metro Manila Skyway is a 38-kilometer, elevated, six-lane expressway that will link the existing North and South Luzon Expressways with the city's central business district of Makati. Much of the facility is being built within the median of existing surface arterials, complicating both construction and design, and creating the potential for inordinate schedule and cost risks. The total capital value of the first 22-kilometer segment of the privately funded facility exceeded US $500 million and is currently in operation, with total project costs expected to reach US $1.0 billion when completed.

The construction of an elevated highway through the center of one of Asia's mega cities is a complicated affair at best. In order to gain international financial backing, the project's Philippine-Indonesian joint venture partners retained due diligence consultants to assess their development plans and review traffic and revenue forecasts, cost estimates, schedules, and technical standards. The consultants also identified risks and assisted the project partners in developing appropriate risk management strategies. Critical issues included community concerns relating to land acquisition and the relocations, providing efficient links to proposed commercial developments, ensuring that international standards and quality control procedures would be met, and managing relationships with government agencies that often had conflicting requirements.

The consultants also advised on project implementation issues including contracts, costing projections, and implementation strategies. More importantly, they assisted the owners in packaging and presenting the project to the international financial community and helped bring the project to financial close. Following financial closure, the same consultants served as advisor to the ING Bank-led consortium of 40 international and local financial institutions that provided debt finance, while at the time serving as program managers for the owners. Now after completion of the initial segment, the consultants continue to provide independent strategic review of subsequent phases of the program in order to create a development plan that will optimize returns.

Positra Port Integrated Special Economic Zone

Located in the state of Gujarat on the northwest coast of India, the proposed Positra Integrated Special Economic Zone is a greenfield industrial export trade zone centered on a new deep sea port. The multi-purpose economic zone is being implemented as an international gateway and hub; the project requires the provision of basic infrastructure services, as well as improved road, rail, air and sea connections. The cost for the initial phase of the program is US $1.25 billion, with over US $700 million in senior debt committed by the Industrial Development Bank of India. The program is being developed as a partnership between Sea King Infrastructure Ltd., and the Government of Gujarat. Gujarat Positra Port Infrastructure Ltd. (GPPIL), a special-purpose development corporation, is responsible for developing core infrastructure, marketing and managing administration and operations.



GPPIL has retained a comprehensive program management consultant to provide executive program management advisory services on all aspects of the program, including financial and implementation strategies. Consulting services include financial planning and optimization, risk management, resource mobilization, program implementation, procurement management, and overall management of individual projects.

The Value of Integrated Planning

Although their assets range from an inter-oceanic canal to an urban tollroad to a multi-modal logistics hub and trade zone, these three owners have recognized the value of integrated financial, technical and managerial planning. Each of these owners has come to the capital markets for the first time and has had to establish the credibility of their development programs, as well as their own ability to shepherd these complex projects. Their integrated upfront preparation has helped them to meet these challenges and optimize their returns.

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