Session 1: Joint Development and Turnkey Finance - A Contrast of Paradigms
Part 2: International and Private Sector Experiences

Session Chair:
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The afternoon session explored the financial opportunities and challenges posed by turnkey procurements and real estate development. Speakers identified the difficulties associated with vendor financing in the United States, noting the financial benefits associated with government issuance of tax exempt debt, state and federal procurement restrictions, and transit's traditional inability to generate revenues sufficient to cover capital and operating costs while also generating a sufficient level of return. Presenters noted the ability of turnkey to shorten time frames and thus reduce inflation risk, debt service requirements, and management costs. When taking the form of a concession agreement, it was also noted that the private sector has an interest in investing in revenue generating opportunities if sufficient time is provided to amortize associated capital investments. Finally, speakers discussed individual projects and associated financial arrangements, though it was noted that legal restrictions prevent the United States from availing itself of the full spectrum of ownership and investment options that are available elsewhere.

Roger Figura
KMPG Peat Marwick
London, England

Mr. Figura presented a paper on *"Turnkey Financing for Public Infrastructure Projects"*. The paper emphasized that a primary benefit of the turnkey project approach is the acceleration of the project schedule to achieve timely project implementation. The aggressive scheduling creates revenue requirements to match construction draw-downs. Revenue requirements are generally not achieved through traditional funding which features yearly allocations under an FTA Full Funding Grant Agreement, matched with local share funds. While the sources of funds may not differ from traditional transit procurement, e.g. local option taxes, state grants, etc., the financing mechanisms must be structured to access larger amounts of capital in a compressed time frame.

The parties involved in turnkey financing include the sponsoring government agency(ies), an equipment manufacturer, a general contractor and associated professional firms. Financing turnkey has the potential to bring the financial capacity of the private contractor into the process.

Mr. Figura proposed that the turnkey contractor is more likely to participate in construction financing then in permanent financing (see FIGURES 1 and 2). The turnkey arrangement must offer revenue opportunities for activities beyond transit (e.g., real estate development opportunities, toll facilities) to entertain private financing. Turnkey impacts the financing mechanisms which can be used to achieve the proper balance between the construction schedule and the available funds to meet construction draw-downs. Financing mechanisms are used both to create access to capital and for credit enhancements to reduce the cost of capital. They include:

- revenue bonds
- tax exempt commercial paper
- leveraged leases/ certificates of participation
- cost sharing
- letters of credit
- state infrastructure banks
- credit enhancement, e.g. provide financing for a debt service reserve fund.

The primary revenue sources to support financing will continue to rely on non-operating resources augmented by benefit capture tools. Benefit capture opportunities, in the form of joint development, to promote revenue and/or cost sharing, exist at rail stations, bus transfer facilities, intermodal terminals and fringe parking facilities.

Financial risk relates to the basic economics of the project to amortize debt and meet operating costs. Financial risk is managed through securing a full funding grant agreement from FTA. and putting local non-operating revenue sources in place. Political risk refers to the interaction of the project with its community environment and the effect this interaction has on project costs. It is best understood in the context of continuous opposition which slows project implementation thereby increasing the project costs. Authorization and appropriation risk refer to the fact that there are not guarantees that authorizations will continue from one Congressional Act to another, and that appropriations will be sufficient on a yearly basis to satisfy outstanding full funding grant agreements. These risks are managed, to the extent possible, by a contingent commitment by FTA to continue grants pending new authorization of Title 49 and Title 23.

The FTA process is not well suited with respect to funding turnkey. The available funds to meet full funding grant agreements become stretched over a number of projects which adversely impacts project financing. A major issue with turnkey is the point in the FTA process when the local sponsor proceeds with a turnkey rather than a conventional procurement.

Five FTA Turnkey Demonstration projects were reviewed. Two of the projects are considering a tax exempt commercial paper program to match revenues to construction costs. A third is using a mix of long-term revenue bonds and certificates of participation, a fourth is soliciting private financing, and the fifth project is using pay-as-you-go financing.

Several conclusions have been derived from the international experience with conventional and turnkey transit projects. A comparison of turnkey projects in the U.S. and abroad demonstrates that the turnkey/design-build approach has been utilized more frequently outside of the United States. This results from several factors, including:

- availability of inexpensive tax-exempt debt financing in the United States for public infrastructure investments;
- extremely limited public resources in other nations, especially less-developed nations;
- extensive public requirements for competitive bidding procedures and contractual arrangements in the U.S.;
- wariness of U.S. lending institutions toward supporting private infrastructure initiatives;
- participating by international banking institutions such as the World Bank and the IFC in supporting infrastructure projects in less-developed countries.

To facilitate the development of more turnkey projects, project sponsors must develop more opportunities for generating revenue for transit projects through innovative public-private partnerships and/or non-operating revenue.

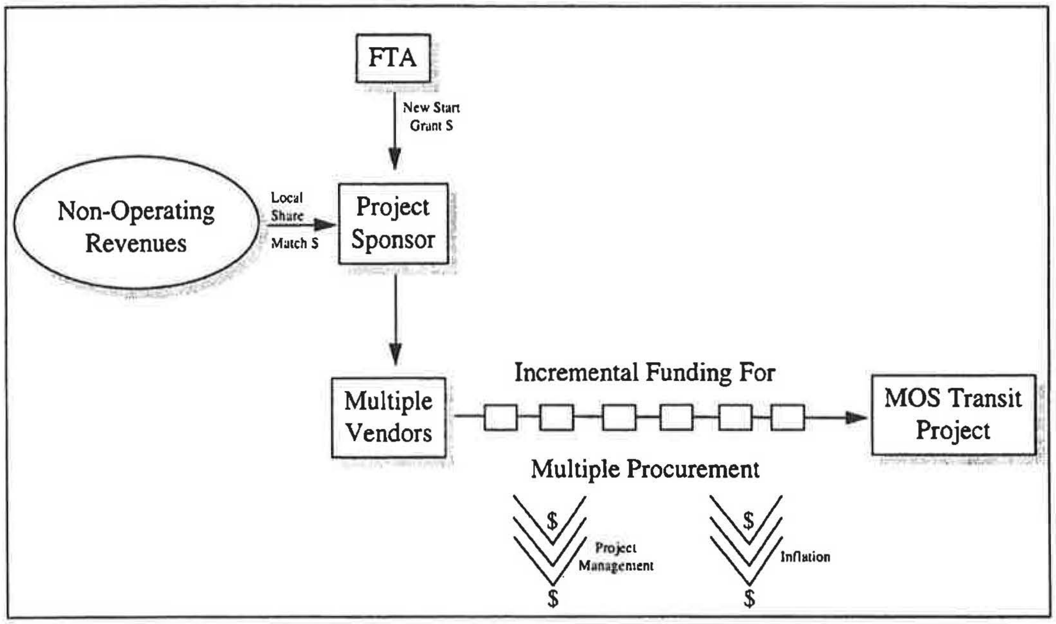

FIGURE 1 Conventional procurement.
Source: Figura, Roger, "Turnkey Financing for Public Transportation Projects," Lessons Learned—Turnkey Applications in the Transit Industry (Washington, D.C.: Federal Transit Administration, U.S. Department of Transportation, October 1997) Pg. I-10

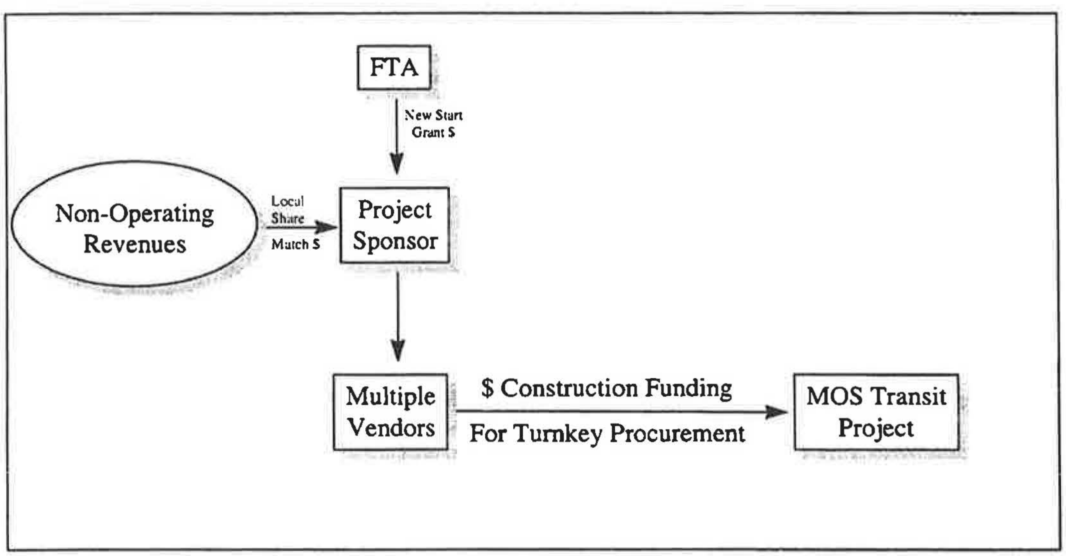

FIGURE 2 Turnkey procurement.
Source: Figura, Roger, "Turnkey Financing for Public Transportation Projects," Lessons Learned—Turnkey Applications in the Transit Industry (Washington, D.C.: Federal Transit Administration, U.S. Department of Transportation, October 1997) Pg. I-10

José Barbero
Metrovias, S.A.
Buenos Aires, Argentina

Mr. Barbero discussed concession arrangements in place to manage the operation of individual lines of the Buenos Aires Transit System and, the use of concession agreements to apply turnkey to older, more mature rail systems. In Buenos Aires, the concessionaire is responsible for running the system and managing a capital program. The concession contract allows the concessionaire to make risk investments deemed appropriate. Mr. Barbero noted the 20 year length of the concession contract and the need to amortize costs associated with any risk investments over this time period. This lead to an investment emphasis on station advertising and retail activities.

At the onset, it is important to conduct market studies to understand rider demographics, spending patterns and the demand for products and services within stations. He observed that the value of these investments increased over time as the system improves and ridership increases. But there are challenges posed by such programs as the concessionaire must understand its mix of station uses, integrating pedestrian flow and system technical needs with the public and concessionaire's desire for commercial space and services.

Daniel Farray
Departement des Infrastructures
Ingeniere des Infrastructures
Paris, France

Mr. Farray profiled Paris' early efforts to integrate transit with community redevelopment and innovative public/private cooperative (joint) ventures. The project involved the redevelopment of a large urban tract in the center of Paris ("Chatelet-Les Halles" and its commercial Forum) pursuant to the 1960's relocation of the Halles de Paris wholesale food markets outside of Paris' downtown to the near southern suburbs. The market relocation vacated 5,000 square meters of land in the historic center. In 1963 a civil company was established for the Halles development design, the S.E.A.H. (Societe civile s'Etudes pour l'Amenagement des Halles). Initial redevelopment plans (1966) included a much larger 35,000 square meter area which was reduced to 15,000 square meters by 1971. This followed from the decision in the late sixties to have the Express Regional Metro (R.E.R.) align across the Halles district with the resulting redevelopment relocated underground. The project took on the character of a major town planning project.

The Paris City Council signed a concession agreement with the SEMAH, a financial company, for the development and renovation of the Halles district. The project called for two zones of integrated development with SEMAH authorized capital of 1,000,000 FRF (approximately $ 200,000 U.S. at current exchange rates). The SEMAH shareholders were 76 percent public (51 percent the Paris City Council and 25 percent the State), with the remaining 21 percent coming from the private financial consortium. At the completion of the works and the marketing of the commercial spaces the SEMAH would go out of existence.

Based on a general program, SEMAH is appointed by the Paris City Council in a concession agreement. Other project owners share the Halles urban space, mainly the authority over Paris mass transportation systems (Syndicat des transports Parisiens), for the mass transit system operating company (Regie Autonome des Transports Parisiens) and the nation telecommunication company (France Telecom). The project involves 170,000 square meters of mostly underground commercial development in the Forum zone and multi-use residential, educational, recreational and municipal components. The transportation components include seven Paris metro lines, the Meteor line and a planned automated metro line scheduled for opening in 1997. The metro facilities reach a maximum depth of 22.50 meters with station platforms varying from 225 to 315 meters. The complex has five underground levels.

Development of the project was phased between 1971 and 1986. The total cost of all structures can be estimated at 8 billion FRF ($1.6 billion, US). This amount includes the RER station, the public improvements and facilities, and the residential and commercial elements. The Paris City Council investment amounts to 1.5 billion FRF ($300 million, U.S.). This total includes the grant to the project, the cost of public right-of-way, and the execution of the different programs (ways and accesses, gardens, cultural complexes, sports complexes, schools and other infrastructures).

The Chatelet-Les Halles district and its commercial Forum are a world scale example of urban underground development. The project is notable for it size and its penetration underground.

Mr. Farray observed that although financing sources and project owners are numerous, the project was successfully completed on time and within budget. In consideration of the financial and technical interfaces, construction within the schedules and costs imposed by the public authorities, the project is a notable example of joint public-private, commercial, urban and transit development.

Recognizing the many starts and stops that can face large scale transit and redevelopment efforts, Mr. Farray observed that France has a 20-year record of success implementing many of the programs and concepts being explored at this workshop.

Jeff Carey
Merrill Lynch
New York, New York

Mr. Carey addressed the limited spectrum of ownership options available to U.S. transit systems and the fact that the limits on these options are now being tested.

Two important restrictions on the capacity of transit to leverage significant vendor financing should be examined. The first pertains to federal rules governing the issuance and availability of tax exempt financing. The financial benefits of this financing make it difficult for the private sector to structure arrangements less expensive to government than traditional means of government issued debt. The second pertains to the IRS definition on public and private activity which further limits the integration of private investment and tax exempt financing.

The speaker discussed new initiatives relative to the creation of State transportation infrastructure banks and their capacity to make loans to public and private system operators. He briefly considered initiatives in Washington, D.C. associated with making available unobligated funds from the Highway trust fund, and credit enhancement vehicles to expand flexibility.

Jack Sconzo
Merrill Lynch
New York, New York

Mr. Sconzo complemented Mr. Carey's presentation by profiling an off balance sheet financing by Metropolitano de Lisboa, E.P. (M.L.E.P.). The financing was for a major ($2.0 billion) expansion of the rail net of the state owned and operated transit system. As described by Mr. Sconzo, the resulting finance placement was international, private and long term (15 years). The financing diversified the system's funding, provided for protection from foreign exchange rates and increased the owners market profile (liquidity, capacity, buyer base).

Mary Collins
Partner and Attorney
Orrick, Herrington & Sutcliffe
San Francisco, California

Attorney Collins profiled the experience of the Santa Clara County Transportation Authority in the joint development of a promising Park-And-Ride site. The site is one of eleven park and ride lots serving a 21 mile, 33 station light rail line with a 13-15 percent fare box ratio. The goal of the SCCTA joint development effort is to increase development density with benefits in increased ridership and fare box recovery.

The Authority evaluated the park-and-ride lots for their joint development potential. The Authority sought a ground lease with the developer building and financing the development. As a risk adverse agency, the agency issued an RFP for developer proposals to develop a highly ranked seven acre site where only 1.7 acres were required for transit dedicated purposes. It was important to integrate the proposed residential development into the community and to overcome the perception of the park and ride lots as unsecure, unsafe and unattractive.

A developer was selected following a careful selection process. The proposal called for 250 residential units, at 47.2 units to the acre in two and three story residential units constructed over subsurface garages. The development includes recreational and community spaces integrated into the development. The proposed development is complementary with popular development trends in the San José area.

The selected developer was challenged to arrange the necessary project financing. Ms. Collins noted that SCCTA, as other agencies should consider, assisted the developer in financing the project through the issuance of tax exempt bonds. In this instance, a multi-family bond issue was selected with favorable terms resulting of setting aside twenty percent of the units for moderate income residents. This was viable in the affluent community because of the existing 99 percent occupancy rates and the scarcity of affordable housing for moderate income persons. The project was made more attractive and financially viable as it qualified for FANNIE MAE mortgage guarantees. At the time of Ms. Collins presentation the project was pending further state finance authorizations.

The success of this joint development has encouraged SCCTA to consider the joint development of more of its park-and-ride sites. The most favorable joint development site was not previously selected because it was subject to the FTA Land Disposition Rule. Attorney Collins noted that FTA's announcement at the Tren Urbano workshop that the Land Disposition Rule was under reconsideration was encouraging news. It might facilitate the joint development of more promising sites.

Discussion

The question that garnered the most discussion pertained to the use of an outside development team to structure and implement transit agency joint development programs. The pros and cons of applying this management model were discussed in depth, with proponents noting the advantages of applying private sector expertise and others noting that developers want to develop and not represent the agency in managing the process.

In addition, significant time was spent on the relative financial import of joint development projects. While speakers noted that revenue from projects can account for 5-6 % of system operating costs in the U.S., it was noted by Mr. Barbero that in a private concession situation, this 5-6% is a highly profitable component of the teams efforts. It was also noted that in Asia, sale of air rights can account for 15-25% of capital costs, and land lease arrangements can generate up to 50% of operating costs.

In wrapping up the afternoon's activities, Carlos Colon asked whether subsidizing transit has become a self-fulfilling prophesy, and wondered whether the rules preventing transit agencies from doing wrong also inadvertently prevent them from making correct, rational decisions

An International Perspectives-Hong Kong

Charles Nicholas Brooke
Senior Partner
Brooke Hiller Parker
Hong Kong

In his paper, *Large Scale Real Estate Development and Marketing Strategy: Hong Kong Development— Railway Station Development*, Mr. Brooke discussed the joint development activities of the Hong Kong Mass Transit Railroad (METRO) emphasizing large scale real estate development and the related marketing strategy. Metro is government owned, receives no subsidy and operates an 85 kilometer, full metro system consisting of three lines. The system has been in service since 1979, serves seven million Hong Kong residents and averages 2.5 million passengers daily. Its joint development activities have yielded eighteen developments, including 31,000 apartment housing units and 440,000 sq. meters of commercial development.

Hong Kong is a large, dynamic, fast growing commercial city and region contiguous to the New Territories and Kowloon sections of the south China coastal mainland and the islands of Hong Kong and Lantau Island. The land areas are largely, difficult mountainous terrain interspersed with foot hills and valleys which are developed. Population densities are very high and available developable land is intensely utilized especially on the island city of Hong Kong. Major sea port and airport developments are underway utilizing man-made island structures in lieu of available land. Metro serves, or is being extended to, each of these areas.

Real property development plays several roles in the funding and the success of METRO:

- utilizes potentially redundant air space and development rights
- generates passengers and operating income
- enables strategic planning (office decentralization and new towns) and, produces profits and income for METRO.

Mr. Brooke discussed the joint development process as practiced by METRO.

(A) Conceptual Phase—Establish a market driven development mix. The selected developments have five to six year lead times, are subjected to feasibility analyses and must blend rather than compete with other METRO properties.

(B) Packaging by METRO—Inviting interested architect/engineers to develop the conceptual proposals into architectural designs. During this phase there is close interaction between the design consultants and the railway designers and engineers.

The METRO and the design consultants secure the appropriate planning and environmental approvals. METRO's professional team develops the tender/bid packages.

(C) The Mechanics of Bidding—The size and scale of the resulting projects tends to be enormous, necessitating a structured bidding approach. In the structured bidding, METRO issues an expression of interest solicitation to pre-qualify bidders relative to financial and technical capabilities. Following the review of the technical and financial capabilities, firms are shortlisted and an invitation to bid (tender) for development is issued to the short listed firms. The short list usually is five or six firms for commercial projects. The short list may be longer for residential projects which are very profitable for the developer.

The design specifications and documentation are detailed with little scope for revisions. There are many technical and design manuals. The purpose here is to control the development and ensure accountability.

(D) Requirements of the Developer -There are certain requirements placed on the developer which include:

(1) Payment of air rights by way of lump-sum, up-front premium payment.
(2) Accept all financial and development risk and frequently, by way of a down-payment, to fund certain rail related improvements.
(3) Provide guarantees in regard to the financial and technical performance,
(4) Produce cost estimates and building specification to indicate quality of the development.
(5) Provide a detailed program.
(6) Provide information on the technical team in-house capabilities and generally to demonstrate the ability to deliver.
(7) Provide a detailed financial proposal showing revenues, costs, profits, etc., and to indicate what