

Developing Infrastructure to Facilitate
Economic Growth

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Effective infrastructure in the transportation sector has a huge impact on **profitability** of production, distribution, trade and/or retail sale of physical goods and the economic growth of regions and nations.



Infrastructure

Transportation accounts for up to 14 percent of the final price of a product, depending on the commodity and distance to be moved! In addition, support industries spring up around new infrastructure, generating both jobs and revenues – e.g., the development around Charles DeGaulle, Washington Dulles or Denver International airports; roadside amenities along any new highway, or truck or rail depot.

However, if the supply of roads, railways, ports and intermodal facilities does not keep up with rising demand, congestion, air pollution and the cost of moving goods will increase, with a downward pressure on profits and growth. We know that ports, rail/truck connections and airports are at capacity all over the globe, so what can governments and transportation companies do to solve the problem of under-capacity, contribute to the development of infrastructure and enhance economic growth?


¹US Dept. of Commerce, Bureau of Economic Analysis

New partnerships and financing arrangements have developed to meet the demand for capital

A number of powerful factors now ensure that it is untenable for individual organizations to fund the infrastructure projects required for economic growth: globalization and associated demand for provision of a high standard of infrastructure (irrespective of national boundaries), rising costs, reluctance to increase taxes, increasing expectation of “user pays” and demand for rapid return on investment (ROI). Governments must find innovative ways to attract capital for infrastructure developments that deliver public good and economic growth, and they must enter into partnerships with providers of capital, construction companies and operators to find more innovative ways of building, operating and maintaining that infrastructure. Likewise, the private sector must find ways to develop new markets and enhance the profitability of existing markets.

Public-Private Partnerships (PPPs) have been used increasingly to meet this need. A very high proportion of PPPs have been developed in the telecommunications and energy sectors, rather than transportation, ranging from 67 percent of all PPPs in East Asia to 92 percent in Central Asia.²

²Public-Private Partnership for Sustainable Development, UN Institute for Training and Research, 2001



Nevertheless, while experience in PPPs for transport is not as extensive as that in other sectors, there is now 30 years of experience to build on, following the pioneering of private roads in France, Spain and the United Kingdom in the 1970s. Many early initiatives were not successful due to inexperience in understanding and managing the risks associated with large, complex, long-term projects. However, in recent years there have been successful road infrastructure projects in Portugal, Hungary, Finland, Iceland, Croatia, Poland and Romania and new, more sophisticated arrangements developed in the United Kingdom, United States, Australia and Canada for rail, ports and airports.

Financing has taken a number of different forms:

- In Northern Europe, there has been a move from using fuel and general tax revenues to build highways, to offering private roadway concessions to operators to build, operate and maintain highways. The cost is partially funded via tolls paid by the users.
- An alternative approach known as “shadow tolling” has been used in the United Kingdom to design, build, finance and operate (DBFO) highways. Under this arrangement, government pays the equivalent of a toll for use, leaving drivers free to choose their route on the basis of the best

time, distance and convenience. This takes much of the demand projection risk out of the operator’s considerations and is therefore more attractive to investors. The UK Highways Agency estimates that it made savings of 15 percent on the first eight DBFO contracts.³

- Privately constructed toll roads using DBFO have also been used in the United States (Orange County, CA, and Washington, DC). Dubbed “Lexus Lanes,” the projects have been declared a success, but as a profit has not yet been achieved, their long-term viability is still in question.

³UN Institute for Training and Research, 2001

PPPs have also been used as the financing for the construction and operation of airports (Toronto, Vancouver, Germany and Australia), railways (United Kingdom and Australia) and logistics centers (Spain). PPPs for ports face special difficulties because of the nature of their businesses. Marine ports are dependent on shipping lines and rail/truck services to provide the best connections for shippers. The extra number of players (terminal operators, union workers, railroads, shipping lines, and several levels of governmental authority) results in complex negotiations, and PPPs are rare.

Infrastructure partnerships on developing economies

In developing economies, additional challenges are faced: patronage contracts, cost overruns and bribery charges, and significant lack of infrastructure. Where the World Bank and others offer financing guarantees, PPPs are very popular and expanding. Without this support, few private companies enter this market. The rail restructuring and concessions in the bi-national Abidjan-Ouagadougou Railway (1992-95), the Cameroon Railway (1996-2000) and the Gabon Railway (1998-2000), while leading to an improvement in rail infrastructure, all demonstrated the complexity of the negotiations that are required, the value of the government taking the financing risk, the need for flexibility to respond to changing economic conditions, and the difficulty of attracting and mobilizing capital in these environments.

Recent experience in China demonstrates that it is possible for the private sector to deal effectively with the challenges posed by lack of infrastructure, with little or no assistance from the government. Future economic growth must overcome the legacy of history, where the government deliberately discouraged the development of a nationally integrated transport and communication system to frustrate the movement of any invading force. Developing a modern infrastructure is now a key focus for the government, but in the meantime companies that wish to do business in China have had to provide their own to get their products to market. McDonalds, for example, has established its own trucking company to get the right quality bread, meat and food products to the stores, and, since the early 1980s, Coca-Cola has hired its own distributors to service an area within a 50-kilometer radius of each bottling plant.

Factors for success

The private sector has tended to argue that PPPs work best when the government finances construction and the private partner manages and operates. Capital costs are covered by public financing agreements and the operations are managed as for-profit businesses returning fees to the government. However, for government, the attractions are greater risk sharing with those who stand to benefit financially, use of capital that is not subject to government lending limits and incorporation of private sector efficiency into areas that have been the traditional domain of the public sector. Irrespective of the final model, success depends on six factors:

- **Understand and respect each other's pressures and planning horizons.** While the private sector is under constant scrutiny to maintain returns, those operating in Europe typically seek long-term contracts. In contrast, governments are reluctant to make

long-term commitments. (In the United States, the opposite is the case.) While we have seen a move to longer concessions (up to 75 years in some countries), there is a need to develop contracts that are sufficiently flexible to meet unforeseeable changes in circumstances, irrespective of the preferred contract length of each of the partners.

- **Understand and manage the full range of risk and the impact these risks will have on price.** Business requires a robust assessment of risk, constant monitoring of that risk and will increase price in proportion to undefined/unmanageable risk. Governments must understand this dynamic. Risks in major infrastructure projects include:

- Foreign exchange (examples in Portugal where government accepted this risk)



- Traffic demand (National Express' withdrawal from Melbourne's rail franchise)
- Construction (many examples of significant cost overruns)
- Regulatory control
- Political (progress of the PPP for London Underground)
- Environmental/archeological (Athens Metro)
- Unknown state of existing infrastructure (profitability of Railtrack in the United Kingdom)

- **Accept that the private sector will be driven by commercial interest and must have an acceptable risk-adjusted ROI within an acceptable timeframe, while addressing their responsibilities beyond the bottom line – trust, brand prestige, market and growth.**



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- Ensure that the projects are "bankable" by having a committed government partner. Governments must ensure a supportive regulatory framework; harmonizing domestic and where necessary, international laws; providing subsidies, grants, guarantees, operating subsidies; setting standards; and granting exclusive concession rights.
- Create a clear structure for responsibility and accountability, transparency, visibility, and external auditing.
- Recognize the inherent political nature of investment in transport infrastructure, and the demands this places on the government and the robustness of the commercial contract. (For example, the UK government has committed to meet the bidding costs of those bidding for the London Underground infrastructure if there is delay due to "political" factors.)

Final Comment

There is enormous opportunity for freight companies to extend their business by participating in PPPs and other similar partnerships, in developed and developing economies and in any one of the many modes that have an impact on effective freight operations. This move requires the ability to work in partnerships that challenge traditional business models because, in most cases, transportation companies will not be the most significant partner. Rather, they will join consortia or enter into secondary contract arrangements with consulting engineering firms hired by government to do the design and build the project.

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