

**Testimony**  
**Of**  
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**Before**  
**United States Senate**  
**Subcommittee on Energy, Natural Resources and Infrastructure**  
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**Infrastructure Financing Issues in the United States**

Over the past 2 years, ever since the Chicago Skyway Public Private Partnership (“P3”) 99 year lease transaction, there has been much discussion and debate on the need and or value of having private operators take over the long term ownership, financing and operating obligations of US infrastructure assets which to date have been the responsibility of public bodies.

Most of the focus on utilizing the private sector has been to tout 2 advantages:

- Availability of investment capital
- Infrastructure management that is more focused on profitability

In my view these 2 alleged advantages have been promoted without a thorough review of the impact upon the general public that utilizes infrastructure assets and in the end must pay for them through some form of user fees.

Additionally it is important to note that there is no shortage of investment capital available to fund public sector owned and operated infrastructure. Secondly, with rare exception, most publically owned and operated infrastructure is run just as efficiently as any private operator could. Any cases of higher operating costs is almost always directly

related to the higher costs of fringe benefits in the public sector for health care insurance and pensions, rather than any lack of operating talent.

An often misused measure of both private investment interest in infrastructure investment and public sector lack of efficiency is EBITDA (“Earnings Before Interest, Taxes, Depreciation and Amortization”) or pure cash flow from operations. Publicly owned and operated infrastructure has little positive cash flow because their **public mission** is to provide **affordable services** to its customer base, as a result when infrastructure has been sold to private interests these sales have been hailed as successful because they were purchased at very high multiples to EBITDA, perhaps 20 to 30 times EBITDA, when typical private to private sales would be at 10 to 15 times EBITDA. Thus giving the impression that the private sector can run the assets more efficiently and therefore is willing to pay a higher price. In reality the price is not established in relationship to *historical* EBITDA but is based upon *projected* future EBITDA which is largely driven by the massive increases in rates allowed in the P3 model. As an example, if the toll rates granted to the private buyers of the Chicago Skyway were applied retroactively to the Holland Tunnel from its opening in 1929 the toll at the tunnel today could be \$185 rather than the \$8 it is today.

Another misconception is created by promoters of privatization creating new metrics that support their case. The presentation of these new measures often sounds compelling but upon review they are often revealed as “voodoo economics”. Recently in the battle over leasing the Pennsylvania Turnpike one advocate for privatization used the metric of operating expenses as a percentage of revenues as a measure to prove alleged inefficiency of operations. In reality this is a bogus measure since the lowest toll rates possible goal of a public authority drives a de facto result that their debt and operating expenses consume almost all of their revenues. In fact the Pennsylvania Turnpike maintains one of the 3 lowest tolls per mile in the country at about 5 cents and therefore its expense will reflect a higher percentage of revenues. This would not be true in the hands of a private operator who must increase tolls to squeeze out a profit margin. The true measure of efficiency is

operating cost per mile of toll road and the Pennsylvania Turnpike would score well for efficiency using this metric.

## **Private Infrastructure in the United States**

The utilization of the private sector to provide infrastructure in the US has deep roots that go back to the 18<sup>th</sup> century when private toll roads were common. Today although there is still much private infrastructure it is largely focused on areas where the private sector has taken technology and market acceptance risk. The infrastructure involved can be divided into 2 distinct classes of assets:

- 1- Regulated Utilities
  - a. Electric
  - b. Water and wastewater
  - c. Telephone
  - d. Cable
  - e. Natural gas
  
- 2- Risk Transfer Assets
  - a. Solid Waste
  - b. Health care

In both categories the public sector and the end users were protected either through pricing regulation or through elimination of risk. The history of private ownership was largely due to an undeveloped public ownership model and also the need to install the infrastructure across multi jurisdictional boundaries at a time when regional entities were not a commonplace solution. In the case of some of the oldest forms of private infrastructure assets like electricity and telephone, there was also uncertainty about how successful these new technologies would be since the public needed to pay for them, much like many of us said we would never pay for TV since we could get it for free over the airwaves. These types of technology and business risks are appropriate for the private

sector to lead, however the public sector has always looked to pricing and open access regulation as a method to protect the public. One only need look at the deregulation of the electric markets in California in the past decade for an example of why utility regulation is appropriate.

This rich history of private enterprise providing infrastructure assets to serve the public continues today largely because that is how it was first established and because it is working in a price and quality controlled manner that is overseen by public officials whose interests are to protect the consumer.

However, much of the current focus of the P3 debate is addressing the transfer of existing publicly owned assets to the private sector. These public infrastructure assets, including roads, water, wastewater and port facilities have been largely owned and operated by the public sector and been sensitive to both the pricing needs and the service needs of the public. Public sector management is largely composed of highly competent career civil servants with no profit motivated agenda. This lack of profit motivation has been often cited as a negative, but most people do not understand that profit must be included in the cost of privately owned infrastructure and paid for by the consumer. Public infrastructure providers such as water and toll road systems only need increase prices to pay for ongoing capital needs not to increase returns to investors. Additionally in the US publically owned infrastructure is eligible to raise its capital in the tax exempt bond market which produces a cost of capital 30% lower than a private sector provider. Since these are capital intensive industries the cost of capital is a prime mover in determining the cost of service charged to the consumer, whether it is water usage rates or road tolls.

## **Financing**

Infrastructure finance is not very different than real estate finance, which most people understand to some degree. In real estate finance an income producing property becomes the collateral for a loan and the rents that are charged are set at a level sufficient to be sure the owner can pay the loan and the operating costs and make a profit. The higher the

interest rate on the loan and the higher the return on equity to the owner then the higher the rents will rise in order to pay for the cost of capital. Infrastructure is not very different, the cost of installing and operating a water plant, sewer lines or roads will need to be recovered from the rates, charges and tolls that users of the infrastructure will pay. Once again the higher the cost of capital the higher the user charges will be.

### **The Role of Leverage**

Many proponents of private investment in infrastructure are of the opinion that the use of private equity, rather than debt capital, will reduce the cost of capital. This is a fallacy. Equity capital is the most expensive source of investment capital and commands returns of 10 to 20% or even more in the case of venture capital. Asset based investments by definition are fixed in place and not movable, therefore the investor cannot expect to obtain increased returns from synergies or new marketing strategies for products to the public. The equity investor is also sacrificing liquidity when fixed asset investments are chosen. They cannot easily be traded like stocks on the stock exchange. It takes time and costs money to dispose of fixed assets. As a result investors expect to be compensated for this lack of liquidity and command higher equity return hurdles. It is true they may be willing to wait for these returns to accumulate over time rather than achieve their return rates today, however, this just means that they are imposing that accrual on the projected cash flows from the assets itself. There is no free lunch. The high cost of equity capital is the reason leverage is employed in the private ownership of infrastructure assets.

Leverage is the borrowing of debt capital and combining it with equity capital to achieve a lower overall cost of capital (often referred to as the Weighted Average Cost of Capital or WACC). This combining of equity and debt capital is not done in the public ownership model where an all debt capital structure is utilized. The benefit of leverage is that the more debt that is utilized the lower the overall cost of capital. A few years ago an 80% debt /20% equity structure was typical, however, today with the credit markets in distress that model has change to a 60% debt/ 40% equity formula as shown by the bids for the Pennsylvania Turnpike. This lower leverage increased the cost of capital to over 9% from

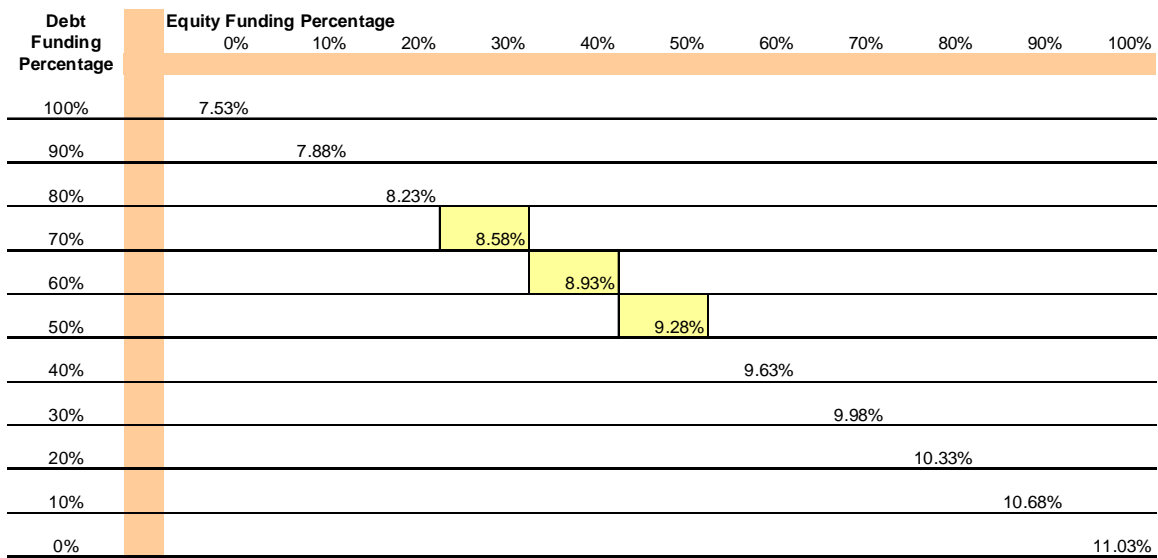
an expected rate range of 7-8%. This resulted in lower than expected bids from private investors. It is important to note that a public authority could access the capital markets at rates near 5% for the same transaction.

The lower the cost of capital the higher the valuation of the asset up for sale. Our past analyses have shown that a public sector funding model would produce a value at least 30% greater than a private ownership model or could produce the same valuation with 30% lower user charges.

The following chart illustrates how leverage impacts the cost of capital for a transaction:

**Impact of Leverage on the Cost of Capital  
Private Concession Deal**

Rates= Debt at 10 year US Treasury plus 3.50%  
 Equity at 10 year US Treasury plus 7.00%  
 10 year US Treasury = 4.03%



= Likely Range of Funding Cost