

Public-Private Partnerships and Sustainability: Convergence?



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Annual Meetings

Washington, D.C.

January 14, 2009

Introduction

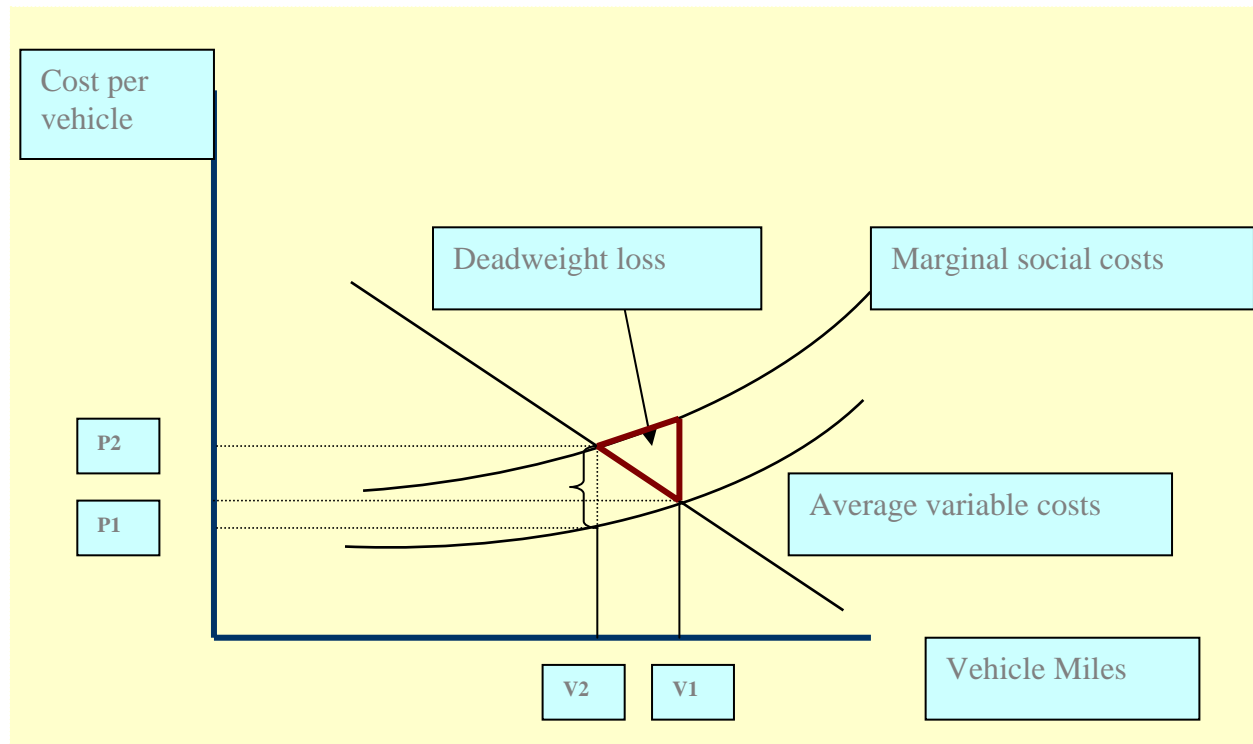
- ✓ Benefits of Public-Private Partnerships (PPP) usually seen as including:
 - ✓ Cost reductions and efficiencies
 - ✓ Alternative source of funds for capital investment
 - ✓ Risk transfer
 - ✓ Specialized skills, new technologies
 - ✓ Greater ease in adjusting fees, fares etc..

Introduction

- ✓ Can PPPs increase *economic* efficiency as well as financial?
- ✓ Economic inefficiency includes unpriced congestion and environmental costs
- ✓ Particularly in dense areas unpriced costs of transportation are significant
- ✓ Can PPP be a mechanism to reduce this inefficiency?
Focus here on transportation PPPs

Transportation, Externalities and Efficiency

Economic efficiency: Price = total social costs



Transportation, Externalities and Efficiency

- ✓ A sustainable transportation system: Users bear social costs as well as private costs
- ✓ Not all costs are inefficient in economic sense – only those that are unpriced

Estimates of US Congestion and Pollution Costs

- ✓ *Texas Transportation Institute Mobility Report*: In 2005 cost of congestion over \$78 billion for time and fuel
- ✓ In large metropolitan areas costs per traveler over \$1,000 a year – 54 hours and 38 gallons of fuel
- ✓ Health costs of emissions significant but *very location specific*: PANYNJ estimates over 2 cents per mile for cancer-related costs only in New York City CBD
- ✓ Small and Kazimi: 2000 per-mile health costs for LA of 1.6 cents (cars), 4.6 cents (light trucks) and 35 cents (heavy trucks)

Estimates of US Congestion and Pollution Costs

- ✓ Resources for the Future Estimate for US:
 - ✓ Congestion costs: 3.5 – 6.5 cents per mile
 - ✓ Pollution/climate change: 2.3
 - ✓ Accidents: 2.6

Policy Response

- ✓ Few public bodies/agencies pushing to internalize external costs – but changing?
- ✓ The more independence from electoral pressure, the easier to promote (PANYNJ, Bloomberg administration)
- ✓ So far proposals and programs mostly about congestion relief, with emissions reductions added benefit (ie, PlaNYC)

Congestion Pricing

Congestion charging is an attempt to address external costs – and existing programs show significant impacts

- ✓ Singapore Area Licensing Scheme (ALS)
- ✓ State Road 91 Express Lanes
- ✓ London Congestion Charge (vehicles in the charging zone reduced by 12% (cars 34%))
- ✓ NY – NJ bridges and tunnels: 8.7% reduction in morning peak traffic, 2.5% reduction in evening peak traffic
- ✓ **Problem: Beneficiaries mostly atomized – organized lobby in favor smaller in clout than lobby opposed**

PPP as a Partial Solution?

PPP role in sustainability still more theoretical than actual but potential harmonizing of interests

- ✓ Key is the private concessionaires has to be imposing real tolls
- ✓ Congestion tolling can under the right circumstances cover all costs of providing the road:
 - ✓ Congestion toll covers cost of facility if investment follows demand
- ✓ Raising or even imposing tolls often difficult politically, so managing congestion has (too) often been through increasing capacity

PPP as a Partial Solution?

- ✓ PPP for roads has involved long-term leases of greenfields and mature facilities
- ✓ Recent concession agreements have allowed tolls to be set at rates that attract private investors, above typical existing rates:
 - ✓ 25% - 50% one-time increase, then CPI or 3%
 - ✓ Limited time-of-day toll differentiation
- Indiana Toll Roads: no toll increase since 1985 until this year, one year into PPP concession

PPP as a Partial Solution?

- ✓ PPPs may also be structured to explicitly address environmental issues:
 - ✓ Toll rates to reflect environmental costs
 - ✓ HOV preference in HOT lanes
 - ✓ Toll discounts for cleaner vehicles
 - ✓ Use of lease proceeds or revenues for transit or other green initiatives

Challenges

- ✓ Using PPPs as an instrument for efficiency faces challenges:
 - ✓ Profiteering perception – demand is inelastic
 - ✓ -0.3 to -0.1 on inter-urban
 - ✓ -0.05 on NY bridges and tunnels
 - ✓ Toll rates but shadow toll receipts (Environmental Defense)
 - ✓ Extending toll rates beyond congestion costs:
 - ✓ Measurement issues
 - ✓ Local versus non-local costs

Challenges

- ✓ Exporting congestion to alternative roads
 - ✓ Corridor-based pricing
 - ✓ Low or no competing routes
- ✓ Equity concerns
- ✓ Using PPP proceeds to fund transit:
 - ✓ Strong opposition from some CP proponents
 - ✓ Needs to be demonstrated link between pricing on the road facility and transit use

Conclusions

- ✓ PPPs offer a potential for congestion and emissions cost relief through real tolling, congestion management, and more targeted capacity expansions
- ✓ Private sector may be more effective agent to promote a limited environmental objective
- ✓ Most effective when real tolling structure on dense urban highways where external costs highest
- ✓ Challenges are real and effectiveness may be limited for foreseeable future
- ✓ Impact of stimulus spending?