

The Extent Transportation PPPs Approximate to the Economic Theory of Bilateral Monopolies

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Global challenges in PPP : cross-sectoral and cross-disciplinary solutions?

6-7 November 2013

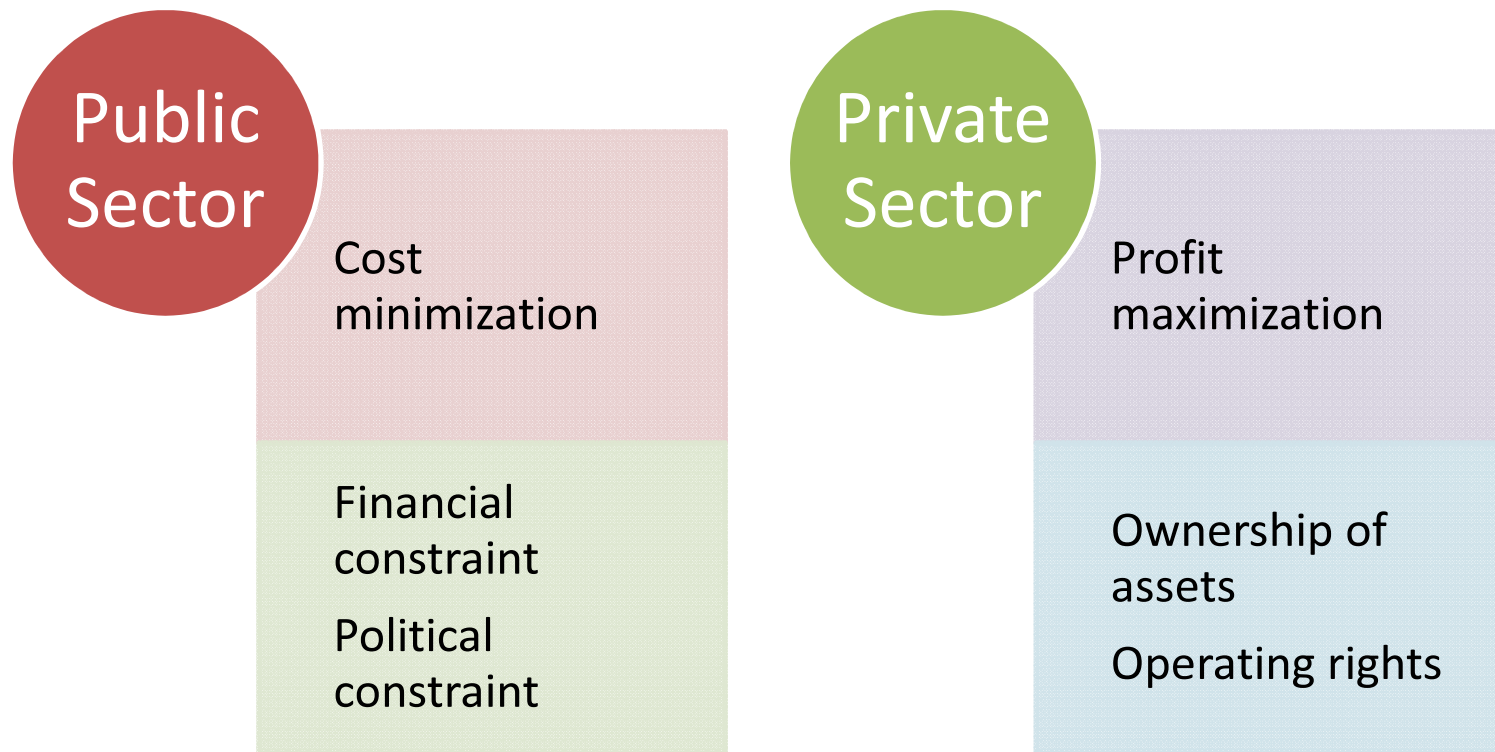
Antwerp, Belgium

Introduction

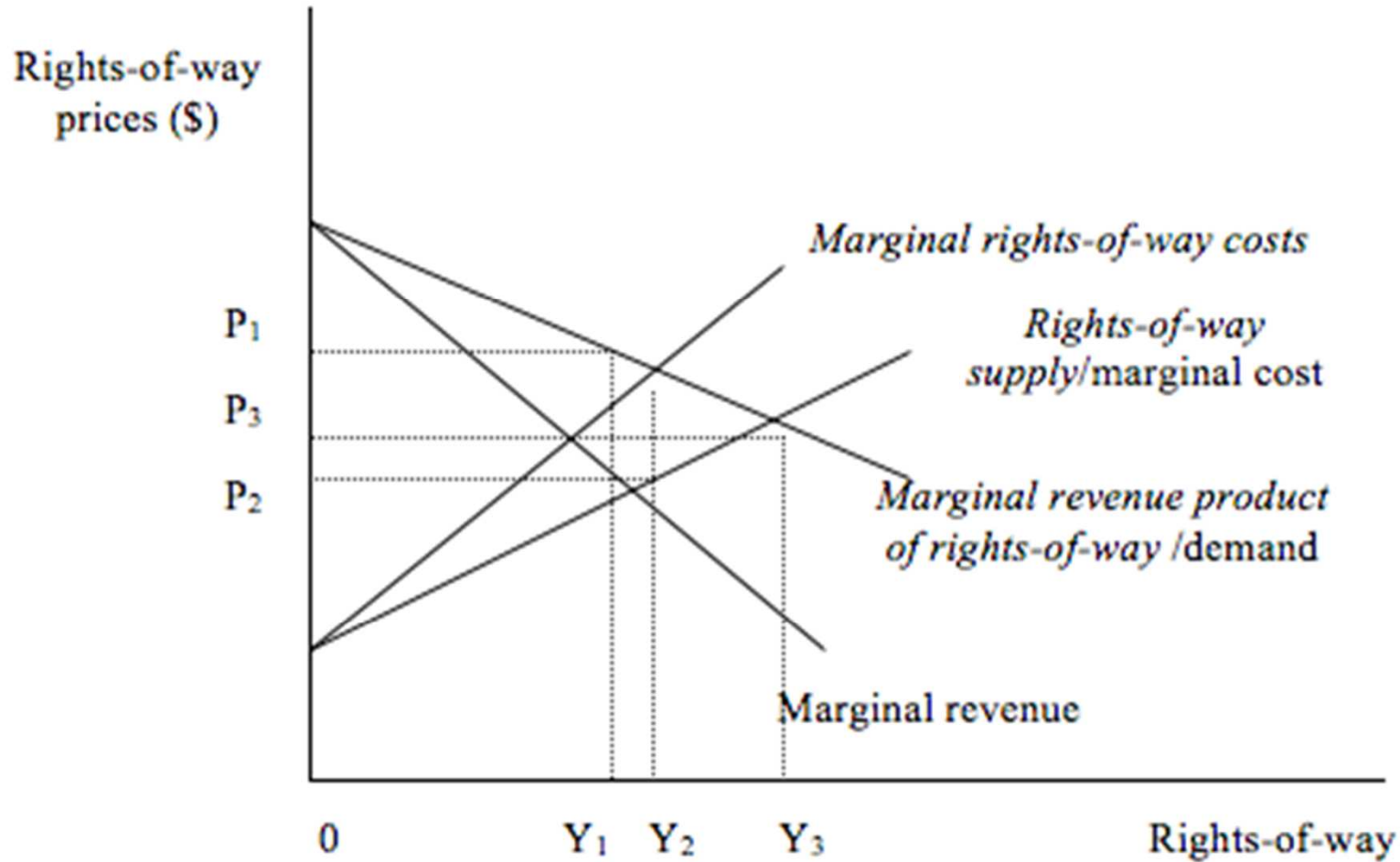
- We examine the extent to which a selection of P3s involving transportation infrastructure have involved the types of criteria identified by economists.
- This is done in the broad context of a bilateral monopoly framework.
- A set of US transportation P3 are set against economic “ideals”, looking at both conformity and outcomes

Bilateral Monopoly

P3 represents the attempted joint maximization of diverse objectives of two parties confronted with divergent constraints and imperfect information.



Bilateral Monopoly



Price and output under unilateral and bilateral monopoly situations

Economic Considerations Underlying a P3

- What are the challenges in reaching a viable partnership in this bilateral monopoly world?
- What have been the outcomes of actual attempts at forming P3 in the US transportation sector?

P3 Assessment Criteria

- Special Issue of *Oxford Review of Economic Policy* on “The Assessment: Public-Sector Investment” in 1997.
- *Symposium on Public/Private Partnerships* that appeared in the *International Journal of Industrial Organization* in 2008.
- Special Session “The Private Provision of Public Services” in the 2002 Royal Economics Society annual meeting
- Plus individual articles and monographs

P3 Assessment Criteria

- These studies offer general considerations important in developing P3 and in their subsequent success.
- Provide a broad economic backdrop against some actual experiences may be set.

Bundling of Services

- Is a PPP superior to public provision
- To what extent should unbundling occur
 - By elements in networks
 - road system or links; one airport or group of airports
 - Elements in the supply chain
 - DBFOM; DBFO; DBFM, etc.
 - Decision Criteria
 - Uncertainty at different stages
 - Transactions costs

The Nature of the Partnership

- The role of each partner
- Quality of services supplied by the partners
- Scale of project
 - Large projects often involve many private partners
- Decision criteria
 - Completeness of contract
 - Role of discount considerations

Renegotiation of Contracts

- Basis of initial awarding of contract
 - Winners may have “game” played assuming subsequent renegotiation was inevitable
 - Monopoly winner of contract has more power to “demand” renegotiation later.
- Length of contract
 - More uncertainty with longer-term contracts
- Degree of flexibility in initial contract
 - More flexibility reduces probability of need for renegotiation
- Possibility of “strategic default” may limit amount private financiers will lend developers
- Decision Criteria
 - Potential costs of renegotiation
 - Extent of any long term monopoly power of private supplier.

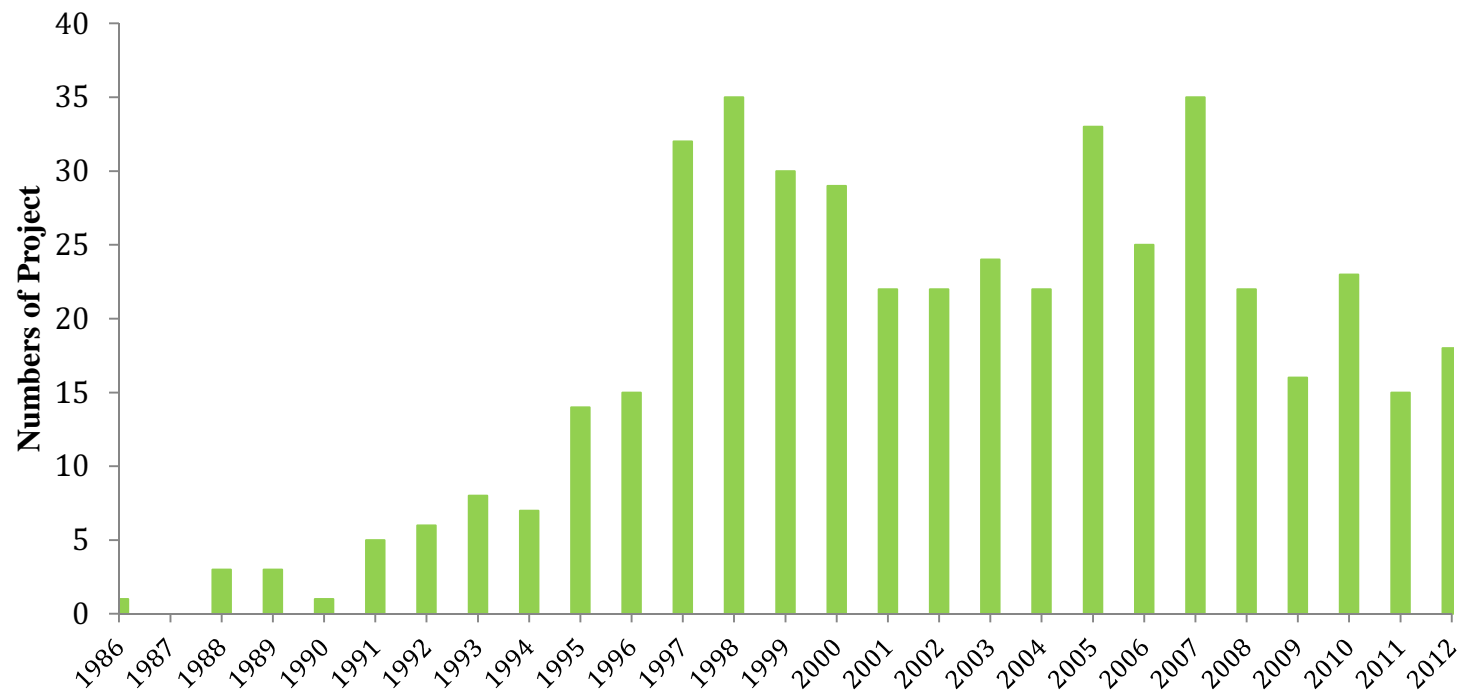
Corruption

- Not necessarily “legal” corruption, or corruption by the private sector
- Manipulations of forecasts
 - Over estimation of demand and underestimation of costs by both public and private sector to obtain respective finances
- Continuation of projects that should on both public and private sector criteria be aborted.
- Decision Criteria
 - To what extent can fixed priced contracts be used and enforced.
 - Use of external, object “third” parties to assess calculations/ forecasts.

The role of regulation

- PPPs are often bilateral monopolies that do not maximize social welfare
 - PPPs maximize joint welfare of suppliers
 - Second best solution
- Incomplete contracts mean there is no incentive to marginal cost price
- Economic regulation would be the norm if the activity were provided by the private sector alone.
- Decision Criteria
 - Do distortions justify on-going regulation such as price capping or are the potential regulatory failure costs too high?
 - What if the best form of regulation – rate-or-return, price capping, etc
 - How should regulation be built into initial contracts?

Assessment of Some US Case Studies



Features of US transportation PPP

Project	Year of financial closure	Investment (\$ millions)	Selection process	Renegotiation	Type	Discount rate
Orange County SR91 Express Lanes	1991	130	CB	Yes	DBFOM	4% (Catrans)
Dulles Greenway	1993	350	UO	Yes	DBFO	4% (VDOT)
Greenville Southern Connector	1998	240	CB	No	DBFOM	3.5% (SCDOT)
Massachusetts Route 3 North	1999	385	CB	No	DBFM	Varies by year
South bay expressway	2003	628	CB	Yes	DBFO	4% (Catrans)
Chicago Skyway	2004	1830	CB	No	99-year lease	3% (IDOT)
Indiana Toll Road	2005	3,850	CB	Yes	75-year lease	6%
Pocahontas Parkway (Route 895)	2006	611	UO	Yes	99-year lease with revenue sharing	4% (VDOT)
Northwest Parkway	2007	603	CB	No	99-year lease with revenue sharing	3.3% (CDOT)
I-495 Beltway HOT Lanes	2008	1,998	UO	Partial	DBFOM	4% (VDOT)
I-595 Corridor	2009	1,814	CB	No	DBFOM	5% (FDOT)
North Tarrant Express	2009	2,047	CB	No	DBFOM	5% (TXDOT)
Port of Miami Tunnel	2009	914	CB	Yes	DBFO	5% (FDOT)
IH 635 Managed Lanes	2010	2,800	CB	No	DBFOM	5%

Findings

- Limited number of unsolicited offers reflects the anticipated greater pressures for the public sector to initiate PPP based initiatives.
- High correlation between unsolicited offers and renegotiation indicates unsolicited may be more risky given they did not have a high initial public sector priority.
- The degree of unbundling in the context of leasing contracts, shows no real pattern.
- The discount rates adopted by the public sector would seem to follow the argument they are usually below those that would normally be anticipated by private developers.

Thank you