

Evaluating the cost of PPPs in the road sector in Europe

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Importance of the topic in EU

- Need for low cost transport for single market (T-TENS)
- Increasing interest in EU and internationally for privately financed transport
- But roads are highly capital intensive
- Long payback period if at all
 - High initial cost
 - High but infrequent maintenance cost
 - Low annual operating cost
 - Traditionally public sector – too risky for private sector

Examine:

- Types of PPPs
- Prevalence in Europe
- Problems
- Research literature
- Experience of using private finance to build and operate roads in Spain and UK
- Costs to the various stakeholders: government, concessionaires, providers of finance and road users
- Evaluate the claims that the turn to private finance
 - provides additional investment (Spanish argument)
 - transfers risk and provides value for money (VFM) (UK argument)
 - Affordable (UK argument)

Types of PPPs – umbrella term

- Various models and confusing terminology
- PFI or DBFO – contractual arrangement – state pays
- Free standing project – concession or franchise – user pays
- Free standing project – concession or franchise – user pays + some government contribution (capital and/or user subsidy)
- Joint venture or ownership project where state or users pay = PPP
- New roads or upgrade old roads
- Distinguish between finance for capital cost and funding to pay finance and operating costs

Potential problems?

- Commercially viable over concession period
- Concession period shorter than road life
- So usually require government contribution even when privately financed
 - Capital – grant, loans, guarantees
 - Annual subsidy or shadow tolls
- This then blurs the line between public/private expenditure
- Creates government sanctioned monopolies
- Who bears the cost when things go wrong?

Road PPPs in EU

- Transport largest PPP sector
- Information difficult to find – no database
- National and regional
- 2005 annual capital value of roads, excluding UK, €9.3bn
- 2006 - €7.7bn
- Spain - the longest experience of private roads
- Spain and UK – largest users of private finance in roads in EU

Number of PPP road projects in EU – Jan 2006

	Roads (toll)	Roads (shadow toll or availability)	Roads (payment mechanism unknown)	Bridges	Tunnels	Total
Spain	35	17	2		5	59
UK	1	22		3		26
Portugal	4	7			1	12
Greece	6		1	1	1	9
Italy	4		5			9
France	5			1	1	7
Ireland	3			3		6
Hungary	2	3				5
NL		2	3			5
Germany					2	2
Poland	2	1				3
Finland		2				2
Total	62	54	11	8	10	145

Research literature (i)

- Little research on the cost of the financing method in transport
- Most research descriptive, broadly supportive, little financial evidence
- Silva, Freeman (World Bank)
 - Generally successful
 - Some problems
 - lack of demand,
 - renegotiations,
 - bailouts,
 - governments have taken over the projects

Research literature (ii)

- Estache and Serebrisky (2004 - importance of appropriate political and regulatory framework to make it work
- Ehrhardt and Irwin 2004 – recent projects – more favourable regime – grants, guarantees for loans, subsidies, etc
- Boardman *et al* (2005) – review of North American experience - private sector adept at ensuring that they can walk away from problems
- EIB (2005): key impact that projects were implemented

Early road concessions in Spain

- Starts 1967 due to lack of public finance
- Private toll roads in Spain v public tolls elsewhere
- State backed guarantees for foreign loans and exchange rate insurance
- Early 1980s financial crisis due to oil prices and road user demand
- Renegotiation, provision of state loans and subsidies, three contracts taken over by state
- Concessioning stops in 1982

Recent concessions in Spain

- 1991 Maastricht criteria
- 1996 return of Conservative government
- New law – extending period of concessions
- Renegotiation of existing concessions on favourable terms and without going out to competitive tender
- New concessions with toll charges
- Beneficial accounting regime with real economic effects
 - Reversionary fund
 - Treatment of financing expenses
- Favourable toll charge system to cover reversionary charge and rises linked to inflation
- Late 1990s shift to shadow toll concessions – autonomous governments

Private finance for roads in UK

- 1980s/early 1990s - some free standing projects with user tolls
 - Second Severn Bridge
 - Dartford crossings
 - Channel Tunnel
 - Skye Bridge (government contribution)
 - M6 Toll road
- 1993 Private Finance Initiative (PFI) – DBFOs in roads
 - Shadow toll
 - Availability payments

Annual cost of private finance

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Data from companies' accounts	Spanish toll roads (2003)	Spanish shadow roads (2003)	8 UK DBFO shadow roads (2004)	UK M6 Toll road (2006)
Revenues	€ 1,428m	€ 57m	£176m	£51m (2/3 expected level)
Operations and maintenance	43%	44%	41%	55%
Interest payable	17%	40%	47%	88%
Tax payable	19%	0%	5%	0%
Post tax profits	38%	26%	36% (Affected by refinancing gains)	Losses
Financing as % revenues	55%	56%	83%(Affected by refinancing gains)	88%

Additional annual cost of private finance to state or user

Data from companies' accounts	Spanish Toll Rds Euros (m)	Spanish shadow toll roads (Euros m)	8 UK DBFOs (£m)	UK M6 Toll (£m)
Year ending	2003	2003	2004	2006
Interest payable on debt	238	22	82	45
Post tax profit	546	14	20	-21
Total cost of capital (interest and post tax profit)	784	36	63	45
Interest payable at then prevailing public sector rate	7% 288	4% 20	8% 74	4.5% 34
Extra cost of private finance	496	16	71	11
Extra cost of private finance as % income from state or user	35%	28%	40% (20-25%)	16%

Impact on tolls - Spain

- If assume public funding and tolling:
 - Public debt approx 4%
 - Private debt = 7% (understated because of public support)
 - So conservative additional = 3%
- Additional cost of debt is €4.8bn over 9 year period,
- More than cost of new construction (€2.5bn)
- 55% annual cost is cost of finance
- 35% annual cost is additional cost of private finance
- So under public finance, tolls would be nearly half current charge - road users paying in effect nearly double

But this is after public support

- Rose from €201m to €423m
- Largest element exchange rate insurance relating to 5 old concessions (more than original cost of roads or 80% of cost of new roads)
- So old roads mortgaged the future
- Compensation for tariff capping
- Small capital grants
- 13% debt = Participative loans at public sector rates of interest

Shadow toll concessions - Spain

- Only been functional for two years
- Same broad findings
- Smaller projects than toll roads at approx €133m per road or €688m total
- Little direct public support
- Low interest payable 4.5%
- 11% return on shareholders funds
- Annual cost of finance is 56% of toll revenues
- Additional annual cost of private finance is 28% toll charge
- So gov could do it for 2/3 price

UK shadow tolls

- DBFO based on shadow tolls
- Very expensive, £6bn over 30 years, £220m pa
- Paid the capital costs (£590m) in three years
- 2004 - private sector's annual cost of finance 67% income
- 2004 - additional annual cost of private finance = risk premium = £61m pa = 40% of total annual cost
- Affected by refinancing gains – other years additional cost = 20% +
- Conservative due to subcontracting to sister companies/transfer pricing
- Impact on Highways Agency budget? Affordability?
 - £300m pa or 20% Highways Agency's budget for 8% its network
 - Proposed M25 widening >> £300m pa or 40% budget

UK M6 toll road

- Traffic much less than expected
- Operates at a loss
- Lobbying for new roads and development in area
- Took out larger new loan – over longer period
 - Paid back old loan
 - Paid £300m + to parent company
 - Heavily in debt with low revenues
 - Risks?
- Using £112m to build a link road to M6 toll road
- While free road to state and users
 - Unsolicited proposal
 - Queue jumps capital prioritisation
 - Corporate requirements dictate road building programme

Completed projects – toll crossings

- Dartford Crossings
- **High traffic flows**
- 16 years
- Cost of finance/revenues= 20%
- Additional cost of private finance = 8%
- Conservative, using very high rate of gov interest, excludes financing costs via subcontracting
- Skye Bridge
- **Low traffic flows**
- £15m public construction costs, £7m subsidies, £27m termination fee
- Terminated after 10 years
- Cost of finance/revenues= 50%
- Additional cost of private finance = 31%
- Conservative, using high rate of gov interest, excludes financing costs via subcontracting

Risks and rewards

- Little information to assess risks and rewards
- Inadequate reporting by both public and private sectors
- Data is aggregated so cost invisible
- *Freedom of Information* and the *Audit Commission Act* provide little redress
- More information to Credit Ratings agencies for Stock Market than to public
- Little or none *ex post* scrutiny and evaluation

Conclusions (i)

- Some information not in public domain due to commercial confidentiality
- Detailed financial evidence
- Direct and shadow tolls provide similar consistent results re cost of finance
- Private finance
 - Broadly similar results in Spain and UK
 - Confirms the literature

Conclusions (ii)

- Private finance
 - Creates additional costs for taxpayers and users
 - Does not provide additionality
 - Has not transferred risks commensurate with costs
 - Creates additional risks for taxpayers
 - Default risk – government assumes large private sector debt
 - Distorts rational capital programme in favour of roads that can deliver a cash flow
 - Does not provide accountability to the public
 - Unable to see whether public expenditure and investment is sustainable
- Taken together, evidence undermines case for private finance in roads