Public Private Partnerships

A Rail Sector Perspective

UNECE Conference on PPP Schemes and Railway Financing

7 November 2012, Geneva

Edward Christie

Senior Economic Adviser, CER
Strategic considerations

Strategic imperatives:
- Need to move away from oil and to decarbonise transport
- Rail to capture higher modal shares, notably on longer distances
- Public transport and electric road vehicles in cities

Strategic obstacles:
- Constrained state budgets
- Fiscal austerity threatens growth
- Lock-in: no infrastructure = no shift to low-oil, low-carbon transport
- Europe a sitting duck for the next oil shock

Europe needs to give a higher priority for infrastructure investments

For the short-run: infrastructure investments have higher multiplier effects as compared to public sector wages and transfers → get us back to growth

For the long-run: the energy and transport transition will not happen otherwise
User financing in rail is the rule, not the exception

- Contrary to the road sector, infrastructure user charges are **systematic** in the rail sector: **track access charges**

- *Track access charges are regulated under EU law (2001/14/EC) so as to be:*
  - Non-discriminatory
  - Related to wear-and-tear → distance-based and tonnage-based
  - Base level is the “cost directly incurred” (~ short-run marginal cost)
  - May be differentiated by market segment, where the charge is topped up with mark-ups “that the market can bear”
  - May include a scarcity / congestion charge
  - May be used for additional price signals (e.g. noise, ETCS)
  - Recast of the 1RP → partial clarification of charging principles - implementation work with Commission & national experts important
New investments

- Existing rail legislation (2001/14/EC, Art 8, par 2) allows for higher user charges:

  “For specific **investment projects** (...) the infrastructure manager may set (...) higher charges on the basis of the **long-term costs** of such projects **if they increase efficiency and/or cost-effectiveness and could not otherwise be or have been undertaken.**”

- **But user charges should also be low:** competitiveness of rail services against road (especially where road user charging isn’t in place), against aviation

- Most rail projects require a high percentage of direct funding from national and/or EU **grants** (“blending”)
  - **Justified by positive socio-economic benefits (positive externalities)**

- Long payback periods and long life-times. Typically **40-60 years**
Private financing of public infrastructure - general arguments

- Justified if more cost-effective and/or faster/better delivery at same cost
  - Applied in many countries (public-private comparator, VfM analysis)

- The efficiency gain must be the scope for reduced public spending
  - It is never known with certainty (it is a counter-factual analysis)
  - It is typically expected to be positive (if not very large)
  - It may be outweighed by higher contracting and financing costs

- In practice: political pressure from the top is the first driver
  - Those who can afford it do something else (e.g. Sweden)
  - Always a risk of fitting the analysis around the desired result
  - A rational 2\textsuperscript{nd} best choice when under a tight fiscal constraint
<table>
<thead>
<tr>
<th>Project</th>
<th>Design to completion time</th>
<th>Contract duration</th>
<th>Route length</th>
<th>CAPEX</th>
<th>Public (grants)</th>
<th>co-funding Type of PPP</th>
<th>Loan guarantees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stockholm-Arlanda Airport</td>
<td>1993-1999</td>
<td>41</td>
<td>39</td>
<td>SEK 4.1 bn</td>
<td>SEK 2.4 bn</td>
<td>BOT</td>
<td></td>
</tr>
<tr>
<td>HS1 Channel Tunnel rail link</td>
<td>1996-2003 (2007)</td>
<td>90</td>
<td>109</td>
<td>GBP 5.8 bn</td>
<td>GBP 2.01 bn</td>
<td>DBFM</td>
<td></td>
</tr>
<tr>
<td>Oresund road-rail link</td>
<td>1991-2000</td>
<td>25-30</td>
<td>38</td>
<td>EUR 2.0 bn</td>
<td>NA</td>
<td>DBFM</td>
<td>Yes 100%</td>
</tr>
<tr>
<td>HSL-Zuid</td>
<td>2000-2007</td>
<td>25</td>
<td>100</td>
<td>EUR 6.0 bn</td>
<td>EUR 0.11 bn / year</td>
<td>DBFM</td>
<td></td>
</tr>
<tr>
<td>Perpignan-Figueras HS</td>
<td>2005-2009</td>
<td>50</td>
<td>45</td>
<td>EUR 1.1 bn</td>
<td>EUR 0.6 bn</td>
<td>DBFM</td>
<td></td>
</tr>
<tr>
<td>Diabolo rail link Brussels</td>
<td>2007-2012</td>
<td>35</td>
<td>3</td>
<td>EUR 0.54 bn</td>
<td>EUR 0.25 bn</td>
<td>DBF</td>
<td></td>
</tr>
<tr>
<td>Liefkenshoek rail link Antwerp</td>
<td>2008-2013</td>
<td>38</td>
<td>16</td>
<td>EUR 0.84 bn</td>
<td>EUR 0.05 bn / year</td>
<td>DBFM</td>
<td></td>
</tr>
<tr>
<td>Tours-Bordeaux HS (HSL SEA)</td>
<td>2010-2016</td>
<td>50</td>
<td>340</td>
<td>EUR 7.8 bn</td>
<td>EUR 4.0 bn</td>
<td>BOT State and EIB/LGTT</td>
<td></td>
</tr>
<tr>
<td>GSM-R France</td>
<td>2009-2015</td>
<td>15</td>
<td>14000</td>
<td>EUR 1.5 bn</td>
<td>EUR 0.16 bn</td>
<td>DBFM</td>
<td></td>
</tr>
<tr>
<td>Lisbon-Madrid HS</td>
<td>2009-2013</td>
<td>40</td>
<td>165</td>
<td>EUR 7.8 bn</td>
<td>NA</td>
<td>DBFM</td>
<td></td>
</tr>
<tr>
<td>Nimes-Montpellier HS</td>
<td>2011-2016</td>
<td>25</td>
<td>80</td>
<td>EUR 1.8 bn</td>
<td>NA</td>
<td>DBFM</td>
<td>State, EIB, RFF</td>
</tr>
<tr>
<td>Bretagne-Pays de la Loire HS</td>
<td>2011-?</td>
<td>25</td>
<td>182</td>
<td>EUR 3.4 bn</td>
<td>NA</td>
<td>DBFM</td>
<td></td>
</tr>
</tbody>
</table>
Main characteristics of European rail PPPs

- Rail PPPs primarily for
  - High-speed (incl extension/bypass projects, lower risk than fully new line)
  - Airport and sea-port links
  - Rail telecommunication projects (GSM-R in France)
- For high-speed, in favourable cases, state co-funding around 40%-60% of investment costs
- Small wave of projects to be completed 2013-2016 - to watch closely
- Most rail PPPs are of the DBFM type, Design-Build-Finance-Maintain
  - This means usually an availability payment model. Traffic risk borne by the state; the IM obtains the revenue from the track access charges
  - Remuneration based on making the capacity available, plus other selected quality goals
- A minority are Build-Operate-Transfer (BOT) (“concession”)
  - Traffic risk borne by the private partner who obtains the revenue from track access charges plus (possibly) some quality goals, including availability
  - Experience: Tours-Bordeaux (HSL SEA) and Stockholm-Arlanda
Conclusions

- Rail PPP still unfolding - less experience than e.g. motorways - but wave ending around 2015-2016 should hold useful lessons

- Speed and timeliness of project completion often favourable (perhaps the clearest concrete advantage of PPPs?)

- But PPPs not systematically cheaper than other forms of procurement - depends on fiscal and macroeconomic conditions in each country
  - E.g. Denmark: preference for state guarantee model
  - E.g. Sweden: preference for public debt financing (low-rate Riksbank loans)

- Convergence between road and rail is the key
  - Generalise distance-based charging for all main roads
  - Align charging principles and charging rules - SRMC and externalities
  - Set-up a “road infrastructure manager” - the trend in Germany?
  - PPPs - whether rail or road - where VFM analysis is favourable
  - PPPs free up resources for traditional procurement → most rail projects
Thank you for your attention!

Edward Christie  
Senior Policy Adviser, Economics  
Tel: +32.491.16.21.70  
Email: edward.christie@cer.be

For further information, visit our website: www.cer.be