The use of PPPs for infrastructure investments in urban areas

Case Study: Sydney’s Cross City Tunnel

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THE PROJECT

- Finance, design, construct, operate and maintain two new 2.1 km east-west toll road tunnels under Sydney’s CBD
- Design, construct and commissioning direct cost $680 million
- Concession term 30 years from completion of the tunnels
- Contract transferred market risk to the private sector
- Awarded to the CrossCity Motorway consortium: Bilfinger Berger / Baulderstone Hornibrook / Deutsche Bank
- There were 292 planning conditions for the Cross City Tunnel
THE WINNING BID

- Two-stage tender process: Eight Consortia responded to the EOI, with three Consortia invited to submit detailed proposals

- CCM was chosen as the preferred proponent because its non-conforming proposal:
  - Offered innovation in design:
    - a longer and deeper tunnel avoided digging up William St removing significant traffic disruption during construction
    - allowed an increased vehicle speed limit of 80km/h
  - More aggressive traffic forecasts but within acceptable bounds compared to the RTA’s comparator
  - Up-front payment of around $100m to the RTA
EXPECTED BENEFITS

- **Reduction in ‘through’ traffic in central Sydney**
  - Ease of traffic congestion
  - Better access to, and movements within, the city for pedestrians, cyclists, taxis and delivery vehicles
  - Improvement in environmental amenity in the CBD for pedestrians, residents, workers and businesses
  - Better air quality in the city

- **Improvement in east-west traffic flows**
  - Motorists avoid 16-18 sets of traffic lights in the CBD
  - Savings of up to 20 minutes during peak periods
### ORIGINAL CAPITAL STRUCTURE

**Total Funding Required:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Amount ($ million)</th>
</tr>
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<tbody>
<tr>
<td>Construction Cost</td>
<td>680</td>
</tr>
<tr>
<td>Financing Costs During Construction</td>
<td>160</td>
</tr>
<tr>
<td>Development Costs</td>
<td>113</td>
</tr>
<tr>
<td>Up-front payment</td>
<td>97</td>
</tr>
<tr>
<td><strong>Total Funding Required</strong></td>
<td><strong>1,050</strong></td>
</tr>
</tbody>
</table>

**Sources of Funds:**

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount ($ million)</th>
</tr>
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<tbody>
<tr>
<td>Private Sector Equity</td>
<td>450</td>
</tr>
<tr>
<td>Project Debt</td>
<td>580</td>
</tr>
<tr>
<td>Pre-Completion revenue and interest earned</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total funding required</strong></td>
<td><strong>1,050</strong></td>
</tr>
</tbody>
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TUNNEL OPERATIONS

Tolls

- Full electronic tolling (no cash booths – first time in NSW)
- Base tolls: $2.50 cars & $5.00 trucks (March 1999 prices) escalated in line with CPI or 4% per annum
- Opening tolls: $3.52 cars & $7.00 trucks (due to Amending Deed and Escalation)
- Current toll: $4.28 cars & $8.56 trucks

Traffic

- Opened for traffic in August 2005 (2 months ahead of schedule)
- Traffic forecasts around 86,000-87,000 vpd (2006)
- Actual traffic around 30,000 vpd (2006)
Cross-City Tunnel - Average Daily Traffic Volumes
(Monthly Data)

Toll free: 24/10/05 - 30/11/05

toll halved: 6/3/06 - 5/6/06

CCT Sale

Legend:
- Actual
- Technical Default
- Base Case Forecast
WHAT WENT RIGHT?

✓ Designed and constructed in very efficient manner
✓ Project opened two months ahead of schedule
✓ Very little traffic disruption during the construction period
✓ Government recovered all of its project tender costs and ancillary work costs (although the recovery of certain ancillary costs received criticism)
✓ Market risk was effectively transferred and the tunnel continued to operate despite low traffic volumes and financial stress of the operator
WHAT WENT WRONG?

✖ Motorists did not use the tunnel in numbers when opened
✖ Motorists complained about toll price
✖ Media criticised Government for closing roads and seemingly forcing traffic into tunnel
✖ Media frenzy erupted and politicians started to criticise the project, the procurement process and seemingly overly optimistic traffic forecasts
✖ Community developed negative views about PPPs in general and perceived them as secret deals
✖ The Cross City Tunnel was a catalyst for a number of PPP – related inquiries in 2005 and 2006, including specific Cross City Tunnel ones
INQUIRIES INTO CCT, PPPs

- Review of Future Provision of Motorways in NSW, Infrastructure Implementation Group, December 2005
- Cross City Tunnel First Report, Joint Select Committee on the Cross City Tunnel (NSW Legislative Council), February 2006
- Cross City Tunnel Second Report, Joint Select Committee on the Cross City Tunnel (NSW Legislative Council), May 2006
- Inquiry into Public Private Partnerships, Public Accounts Committee (NSW Legislative Assembly), June 2006
- As well other Inquiries/investigations into other PPP projects occurred around the same time
INQUIRIES: ISSUES ADDRESSED

- Were the surface road changes required?
- Was the upfront payment appropriate?
- How should the toll price be set?
- Were the contract variations in the amending deed appropriate?
- What level of public contract disclosure should be required?
The New South Wales Government’s *Working With Government Guidelines for Privately Financed Projects* were revised in 2006

NSW Parliament requested new disclosure requirements for PPPs which has resulted in full PPP contracts being released to the public (previously just a contract summary), as well as major contract variations

Government reversed some of the initial road changes surrounding the Cross City Tunnel corridor

Influenced road changes and compensation for the then forthcoming Lane Cove Tunnel
The 2006 revisions to the *Working With Government Guidelines for Privately Financed Projects* included:

- An explicit value for money test from the perspectives of users and taxpayers in the Public Interest Evaluation
- Regular Updating of the Public Interest Evaluation with significant changes reported to Government
- Ongoing community consultation after contract signing, during construction and during commissioning
- Integration of the Planning Approval Stages and the Government approval stages
- A requirement for Government approval if the conclusions/assumptions of the business case significantly change due to development approval conditions, changes in costs or revenues or changes in user charges
- Extending the life of the Steering Committee to the initial delivery phase
- Requiring Government approval prior to commencing renegotiations on any signed PPP contract
THE SALE

- Receivers and managers appointed December 2006
- Competitive tender for sale: eight bids were received and five parties were shortlisted
- Issue of condition risk: tunnel and equipment, ventilation equipment, especially with change in facility manager (from Baulderstone’s to Leighton’s)
- Sold to ABN AMRO (RBS) / Leighton Contractors for $695 million in September 2007 (plus $52m transaction costs)
- New business and finance model based on downward revision of traffic forecasts taking into account actual traffic flows
- Sale effected through a sale of shares and units
The RTA and Treasury’s role was to observe and undertake the due diligence of the proposed owners.

The RTA and the Treasurer needed to approve the Amendment Deed, which effected the sale.

Under the sale:
- Contract stayed in place
- There was no change in risk allocation
- There was no change in pricing formula
- All private sector obligations were transferred to the new owners

Subsequent to approving the sale: issue of lapsed professional indemnity insurance coverage required special bonding arrangement and further Government approvals.
CONCLUSION

- Whilst the CCT was surrounded by controversy, other toll-roads in Sydney have had very little attention and are running smoothly, eg M2, M5, M4 and M7
- The CCT is now operating smoothly, although at lower traffic levels than originally forecast
- Well run public consultation prior to construction is not a good indicator of the eventual public reaction
- Difficulties in traffic forecasting:
  - Complicated, whole network especially in inner city
  - Sensitivity testing and independent checks are useful but are not fool-proof in predicting the range of possible forecasting error
  - Ramp-up period and the influence of initial motorist resistance
  - The impact of Price Elasticity of Demand
- The GFC has put into doubt the future of the Australian toll road model with full demand and price risk transfer to the private sector