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WG on Private Investment in Infrastructure:
RAB as an alternative to PPP

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Stephen Alchin, Strategic Advisor, Infrastructure Australia

OECD

This presentation

- Basic comparison of PPP v. RAB
- The role of user charging
- The potential of hybrids
- The example of introducing RAB on a road network

PPPs v. RAB - basic differences revisited

	PPP	RAB Regulation
Typical Form	Legally binding long-term contract	Legally binding licence with regular regulatory reviews
Key elements	Required Outputs Risk transfer Remuneration	Required Outputs Service quality Price limits
Productive (cost) efficiency achieved by	Contractual allocation of risk	Fixed prices periodically, renegotiated
Allocative (price) efficiency achieved by:	Initial competition for the contract	Periodic benchmarking
Weakness	High financing cost	Capex bias or incentive to under-invest - depending on the commentator
Issues	Inadequate process for intertemporal adjustment	Institutional requirements around management of RAB and price determinations

Critical factors in applying a RAB

- Well-functioning and <u>reliable regulatory structures</u>:
  - an established institutional framework
  - a track record of agencies operating without political interference
  - a credible appeals process
  - a commitment to ongoing use of the model to promote good behaviours.
- <u>Credible funding commitment</u>: user charges & government.

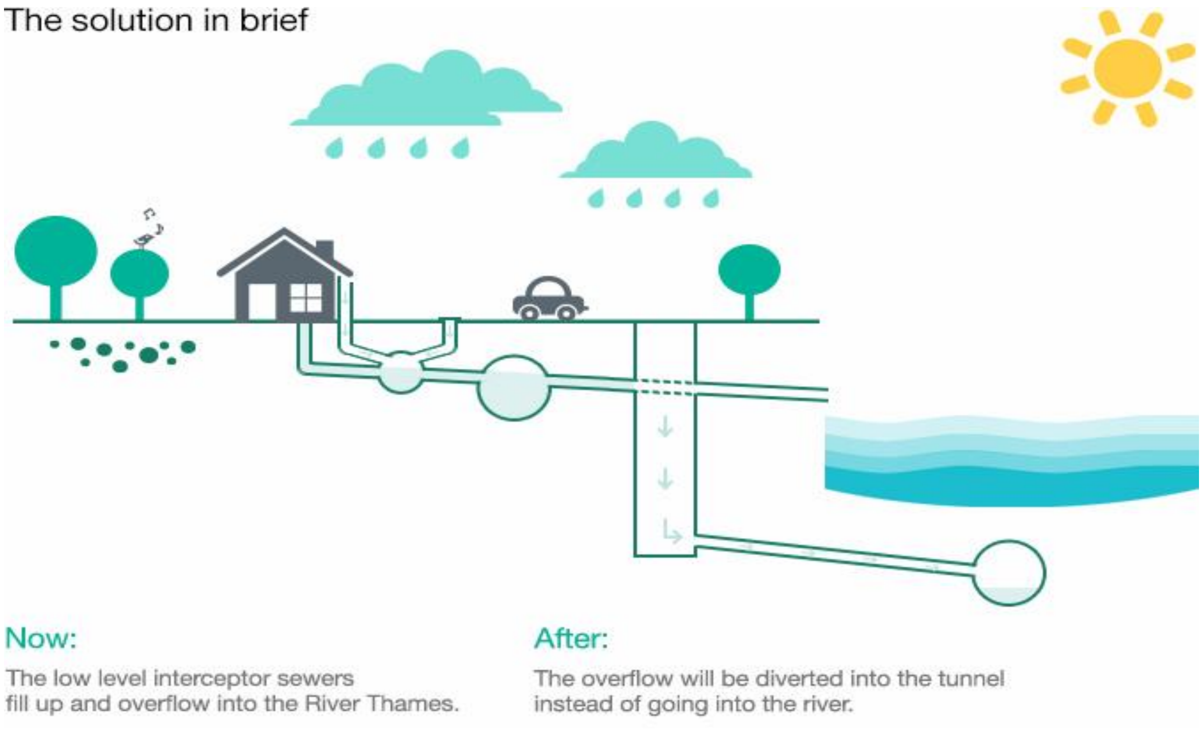
Does RAB depend on user charges?

- Ability to levy user charges ≠ independence:
  - Overriding objective of RAB licensing is consumer protection
  - The independent regulatory authority sets maximum charges and change cost-pass-through regime
  - Level of user charge drops out at the end of process, as the ratio of the funding requirement to the charging base
  - In practice, public authorities still subject to incentive to withhold funds
  - Incentive possibly worse, as level and change in user charges becomes political issue => similar issues in PPP.

Two main issues commonly raised with RAB

- CAPEX bias:
  - Reasons may exist, but available evidence does not confirm it
  - Top-down benchmarks & bottom-up engineering studies important alongside regulatory discretion / judgment. Can be considered generally successful in managing CAPEX bias
  - Moves to focus on TOTEX.
- Financial engineering:
  - An issue in both PPPs and RAB
  - PPP has a partial solution (refinancing), RAB could apply a similar one until a better solution is available.

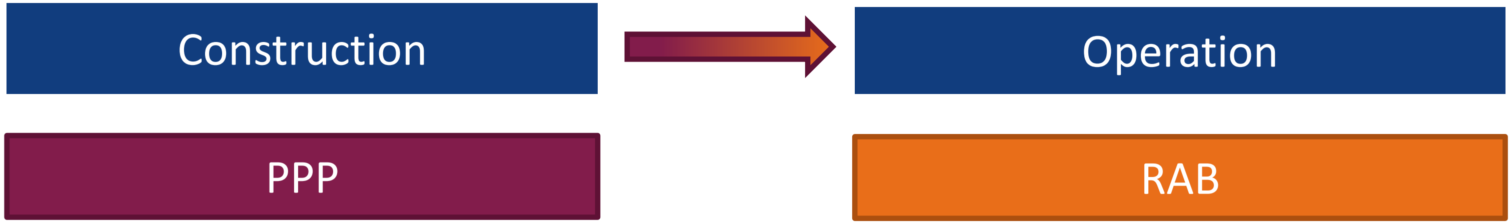
Hybrids? The Thames Tideway Tunnel



Source: Bazalgette 2016.

Elements of the hybrid approach

- Funding through regulated charges
- Detailed plans for the builders
- Adapted incentive regulatory framework/Revenue reviews
- Government support package (GSP) for tail risk
- Separate competitions for construction and finance



Australia’s interest in investigating RAB

- Assess the prospects for corporatising the delivery of roads (including introduction of a regulated asset base - RAB) in Australia
- The Australian experience illustrates issues that other countries will also need to address.

Why consider pursuing corporatisation and a RAB for roads?

1. Nations need investment in efficient road transport to support economic growth and social objectives
2. Governments need to support private investment in road – their budgets are under pressure
3. Issues with PPPs, including: inefficient risk transfer
4. A RAB model has worked in other sectors (including rail), and might in road transport (and beyond).

Australian experience with PI in infrastructure

- Private investment in Australia's infrastructure networks is <u>well-accepted</u>.
- Significant private investment in <u>non-transport sectors</u>:
    - Telecoms
    - Energy
        - Electricity – generation and networks
        - Gas – extraction and networks
    - Water – irrigation and potable water (desalination plants)

But what about transport?

- Significant private investment in larger airports and ports, following privatisation of assets – sale or long-term lease
- Less private investment in land transport infrastructure:
  - Rail – a few light rail, some stations, some private lines supporting mineral exports, and
  - Road – sixteen PPPs + three contracts under delivery
- Freight transport – extensive private investment in truck fleets, rail rolling stock, and some intermodal facilities.
- Passenger transport – buses and some rail rolling stock.

Australian context (1)

- A large road network – 874,000km
- Depreciated replacement cost - approximately $470B AUD
- Government spending on roads about 1.4% of GDP – higher than OECD average
- Evidence of underspending on maintenance.
- Almost 30 years' experience with road PPPs – but still small compared to size of network (260km or about 0.03% of the network)

Australian context (2)

- <u>Financial failures</u> with three PPPs in period 2005-2010 have changed investors' risk appetite
- Complex financial relationships between three levels of government – <u>vertical fiscal imbalance</u>
- Per capita road use peaked in early 2000s, and has since fallen by about 5% – now stable at @10,500 VKT per capita
- <u>Rapid population growth</u> – especially in the capital cities – is expected to drive demand for road transport – cars and buses.

So why is corporatisation and a RAB important for the Australian road network?

- Need to improve the efficiency of road investment:
  - Capital investment priorities
  - Maintenance outlays
- Need to create a platform to move from government funding to broader road user charging to address looming revenue and funding issues
- Need a more transparent governance framework to address priorities and policy trade-offs.

The state of play - building blocks

- Efforts to move heavy vehicle charging from recovery of past expenditure to a 'forward looking cost base'
- Initial asset registers for the main road networks
- Discussions re a road data standard
- Discussions within government to establish an economic regulator for the road network
- Proposed inquiry into charging of light vehicles, although decisions are at least 10 years away (and probably longer).

Key issues (1)

- Need for an overall architecture that allows evolution from initial steps to a broader system
- What road network to regulate?
- Hypothecation of road-related revenues
- Setting of service levels and payment of associated Community Service Obligations (CSOs) by governments
- Maturity in dealing with inter-governmental issues

Key issues (2)

- Bundling of the road network – benchmarking
- Incorporating existing (and prospective) PPPs into the RAB, with or without reform of their tolling regimes
- Role of regulator versus government agencies – especially since, for some time to come, governments are likely to contribute the main share of funding
- Learning from experience in other regulated sectors
- Pace of reform.

Uncertainties

- Factors that bear on demand/revenues:
  - Technological change – impact of AVs and ride-sharing – no clear view
  - Economic change – future of work – trip rates and affordability
  - Changing housing preferences/needs – higher density cities
- Factors that bear on costs:
  - Climate change assets at risk
  - Changing road forms – more expensive tunnel
  - Relative lack of knowledge of the roads themselves and internal capability to manage the assets
- Stability of governments – contested policy, populism.

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How might the private sector invest in such a network?

- Role of private sector needs to be clarified – governments and the Australian public are not prepared to entertain widespread private ownership of the road network
- So it is likely that the private sector would be involved as:
  - suppliers of services to government-owned road corporations under long-term maintenance/small-scale capital contracts – private sector to invest in productivity enhancing equipment
  - developers of new tollways within a broader system of road governance overseen by an economic regulator.

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Conclusion - corporatisation and creation of a a RAB (even without charging) are ‘no regrets’ reforms

- Australia has a long history of PI in regulated infrastructure networks
- Like other countries, we need to reform the governance and funding of our road networks
- Reform has been (and will be) slow in coming, and needs reflection
- One of the most significant and complex public policy reforms Australia will undertake – both because of its scale/impact on society but also because of the range and depth of uncertainties
- Need to consider evolution from PPPs to RABs, including frameworks to enable PPP-type project investment in a broader RAB framework.

Thank you!

Strategic Advisor to the CEO
Infrastructure Australia
stephen.alchin@infrastructure.gov.au or +61 408 668 614