

Chapter 3

Financial arrangements for toll roads

3.1 This section considers financial arrangements for building roads including contracts for future tolls and the way they are framed, negotiated and changed. According to Infrastructure Australia:

...through facility-based tolling on urban motorway networks...the government competitively tenders the right to levy tolls for a fixed period (a concession) in return for the provision of infrastructure. In turn, the tolls collected reflect the cost of designing, financing, building, operating and maintaining the asset, plus a risk-weighted return to investors.¹

Separating the decision to build from the method of financing

3.2 Infrastructure Australia's description suggests a private provider building the asset and then getting its money back. However, there is no necessary link between the contract to build a motorway and the tolling arrangements later. The successful takeover and operation by Transurban of several toll roads built by other companies (see the table in Chapter 2) demonstrate that the two activities can be quite separate.

3.3 Transparency would be improved if the two decisions were made separately.² At present, it is difficult for the public to know what the relationship between tolling and investment is:

One of the other things with tolling is that it's an important input in understanding the VCR [value to cost ratio] and other aspects of an economic appraisal for a candidate project. The states and territories are always very careful about the extent to which they want to share their tolling arrangements with the Commonwealth. For example, Infrastructure Australia tried a number of times, with the East West Link, to obtain information from the Victorian government on what the proposed tolling arrangements for the East West Link would be. It couldn't [get] that information out of the Victorian government.³

3.4 Error in traffic forecasts is a well-established phenomenon. A paper by the Bureau of Transport and Regional Economics notes that forecasting errors are asymmetrical: they are much more likely to forecast too high rather than too low volumes of traffic. Significantly, forecasting for toll roads is worse than for toll-free roads. BITRE suggests that:

1 Infrastructure Australia, *Australian Infrastructure Plan, Priorities and reforms for our nation's future*, February 2016, p. 100, http://infrastructureaustralia.gov.au/policy-publications/publications/files/Australian_Infrastructure_Plan.pdf (accessed 25 July 2017).

2 EcoTransit Sydney, *Submission 13*, p. 6.

3 Mr Brian Boyd, Executive Director, Performance Audit Services Group, Australian National Audit Office, *Committee Hansard*, 3 August 2017, p. 8.

Forecasting errors can be caused by many factors including inadequate models, data limitations, uncertainties in socio-economic and land use forecasts, ramp-up risks, and optimism bias and/or strategic misrepresentation.⁴

3.5 In some cases the successful bidder for a toll road contract makes an up-front payment to the government. This distorts the whole process. In particular, it creates an incentive for a proponent to increase its traffic estimates:

In Australia, a number of the toll road concessions were awarded to the bidder offering the largest upfront payment to the state. That's a recipe for disaster. Without checks and balances in place the bidding process simply turns into a competition on traffic numbers. Toll road traffic generates revenue, and the largest upfront payments can be justified by those with the highest traffic forecasts.⁵

3.6 Inflation of traffic forecasts, for this reason or for other reasons, does not merely distort the projected returns to businesses, leading to numerous failures of toll road ventures including the Cross-City Tunnel and the Lane Cove Tunnel in Sydney, the Clem7 and Airport Motorway projects in Brisbane, and the EastLink project in Melbourne. It also distorts the whole cost-benefit analysis, suggesting at the decision stage that a project is actually of more value to the community than it really is.⁶

3.7 Professor David Hensher suggests that traffic forecasts have been so inaccurate, especially for the first few years after the opening of a toll road, that:

...there is a case to be made for focusing on debt financing until the risk profile of patronage is better established and stabilises and then invite private equity...⁷

3.8 Often the tolling contractor does not pay the whole capital cost of the road but shares it with government. There is no theoretical reason why this should not happen, as long as it is transparent and the private returns from tolls reflect only the capital and maintenance contributions of the private operator.

Tolling contracts

3.9 Many submissions complained of the lack of transparency in negotiation of toll contracts.⁸

4 BITRE, 'Review of Traffic Forecasting Performance, Toll Roads', June 2011, Executive Summary, https://infrastructure.gov.au/infrastructure/infrastructure_reforms/files/Attach_A-BITRE_Literature_Review.pdf (accessed 29 August 2017); see also *Optimism Bias* prepared by Transport and Infrastructure Council, Australian Transport Assessment and Planning Guidelines, https://atap.gov.au/public-consultations/files/ATAP-Optimism_bias.pdf (accessed 29 August 2017).

5 Bain, R. (2012) Twenty-One Limitations & Shortcomings with Traditional 4-Step Models, quoted in Professor David Hensher, *Submission 1*, fn 2.

6 Mr William McDougall, *Submission 37*.

7 Professor David Hensher, *Submission 1*, [p. 2].

3.10 Generally the arrangements surrounding tolls are very specific and detailed.⁹ They set out a starting price per vehicle, and permissible increases over the years. For example, tolls for WestConnex, including stages not yet opened, are specified on its website. They can be increased at 4 per cent or the CPI, whichever is higher, until 2040, after which the CPI will be the maximum increase.¹⁰ The arrangements negotiated in 1995 for Melbourne's CityLink provided for increases at 4.5 per cent or the CPI for the first fifteen years, then CPI for the next 15 years.

3.11 The logic of indexing the payment is not clear, but it is worth noting that since March 1995 inflation has touched 4 per cent once (during the Asian financial crisis) and has exceeded 3 per cent on only one other occasion.¹¹ But it is very likely that the expected increasing value of the toll road, as other roads get more congested, also justifies the increase in real prices.

3.12 The practice of specifying tolls in detail has been criticised for reducing flexibility in road pricing, given that the contracts are generally for 30 years or more. Such flexibility might be required in order to use tolls for demand management or other purposes.¹²

3.13 The tolling contracts also specify how unpaid tolls will be dealt with. This has resulted in different arrangements from state to state, and has had some perverse results. It is considered further in Chapter 4.

3.14 Many people accept tolls as a way of paying for a particular road that they use and value. But they resent changes to arrangements which extend the tolling period or increase tolls for a particular road in order to pay for a new road. This has happened with CityLink tolls in Melbourne, which will be extended to part-fund the Westgate Tunnel project. Transurban proposes to increase tolls on roads in Brisbane to fund the upgrade to the Inner City Bypass (which will not itself be tolled).¹³ At the time of writing there is anger at the re-imposition of tolls on Sydney's M4, which has been widened as part of the WestConnex project.¹⁴ In addition, the owner of WestConnex

8 For example, Ms Wendy Bacon, *Submission 32*, p. 19; Grattan Institute, *Submission 23*; No WestConnex Public Transport, *Submission 25*.

9 See, for example, Victorian Government, Western Distributor Project Tolling Structure, Department of Treasury and Finance, nd, http://economicdevelopment.vic.gov.au/_data/assets/pdf_file/0007/1237273/Western-Distributor-Attachment-F-Tolling-Options-Report_Redacted.pdf (accessed 25 July 2017).

10 WestConnex, *Tolls for WestConnex stages*, <https://www.westconnex.com.au/using-westconnex/tolls> (accessed 29 August 2017).

11 Australian Bureau of Statistics, *Consumer Price Index, Australia, Jun 2017*, Cat. No. 6401.0, 26 July 2017, Index Numbers All Groups CPI, Australia,

12 Professor David Hensher, *Submission 1*, [p. 2].

13 T Snowdon, 'Tolls in Brisbane: Transurban to increase tolls to pay for Inner City Bypass upgrade', *The Courier Mail*, 21 March 2017, <http://www.couriermail.com.au/news/queensland/tolls-in-brisbane-transurban-to-increase-tolls-to-pay-for-inner-city-bypass-upgrade/news-story/c3f1e71203e600d7237ca0dcddfeb2ba> (accessed 29 August 2017).

14 Ms Wendy Bacon, *Submission 32*, p. 18; WestConnex Action Group, *Submission 26*, p. 5.

will apparently be granted the toll concession for the existing M5 West from 2026 (when the current concession ends) until 2060.¹⁵

3.15 Some freeway agreements have included clauses which restrict the government's freedom of action, in order to reduce risk for the private operator. The original tolling contract for the Sydney M2 (later revised) included 'no compete' clauses which would discourage the building of a competitive railway line for decades to come.¹⁶

3.16 The agreement for CityLink in Melbourne included the right to seek redress if improvements to public transport reduced the traffic using the road or if freight was carried on the airport rail link. Transurban used this material adverse effects clause to sue the Victorian Government over the 1.9 km Wurundjeri Way road Docklands Development, claiming it was competing with CityLink. Transurban was unsuccessful in this case.¹⁷ However, the government did agree to pay compensation for the widening of the Westgate freeway and the Monash freeway.¹⁸ Transurban resisted deletion of the CityLink clause as a condition of the Westgate Tunnel project agreement.¹⁹

3.17 No provision of this sort was included in Melbourne's Eastlink agreement, but the agreement is framed in terms which create an incentive for government to increase road traffic.²⁰

3.18 The clauses mentioned above transfer the patronage risk to the government. In the case of the extension to the CityLink tolls to fund the Westgate Tunnel project, the Grattan Institute's submission suggests [p. 3] that the tolling period can vary according to the actual cost, not the contracted price, of building the road. That is, the project risk is also transferred to the government.

Specific example: Westgate Tunnel project, Victoria

3.19 The submission of Mr William McDougall makes a detailed criticism of the processes the Victorian government used in assessing the proposal for the Westgate Tunnel project. He also argues that the actual model used does not allow sufficiently for changes in traffic flows as a result of the effect of the new road on the transport

15 WestConnex Action Group, *Submission 26*, p. 5.

16 EcoTransit Sydney, *Submission 13*, p. 5.

17 S Thomsen, 'Victoria's premier posted this cool look at Melbourne's new Western Distributor bridge', *Business Insider*, 11 May 2016, <https://www.businessinsider.com.au/victorias-premier-posted-this-cool-look-at-melbournes-new-western-distributor-bridge-2016-5> (accessed 29 August 2017).

18 F Pretorius, S Surup, A McDougall, 'Private-Public Partnerships: Transactional Analysis and the Case of Urban Motorways' in K Wellman, M Spiller, *Urban Infrastructure: Finance and Management*, Wiley-Blackwell, 2012.

19 J Gordon, 'Western Distributor: Compensation clause threatens \$5.5 billion road plan', *The Age*, 9 May 2016, <http://www.theage.com.au/victoria/western-distributor-compensation-clause-threatens-55-billion-road-plan-20160509-goq3ts.html> (accessed 29 August 2017).

20 Friends of the Earth, *Submission 20*, p. 2.

network, and thus has produced higher forecast traffic flows. He asserts that reviewers' comments on this were not addressed in full.²¹ Mr McDougall also criticised the methodology for a cost-benefit analysis prepared by PwC. Specifically, he took issue with the assumptions regarding motorists' valuation of time saved, the treatment (or non-inclusion) of induced traffic, and the treatment of land use changes which produced more favourable results in the early years of the project.²²

3.20 He concludes that the work of assessing the Westgate Tunnel and other projects was actually a process of justifying them after the decision was made. He considers that there was at least 'optimism bias'—and possibly deliberate distortion and misrepresentation of traffic forecasts and the economic benefits that flow from them in the appraisal process. He asserts that the process lacked transparency, objectivity and completeness.²³

3.21 The Grattan Institute also criticises the processes associated with the Westgate Tunnel project. It argues that the cost of financing the project through a PPP is higher than if it were funded by government, because government can borrow more cheaply than private players. This higher cost would be justified if the private sector were bearing the risk, but in fact:

...there is a reasonably foreseeable risk of a cost overrun, such an overrun could be substantial, and this risk is being borne by future Victorian motorists.²⁴

3.22 The Grattan Institute also says that there has been a lack of transparency in the processes. It asserts that the government committed to the project '...before the newly-established Infrastructure Victoria was in a position to assess its merits'. It notes that the business case that has been released is heavily redacted, and that funding the project through extension of concessions on other projects makes it difficult to work out how much the Victorian public will be contributing. It notes that the consultation on the Environmental Effects Statement is limited to 30 days.²⁵

Setting the levels of tolls

3.23 Tolls are set at the outset of an agreement. It is primarily a commercial negotiation, not a policy decision:

Sydney's motorway tolling arrangements are an easily demonstrated eclectic mix of policy and protocols substantially based on specific financing arrangements driven on the day by questions of economics and politics. The public see this and are frustrated by those patronising

21 Mr William McDougall, *Submission 37*, p. 2.

22 Mr William McDougall, *Submission 37*, p. 4.

23 Mr William McDougall, *Submission 37*, p. 6.

24 Grattan Institute, *Submission 23*, [p. 4].

25 Grattan Institute, *Submission 23*, [p. 4].

assurances that toll roads and the method of charging are necessary and appropriate, they want transparency and genuine dialogue.²⁶

3.24 One result of the separate project-linked tolling agreements is that there is little relationship between a specific toll and the cost of provision or the added amenity of the road.²⁷ Another is that the rules vary from state to state, so that some vehicles that are classified as cars in Queensland and New South Wales are classified as 'commercial vehicles' in Victoria and charged twice the car toll.²⁸

3.25 Tolls for heavy vehicles are usually higher than those for cars. On an uncongested road, the marginal cost of an extra car is virtually zero, whereas heavy vehicles cause pavement wear and damage. The amount of wear and tear increases exponentially with weight.²⁹ However, there are often only two rates of tolls, for cars and trucks, even though truck sizes vary considerably.³⁰

3.26 Despite the explicit contracts, the National Road Transport Association says that tolling methods are not transparent. It says that there is in effect no competitive alternative because in many cases trucks are banned from side roads. If the gains to the user were sufficient, there would be no need to force trucks onto the motorway.³¹

3.27 In particular, it seems that specific tolls such as those for heavy vehicles can apparently rise much more than the formula. For example, the day rate for light and heavy commercial vehicles on the CityLink in Melbourne were raised by 128.2 per cent on 1 April 2017.³² Similarly, in Brisbane:

...the latest toll increase publicized for HV in Brisbane on the Clem7, Legacy Way, Go Between Bridge toll roads. A comparison was made with car tolls, which was now 2.65 times for HV and will reach 3 with the new hike. All these examples highlight the fact that there seems to be no scientific basis or model available for governments to negotiate with toll companies in PPPs or to determine optimal toll for trucks looking at system optimisation, which leads to [a] very inefficient HV transportation system.³³

26 Western Sydney Regional Organisation of Councils, *Submission 2*, p. 4.

27 Associate Professor Russell Thompson, *Submission 9*, p. 2; Alexandria Residents Action Group, *Submission 10*, [p. 3]; Mr Brendan Long, Chief Executive Officer, Infrastructure Partnerships Australia Ltd, *Committee Hansard*, 3 August 2017, p. 32.

28 Amarak Club of Victoria Inc, *Submission 21*.

29 DIRD, *Introduction to Road Economics*, BITRE, Background Paper for an ANZSOG Infrastructure Research Workshop, prepared by Dr Mark Harvey, September 2015, p. 7.

30 For example, WestConnex, *Tolls for WestConnex stages*, where the 'truck multiplier' is three: any vehicle defined as a truck incurs a toll three times the toll for cars. <https://www.westconnex.com.au/using-westconnex/tolls> (accessed 29 August 2017).

31 National Road Transport Association, *Submission 7*, p. 1.

32 'Motoring' website, *Toll road operator announces significant price increases from April 1*, 10 March 2017, <http://www.motoring.com.au/melbournes-citylink-toll-prices-increase-again-106356/> (accessed 25 July 2017).

33 Professor Russell Thompson, *Submission 9*, [p. 3].