## 10

# Assessing the likelihood of proposed reform pathways to road pricing in Australia: Do they necessarily involve 'diabolical politics'?

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Over recent years, a number of detailed official reports have been publicly released advocating various options for a more sustainable, efficient and transparent road charging regime. These policy reports by highly reputable bodies in the public and private sectors, including input from specialist parliamentary committees, argue, principally, that the present road funding arrangements are inadequate and unsustainable, distortionary, not related to the efficient use of road networks and corridors and do not allow sensible investment decisions to be made over the longer term. They have not necessarily been adopted as definitive policy pronouncements by any jurisdictional level of government in Australia. Mostly, these reports are critical of the existing complexities and messiness in the provision and

<sup>1</sup> These public reports are in addition to considerable work within the levels of government by departments of infrastructure, transport and treasury. There has also been work directly focused on road user charging commissioned by the Transport and Infrastructure Council of federal, state and territory transport ministers. Some of this research-based material is made public, especially as information papers, discussion papers, reports and statistical updates. These public reports are listed in the reference list for this chapter.

upkeep of roads, which currently involve all three levels of government, with no one taking responsibility for the system-wide aspects of the network, especially investment priorities and the design and management of the road asset base. The reformist reports take the form of 'green paper'—style discussion papers intended to inform the community and setting out selected options for public consultation. This chapter considers a selection of these more influential reports from the recent past and examines the prospects for and feasibility of their ideas and reform proposals.

## Limitations of the present system of road pricing and funding

So what, fundamentally, is wrong with the present system of road funding?

- First, the existing array of pricing and cost-recovery mechanisms is indirect, unnecessarily complicated and politically messy, involving multiple but separate jurisdictions.
- Second, funds raised by state and territory governments do not closely relate to actual usage, and excise levies are only approximately related to usage.
- Third, there is no link between these various charges on vehicles and the costs of providing and maintaining our present road network.
- Fourth, road funding by governments is considered to be an essentially
  political arrangement, inherently arbitrary and inefficient for both
  road users and network asset management.
- Fifth, the projected funds generated by road and fuel charges are considered insufficient to fund the existing road network going forward and to meet future infrastructure needs.

Presently, road users pay various levies into the consolidated revenue accounts of different jurisdictions—namely, a series of fixed state-based access charges including licence fees and vehicle registration levies, plus a mixture of consumption-based levies on various fuels collected by the Commonwealth Government through its excise taxation powers (although fuel excise is not a fee-for-service charge). State governments also impose stamp duties on new vehicles and fees for new licence plates, while local governments collect parking levies. In addition, the Commonwealth imposes fringe benefits taxes on the private usage of company-provided vehicles, some luxury car taxes and customs duties. In total, Australian

governments raise approximately \$30 billion in road-related revenues, but spend about \$25 billion on road-related funding, much of which is in the form of recurrent funding by state and territory governments, although major road investment is a charge to the capital budget and is often borrowed. Over time, governments tend to increase charges on fuel and levies on vehicles when they want a revenue increase, not necessarily when they want to invest more in roads.

Significantly, these levies as proxies for road user charges are not necessarily tied to the provision of better roads or the more efficient use of road transport networks. Governments can spend more or less on roads than these various levies return to the Treasury. As such, there is no apparent relationship here and the level of funding committed to road investments in government budgets can vary enormously from year to year, especially at the Commonwealth level.

Other factors may also drive investment in roads—not necessarily the condition of the existing road network or demands for new roads. Hence, governments in the different jurisdictions can vary spending aggregates depending on their own pressing priorities and funding obtained from other sources. They can also spend more or less on infrastructure for reasons not related to actual usage patterns. One factor is countercyclical fiscal policy, where governments reduce spending when economic growth is high and increase spending when economic business cycles decline. Employment creation associated with road building or maintenance plays a significant role in this policy framework. Moreover, servicing the needs of population growth (and location) is an underlying but ongoing pressure on demand for new roads; and the impact of that population growth varies by region and between regions over time as they experience growth or decline. Improving economic access through road infrastructure can be an important component of regional development policies determining the specifics of road construction.

Another complicating factor driving road expenditure is that such spending across the public sector remains a highly politically driven process, with little transparency or rationale. Governments decide not only how much to allocate to roads from their resources, but also the location and types of roads to be built or extended. Systemic integration or interoperability may not be foremost in their thinking. Road building, road extensions and road maintenance programs (including road widening, increased lanes, tunnels, bridges, 'blackspots', country town bypasses and so on)

are subject to the whims of governments of the day seeking re-election or placating local interests. Commonwealth transfers to the states and territories for roads and repairs (and to local governments for road repair) remain allocated under the tied grants provision in the Constitution (Section 96 on payments) and usually come with conditionality or earmarked priorities attached.

A consequence of this interplay of factors is that irregular patterns of investment in roads tend to prevail. For instance, the Commonwealth committed just \$2 billion to road funding in 2001, increased funding in 2005–06 to more than \$5 billion—up from \$2.47 billion the year before—and dropped back to \$2.96 billion in 2006–07. In 2011–12, federal road funding rose to almost \$8 billion, before dropping back to less than \$5 billion by 2015. Such variability shifts costs and makes planning uncertain.

Beside the disconnect between road user charging and investment in the asset network, many of the publicly available reports, referred to above, address the inadequacies of the revenue-raising instruments themselves. A common criticism is that fixed licence fees and vehicle registration fees are crude instruments for funding roads and make no allowance for the intensity of usage by road users. These fees simply *entitle* usage, but in no way relate to actual usage.

A second criticism is that the substantial reliance on fuel excise from fuels such as petrol, diesel, ethanol, biodiesel and fuel blends is not a feasible long-term tax and is incapable of generating sufficient funds for the road network. Projections suggest that total excise revenues since the 1990s have been declining as a proportion of gross domestic product (GDP) and as a proportion of total receipts to the Commonwealth (Infrastructure Australia 2013). Indeed, one influential report noted that the overall amount of money raised from fuel excise has been decreasing since 2003 and is projected to decrease even further into the future (from \$7.5 billion to approximately \$5 billion) (Graham and Reedman 2015). Moreover, the shift to fuel-efficient vehicles and alternative fuel types (and even electric-powered vehicles) has further exacerbated this trend.

<sup>2</sup> Infrastructure Australia found that fuel excise revenues as a percentage of GDP halved from 2001–02 to 2013. Although note must be taken that the goods and services tax (GST) elicited from fuel sales (including the levy being applied to the excise amount—that is, 'double taxation') that otherwise would be an additional 'fuel tax' is not included in the fuel excise figures, nor is it allocated to states for road building/maintenance.

In terms of the revenue sources keeping pace with expenditure requirements, fuel excise was not indexed from 2001 until 2014. Unless the Commonwealth elected to increase the fuel excise charge from 38 cents per litre of fuel to closer to 60 cents (as estimated by Infrastructure Australia), this source of funds is likely to continue to decline and not keep pace with infrastructural spending needs. And such a large hike in the rate of excise would not only feed into inflation and production costs, but also raise significant equity issues for those who have to travel great distances or require transport in their line of work.

If these criticisms of the limitations of the existing arrangements are widely accepted, what are the proposed solutions or remedies to this sorry state?

## Evaluating the main proposals from the reform advocates

In recent years, there have been at least six major reports into aspects of road pricing and interconnected issues of road funding and demand moderation. Their principal arguments, conclusions and recommendations are set out below.

The recent review of Australia's future tax system (2008-09), led by then Treasury head Ken Henry, examined two main aspects of funding road usage or reducing demand on usage: 1) measures to reduce urban congestion in major cities; and 2) the introduction of mass-distancelocation pricing for heavy vehicles to ensure they pay for their marginal road wear costs. The report predicted congestion costs to the economy would exceed \$20 billion by 2020, falling mainly on Sydney, Melbourne and Brisbane road users, and would continue to grow unless 'location specific congestion charges [that] vary according to the time of day' were implemented (Henry et al. 2010: 53). It criticised the existing array of taxes attributable to road users for being too inexplicit and indiscriminate. It argued that Australia should move from 'indiscriminate taxes to efficient prices ... to leverage the value of its existing transport infrastructure' (Henry et al. 2010: 53). It argued for a 'single institution to lead road tax reform, and ensure implementation', nominated by and presumably answerable to the Council of Australian Governments (COAG) (Henry et al. 2010: 93).

Although the report mentioned demand-driven pricing, it did not endorse a system of direct road pricing; rather, it pushed for congestion charges while leaving open the question of whether fuel excise should be used as the principal basis for road funding. The logic of this report, in other words, was that fuel excise and vehicle registration charges should be phased out over time and replaced with 'more efficient road user charges', although the report chose not to spell out what these should be, other than mentioning congestion pricing (Henry et al. 2010: 93, 398). Furthermore, one recommendation suggested that 'revenue from fuel tax imposed for general government purposes should be replaced over time with revenue from more efficient broad-based taxes', which could include consumption taxes or even the GST (Henry et al. 2010: Recommendation 65). Such a move would provide road funding with a more robust community-based growth tax (making funding more sustainable into the future) but would not constitute a direct user charge, and would not in itself constitute a congestion charge.

A Victorian parliamentary committee inquiry (Road Safety Parliamentary Committee 2010) largely accepted the status quo in terms of the current revenue-raising regimes, but argued for more dedicated spending on roads. It did not argue for direct user charging, but instead opted to retain the federal fuel excise levy while arguing for greater hypothecation of roadgenerated revenues (earmarking funds collected purely for investment in roads). It was reasonably satisfied with the Commonwealth collecting excise on fuel (or thought the prospects of any change away from excise charging were not great), but did not endorse direct user charging. It recommended that 50 per cent of federal fuel excise should be hypothecated and, of this, 60 per cent should be earmarked for local roads, with the other 40 per cent going to state roads. Quixotically, the committee hoped the 'hypothecated portion of fuel excise revenue was both raised and spent by the states without the need for federal government involvement' (Road Safety Parliamentary Committee 2010: 63). The committee, which was charged mainly with investigating road safety issues, urged that the hypothecated funding arrangements be reviewed after five years.

In November 2011, the NSW Parliament announced an inquiry into road access pricing, which commenced in December 2012 and conducted public hearings on one day in May 2013. There was a particular focus on heavy vehicle usage, with rail lobbyists urging the committee to endorse competitive neutrality between transport sectors. The committee produced a report but did not release it before the March 2015 election

because of the political sensitivities involved. The chair of the committee, Charles Casuscelli, said the committee had been impressed by a popularly supported pricing scheme introduced by the US state of Oregon, which charged motorists 1.5 cents per mile travelled on roads (Saulwick 2014). Parliamentary committees in most other states and territories have generally eschewed looking into road pricing per se, and instead have tended to focus on arguing for adequate levels of funding, better local road funding, highlighting the parlous state of rural roads and road safety issues. It seems that industry lobbyists and think tanks have been more courageous than parliamentary committees in being prepared to investigate various pricing options (see, for instance, Australasian Railways Association 2010; Terrill and and Emslie 2016; Terrill et al. 2016).

Perhaps the most comprehensive and influential set of reform proposals to have emerged in recent years was the Productivity Commission's major report into *Public Infrastructure* (2014), which included a specific section on the 'reform in the roads sector' that argued Australia needed to 'move to alternative institutional models in the roads sector' and recommended the establishment of a 'corporatized public road agency model'. According to the commission:

[T]he new model should provide the opportunity and incentives to consider future direct road user charges, which would facilitate more effective asset utilisation and more rigorous assessment of new investments. (Productivity Commission 2014: 303)

The commission urged governments across Australia to adopt a 'clear price signal for road use'.

However, while it admitted that 'ideally, there would be a unified system of user charging for all vehicles that was linked to road spending', the Productivity Commission (2014: 150) believed the best initial step in the reform process would be for each of the states and territories (and aggregations of local governments) to establish their own hypothecated road funds earmarked for road investment. It also argued that 'reform of direct road user charging is not a prerequisite for the adoption of the governance and institutional arrangements' it proposed. Nevertheless, in the same report, the Productivity Commission (2014: 141) recommended that 'governments should undertake pilot studies of (revenue neutral) direct road user pricing using vehicle telematics'. In short, the commission's report identified an idealised, efficient model of road user pricing and investment, but argued that, in the immediate term, interim steps could be taken towards enhancing the sustainability of the current system.

A more prescriptive advocacy discussion paper released by Infrastructure Partnerships Australia (2013) and prepared by Deloitte contrasted the existing funding framework with five other pricing models to compare their effectiveness. In the report entitled *Road Pricing and Transport Infrastructure Funding*, the alternatives considered were:

- 1. a cordon zone option for congestion charging (partial pricing in high-use facilities)
- 2. corridor-specific charging (partial pricing affecting national highways but all vehicles)
- 3. pricing charges for selected classes of vehicles on parts of the network
- 4. pricing for selected vehicles for the whole of the network
- 5. a universal model applying across the whole of the road network and incorporating all vehicles.

The report makes a strong case for the last model, called the 'universal road user charge model', applied across the entire road network. It is the only pricing model that generates additional funds for roads and meets the five analytical parameter challenges (it provides additional funding, covers road maintenance needs, charges the full allocation of costs, provides funding security and improves network performance).

The Deloitte report suggested there are three important features of this universal road user charge model. First, it would generate additional revenues to fund the network sustainably. Charges would be applied to road users 'based on time, distance, location and the mass of the vehicle using the road network' (Infrastructure Partnerships Australia 2013: 48). Second, it would entirely replace the existing charges applying to fuel and fixed access/registration charges, and possibly even compulsory insurance. These would all be abolished as unnecessary. Third, it proposed to hypothecate the funds raised from the road pricing model into a single fund earmarked for transport investments. Although this preferred model was credited with meeting the criteria of providing a secure and sustainable funding source into the future, elsewhere the report indicates that it costed the charges on a 'revenue-neutral' basis, 'meaning that the revenue of the new scheme would be equal to the current road-related revenues collected by federal and state governments' (Infrastructure Partnerships Australia 2013: 48). However, as noted above in the early parts of the report examining whether the current system is broken, the authors note that revenues from fuel excise are declining both in absolute terms and as a proportion of GDP; hence, rather than being entirely revenue-neutral, road user pricing would increase costs to motorists into the future over what they otherwise would be paying if fuel excise remained the principal source of revenue. Hence, to the extent that government dependence on fuel excise is decreasing as a proportion of total taxation receipts, user charging would replace this quantum with a source of revenues that could maintain the real magnitude of funding at present levels (or increase in the future).

The report acknowledges that such a road user charging scheme based on telematics was planned by The Netherlands Government for introduction between 2012 and 2016, but was scrapped in 2010 when the sponsoring coalition government (the fourth Christian Democratic Appeal government of Jan Peter Balkenende) broke down and subsequently lost office at the elections later that year. Legislation authorising the Dutch charging regime lapsed when the governing coalition collapsed in February 2010 and the eventual new minority government that emerged post election, led by the centre-right Prime Minister Mark Rutte (People's Party for Freedom and Democracy), indicated it would not proceed with a per kilometre road charge.

Whereas other reports tend to focus on the merits of adopting a user-based charging scheme but say little about the specifics of various funding models or how they will be implemented, the Deloitte discussion paper goes on to outline staged 'pathways to reform' and an implementation schedule. Implementation is based on incremental steps, beginning with the national harmonisation of registration fees and the adoption of a national registration regulator, reducing the fuel excise rate, hypothecating revenues from roads, the reform of road funding and governance arrangements, implementing user charges for major highways and mass distance, adjusting heavy vehicle charges to incorporate their impacts on the environment and other road users and introducing time-of-day differentiated charging regimes to manage acute congestion in peak periods.

A subsequent paper, produced by consultants Pricewaterhouse Coopers (PWC) for Infrastructure Australia, entitled *Modelling of Potential Policy Reforms*, has recently argued in relation to transport reform:

#### ROAD PRICING AND PROVISION

Federal, state and territory governments should commit to the full implementation of a heavy vehicle road charging structure in the next five years. This reform should include the removal of all existing registration and usage charges under the PayGo model and the introduction of supporting regulatory and investment frameworks ...

Federal, state and territory governments should also commit to the full implementation of a light vehicle road charging structure in the next ten years. This reform must include the removal of all existing inefficient taxes—including fuel excise and registration charges—and the development of supporting regulatory and investment frameworks. (Infrastructure Australia 2016: iii)

The PayGo system is a bureaucratic system run through the National Transport Commission that estimates an arbitrary percentage of costs (50 per cent) associated with heavy vehicle usage based on a three-year rolling set of estimates (involving some physical monitoring), with some urban and regional roads excluded from the calculations. This calculated figure is then applied through fixed vehicle registration fees to different classes of heavy vehicles. It forces heavy vehicle users to make some contribution for wear and tear, but is a very inexact levy, leading to calls from rail operators to introduce a more refined 'mass–distance–location' charging scheme. Rail operators are concerned that there is still a substantial cross-subsidisation of road haulage at the expense of rail freight carriers.

Moving away from the bureaucratic PayGo system, the PWC report calculated that the positive impact of the proposed reforms was estimated to be a productivity gain of 10 per cent for heavy vehicles from 2021 and a 15 per cent gain from the light vehicle reforms starting in 2028. Elsewhere in the report, PWC calculated that the net increase in GDP would equal \$23.8 billion by 2031 and \$34.8 billion by 2040 (Infrastructure Australia 2016: 47). Unlike earlier reform proposals that anticipated an ongoing mix of funding arrangements, the PWC proposal opted starkly for a direct user charging system to entirely replace the existing indiscriminate levies and charges, although it did not particularly stress the need for congestion charging in addition to user distance charging.

## Immediate problems with the reform proposals

The main reform proposals involve not only a major change in the ways Australians pay for road transport, but also considerable institutional recalibration to make any proposed scheme viable. They also require the various governments to work together and honour commitments made about the way the system should work, and for the community to suspend their collective disbelief and instead trust governments to stand by commitments to the sector. As of mid-2017, the Commonwealth Government had not made any firm decision on road funding reform, although the Minister for Urban Infrastructure, Paul Fletcher, indicated in a ministerial statement to Parliament (in December 2015) that the government would accelerate work with the states and territories to consider options to 'introduce cost-reflective road pricing for all vehicles'. Nevertheless, the author understands that many policy departments of the federal government are yet to sign on to the proposed reform agenda not least Treasury, Finance, Prime Minister and Cabinet, Social Services and Human Services, Agriculture, Forestry and Fisheries, Regional Development and Northern Australia. Moreover, no state or territory government has committed to a user charging system despite most likely being the main beneficiaries of such a system, and indeed many have explicitly ruled out such a system. Some prominent commentators, such as Marion Terrill, have described the reform options as arousing 'diabolical politics' that will in all likelihood scuttle the prospects of any beneficial scheme producing optimal results.

I outline the main sticking points to overcome in any user charging reform proposal.

## Too many contending schemes?

One of the challenges for government policymakers is that there are many different and potentially rival proposals—in scope, ambition and application—although most are heading in similar directions to increase user charging. This is not an unfamiliar story in other policy areas. The best way to proceed for governments in such circumstances is for them to be as clear as possible in their (sometimes competing) objectives, identify which options best address those objectives or which are politically feasible and then prioritise the reforms (noting that some reforms can be complementary) and undertake validation checks before

embarking on implementation. Only by being so clear and focused will governments stand any chance of gaining interjurisdictional agreement and community acceptance of the proposed options.

Some proposed schemes currently on the table are very explicit about the link between charging regimes and investment funding arrangements, while others leave such topics to future exigencies—leaving administrative arrangements ambiguous even though they are concerned to advocate for more resources to the network. Some pooling of collected user charge funds would create an investment potential but could get mired in the Lasswellian politics of 'who gets what, when and where'. However, those interested only in congestion charges to rationalise usage at peak times or charge for access to CBD areas tend to focus on preventive measures (penalty charges for travelling in peak times) and far less on hypothecated reinvestment in road infrastructure. Some reform proposals seek a complete system overhaul over a relatively short period, while others recommend trials and pilot programs to test the efficacy of reform models.

The upshot of having these contending models is that governments need to commission their various agencies to develop a coherent reform agenda based on clearly articulated objectives relating to the efficient use of the road network and pricing that delivers the appropriate supportive incentives. An incremental approach may be wisest, perhaps coordinated through COAG or a multijurisdictional interdepartmental committee structure. In the absence of such a multiparty agreement over the adoption of a coherent reform agenda, it is unlikely any government alone will decide to go ahead, meaning valuable time will be wasted and implementation will be stalled.

#### Shifting to a user pricing regime?

A crucial issue for governments to resolve will be how to justifiably set pricing for the provision of a service that is largely a monopoly provision, whether provided directly by Australian governments or leased in various forms to private toll road operators. Any declared user charging 'price' is liable to attract the criticism that it is inherently arbitrary, administratively determined and compulsorily imposed. Given governments collectively run the road system and would be involved in setting the price signals (even if an independent economic regulator was established), there are twin dangers in overpricing and/or inflexible pricing. Bureaucrats are not always responsive to markets. If history is to be believed and bearing in mind previous traditions of managing public infrastructure, governments

are likely to lay down a specific charging regime and concentrate on imposing it, while only occasionally assessing whether it achieves the right balance between sociopolitical objectives and market realities.

One proposal put forward by some infrastructure planners is for governments to set indicative revenue targets equal not only to all existing road-related investment, but also to the strategic priorities ahead. If taken to its logical conclusion—and any proposed user charging funding model was based on assessed future need—it would imply that road pricing would be 'supply driven' (geared to the desired investment plans) rather than 'demand driven' by consumers or focused on demand management. This would mean that today's drivers would cross-subsidise future generations in their enjoyment of the road network. Given the road system is largely a monopolistic public utility, a very real question we need to ask is how much we hope or intend to raise looking into the future (see below). In part, this problem could be overcome by the use of borrowings to finance the investment plans (as occurs presently with many major road and infrastructural projects), with the debt serviced and the principal repaid by the users of the day over the effective life of the investment.

In determining a pricing regime, governments also need to establish what charges will be included in the pricing model. For instance, are governments likely to impose only the direct charges, such as for the distance travelled, routes taken, the vehicle size or load carried, or are we going to include charges for other impacts (or 'externalities'), such as carbon dioxide emissions, traffic accidents, policing and emergency services, traffic management or even noise and air pollution? The Henry review suggested such costs be controlled by regulation and linked into a system-wide carbon pollution reduction scheme, taken from general revenue or even met by better insurance premiums.

Advances in technology can provide some of the answers and deal with some of the difficulties. Technologies such as telematics now allow us to be sophisticated with vehicle monitoring (route and distance) and allow variations in charging regimes, so it is not difficult to envisage that different rates of charging can apply for regional Australians driving on rural roads where there is no congestion, or discounted rates for non-metropolitan zones. However, even quiet rural roads cannot be provided free to farming or mining communities, despite these constituencies being politically well connected and their parliamentary representatives often not supporting user charging schemes. Rural roads are generally not built as well as urban freeways and need repeated repair work. And, if smaller

but significant 'C class' roads are exempt (to use the classification system used in some states), this may create perverse incentives for heavy vehicles carrying freight to use these sealed roads to evade charges. Complicated equity considerations will dominate these discussions—with as yet no real consensus nationwide as to what is fair, what is appropriate, how much concessionary groups should contribute, relative charges for different users or for different roads, and so on.

Historically, in imposing fixed vehicle registration fees and other charges, some state governments argued that a flat fee was equitable, in that if a motorist or consumer chose to drive a particular vehicle they would pay the same rate as another. However, states separately set these fixed but discretionary fees according to different criteria, creating a veritable mishmash of charging regimes and levied matrices. For instance, as of 2015, according to the various state and territory government websites, there was considerable variation in registration prices for an average motor vehicle, ranging from \$1,120 per annum in the Australian Capital Territory to only \$608 in Tasmania. New South Wales charged owners \$904, whereas Victoria charged \$787. Furthermore, many states use these fixed-charge systems to deliver 'community service obligations' and allow discounts for pensioners or seniors, carers or the disabled or in some cases to fix charges at different rates between city and country drivers.

## A single independent charging institution and investment planner: Wishing away federalism?

Despite the hopes of some state parliamentary committees, it would be very difficult to operate coherent multiple road pricing schemes at the subnational level. The main reasons weighing against this option are to avoid spillover effects, reduce transaction costs and contain administrative costs and leakages, especially between separate charging systems given the high degree of interstate mobility. For instance, if one state removed entirely its registration fees and adopted a user pricing mechanism, but another state did not and retained its registration fees, it would be possible to register for free in the first state and yet drive for free in the second state.<sup>3</sup>

<sup>3</sup> Admittedly, there is a degree of leakage under the present vehicle registration system, with people and firms able to register in the jurisdiction with the cheapest level of fees (for example, hire car companies or people with multiple addresses). For instance, many people who live in Canberra seem to drive vehicles with cheaper NSW registration plates.

In recognition of this circumstance, many reform advocates have suggested—sensibly perhaps—the establishment of a single national institution to lead road charging (often called the 'single national economic regulator'). They recommend that (as a minimum) a national body would develop consistent principles (possibly approved by a ministerial council) that would apply nationwide, perhaps deliver competitive neutrality between different transport sectors (road, rail, shipping) and allow a single collection agency to administer the scheme. Such a body (were governments to empower it) *could* perform many other functions, such as establishing the rates of charging and set fees, collecting and distributing the revenues collected and making infrastructural decisions that were aligned with network needs and productivity considerations. However, as discussed later in this chapter, it is not necessary for a national body that administers the pricing regulation and/or revenue collection to be the same one that evaluates and recommends to ministers the priorities for road funding.

Two distinct models for a single national economic regulator suggest themselves, although neither is without its own political problems of implementation. First, the states collectively could agree to 'go it alone' and set up a coordinated interstate body (a bottom-up initiative) with the same set of charging and congestion rates. Their immediate problems would be how to implement consistent user charges across Australia and how to convince the Commonwealth Government to withdraw from excise taxation on fuels (or gain some agreement on a joint partial funding model, which would erode the integrity of the user charging scheme). A similar bottom-up model is being rolled out by many of the states in the area of e-health patient records compiled and accessible by doctors, pharmacists and eventually hospitals, and in direct opposition to the Commonwealth's bungled attempted imposition of its flawed national MyHealth initiative, which was widely seen as too time-consuming, likely to be punitive and not useful for patient care.

Second, a single national economic regulator could be established involving the Commonwealth and the states and territories (and even local governments as well) to administer the user charging regime. Presumably, this mooted national body would be an independent one established under intergovernmental agreement. But would the Commonwealth, either by decree or by stealth, seek to 'control' this body, as some consider has happened with other intergovernmental entities, or would the states exert their own control of it and, if so, how would divergent state interests

be mediated? It would be a challenge to design a governance structure for a national economic regulator responsible for user charging, roads funding and infrastructure prioritising, or even for each of those functions separately. The danger of having a national planning body that was dominated by state interests would be that national visions and priorities would be surrendered to parochial concerns of the major states, especially given the non-standardised or differential election cycles.

Moreover, if a nationally consistent scheme was adopted, what would be expected of the Commonwealth? Would the Commonwealth want to become more involved in frontline/operational transport management in metropolitan or regional areas, and does it have the capabilities and local knowledge to do so? There are real question marks over the issue of respective capabilities, a history of institutional distrust and zero-sum politics, notwithstanding the promotion of the subsidiary principle in some quarters.

## Who would decide priorities for strategic infrastructural investment and priority maintenance?

States might be coaxed to agree with the logic of having a single entity to administer the charging and receipt of revenues, but states are unlikely to want it to determine infrastructural priorities. They would in all likelihood insist on a formulaic share-of-revenue model (similar to many existing arrangements under Section 96 funding agreements, but unlike the regularly contested goods and services tax (GST), which has funded states on an assessment of expenditure need and revenue capacity relative to the national average). Such a formulaic sharing model (distributed on a per capita basis or some other criteria that could be agreed on) in essence would be non-strategic, unresponsive to market demands or behavioural changes and lock in funding where it may continue to be inefficient.

Would state and territory governments, in particular, be prepared seriously to give up the power to make politically sensitive (and politically driven) decisions to commission new roads, prioritise network improvements and determine the precedence of road maintenance plans? While there are concerns that insufficient funds are directed to road building, spending on roads remains an important form of pork-barrelling, especially between politicians and the citizenry when there are relatively limited opportunities for delivering local largesse. There is much electoral kudos at stake and enormous local lobbying about road improvements. It seems

unlikely that Australian jurisdictions will hand the power to determine road priorities over to an independent body or a national funding body or even allow a national body to 'pick and choose' from a prepared list of intended projects. However, as noted above, the functions of road pricing regulation and road investment analysis need not coexist.

## Hypothecating the revenues raised, establishing locked boxes for infrastructure?

It is doubtful a national road user charging scheme could work optimally without some form of hypothecation, whether Australia went straight to a hypothecated model or moved towards it in stages. Hypothecated funding for the network would be the obverse of the pricing side of the equation. Logically, all funds raised from road transport (congestion charges or user charges) ought to be ploughed back into improvements to the road network and ought to *be seen* to be ploughed back by fee-paying road consumers. There is far better public acceptance of revenue-generating regimes that tie the revenues raised back to a definite worthwhile purpose. Arguably, roads are better suited to this kind of cost-recovery regime involving hypothecation than other areas of public policy—for instance, tying hospital expenditure (driven by the health needs of the community) to the revenue generated from a national lottery (driven by the propensity of some people to gamble).

To date, a number of state governments have used limited hypothecation instruments for traffic fine revenue to be tied to road safety programs (New South Wales, Victoria, Queensland, South Australia and Western Australia). For instance, the NSW Government (at the Auditor-General's recommendation) has put a toe into the water of hypothecation by establishing the Community Road Safety Fund in 2013, into which all traffic fines for speed camera and red-light camera offences are deposited (approximately \$137 million per annum when the fund was established). These hypothecated funds are directed not particularly to investments in roads, but to road safety, including the enforcement of road rules by police and road safety engineers; and, at the time of its establishment, these fines were estimated to cover approximately half of the road safety costs of the state government (budgeted at \$231 million in 2011–12, while the cost of speed-related crashes was more than \$1.7 billion annually).

It must be acknowledged that there is much opposition to hypothecation in Australia. Such schemes can be seen as an arbitrary compartmentalisation of budgets, which can then put artificial constraints on budgetary flexibility and allocative efficiency—and perhaps limit the potential of increasing funds to pressing priorities. Under hypothecated conditions, infrastructure planners would have, in effect, a locked box to spend on projects irrespective of competing priorities within transport funding or with societal issues such as health and aged care. Such an approach equally attempts to defy political logics, economic cycles and planning sequences. A survey of road funding since 1990 conducted by the Parliamentary Library (Webb 2000: i) argued against hypothecation by suggesting:

Arguments that more of the revenue raised from motor vehicle taxes should be earmarked (hypothecated) for spending on roads are questionable. The level of Commonwealth road funding is determined in the overall budget context without reference to the revenue raised from particular taxes, and expenditure on roads competes with other expenditures. The House of Representatives Standing Committee has recommended that the hypothecation provisions in the Australian Land Transport Development Act 1988 be removed to end the notion of a link between fuel excise revenue and the level of road funding.

This classical attack on hypothecation is premised on the notion that all taxation collected from various sources should go to general consolidated revenue so that spending plans 'compete with other expenditures'. This is separate from the aforementioned approach of user paying, whereby user charges are applied for certain forms of public provision to meet the costs of delivering those services to the community. Such user charging models are in fact an efficient way of harnessing market forces to ensure demand recognises the costs of supply, and that consumers are able to allocate their funding to areas of highest value to them.

#### Complex intergovernmental aspects?

Not surprisingly, road pricing initiatives globally have typically taken place in unitary systems (or city-states) where the national government has the constitutional power to impose the scheme. Federations are more problematic, although Germany has had a heavy vehicle toll on federal highways since 2005. Incentives/disincentives for states to join a national road pricing scheme have already been mentioned above, but other challenging intergovernmental dimensions are likely to affect any implementation of a pricing regime. At the local level, where there are

minimal opportunities for leakage, states with significant congestion problems would be able to vary congestion charges to suit local conditions (or, alternatively, to 'sweat' infrastructure outside peak-hour commuting times). To make a national system work, states may have to either introduce common template legislation empowering such a body or refer powers to the Commonwealth so that the constitutionality of any proposed reform would withstand legal challenge by a disgruntled jurisdiction or constituency. Were the states to choose to refer their powers there remains legal uncertainty about whether they can ever reclaim those powers.

### Likely problems with undertaking tax trade-offs and the abolition of existing charges and fees

To date, most of the modelling on road pricing has come from economic theory positing a perfect world of rational action. In practice, it is unlikely any level of government will behave altruistically or surrender powers or revenue instruments at its disposal. Assumptions that moving to a new system based on the introduction of a pricing mechanism dependent on actual usage (and one that is able to affect behavioural change) will lead to a complete transformation of road funding are not credible. Political economy will come to the fore. There is also the assumption that a pure pricing model does not need to rely on other existing levies and blunt charges to work effectively (and that any retention of fixed levies would distort consumer decisions; Henry et al. 2010: 398–9).

Hence, we see assertions bandied around that when the new charging regime is introduced the raft of existing levies will be abolished at the outset of the transition phase or phased out over a limited period. Many of the reformist reports naively make the assumption in their cost—benefit calculations that the existing state taxes and levies would be entirely repealed as the new system gets under way. In these modelling calculations, the fixed charges that states and territories impose on vehicle owners would be abolished, as could compulsory third-party insurance rates, which could be included in and priced into the direct charging regime. States would effectively be asked to give up certain instruments of taxation, leaving them with an even narrower tax base, exacerbating vertical fiscal imbalance issues and facing the prospect of never getting such taxation instruments back again. Surrendering such inefficient and irritant fixed-based taxes in exchange for a generic and largely non-discriminatory national system would require a huge leap of faith by subnational governments, and only

one or two of these jurisdictions need to object or refuse to participate for the system to be threatened. It is more likely that states and territories will agree to decrease these levied fixed charges but not abolish them entirely.

While it is true that many of the fixed levies imposed by states and territories are inefficient and irritating, they can nevertheless be manipulated for political gain/social engineering. States can use their own discretion to increase registration fees and give concessions to selected constituencies for electoral reasons. It is highly unlikely states and territories will entirely abolish vehicle registration charges, stamp duties, charges for number plates, drivers' licences, compulsory third-party insurance or even vehicle safety checks and roadworthy certificates. This is despite the fact that these items could all be incorporated and covered through a national pricing mechanism that was geared more towards actual usage.

Similarly, the Commonwealth enjoys the undisputed constitutional power to levy and collect fuel excise. It is unlikely to surrender this power or abolish the excise duty entirely. Even if a road pricing scheme comes into play, technically replacing the need for excise entirely (in that distance usage is captured within the pricing), it would be in the Commonwealth's interest to retain some excise charge. More than likely, the Commonwealth will redefine the nature of the excise charge so it is able to retain some component of the existing levy. For instance, currently, fuel excise is taxed to provide a funding source for roads (a partial earmarking or hypothecation), but if roads were to be funded directly through revenues raised entirely through user charges, the Commonwealth could still insist on collecting some fuel excise by redefining the excise tax as a means to capture the other negative externalities (such as pollution or depletion of a non-renewable resource).

The Henry review of taxation tackled this issue when it argued that 'fuel tax and other transport taxes are not an efficient or equitable means of financing general government expenditure' (Henry et al. 2010: 375 and E3-1). However, the Productivity Commission (2017: 1–2) has argued the fuel tax credit enjoyed by off-road mining and farming sectors is:

not considered assistance as the excise tax on fuel is purported to be a mechanism to pay for roads, which are not used by those receiving the fuel rebate. Should roads be generally priced, as discussed in the Commission's Public Infrastructure [Productivity Commission 2014], the taxation of fuel would change, perhaps towards a recognition of the negative externalities of fuel consumption. A diesel fuel rebate under those conditions would constitute assistance.

Hence, by redefining fuel excise in economic terminology, the Commonwealth would claim ground to retain some portion of that tax even though it is not regarded as appropriate for general taxation purposes. Moreover, in addition to the complex interests around paying for road use, changes to the existing fuel excise may affect off-road vehicle users, bringing powerful mining and farming interests into conflict with the aims of the road pricing policy.

A parallel case on which to reflect involves the introduction of the GST in 2000. The Commonwealth managed to convince the subnational governments in 1999–2000 to abolish a list of inefficient taxes as part of the adoption of the broad-based GST, arguing that the replacement funds generated by the GST would then be transferred to these jurisdictions. Seventeen years later, however, many of these irritant state taxes are still in place. States dragged the chain or simply refused to repeal these duties and fixed taxes. This example suggests the states and territories would be reluctant to vacate the road vehicle/driver registration processes if a national universal charging regime were imposed. Most observers would conclude from history that they would be inclined to retain some or all of these charges, although perhaps levied at a reduced rate.

Sceptics could be forgiven for concluding that, aside from some potentially better management of our road transport network, one of the principal objectives of road pricing reform is to seek an increase in funding going to roads while pretending that motorists will not pay more. Retaining the existing array of state-based levies while introducing a full-cost user-based pricing mechanism would constitute a sleight of hand. The Productivity Commission (2014: 151) mentioned this when it talked of the 'widespread fear among motorists that they would be worse off'.

#### Transitional arrangements?

Another problematic issue to consider is the transitional arrangements necessary to move from the existing overly complex and multi-actor system of road charging to one of universal road user charging. Ideally, any pricing scheme should be phased in over time, but this will weaken the impact of the price signals and expected behavioural responses. Would states and territories move as one and dismantle their various fixed fee structures according to an agreed uniform schedule? If not, various users in those jurisdictions that attempt to hold on to former levies will face a 'double whammy' until the rates eventually fall.

There are other transitional complications such as what to do with the existing toll road and tunnel facilities, many of which are governed by long-term operational contracts as part of public—private partnerships (PPP) arrangements. Toll prices are likely to remain far higher than a comparable systemic user charge for road usage mainly because toll charges are set to cover the investment costs amortised over a certain period, not principally to manage demand and cover usage. Moreover, toll prices tend to be standardised according to the class of vehicle, not variable subject to congestion levels (although in theory they could be made more volume sensitive). Can toll operations be included in a seamless pricing regime, while still identifying the necessary payments and forwarding these to the operators? Alternatively, can toll roads fall back into the system of public provision and be priced according to usage and congestion, and presumably with the operators given compensation for their loss of business?

#### Future issues?

A central question for pricing advocates to answer is whether pricing will replace the existing quantum of funds that currently flows through the system (conforming to principles of 'budget neutrality') or provide sufficient funds to cover the entire costs of running the road system (to eliminate any cross-subsidisation from general revenue)? Or, alternatively, are we hoping to raise increased funds to invest in system upgrades and enhanced infrastructure into the future? These matters need to be addressed in the process of setting clear objectives and preferred options.

An interesting conundrum to contemplate is that Australia, like many other parts of the world, may not remain wedded to individual car transportation into the future. Car usage may decline, especially if investments in rapid public transport accelerate and cities consolidate their population density rather than continue the previous pattern of urban sprawl. Working from home or from centres closer to one's residence may reduce the necessity for employees and others to commute. The increasing availability of online services and information accessibility will lessen the need to travel to one specific place to receive such benefits. Road network planners will have to consider what to do if usage begins to drop dramatically (and already we have evidence that today's motorists are driving less than before, making fewer trips and consuming less petrol than previously). Even a small user charge in monetary terms may

encourage motorists to combine trips (opting for fewer, multipurpose trips) and discourage them from making optional or non-imperative trips. Under such circumstances, how would a national economic regulator of roads respond? Would an efficient road charging regime see prices increase if usage declined, to make up for the shortfall in required estimated revenues, or would prices decrease, reflecting less wear and tear and less demand for road transport? And, if prices were to rise to cover revenue shortfalls, would this further discourage motorists, thus exacerbating the problems? Moreover, if higher volumes of heavy freight were transferred from roads to rail under a policy of competitive neutrality, how would the prices charged for heavy vehicle usage respond?

While moving to a cost-recovery system responding to market signals and demand may make much sense in public policy terms, there remain many areas of unpredictability and future unknowables. Adopting such market mechanisms may enable more flexible management of the transport network into the future, but markets are themselves imperfect and can also have perverse logics and consequences. These issues will have to be sensitively managed with much analytical foresight and astute judgement. There is already some recognition of this dilemma in the published reports reviewed in this chapter, with many calling for root and branch reviews and systemic evaluations to be conducted on a regular basis. Road transport reform remains a pressing imperative for governments at all levels of Australian politics and of all political persuasions. Currently, there are many options for market reform already on the table, but not all have met with rapturous applause or been embraced by the various jurisdictions around Australia. In all likelihood, the magnitude of change in road transport that will occur in the future will be truly transformational and will revolutionise the present broken system for all time; the challenges ahead are formidable and the politics may well be 'diabolical', but we cannot afford to not 'get it right' as we go forward.

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