FOI ref: NCP 09

Shortlist policy proposal: Road user charging

Pillar 1 - Dynamic economy

Summary

Issue: Some roads are inefficiently overused, resulting in congestion, which reduces productivity and broader welfare.

Goal of reform: Road user charging can reduce congestion and provide an efficient revenue source for government.

Value-add: Technological advances have made more efficient road user charging models feasible and a recent High Court ruling has stymied state and territory efforts to introducing road user charging, suggesting a greater role for the Australian Government than initial envisaged.

The challenge and opportunity

- Road user charges could boost productivity and welfare by reducing traffic congestion.
    - Infrastructure Australia found the economic cost of road congestion in the six largest capitals and their satellite cities to be about $19 billion in 2016, growing to $39 billion in 2031 if infrastructure does not keep up with demand.
- Reduced road congestion mechanically boosts productivity if time spent in transit to work is considered working time, and the alternative is not a longer commute. This is sensible from a welfarist perspective although not the approach taken by statistical agencies.
    - Well-designed road user charging (particularly congestion pricing; defined below) could encourage higher-value use of scarce roads, boosting productivity. That said, a poorly designed scheme could inefficiently discourage road-use, reducing productivity.
- There are several reasons to consider the issue now.
    - Several states and territories have legislated simple distance-based road user charges for electric vehicles, but their legality has been called into question because the Victorian Government's scheme was found to be unconstitutional in late 2023. The Australian Government will likely need to have a greater role in road user charging than previously anticipated.
    - Advances in technology (GPS, 5G mobile networks, numberplate-recognising cameras) make feasible more efficient road user charges that directly target congestion ('congestion pricing').[1]
    - Drivers may be more responsive to congestion pricing than previously because remote work has become more widely available since the COVID-19 pandemic and live-updating maps like Google Maps have made re-routing to

[1] The optimal congestion price is set such that drivers pay (and thereby internalise) the marginal external cost of their road use.

avoid congestion commonplace. [Note: this seems intuitive but we haven't found empirical evidence to support it.]

- We will consider a range of policy options from:
  - distance-based charges (low admin/compliance costs but less efficient) to
  - highly calibrated congestion pricing (high admin/compliance costs but more efficient). Note that optimal policy will vary by location, e.g. congestion pricing serves no benefit in uncongested areas.
- Will consider roles of Commonwealth, state/territory and local governments in implementation and ongoing policy development. This will be informed by constitutional issues and principles like subsidiarity.

Overall, there is a clear cost to road congestion, and, in theory, a road user charge should be effective in addressing this. However, further research is needed to determine the likely response of drivers to a road user charge (possibly even through experimentation and trials) which places uncertainty on the likely impact of the reform.

What do we know already?

- Congestion pricing is used in Singapore, London, Stockholm, Gothenburg, Milan and New York. In Singapore, Stockholm, Gothenburg, Milan and New York, administration is similar to that of toll roads in Australia with checkpoints on all roads that enter a central area. In London, drivers are responsible for making payments and compliance is enforced via a network of number plate-recognising cameras. There are no schemes in operation that use GPS or mobile networks, but trials (including in Australia) have used these technologies).
- The academic literature includes studies of the effects of real-world road user charging schemes (including pilot programs) and structural models used for policy simulations. These are some key findings:
  - Demand is inelastic to simple distance-based charges (and inelastic to fuel excises, which function similarly).
  - Demand is more elastic to congestion pricing, as more tailored charges allow drivers more substitution possibilities.
  - Building new roads is ineffective at relieving congestion in the long run — it reduces the effective 'price' of travel, inducing additional demand.[2]
- *Advancing Prosperity* recommended that the Australian, state/territory and local governments work towards an intergovernmental agreement on road user charging focused on simple distance-based charging with congestion pricing for crowded roads.

Plan of action

- The key issues will be to establish:
  - what is feasible with current technology, what the administrative and compliance costs of different options would be and how this is likely to evolve over the next decade or so
  - how the constitutional issues can be navigated.
- The academic literature could be drawn-on used to estimate benefits.

[2] Latest evidence on induced travel demand: an evidence review

- We would need to establish the availability of substitutes for transport where pricing excludes some road travel (so public transport, alternative transport) and complementary policies (such as working from home).

Stakeholders

TBA

Risks

- For congestion pricing, optimal policy is likely to be city-specific and require trials and experimentation. Our recommendations may be limited in detail on implementation.
- Road user charges often raise concerns on equity grounds, whether well-founded or not. We should note that road user charging is a relatively ill-suited policy tool for addressing equity concerns but we may nevertheless need to consider recommending concurrent reforms such as:
    - improving public transport alternatives
    - hypothecating road user charging revenues for road investment.