The Australian

The hidden cost of road pricing

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IT"S time to take the con out of congestion charging. Here's why.

1) Eliminating traffic congestion is not a sensible policy objective.

Sure, if we invested enough in roads, all cars could travel at the speed limit. But the costs of thus expanding road capacity would greatly outweigh the value motorists place on the savings in time and discomfort.

Exactly the same applies to road charging. With charges set sufficiently high, remaining drivers could go at speeds rivalling the Melbourne grand prix. But even Mrs Moneybags, rocketing in her Ferrari, would not value the benefits enough to offset the welfare loss to the peons forced by the high charges to walk to work. Add to their loss the costs of implementing the road charging scheme and the efficiency loss is all the greater.

Rather, the policy goal should be to maximise the value society obtains from investing in transport. That means reducing congestion only if, and up to the point where, the social benefit of an extra trip is less than its cost (including congestion costs imposed on other drivers). Further, the overall benefits from a road pricing scheme need to exceed its costs.

2) This matters because city-wide congestion charging is expensive. It requires tracking road use, imposing charges and collecting amounts owed. Outlays run into the hundreds of millions of dollars.

At the same time, congestion charging only works if it reduces road use at congested times. Those users who are tolled off by the charges are inevitably worse off (after all, they preferred driving at no charge to paying the toll). For overall welfare to rise, gains from increased speed and reliability to remaining road users must be sufficient to outweigh both that loss and the implementation costs.

3) Few current congestion charging schemes meet that test. Careful studies of the London scheme find a benefit/cost ratio of barely 50 percent. Stockholm's benefit/cost ratio is even lower, despite tolling technology substantially cheaper and more advanced than London's. Singapore does better, but that is largely due to draconian restrictions on car ownership.

As well as implementation expenses, low benefit/cost ratios reflect four factors. First, even with high quality public transport, aggregate improvements in road speeds are modest, as consumers value peak time car use very highly. Second, even those slight improvements are obtained by forcing some commuters into travel options that are less convenient, for instance because they require multiple mode changes. Third, exemptions for politically powerful users (such as local residents) allow those users' traffic to grow, even if they value the roads at less than the motorists who are tolled off, so reducing welfare. And fourth, with the government a monopolist, prices for non-exempt users have typically been set above efficient levels, both to raise revenues and to compensate for traffic generated by exempt users.

4) Benefit/cost ratios are even lower when account is taken of waste from inefficient uses of the funds raised. Because congestion charging schemes lead to only small traffic reductions, but most remaining uses pay the toll, the revenues collected tend to be large. In Stockholm, for instance, annual revenues have exceeded economic benefits by a factor of four.

Typically, these revenues are used to fund increased subsidies for public transport. Expanding public transport can be

efficient, all the more so as road pricing increases demand for alternative transport options. However, with roads properly priced, the efficiency case for subsidising public transport diminishes, as its main competitor is no longer subsidised. Increased subsidies to public transport can therefore yield benefits less than their costs, compounding the welfare loss.

5) The benefit-cost ratio for congestion charging would likely be even lower in Australian cities.

First, even cities with high and rising levels of congestion have failed to secure benefits that exceeded the costs. But congestion levels are relatively low in Australia. In 2002, just prior to the start of congestion charging, the all-day average travel speed in central London was barely 14.3 km/hour. That all-day average was less than half the average travel speed at the morning peak time for Sydney in 2008-09 and about one third that for Melbourne.

Moreover, with the exception of Brisbane, travel times in Australian cities have increased surprisingly little in recent years. From 2002 to 2006, average commuting times for full-time workers in capital cities who had not changed home increased by some 6 percent. Those full-time workers who had changed homes experienced larger increases, but this was typically because they had moved to larger, cheaper houses in outlying areas.

Second, low levels of public transport use limit the degree to which road charging would induce substitution away from peak time car travel.

In London, 85 per cent of commuters to the charging zone used public transport before the scheme's introduction. The figure was also high for Stockholm, at 65 per cent of commuters. This contrasts to Sydney and Melbourne, where public transport accounted for 21 and 14 per cent of commuting trips in 2006.

While improved public transport could increase these levels, Australian settlement patterns make such modal shifts a lengthy and costly (but not impossible) process. Those difficulties are compounded by pervasive inefficiencies in public transport management, which would need to be addressed before congestion charging could hope to be effective, much less efficient.

Third, the structure of traffic in Australian cities makes it difficult to design and implement efficient congestion charges. This is especially true for Sydney, where the worst congestion occurs on the approaches to the CBD, rather than in the CBD itself, with much of the congested traffic not proceeding into the proposed CBD charging zone. It is therefore unrealistic to expect road pricing on London lines to solve Sydney's traffic problems.

Last but not least, if the Carbon Pollution Reduction Scheme is anything to go by, any congestion scheme could involve so many inefficient exemptions and so much waste of resulting revenues as to more than offset any welfare gains.

Overall, the price system is a marvellous thing. But its beauty tends to fade when cash-strapped governments are setting the prices and users have few alternative options. Yes, congestion charging could be valuable in the long run, especially if it improved investment decisions in our transport network.

But experience shows that requires far more careful consideration of its design, timing, implementation and governance than it has received to date. Mere incantations to the merits of efficient pricing just aren't enough to do the trick.

Due to errors in the production process, changes were made to the article written by Henry Ergas and published on Friday's Opinion page that altered the meaning of some sentences. The Australian apologises unreservedly for these errors. The correct version of the article appears above.