# Road pricing – what, why, where to?

Road pricing is a hot topic for policy advisers albeit less popular with the public and elected representatives. This article attempts a (overly) simple explanation of what, why and whereto.

## What is road pricing?

In modern societies many goods and services are priced; prices discourage buyers from using too much and encourage suppliers to provide the necessary amount.

The road pricing debate is about whether and where a similar mechanism should apply to road use.

Pricing is not the only way of dealing with use and supply. Other systems include administrative fiat and first come first served principles. The purpose of road pricing, like that of pricing anything else, is to change road use and supply from what would occur otherwise.

Technology for road pricing is readily available; car and road sensors, road side cameras, computers to calculate use and issue bills etc, as currently used for toll roads.

Road pricing differs from tolls or other road charges in that:

1. it does not seek to pay for all road construction and repair costs;
2. prices vary by location and time, congested places have higher fees;
3. the revenue need not go to road owners.

Point 1 means that road prices can exist alongside, on top of, mechanisms to pay for road building.

Point 2 arises from the fact that congestion is relevant only at some places and times.

Point 3 is a corollary of the aim of changing road use; more easily achieved when there are alternatives to roads such as public transport.[[1]](#endnote-1)

## Why?

Congestion.

Roads have characteristics that differ from many goods and services.

For most goods and services first come first served principles mean those at the front of a queue get all they want and those at the end of the queue may miss out entirely. For roads everybody in the queue is equally affected; there is a traffic jam. Roads are ‘club goods’.[[2]](#endnote-2)

Congestion is a result of too many people (usually in cars) trying to use too little road space. People use roads because they perceive benefit even after incurring financial and time costs. To tackle congestion it is necessary to address these perceptions.

Chronic congestion is not resolvable by increasing road space; by road projects. An initial increase in traffic speed (decrease in per person time costs) from a project will attract more road users. Then per person time costs return to almost the same level as before the project; in economic terms the road use market experiences a slightly changed equilibrium as an increase in supply is met with very elastic demand.[[3]](#endnote-3)

One way of resolving congestion is to change the financial cost of road use thus significantly altering the road equilibrium. Another way is to provide a mass transit alternative which provides a default travel time.[[4]](#endnote-4)

Implications include:

* pricing is most relevant where there are high congestion costs;
* there is an ‘optimum’ level of congestion. Elimination of all congestion would be wasteful;
* the task of pricing is to achieve this optimum level;
* this task is more easily achieved when there is a mass transit alternative.

## Where to

There are some common misconceptions, stoked by lobbyists and advisers:

* road users at present pay their way;
* road pricing is desirable to provide funds for more road building.

These ideas are fundamentally wrong and damaging to the case for better roads.

Previous posts demonstrated road revenues to be far below expenditures. Moreover, expenditures are not the only road costs. Emissions and loss of amenity are significant costs of road use, as is congestion. Some estimates have road revenue being less than half road costs; no wonder we suffer from traffic jams and air pollution![[5]](#endnote-5)

Road building might be the last thing to be funded by revenue from road pricing; possibly the best use of revenue would be support of alternatives to road use. Road (re)building should be funded from general charges; currently excise and registration charges and in the future mass-distance-location charges.

For road pricing to be most effective, other types of road charges and tolls should be subject to economic regulation or at the very least economic regulatory advice. The community has a right to know whether governments and road owners set road charges at an appropriate level.

Implementation of road pricing is considered by some to be problematic. Any constraints are political and bureaucratic rather than technical. Introduction of road pricing in a few limited areas as is done in the UK, support for improvements to road alternatives such as public transport and proper economic regulation of the roads sector may allay general concerns.

There remains an ‘equity’ issue. The introduction of road pricing would transfer wealth from the time rich and cash poor to the cash rich and time poor. Financial compensation to lower income households may be in order.

At this time, however, the most significant hurdle to road pricing is lack of public trust in the road sector, the infrastructure industry and related areas in government. Arguments to hypothecate revenue to roads inevitably lead to the view that any increase in road charges, or road pricing, is a grab for the ‘battler’s cash’ by the well-off in large firms and bureaucracies.

None of these matters are barriers to introducing an ‘as if there was road pricing’ test to road and public transport project assessments. Such a test is essential to avoid the potential for billions of dollars of waste in unnecessary or deleterious projects. In the absence of such a test it is reasonable for the public to hold suspicions about road, industry and government motives.

I doubt whether that is a good place to start a debate.

J Austen

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1. Road pricing (here largely congestion pricing) could be considered the capacity charge in a two part tariff. The other component of the tariff, the base charge, is to recover physical costs of use and assuming the asset is to be provided in perpetuity, pay for renewals. In principle additional charges should be considered to cover externalities.

 [↑](#endnote-ref-1)
2. Unlike the belief of many advisers, roads are not public goods. See: <http://myweb.fsu.edu/bbenson/HIGHWAYS.pdf> [↑](#endnote-ref-2)
3. This effect is (shamefully) generally ignored in most road project assessments. [↑](#endnote-ref-3)
4. Downs Thomson paradox, for example <http://www.people.vcu.edu/~lrazzolini/traffic.pdf> and Dr Ziebots in <http://www.dtpli.vic.gov.au/__data/assets/pdf_file/0013/230107/Zeibots-EWS.pdf>

 [↑](#endnote-ref-4)
5. Stanley and Hensher; *Environmental and social taxes: Reforming road pricing in Australia* rhttp://sydney.edu.au/business/\_\_data/assets/pdf\_file/0008/107774/ITLS-WP-11-17.pdf [↑](#endnote-ref-5)