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Fiscal decongestant?

The views expressed in the following article are those of the author; the article does not purport to express the views of the Australian Treasury or of the Australian Government.

In an upcoming paper, Tax System Division looks closely at the relationship between productivity and the formation of agglomeration economies in cities. We consider the impact excessive road congestion can have on whether city residents gain all the potential benefits from agglomerations. The following is a brief summary of the paper.

Congestion charging is often mentioned as a possible solution to the road congestion problems facing Australian cities, especially Sydney and Melbourne. Worldwide, several major cities have congestion charging schemes operating, including London, Stockholm, Rome and Singapore.

Australian cities tend to be designed around a high level of vehicle use, with low population densities spread over a large area. Road congestion is an increasing problem in Australian cities, and is estimated to cost the economy around $13 billion in 2011.

The idea behind congestion charging isn't a new one, having first been proposed by William Vickrey in 1952 as a possible solution to overcrowding on the New York Subway system. Canberra residents may be familiar with this idea through 'Peak' and 'Off-Peak' bus fares. Vickrey's idea builds on the theory developed originally by Arthur Pigou in dealing with the presence of negative externalities (social costs) in a market.

In the 'market' for road space, drivers tend to consider the costs of road use in terms of the costs to themselves. When roads are congested, these costs include wasted time in traffic queues and additional fuel. However, each additional driver on a congested road imposes costs on other drivers by increasing the amount of time spent by all drivers in the queue. These costs represent a negative externality in the road space market.

One particular negative externality that arises from road congestion is lost productivity due to the impact congestion has on the development of agglomeration economies.

Agglomeration economies form as businesses and people gather within a small area. Workers are attracted to the concentration of business activity, and the larger pool of consumers they create encourages more business activity and reduces costs. Agglomeration economies usually form in, but are separate from, cities. The cities of New York and London contain large financial services agglomeration economies, for example.

The term 'agglomeration economy' describes the benefits that businesses enjoy from being near one another.

Australian agglomeration economies are relatively underdeveloped. This has been exacerbated by a sustained increase in investment in non-urban areas. As economic activity becomes spread more widely across the country, dispersing businesses and populations, the potential for agglomeration economies to develop is reduced.

Agglomerations offer important positive externalities. The forces of competition between direct competitors and co-operation between related business activities foster innovation and creativity. They encourage the accumulation of human capital, increased specialisation of labour, and generate increased productivity. This increases the standard of living of residents, encourages more people and businesses to locate in the city and produces a self-reinforcing pattern of development.

Some of the costs of living in a city counter the development of agglomeration economies. Road congestion disperses populations and businesses across wider areas, reducing the capacity for agglomerations to develop. This reduces the productivity benefits that agglomerations produce.

Road congestion charging seeks to make drivers face the full social cost of their road use, including the costs they impose on other drivers. In doing so, road use becomes more efficient, making journeys faster for everyone and increasing the population that can comfortably live in a city. A higher, denser population facilitates the development of agglomerations, and allows city residents to enjoy the positive benefits of agglomeration with lower costs.

'The first Act passed [in 1901 by the new Commonwealth Parliament] was a Supply Act. The Constitution, of course, contained the usual provision that no money should be drawn from the Treasury of the Commonwealth, except by appropriation made by law [section 83]. This was qualified by a provision that until one month from the first meeting of the Parliament, the Governor-General in Council might draw from the Treasury and expend moneys necessary for the maintenance of the transferred Departments and for holding the first elections. Nothing was said about the new Departments; and how, during the first few months, the Treasury managed to pay my salary [as head of the Attorney-General's Department and Australia's first federal public servant] is a matter as to which I thought it neither necessary nor prudent to make inquiries.'

Sir Robert Garran (Australia's first federal public servant), *Prosper the Commonwealth* (Angus and Robertson, 1958), page 146

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