Road user charging: a policy whose time has finally arrived

“The road user should pay the costs that he/she imposes upon others.” So wrote Reuben Jacob Smeed in 1964, after being commissioned by the British government in 1962 to examine the technical feasibility of implementing road user charging (or “road pricing”).

Smeed considered three main effects of road use: wear and tear on roads; congestion; and losses imposed on the community, including accidents, noise and fumes (which his report referred to as “social risks”). Scarcity of data precluded quantification of whether road user charging would ameliorate these “social risks”, which are today known to be major threats to health and the environment. Smeed nonetheless recommended charges for driving on congested roads to reflect the wider costs of motor vehicle use. Successive British governments have failed to implement these recommendations, although momentum is now building for greater use of road user charging in local areas in the UK and internationally. In this Comment, we argue that although there remain challenges to overcome regarding policy design and public acceptability, the time has come for a more widespread implementation of road user charges to achieve health and environmental goals.

Road user charges can be considered as an attempt to make the costs that motorists pay more closely reflect the costs to others from externalities, such as air pollution. A range of terms are used interchangeably, including road user charging, value pricing, or congestion charging, but such schemes charge motorists to use roads within a certain area or during a specified time frame. Charges can be levied upon entering a specified area at toll points (such as motorway tolls), for crossing into an area (known as cordon charging), or for any use within a specified area (known as area charging). A range of options exist for implementation, which can include varying the amounts charged and exemptions or reduced fees for particular vehicles or groups of people. Charges can vary by time of day, vehicle class, or a combination of vehicle type and assessment of emission standards. There is also flexibility around how to use any revenue raised; most commentators agree that revenue raised from road user charges should be used to improve alternative transport options.

Use of motor transport has increased substantially in the UK and globally since the Smeed report, as has the evidence linking motor vehicles to health and environmental harms. For example, in 1962, cars, vans, and taxis accounted for 57% of the passenger distance travelled in the UK, which had risen to 83% by 2016. Many of the recent road user charging schemes implemented in Europe have been driven by concerns about air pollution, which is an increasing focus of public concern. This is reflected in greater policy focus on creating low emission zones that focus not only on reducing the volume of private motor vehicle use, but also on substantially restricting the access of highly polluting vehicles. The direct evidence base for assessing these schemes is constrained by a low number of schemes in operation until very recently and a dearth of good-quality data. Natural experiments of previously implemented schemes have found stronger evidence for reducing traffic volumes than for health-related outcomes, although increases in physical activity due to switching to more active modes of transport, such as walking and cycling, have been identified.

Although the paucity of evaluations means that the evidence base is still emerging, we know that price is generally a much more important driver of consumer behaviour than education and information initiatives are. However, although price interventions are powerful, they tend to be politically contentious. In the UK, London led the way in 2003 with the first major road user charging system, the congestion charge, and in April, 2019, an extra levy was added to vehicles not meeting strict emission standards (known as the ultra-low emission zone). However, the congestion charge scheme suffered a setback in 2010, when the newly elected London mayor effectively halved the area covered by the scheme. The London example highlights the importance of building and maintaining public acceptability of road user charging before, during, and after implementation. This scheme followed a previously unsuccessful attempt by the centre-left Blair government to introduce a national road user charging scheme, which was dropped in 2007, after substantial negative media coverage and public outcry. However, growing popular concern about the health impacts of air pollution and the climate emergency could signal that road user charging is becoming more palatable to the public.
Smeed was aware that one of the key criteria for any scheme to be effective was that effects “upon individual road users should be accepted as fair”. One important issue is that road user charging should not necessarily be uniform across geographical areas, to address the different needs, costs, and benefits of motorised transport between rural and urban settings. Residents in urban areas generally have access to alternative transport options, and trips typically involve shorter distances, which are more amenable to using non-motorised transport modes. The use of any revenue raised by road user charges is another opportunity to enhance its acceptability if it is done well. The acceptability of such schemes differs across sociodemographic groups, and many could feel negative about schemes, which they perceive as overly punitive. Road user charges are most likely to work well if there are clear but strong signals to motorists to avoid driving, which are connected to visible benefits for large sections of society.

The Smeed report was correct in 1964 to state that the costs of road use should more closely reflect the costs borne by others. Since then, the factors that shape the way in which vehicles and people travel have changed substantially, including the direct and indirect costs of motor vehicles. Road user charging represents a promising but under-used mechanism to reduce motor vehicle use, thereby reducing harms and allowing investment in alternative options. There is the potential, as ever, for unintended harms, and as such schemes are planned and implemented, there is an important role for the research community to work in partnership with policy makers to assess their health and equity effects. Nonetheless, the climate emergency means that the time for widespread implementation of road user charging has now arrived.

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