



National Transport Strategy Review Research and Evidence Working Group Call for Evidence, April 2017 Response from Transform Scotland

14 July 2017

1. Introduction

- 1.1. Transform Scotland is the national sustainable transport alliance, bringing together organisations from the private, public and voluntary sectors. <<http://transformscotland.org.uk/>>
- 1.2. We are represented on the Stakeholder Group of the National Transport Strategy Review, and intend to make our wider views known to the Scottish Government through that and other channels. However, we welcome the opportunity to contribute evidence to the Research and Evidence Working Group, and would be happy to speak further, and/or make introductions to our member organisations <<http://transformscotland.org.uk/who-we-are/our-members/>>, should this be of use to the Working Group.
- 1.3. We have limited our evidence to one issue, and in response to only one of the evidence questions 'Transport mode choice and demand', where the the Working Group has asked the following question:

To what degree are travel behaviours such as mode choice (including freight transport) and demand amenable to intervention? Which policy interventions change behaviours or demand and why? What does research tell us about the types of interventions that fail to change behaviours, particularly over the long term?

- 1.4. Our intent is to flag up what we see as a clear evidence gap, although we do present some evidence that may be helpful to illustrate the issue we raise.

2. Transport demand is affected by the price that transport users face

- 2.1. In answer to the first part of the Working Group's question (above), we are certain that "mode choice ... and demand is amenable to intervention". In support of this, we would cite one existing Scottish Government policy that has significantly altered demand, and one proposed policy which is claimed will have a large impact on demand (both by its supporters and detractors).
- 2.2. The example we would cite of an existing policy that has proven amenable to intervention is that of the Scottish Government's implementation of a Road Equivalent Tariff for ferry services. On the Arran route, Transport Scotland's research has found that a 64% reduction in the fare for carrying cars has led to a 52% increase in cars carried being carried (a price elasticity of demand of -0.83).¹ Hence – irrespective of whether this should be seen to be a positive outcome or a negative unintended consequence – it is inarguable here that a large price intervention has led to a large demand response.
- 2.3. The example we would cite of a current policy proposal which is asserted that it will have a large demand response to a price reduction is the proposal to halve the tax currently paid as part of Air Passenger Duty. The current Scottish Government consultation takes as one of its key assumptions that "The proposal to reduce Air Departure Tax in Scotland will lead to an increase in the overall number of flights and could potentially create opportunities for new routes to be created."² While we strongly contest the advisability of such a policy,³ we would at least agree with the Government that providing a large tax cut for air travel is indeed likely to drive greater demand for air travel. One of the opponents of this tax cut proposal is Virgin Trains, who have presented evidence to Parliament that they would lose up to a third of its passengers on the East Coast Main Line (i.e. mode shift from rail to air) should the proposal for the tax cut be implemented.

2.4. These are but two high-profile cases. We could cite further examples of where changes in the price paid for transport services have clear impacts on the demand for transport, but we are confident that the members of the Working Group will be very well versed in this literature. However, what will be clear is that, while this will vary according to circumstances, there is a clear and well-defined link between the price that transport users face and the volume of travel that they then choose to take.

3. Transport prices paid by transport users should reflect its cost externalities

3.1. It is well known that transport imposes a range of external costs such as environmental (e.g. climate change, air and noise pollution), social (e.g. community severance, road crashes), or economic (e.g. congestion, road damage). However, while research has previously been carried out into quantifying the external costs, no figures are produced on a regular basis to monitor these costs and whether they are being adequately covered by prices paid by users. These costs are not theoretical – they are paid by everyone in Scotland, whether they travel or not. But if they are not included in the price of transport it means transport users are not making travel choice decisions based on full information.

4. The evidence we have seen holds that transport users do not cover their cost externalities

4.1. The University of Leeds' Institute for Transport Studies report *Surface Transport Costs & Charges*, in what was probably the most comprehensive report of its kind in the UK, reported that for the British road sector as a whole, taxes and charges in 1998 covered between one-third to one-half of their relevant marginal social and environmental costs.⁴

4.2. More recently, in 2012, the Institute of Public Policy Research (IPPR) summarised various estimates of road traffic externalities (see table below).⁵ There is a large variety of estimates available dependent on which costs are included and how these are measured. However, IPPR's summary found that the costs imposed by UK road transport was somewhere between £32 and £56 billion per annum. IPPR concluded that, with the UK government raising around £32 billion per year from fuel duty and Vehicle Excise Duty, "Overall, the full costs of the environmental and social impacts of car and road traffic are not being fully paid by motorists."

Table 3.1
Summary of various estimates of the external costs of car and other road traffic

Impact	Source	Estimated cost
Costs of traffic in English urban areas (excess delays, accidents, poor air quality, physical inactivity, greenhouse gas emissions and some noise impacts)	Cabinet Office Strategy Unit 2009	£38–49 billion (£28–39 billion excluding delays)
Costs of traffic in the whole of the UK (as above, scaled up)	SDC 2011	£43–56 billion
Value of prevention of road casualties*	DfT 2011	£15–32 billion**
Marginal external cost of driving a car (includes congestion, infrastructure, accidents, local air quality, noise and greenhouse gases)	Based on DfT marginal external cost of driving (15.5p/km, 2010, 2002 prices (DfT 2010)) multiplied by 2010 total car vehicle kilometres travelled (see table 1.1)	£37 billion (of which congestion is £31 billion and other costs £6 billion)
Greenhouse gas emissions for cars and taxis in 2009 (latest available) multiplied by a 2009 non-traded central carbon value of £54/tonne CO ₂ -equivalent.	2009 greenhouse gas figures: DfT table ENV0201 2009 carbon value: DECC 2011	£3.8 billion
Greenhouse gas emissions for all road traffic (as above, using 2009 emissions for all traffic)		£6.1 billion

* Including costs for loss of output due to injury and the human costs of casualties – that is, beyond direct costs to the public purse in strict terms.

** In 2010 there were a total of 154,414 road casualties in the UK, of which 1,713 were fatal and 20,440 were serious. However, a considerable proportion of accidents are not reported. The DfT's current best estimate is that around 57,000 and 466,000 serious and slightly injured casualties, respectively, go unreported each year. Also, deaths that occur more than 30 days after an accident are not tied to that accident.

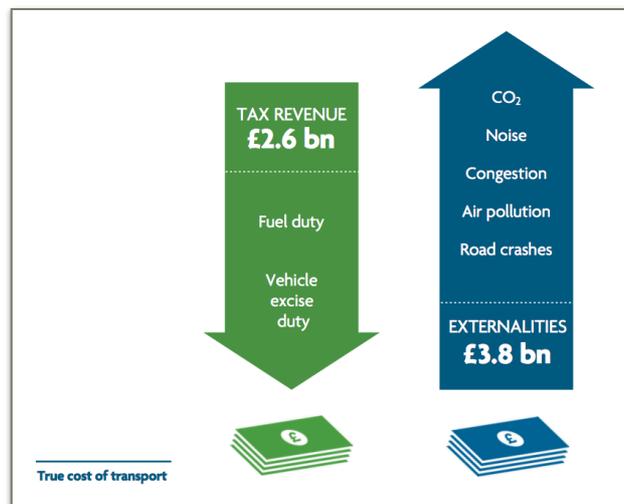
4.3. The Technical University of Dresden conducted a comprehensive study of external costs in EU countries, also in 2012, and found that in the UK alone, cars incurred external costs of £47 billion in 2008. They were able to determine that each car costs society £1,590/year mainly due to accidents and climate change (but also air pollution and noise).⁶ Even though c. 30% of Scottish households don't have a car, this results in every

resident in Scotland paying £707 per year (through their taxes) to cover these external costs. As the European Parliamentary Research Service summarised:

“The study’s message is: Car use is expensive. There are ‘hidden external costs’. From the fact that these costs are ‘hidden’, road transport appears cheap to users, where in fact it is not. Therefore the choices transport users make are ill informed and based on an incorrectly ‘cheap’ perception of car use. By making these costs known and ‘internalising them’, transport choices can become more rational and self-regulating market mechanisms will be allowed to apply themselves. This will ultimately make road transport use cheaper, as external costs will decrease!”

5. What might the situation be in Scotland?

- 5.1. Looking at Scotland specifically, and building upon the Dresden results, we find that the 2.4 million cars are costing taxpayers £3.8 billion per year. In 2013 the UK Government revenues raised £32.8 billion from Fuel Duty and Vehicle Excise Duty, hence based on population the share attributed to Scotland may be estimated as



£2.6 billion. This would suggest that car users are not paying their costs even before road construction and maintenance are factored in.

6. Policy recommendation

- 6.1. The central point we would like to make is that there is a significant evidence gap in this area.
- 6.2. Our estimate, presented above, is based upon the assumptions made in the Dresden study, and our own assumptions that these results can be transferred *pro rata* to Scotland. However, we are unaware of any independent Scottish research in this area, and certainly none which has received high awareness levels within Scottish transport policy circles, or which is used to inform political decision-making.
- 6.3. As such, we are recommending that the Working Group conclude:
- That the Scottish Government should commission comprehensive independent research in order to obtain an accurate position of external cost coverage of all modes of transport, and the degree to which these costs are covered by the prices paid for the use of these transport modes.
- 6.4. In the absence of such information, political decisions regarding the prices that should be paid by transport users to consume transport services (and the levels of subsidy and taxation that these imply) will continue to be taken in an entirely uniformed, and as such incompetent, fashion.

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References

- 1 Transport Scotland (2017) 'Evaluation of the impact of Road Equivalent Tariff on Arran Final Report'. Available at <https://www.transport.gov.scot/media/33631/ts-amfc-ret-arran-final-report.pdf>
- 2 Scottish Government (2017) 'Air Departure Tax – Consultations on an overall 50% reduction policy plan and an Environmental Report'. Available at https://consult.scotland.gov.uk/fiscal-responsibility/air-departure-tax/user_uploads/sct0517439858-1_airtax_final.pdf
- 3 See, for example, our evidence to the Scottish Parliament Finance Committee, available from https://consult.scotland.gov.uk/fiscal-responsibility/air-departure-tax/user_uploads/sct0517439858-1_airtax_final.pdf.
- 4 Tom Sansom, Chris Nash, Peter Mackie, Jeremy Shires and Paul Watkiss: 'Surface Transport Costs and Charges'. Available at http://www.its.leeds.ac.uk/projects/stcc/surface_transport.html
- 5 IPPR (2012) 'The war on motorists: Myth or reality?' Available at <https://www.ippr.org/publications/the-war-on-motorists-myth-or-reality>.
- 6 Becker, U., Becker, T., and Gerlach, J. (2012). *The True Costs of Automobility: External Costs of Cars Overview on existing estimates in EU-27*. Dresden: Technical University of Dresden <http://www.greens-efa.eu/the-true-costs-of-automobility-8787.html>.
- 7 Web article available at <http://epthinktank.eu/2012/12/12/a-fair-deal-for-cars-what-do-cars-really-cost-us-who-pays-for-those-costs/>. Accessed on 14/07/17.

Transform Scotland is the national sustainable transport alliance, campaigning for a more sustainable and socially-just transport system. Our membership includes bus, rail and shipping operators; local authorities; national environment and conservation groups; consultancies; and local transport campaigns. Transform Scotland Limited is a registered Scottish charity (SC041516).

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