

Chapter 70

Assessing the Barriers to Greener Fiscal Measures and Ecological Tax Reform in the Transport Sector

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ABSTRACT

The objective of this chapter is to: (1) appraise the purpose of fiscal measures in the transport sector; (2) provide an overview of potential fiscal measures and their application; and (3) examine potential barriers to the introduction of more efficient pricing and ecological tax reform (ETR) in the transport sector. It is concluded that, although vehicle and fuel taxation measures vary between jurisdictions, ultimately policy-makers should consider calibrating vehicle and fuel taxation to ensure that externalities are internalised, costs are shifted from vehicle ownership to use and that marginal variable costs are transparent to the network user.

However, it is possible that achieving ETR through full internalisation of external costs could be contentious due to political concerns over the potential impact on lower socio-economic groups and rural communities as well as commercial concerns over the competitiveness of the freight sector and macro-economic impacts.

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INTRODUCTION

Transport causes a significant number of economic, social and environmental costs, resulting from, *inter alia*, congestion, opportunity costs associated with travel times, social exclusion, accidents and fatalities, air pollution, greenhouse gas (GHG) emissions, noise, waste, water pollution, loss of biodiversity and land fragmentation. Delucchi (2003) estimates that environmental externalities account for 36-64% of all external costs of motor vehicle use and 3-16% of the social costs of motor vehicle use. However, these externalities are often under-priced or not internalised at all (Calthrop and Proost, 1998; Proost et al., 2002; Litman, 2009).

Thus, users are not aware of the marginal external costs of their activities and do not factor this into their purchasing patterns or consumer behaviour, unless such costs are immediately transparent and/or vary with vehicle use. Lakshmanan et al. (2001) argue that transport users do not accurately perceive variable costs or the full monetary costs of a trip or journey and only consider direct costs such as parking or time costs. Furthermore, evidence suggests that consumers are more likely to consider the cost of vehicle purchases and do not consider long-run fuel or operating costs over the lifetime of the vehicle.

The objectives of the chapter are to:

- Provide an overview of how efficient pricing and ecological tax reform (ETR) could deliver a more sustainable transport system and minimise the negative impacts of transport;
- Present an overview of fiscal measures that are applicable in the transport sector;
- Identify potential barriers to ETR; and
- Provides selected examples of ETR in the European Union (EU).

The chapter concludes by suggesting that greater focus should be made on internalising external costs in a variable usage taxation system.

EFFICIENT PRICING AND ECOLOGICAL TAX REFORM

Pricing of transport network use and vehicle ownership has a number of purposes, including, *inter alia*:

- Payment for the cost of transport infrastructure provision;
- Provision of local authority and metropolitan funding;
- Contribution to general Exchequer taxation;
- Travel demand reduction;
- Traffic management in urban areas;
- Ensuring that the 'polluter pays' principle is enshrined in transport policy; and
- Internalisation of external costs.

However, although pricing has a number of simultaneous and complementary purposes, these may not be transparent or apparent to the network user and may not be explicitly stated or considered when designing, implementing and adjusting fiscal measures in the transport sector. The key is to ensure that the pricing system is efficient, effective, transparent and progressive and that it incentivises sustainable travel patterns and purchasing decisions through appropriate pricing mechanisms.

Environmental or Pigouvian taxes may be used to internalise the external costs of transport and encourage more efficient behaviour under the principle of fair and efficient pricing (Banister, 2007). Estimates vary as to the extent that such external costs are already currently internalised through excise rates, infrastructure charges and vehicle taxation (Proost et al., 2002). Many of the external environmental and social costs of transport are already internalised through fuel excise and vehicle taxation. However, these are seen more as revenue-raising measures and the external cost element is not transparent.

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