2 Road Pricing in Europe – A Review of Research and Practice

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Abstract
Despite the considerable benefits of road pricing that economists and other analysts have shown, and despite the efforts of the EU to get road pricing implemented, it has not been implemented on a broad scale. It is still widely considered to be a radical and controversial policy. This chapter provides a comprehensive review of experiences with road pricing in Europe and elsewhere. We consider pricing issues in urban road and interurban road transport separately. The policies in the two areas have typically been different focusing in urban transport on the private car and in interurban on freight transport. Also existing analyses, both theoretical and conceptual and those using real-world simulation models, have mostly dealt with these two topics separately. For both areas we consider the current pricing schemes, barriers to pricing and likely next steps. A central theme arising from this chapter is the importance of institutional implementation issues, including political acceptability. These questions have been given too little attention both in research and in actual attempts to implement road-pricing measures.

2.1 Introduction

Road pricing as a policy to alleviate congestion, environmental and other problems related to urban and interurban road transportation has received much attention during the last decade. However, despite the considerable benefits of road pricing that economists and other analysts have shown, and despite the efforts of the EU to get road pricing implemented, it is not implemented on a broad scale. It is still widely considered to be a radical and controversial policy. This is due to many factors, including the fact that the public and politicians do not seem to be convinced of the benefits (either to society or to themselves). On the other hand, there are long-lasting disputes also among academics, especially around the application of the concept of marginal cost pricing.

This chapter provides a comprehensive review of experiences of road pricing in Europe and elsewhere, both in research and practice. The main objective is to provide an overall picture of the recent developments in road pricing, whilst, at the same time, highlighting the most important issues and hopefully opening up new perspectives for research and policy. We consider pricing issues in relation to
urban road and interurban road transport separately. There are many reasons for a separate treatment. The policies in the two areas have typically been different, focusing in urban transport on the private car and in interurban on freight transport and they have been implemented by different levels of government. Also, existing analyses – both theoretical and conceptual and those using real-world simulation models – have mostly dealt with these two topics separately.

The chapter starts (section 2.2) by briefly characterising the current situation and expected trends in the road transport industry and by reviewing the current policies and policy trends, especially at the EU level. Section 2.3 considers key issues of road pricing at a theoretical level, including the goals of road pricing and different approaches to road pricing. We proceed by considering the experience of road pricing in practice, in section 2.4 in urban transport and in section 2.5 in interurban road transport. In both cases, we review existing pricing schemes, identify the most important barriers and constraints to the implementation of road pricing and finally describe the foreseeable and most likely next steps. We conclude in section 2.6 by summarising the overall lessons from existing research and practice and present our view on what should happen next.

This chapter is heavily based on the work and experiences in EU-funded Projects AFFORD, PETS, UNITE, MC-ICAM, CAPRI and IMPRINT-EUROPE. This means that, although we have aimed to provide a comprehensive review, our discussion necessarily is focused on the issues and perspectives addressed in these projects. It therefore seeks to draw general lessons for national and European policy, rather than providing detailed case studies. Results from these studies are reported in the relevant project reports as referred to in appropriate parts of this chapter. In addition, see for example a special issue of Transport Policy (de Palma et al., 2006), volumes Acceptability of Transport Pricing Strategies (Schade and Schlag, 2003) and La tarification des transports, Pourquoi? Pour Qui? (de Palma and Quinet, 2005).

2.2 The Current Situation

2.2.1 Background

A long-standing cause of concern within the EU has been the continued growth of road (and air) transport, relative to rail, which has had a declining market share. According to CEC (2001), the market shares in freight transport in 2000 in the EU were the following: road 44%, short sea shipping 41%, rail 8%, inland waterways 4% and pipeline 3%. The corresponding numbers for passenger transport were: car 79%, air 5%, rail 6%, bus and coach 8.5% and tram and metro 1.5%. The share of road in freight transport had risen from 35% in 1970 and the share of car in passenger transport from 74%. The trend in favour of the road mode continues.

The results have been growing problems of road congestion, road accidents and environmental damage. Such trends are even more pronounced in the accession countries, where under the former regime road transport was heavily