Editorial

Special issue: Transport Growth and Pricing of Mobility

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Mobility behaviour (e.g. car driving) is a complex phenomenon, the future of which is fraught with uncertainties and unpredictabilities, as the transport system is influenced by a many different key variables such as type of spatial network, (non-)governmental organisations and institutions, or local regional or national regulatory system. As a consequence, we observe on the one hand rapid growth trends in mobility (in relation to e.g. globalisation factors), but on the other hand also many barriers and impediments (e.g. congestion). Hence, there is a need for a thorough reflection on the various effects (per mode, region/city, spatial network system, policy measure, etc.) of the ever increasing traffic volume. Clearly, the emerging negative externalities (like congestion, pollution, noise annoyance and accidents) play a critical role in this framework. Keeping in mind that the ultimate Kyoto objectives focus inter alia on the achievement of a sustainable transport system, pricing of mobility is a key issue, since it aims to reach allocative efficiency and to raise social welfare within the context of political and social feasibility.

A justification may be found in the following argumentation. The idea of road pricing, advocated about eighty years ago by the Cambridge economist, Arthur Pigou (1920), is still offering an efficient means of handling congested road traffic flows (see Button and Verhoef, 1998). The range of challenges facing transport policy makers has increased. In addition to traditional efficiency matters such as congestion and optimization of infrastructure capacity, a variety of environmental and social problems, such as noise annoyance, atmospheric pollution and safety now attract the attention of policy makers. The dominance of road transport and its highly intrusive nature poses serious particular difficulties for decision makers and their advisors. The result is a trend towards more private sector involvement in transport and the seeking of innovative means of finance and regulations. One particular instrument of transport regulation that seems to gain more political and perhaps also gradual public support, is road pricing, much to the satisfaction of many transport economists (Button and Verhoef, 1998, pp. 3-4).

Starting from the above considerations, the editors of this special issue on Transport Growth and Pricing of Mobility have decided to collect a series of papers mainly presented at the NECTAR (Network on European Communications and Transport Activity Research) Conference, held in November 1999 in Delft (The Netherlands). After screening, refereeing and revision, the papers are offered here as refreshing contributions to pricing of mobility behaviour. The core of this special issue is determined by the topic of pricing of spatial mobility, seen from different perspectives (efficiency, variabilisation, congestion, unconventional charges), while the contextual driving forces of this core are formed by the investigation of transport growth from both a methodological and empirical viewpoint.

The structure of this special issue is illustrated in Figure 1.

Figure 1. Structure of the linkages among the papers in this special issue

Figure 1 shows how transport growth is necessarily linked to pricing of mobility. As a consequence, the development of a proper methodology (e.g. the scenario approach) should take into account û in a integrated framework û the mutual development of key forces (e.g. road pricing), and vice-versa. Clearly, this is a rather difficult research issue. This special issue aims next to offer a structured overview of recent achievements in these two fields in the light of the different local/regional/global research fields.

The opening paper, by Barry Ubbels, Caroline Rodenburg and Peter Nijkamp, illustrates the scenario methodology, with reference to transport growth for both OECD and non-OECD countries (freight and passenger), as well as for each mode of transport. It appears that all scenarios foresee a growth in transport volumes world-wide. Given these results, the achievement of sustainable mobility might be supported significantly by the mechanism of mobility pricing.

In this context Hens Runhaar underlines how efficient pricing in transport is an acute problem. Particularly, the author argues that on the one side several principles can be developed aiming to improve efficiency, and with it, raising welfare, and on the other side social resistance to the application of such principles is strong, thus contradicting the objective of improving welfare. The author indicates some solutions in this respect. However, this is certainly a research field deserving more scientific attention, given the strong economic interests involved.

The third contribution, by Piet Rietveld, explores the issue of pricing mobility from the viewpoint of the variabilisation of the tax system, with a particular view to the Netherlands. Various ways to achieve this variabilisation are discussed, such as a spatial graduation of fuel taxes, congestion pricing, a kilometre charge and paid parkings. In this context the author emphasises also that the proper pricing of other modes, like freight transport, public transport and aviation deserves more attention.

A subsequent discussion on congestion pricing is given in the fourth contribution by Ingo Hansen, who shows an estimation of time loss caused by congestion, and consequently of congestion costs, on motorways and principal highways. Particularly, the author advocates as a solution the opening of a new toll road instead of the introduction of congestion pricing, in particular since the latter might be perceived by the road user as an extra-tax.

In the same vein (i.e. the exploration of alternative solutions to road pricing), the fifth contribution (by Barry Ubbels, Peter Nijkamp, Erik Verhoef, Steve Potter and Marcus Enoch) is written. The authors illustrate in particular alternative, increasingly popular, sources of funding, i.e. local charges or taxes aiming to support (urban) public transport. The case studies depicted here show that there is a great potential for applying unconventional charging mechanisms.

Finally the work by Jean-Fran‡ois Geerts and Bart Jourquin concludes this special issue. It is an empirical study û based on a European digitised network û aiming to model the actual flows of freight transport through the region of Wallonia (Belgium). The reference scenario (1995) is then used for creating a

projection for the year 2010. It is interesting that additional scenarios û where the external cost of transport (like congestion, noise, pollution, etc.) were totally and partially included û were also developed. The work shows then results of an empirical experiment attempting to link together the scenario methodology and transport externalities.

In conclusion, the various contributions show that, based on solid economic theory, an analytical platform can be developed from which further theoretical and empirical research can evolve. In this context, a systematic comparative analysis aiming at examining trends and policy impacts in different countries in Europe and the USA, with reference to specific scenarios on transport growth and mobility pricing, might be an interesting further endeavor.

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Guest Editors

References

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