

The Results of I-PRISM

VU

This project considered the question of how road pricing should be designed, and what its effects will be, taking into account the relation between transport on the one hand and the urban economy on the other. We found, in the first place, that the fact that labour is taxed, and hence urban labour markets are distorted in the economic sense, means that road pricing should be adapted to account for this. The way in which this should be done varies over space within a city. We also found that not taking these labour market distortions into account may cause policies to reduce rather than improve social welfare. Second, we studied the relation between transport and urban housing markets, which too may be distorted, e.g. because of mortgage tax deductions or building height restrictions. We found that when government interventions in these markets involve price instruments, the tax in the transport market should be adjusted. But when the interventions involve direct command-and-control regulation, this is not the case. Third, we study how local governments may create distortions when they each individually set road taxes in their own jurisdictions. First results suggest that the associated welfare losses may be substantial. And finally, our empirical work has shown how in various “Spitsmijden” projects, participants are sensitive to financial incentives in real life.

TUD-TBM

This research analyzed the long policy process of road pricing in the Netherlands which finally failed. The opinions of all important actors in this political process which took place between 1994 and 2010 (Ministers, political parties, lobby groups, media) were gathered and analyzed using 427 news articles published in the five leading Dutch newspapers. In these news articles actors voiced their opinions, their agreements and disagreements, and did they react to each other. Based on the analysis this research concludes that implementation was hindered by the Dutch political system/culture together with the relatively complicated road pricing design issues. These two factors made it impossible to reach a high level of political consensus which is required in the Dutch political culture. The thesis addresses specifically the role of the media in the policy process. The results of the thesis can be used in the management of road pricing policy processes. Special in the thesis is the in-depth content-analysis of many news articles which made it possible to analyze opinions of 26 main actors over a long period of time.

RUG

The researchers at the University of Groningen found that CO₂ differentiation increases the acceptability of pricing policies. Furthermore, they found that if environmental benefits of pricing policies are stressed this will strengthen people’s intrinsic motivation to change their behaviour and thereby motivate people to adopt other pro-environmental actions as well. In contrast, emphasizing financial benefits can reduce intrinsic motivation to change behaviour, and make people focus on external rewards and costs, therefore a higher financial reward is needed to accomplish the same behavioural change. Also, it was found that people experience more positive emotions after small environmental than after equivalent financial savings, and they think small environmental savings are more worthwhile than small financial savings. Perceptions are partly influenced by motivation. Simply communicating expected societal benefits may therefore not increase acceptability if people are not motivated to act upon this information and if policies do not have positive implications for values that people find important.

TUD-TP

The work performed at the Transport and Planning department of Delft University of Technology resulted in a set of mathematical models that allow more realistic strategic planning of mobility pricing. Multiple stakeholders (e.g., governments, public transport operators) are explicitly considered, which allows the identification of conflicting interests. The different outcomes based on

either cooperation and competition can be compared; this shows how much the transport system can improve by cooperation of the stakeholders. The first results on a hypothetical case show that cooperation between the train operator and national government can improve the system significantly. A large case study on the Randstad is in the final phase of development. The new mathematical models allow: (1) a better simulation of route choice behavior of travelers on large scale networks, (2) more insight in the underlying behavior of drivers for road intersection models, and (3) a good compromise between realism and computational efficiency for calculating congestion conditions.