

Conference on Applied Infrastructure Research – Panel Discussion “Road pricing: a new perspective”  
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# **Institutional Aspects of Road Pricing and Funding of Road Infrastructure**

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This presentation is based on joint research with Thorsten Beckers.

# Possible objectives of road pricing

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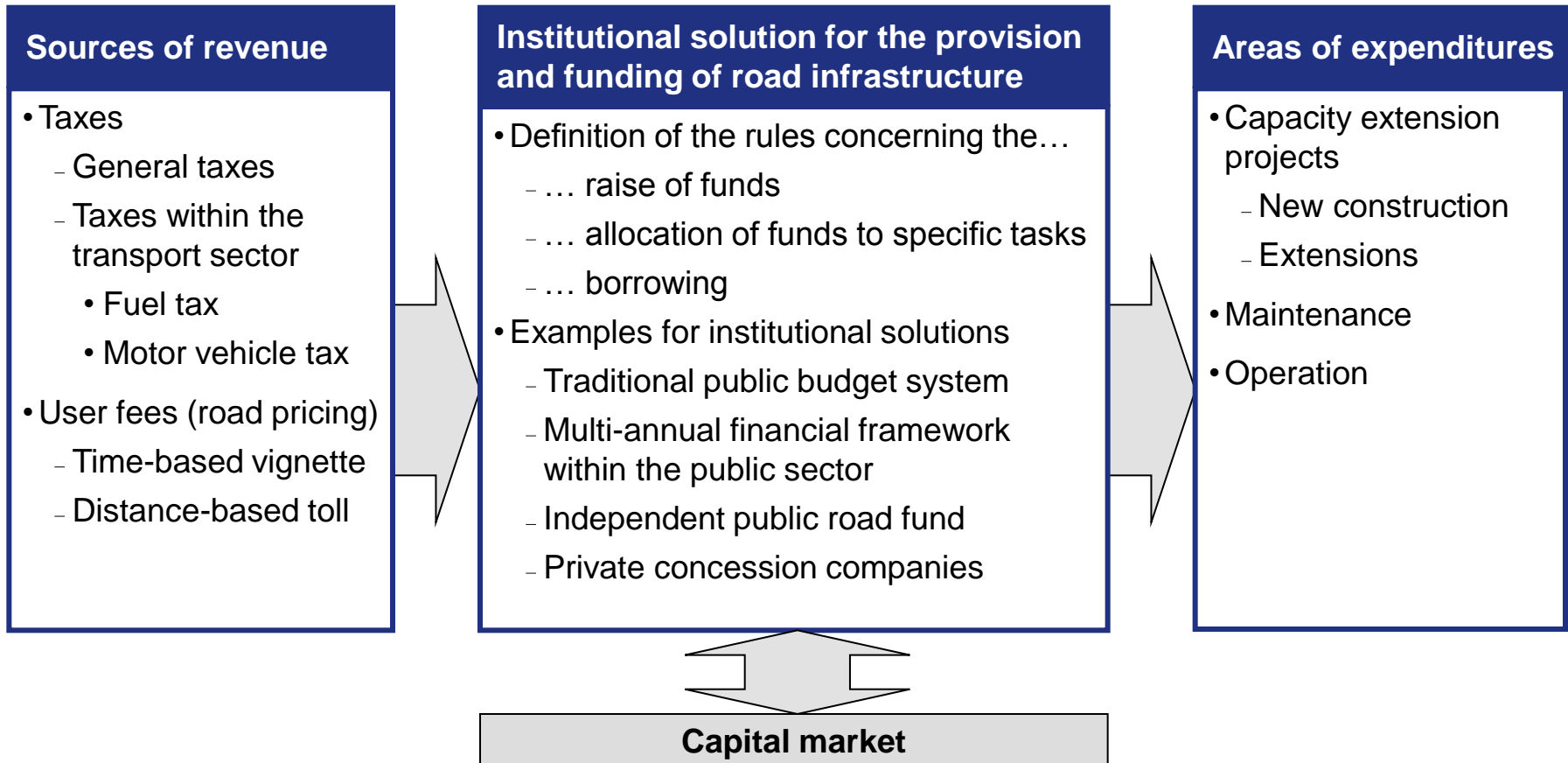
## Three possible objectives of road pricing

- 1) Reduction of congestion
- 2) Reduction of environmental problems
  - air pollution
  - climate effects (greenhouse gas emissions)
  - traffic noise
- 3) Generation of (additional) funds

**Current policy debate – at least at the national level – is mainly about road pricing as a means for closing the funding gap regarding road infrastructure**

**For this reason, I will concentrate on the role road pricing can play for the creation of an efficient funding system**

# Dimensions of funding systems for road infrastructure



# Time horizon and options for the introduction of road pricing for passenger cars: the case of Germany

## Distance-based toll

- Problems implementing a distance-based toll for passenger cars on the federal motorways or federal trunk roads only
  - If the toll level is low a high proportion of toll revenues would have to be used to cover the costs of the tolling system
  - If the toll level is high there would be substantial traffic evasion on the subordinated network
- Tolls for passenger cars should not be introduced before the charging technology is available to raise tolls on motorways and on the subordinated network at acceptable costs

## Vignette

- The vignette price should not be too high to limit traffic evasion on the subordinated network
- Advantages compared to a motor vehicle tax?
  - Additional payments from the transit traffic (advantage from a national perspective)
  - But the proportion of the transit traffic is in the passenger car segment comparatively low (even enough to cover the costs for the installation and operation of the tolling system including enforcement costs?)
- The advantages and disadvantages (costs of a vignette system, inefficient traffic evasion) of a vignette should be well balanced
- Net benefit is at least questionable

# Impact of the institutional solution for the provision and funding of road infrastructure

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## Significance of road pricing and impact of the institutional solution

- Introduction of road pricing is not crucial for the total amount of funds used for road infrastructure
- The design of the institutional solution is much more important for the amount of funds dedicated for road infrastructure than the sources of revenues

## Criteria for the evaluation of institutional solutions

- Realization of urgently needed projects; efficient level of funds for the maintenance and operation of the existing network available
- Use of efficient sources of revenues
- Efficiency of the coordination (low transaction costs)

## No „one-size-fits-it-all solution“

- It is important to consider path-dependencies
- New institutional economics show that the existing institutional framework and the specific circumstances in each country respectively, play an important role

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**Thank you very much for your attention!**