How to evaluate noise-abatement measures in transport?

Transport noise

- Noise is costly to society
  - Social cost in EU22 over 40 billion euro (Den Boer & Schroten, 2008)
- Nois-abatement measures
  - First best
    - Pigouvian taxation
  - Source based
    - Silent tires, silent tarmac, less traffic
  - End-of-pipe
    - Sound barrier walls, insulation

How to measure the marginal costs?

- Social optimum where MSB=MSC
- Marginal social benefit of abatement
  - Hedonic pricing
  - Contingent valuation (some number is better than no number)
- Marginal cost of abatement
  - Construction price of sound-barrier walls
  - Price of sound proofing your house

In practice

- Obtain the costs of transport noise
- Investigate the (under)provision of sound-barrier walls or silent tarmac
- Viability of novel solutions for traffic-noise

Literature

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Goal of my Research Project

- To develop a framework to investigate the efficiency of (noise-)abatement measures in transport