The relative costs of different funding mechanisms, and means of mitigating this

Jani Saarinen
Financial Director, Finnish Road Administration
Road network

Projects

Road production by concession / joint ventures

Road production by competitive tendering

In house Road production/public works

State department

Road corporation

Concession

State tax revenue

User charges, vignettes, tolls

Road fund

Earmarked road transport taxes

General taxes

Loans, bonds etc.

Funding sources

Road management

Road network / links

Road production
The relative costs of different funding mechanisms

- **General taxation of transport**
  - + cost of taxation = 0-4 % (motor vehicle tax in Finland, 2 %)
  - - no connection between income and costs

- **Earmarked taxation (fuel, vehicle, insurance etc.)**
  - + cost of taxation = 0-4 % (fuel tax in Finland, 0 %)
  - - low connection between income and costs

- **Loans, bonds etc.**
  - - cost of money 2-20 % interest (state loans in Finland, 2-3 %)
  - - no connection between income and costs, beneficial if benefits from investments are higher

- **Private financing**
  - - cost of money 0,5-10 % higher than state loans' interest
  - - no connection between income and costs
The relative costs of different funding mechanisms (2)

- **Vignettes**
  - cost of vignettes 5 - 20 %, reasonable cost-benefit ratio
  + connection between income and costs at some level

- **Tolls etc.**
  - cost of tolling 10 - 40 %, low cost-benefit ratio
  + high connection between income and costs at some level

- **User charges**
  - cost of charging 10 - 40 %, low cost-benefit ratio (21-25 % in Germany)
  + high connection between income and costs at some level
Road user charges in Austria

- from 1.1.2004 for the motorway network (2000 km)
- based on kilometres / number of axels, vehicles > 3.5 t, average 22 cnt/km
- annual income € 750 mill. / costs € 86 mill.; 11.5% of total income (?)
- 6 toll roads or tunnels; 120 - 150 € mill. / year
- vignette; € 300 mill. / year
Road user charges in Switzerland

- from 2001, whole network (70 000 km)
- based on kilometres, pollution, maximum load, commercial vehicles > 3,5 t, average 1,39-1,85 cnt/km
- annual income 2005 780 mill. € / costs 33-39 mill.€;
  4-5 % of total income (?) + 59 mill. costs of investments for obu's
- subsidising of Swiss railroads

Kuva: Rapp Trans AG
Road user charges in Germany

- from 2005, motorway network (12 000 km)
- based on kilometres, vehicles > 12 t,
  9-14 cnt/km, average 12,4 cnt/km
- annual income 2005 approximately 3 000 mill. € /
  costs 650-750 mill.€
  21-25 % of total income
The relative costs of different funding mechanisms

Costs of income

- General taxes (fuel taxes)
- Earmarked taxes
- Loans
- Private financing

Efficiency of the use of transport infrastructure

- Tolls
- User fees
- Vignettes