Tolling on the Hungarian Motorway Network

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- 93,000 km²
- 10 m people
- 3 m vehicles
- GDP/capita 4,500 USD
- national roads 30,500 km
- road network 150,000 km
Overview of Tolling History in Hungary

- First master plan for speedways: 1942
- Motorway constructions started: 1961
- „500 km of Toll Motorways” programme: 1970-1976
- Attempt to introduce the vignette system: 1989
- Toll collection by Concessionaires: 1996-2004
- Continuous spread of vignette system: from 2000
M1 Former Toll Collection (1996-1999)

- Semi-open manual system on 43 km length
- 4 vehicle categories according to total height
- 4 discount schemes for locals + frequents + fleets
- 6 currencies + 6 bank & petrol cards accepted
- 3 m transactions/year & 12 m EUR income/year
- 7,000 v/d AADT & 45% captured (25% for HGVs)
M3 Former Toll Collection
M3 Former Toll Collection (1999)

- Closed manual system on 100 km length
- 3 vehicle categories according to total height
- Mixed toll / vignette system: traffic 1:1 & income: 2:1
- HUF only + 2 bank cards accepted
- 12 m transactions/year & 15 m EUR income/year
- 20,000 v/d AADT & 65% captured (50% for HGVs)
M5 Former Toll Collection
M5 Former Toll Collection (1997-2004)

- Semi-open manual system on 100 km length
- 4 vehicle categories according to axle numbers
- 4 discount schemes for locals + frequents + fleets
- 9/5 currencies + 5 bank & petrol cards accepted
- 6 m transactions/year & 40 m EUR income/year
- 10,000 v/d AADT & 45% captured (25% for HGVs)
The Unified Vignette System

- MATRICA VIGNETTE
- KÖTELEZÖ COMPULSORY VERPFLICHTEND
- MATRICA VIGNETTE
- VIDEOKONTROLL!
- MATRICA VIGNETTE
- 2000 m

HUNGARIAN STATE MOTORWAY MANAGEMENT CO. LTD.
Reasons Unifying under a Vignette System

• High toll level, low traffic, different categorisation
• Mainly trucks by-passed the tolled sections
• Protestations by local residents
• Debates on political level raised toll as a main issue
Demolition of Facilities
Structure of the Vignette System

• Three user charge categories:
  – $D_1 \leq 3.5 \text{ t} < D_2 \leq 7.5 \text{ t} < D_3 \leq 12 \text{ t} < D_3$ vehicles

• Five vignette validities:
  – valid for any 1 days (only for D4: EU requirement)
  – valid for any 4 consecutive days (only for D1: local politics)
  – valid for any 10 consecutive days
  – valid for any 31 consecutive days
  – yearly vignette (from January 1 to the next January 31)
Sale of Vignettes

- POS terminals at more than 500 retailing points register:
  - licence plate number
  - user charge category
  - validity of the vignette

- Right of Use Data Base:
  - stores all data from POS
  - gives all data to control
Control by Fixed & Mobile Cameras

Electronic Control System compares OCR results with RoU Data Base and sends out excess charge reminders
Control by Mobile Patrols & Device

Mobile Control Device compares entered data with RoU Data Base or Patrols visually check vignettes.
Foreseeable Problems in Middle Term

- Large scale developments: new 350 km by 2007
- Demand shifts form short to long term validity:
  - from 10 days to yearly vignettes
  - the higher network density will speed up this shift
  - the higher purchasing power will result higher yearly mileage
- The vignette system will not cover the O & M costs
- Return back to the mileage based system: ETC by 2008
Main Trends of the Vignette System

The graph illustrates the trends of various factors related to the Vignette System from the years 2000 to 2008. The trends shown include:

- **Virtual Toll Level**
- **Vignette Price Level**
- **Vignette Incomes**
- **Network Length**
- **Vehicle Mileage**

The graph provides a visual representation of how these factors have evolved over the specified period.
Changing Public Perception of Fairness

- all taxpayers / all motorists / given users;
- formerly free sections / new tolled sections;
- present / future generations;
- same / differentiated toll level by regional devel. level;
- cross financing: vehicle categories / road sections;
- efficient enforcement solutions;
- local affordability / international traffic
Principles of Hungarian Toll Policy

- vignette system is only a temporary, integrating solution;
- mid-term objective: electronic, mileage based system;
- implementation: total weight ↓, all categories if possible;
- toll differentiation: motorway / expressway;
- funding: tolling, operation, maintenance, reconstruction, and for development or debt service if possible;
- toll will be more proportional: LV << HGV
Target: socially and economically affordable toll level

inflation < toll escalation < GDP ↗ Pur. Pow. Parity ↗
Main Aspects of Communication

• **Supplying proper information for the public:**
  – emphasizing advantages of a mileage based toll system;
  – yearly report of costs and revenues;
  – review of possible alternatives;
  – public awareness: investments are realised from user charges.

• **Green Book is published and consultations are held:**
  – with transport officials
  – with truckers’ associations, automobile clubs;
  – local governments, environmentalists, and politicians.
Thank you for your attention

PIARC Seminar
Cancún, Mexico
13 April 2005