Managing Congestion
A Political Perspective

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Mitigating Congestion
Ministerial Sofia May 2007

- ECMT → International Transport Forum
- Debate on Congestion
  - The extent and cost of congestion
  - Better system management
  - Pricing
  - Adding capacity
**Pattern of Congestion**

- Road costs 10X other modes
- Chronic in cities
- Chronic on trunk roads around conurbations
- Road and rail corridors serving ports
- Recurrent at hub airports
- Recurrent in some ports

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**Congestion is getting worse**

**Hours Lost to Congestion in US Cities**

![Bar chart showing hours lost to congestion in US cities from 1983 to 2003](chart.png)
Congestion costs

- USA – 1.6% of GDP, 150 billion Euros
- EU – 1.1% of GDP, 140 billion Euros
  – 1% of GDP on roads alone
- UK roads: business + freight 0.5%; total 1%
Peak costs

- Roads in Los Angeles
  1200 euros/year per peak traveler

- Roads in central London
  £8/day/vehicle or 3500 euros/yr

Congestion relative to other costs

<table>
<thead>
<tr>
<th>Cost estimates</th>
<th>35</th>
<th>30</th>
<th>25</th>
<th>20</th>
<th>15</th>
<th>10</th>
<th>5</th>
<th>0</th>
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</thead>
<tbody>
<tr>
<td>US cents/mile</td>
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Studies:
- Harrington
- Sansom
- Parry
- Small

- Congestion
- CO2
- NOx-PM
- Accidents
Potential Benefits of Mitigating Congestion

- 2000 data modeled for Germany, France, UK
- Optimised cong. using prices +/- investment
  - 30 billion euro welfare gain
  - 100 billion euros in revenues
  - for tax cuts or investment in infrastructure
- Cost of doing nothing: 100 billion euros

UK Eddington Report:
Half cost could be saved

<table>
<thead>
<tr>
<th>UK</th>
<th>Actions</th>
<th>Cost in 2025-30</th>
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</thead>
<tbody>
<tr>
<td>Roads</td>
<td>Planned investments no pricing or demand mgmt</td>
<td>33 billion Euros</td>
</tr>
<tr>
<td>Roads</td>
<td>Optimal pricing and investment</td>
<td>17 billion Euros</td>
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<tr>
<td>Airports</td>
<td>Planned investments delayed</td>
<td>9 billion Euros</td>
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<tr>
<td>Ports</td>
<td>No new investment plans</td>
<td>0.2 billion Euros</td>
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Mitigation measures

- Investment in roads
- Better maintenance management
- Better incident management
- Better, intelligent, traffic management systems
- Hard shoulder use in peak hours
- Investment in rail, buses and trams

When congestion still outstrips capacity: road pricing

- Urban road pricing
- Potential of national pricing to be explored
- Acceptance requires transport tax cuts
- Or investment – concessions and PPPs
- System costs to be minimised
- And confidence building
Dutch road pricing

- “Rekening rijden I”, km-charge, 1988-1990
- “Spitsvignet”, rush-hour charge, 1990-1993
- “Rekening rijden II”, tolling cordons around 4 major cities, 1994-2001
- “Kilometerheffing”, km-charge, 2001-2004
- “Better charging” national km-charge 2005

Developed through consensus but with tough conditions

- User “platform” recommended charges
- To replace fixed vehicle charges
- With “fairer” pay-as-you go charge
- “Fairness” means a national scheme, that is revenue neutral and identical for all users
- Costs must not exceed 5% of revenues
- Aim, operation 2014, phase in from 2011
UK Policy

- Km charges, not so much if, but when and how?
  - To manage demand
  - To level charges paid by domestic and foreign trucks
  - To reduce fuel excise tax burden in rural areas
- Electronic lorry charge
  - trialed around Leeds in 2004 for introduction in 2008
  - abandoned because expensive compared to paper system
- Goal – national electronic km charge for all vehicles
  - differentiated for congestion
  - to replace part of fuel excise tax

Truck km charges

- Germany and Switzerland shown 10-15% reduction in traffic through logistic response
- France will charge in Alsace and examining potential nationally
Finance and investment

• US hot lanes popular, private investment needed, makes value pricing inevitable
• Mexico concessioning existing motorways to finance new motorways avoiding traffic forecast risks

Conclusions

• Mitigation essential to avoid economic losses
• Some urban congestion inevitable – reduce rather than eliminate
• Reliability of travel times is key element
• Corridors serving gateways are critical areas for improvement
• Border crossing procedures must improve
The package: traffic management, pricing and investment

• Fuel price/tax increases not effective – vkm less affected as incomes rise
• Km charges instead of fuel tax
• Stockholm, London, Maut demonstration effect aiding acceptance
• More private investment expected to add to public investment

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