Introduction to the discussion

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Outline

• The policy problem and the Round Table discussion
• Special features of road transportation
• Economic mitigation potentials in transport
• Effective policies for GHG mitigation in transport
• Our discussions
• Topics for discussion
The policy problem and the Round Table discussion

- Transport is a major (and growing) contributor to global GHG emissions
- Concern about climate change has led to new policies and policy proposals for the sector
  - All sectors must decarbonise to achieve the EU’s 2°C target
- The Round Table focus is on cost effectiveness and overall benefits of policies
  - Problems: externalities of congestion, damage to air quality, crashes & accidents, climate change, noise, vibration
  - Policies and portfolios of policies (emission trading +efficiency standards)
  - Tools (or policy instruments) and any co-benefits in their use
Special features of road transportation

- Highly desired service in all economies, with a central role in economic growth and development: strongly income-elastic
- Responses to relative prices very weak in the short-run
  - but cross-country analyses suggests that price elasticities for fuel demand are much higher in the long-run
- Already heavily regulated technology and behaviour (safety, efficiency, pollution)
- Technology-driven with major impact of IT and potential for non-linear rapid change, as IT costs fall
- Location- and infrastructure- specific, so the activity has limited and slow relocation potential
- Uncertainties about: new technologies, acceptability of new policies (congestion charging, emission permits), behaviour of a complex system in conditions of limited road space and pent-up demand and “irrational” motivations
All sectors and regions have the potential to contribute (end-use based)

Note: estimates do not include non-technical options, such as lifestyle changes.
## Selected sectoral policies, measures and instruments that have shown to be environmentally effective

<table>
<thead>
<tr>
<th>Sector</th>
<th>Policies, measures and instruments shown to be environmentally effective</th>
<th>Key constraints or opportunities</th>
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</thead>
<tbody>
<tr>
<td>Transport</td>
<td>Mandatory fuel economy, biofuel blending and CO₂ standards for road transport</td>
<td>Partial coverage of vehicle fleet may limit effectiveness</td>
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<td></td>
<td>Taxes on vehicle purchase, registration, use and motor fuels, road and parking pricing</td>
<td>Effectiveness may drop with higher incomes</td>
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<td>Influence mobility needs through land use regulations, and infrastructure planning</td>
<td>Particularly appropriate for countries that are building up their transportation systems</td>
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<td>Investment in attractive public transport facilities and non-motorised forms of transport</td>
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1. Public RD&D investment in low emission technologies have proven to be effective in all sectors.
Our discussions

• Aims
  – synthesis and consolidate our collective understanding of the issue
  – learn from research to support good policy design
  – prepare for dissemination of results

• Structure
  – Day 1 morning: traditional measures, i.e. Standards and taxes, assuming GHG action required
  – Day 1 afternoon: proader perspective: objectives, tools & methods
  – Day 2: continued discussion and key implications

• Outside the topic boundaries:
  – Areas already covered in earlier RTs: energy security and oil dependence, biofuel subsidies
  – Areas too complex/controversial/tangential for extended discussions: aviation, modal choice

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Topics for discussion: Day 1 morning
Effective regulation for GHG mitigation

1. Fuel economy regulation wide-spread: can we learn what makes for effective regulation? How to avoid damaging side-effects and encourage beneficial ones? Convergence?
2. EU proposal on mandatory standards: what are effects on weight and safety?
3. How effective are regulations in managing on-road fuel use and emissions? Test-cycle versus on-road performance indicators – convergence?
4. How reliable are estimates of technology costs and effects of induced technological change?
5. Can credit be given for off-test-cycle component improvements (air conditioners, fuel economy info) in CAFÉ or EU standards? How?
Topics for discussion: Day 1 morning
Policy portfolios for transportation (1): regulation, fuel duties and carbon prices

1. Should fuel-economy regulation be viewed as independent of other tools?
2. Revenue use?
3. Rebound effects in transport and other sectors?
4. Costs of restraining consumer choice?
Topics for discussion: Day 1 afternoon
Policy portfolios for transportation (2): congestion charging, tradable permits and fuel duties; valuation and externalities; methods; burden sharing

• Policy packages: how to deal with interacting transport externalities?
• Social acceptance of various approaches?
• Lessons from the ETS?
• What are the ideal trading partners (consumers, manufacturers,…)?
• Which methods for policy analyses: CGE, CBA, MCA?
• Burden sharing among sectors?