Congestion charges: Three questions

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Congestion is unavoidable – in cities where people want to be
Urban transport planning: creating good accessibility with limited space
Efficient urban transport policy

- Attractive public transport
- Restrain road traffic
- Compact land use
- Walkability
Why congestion pricing?

• Road congestion cannot be solved by investments in roads or transit alone
  • Scarcity of urban land
  • Financial constraints

• Need to use urban land and road capacity efficiently
  • Pricing (as opposed to queues) will prioritize most "valuable" traffic (freight, commuting)

• In addition – funding for transit or investments as well!

• Design must balance "goods" (less congestion, emissions etc) vs. "bads" (increased transport costs [for many])
Congestion charges

Will it work?

Will they hate me?

What are the main obstacles?
It works.
(Stockholm: \(\approx 20\% \) less traffic across cordon)
What 20% less traffic does to congestion
30-50% less time in queues, and less variability
April 2005/2006
Charges only work if well designed.

Use good transport models, and trust them more than your gut feeling.
## Forecast compared to outcome

<table>
<thead>
<tr>
<th></th>
<th>Forecast</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic across cordon</td>
<td>-16%</td>
<td>-20%</td>
</tr>
<tr>
<td><strong>Rush hours</strong></td>
<td>-17%</td>
<td>-18%</td>
</tr>
<tr>
<td>Public transport</td>
<td>+6%</td>
<td>+5%</td>
</tr>
<tr>
<td><strong>Travel time gains:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- links across cordon</td>
<td>282</td>
<td>294</td>
</tr>
<tr>
<td>- links within cordon</td>
<td>201</td>
<td>266</td>
</tr>
<tr>
<td>- links outside cordon</td>
<td>-87</td>
<td>460</td>
</tr>
</tbody>
</table>

The U-curve of support

- Decision
- Charges introduced
- Referendum
- Govt. decision
Why do people change their minds?

It’s better than you thought

It’s not as bad as you thought
"Do you drive less across the cordon than before the charges?" (2005=>2006)
Status quo bias:
Support for charges vs. amount paid

- No car
- Have car, never pay
- Pay sometimes
- Pay often

[Graph showing trends over years]
Distributional effects: paid charges per income segment

Absolute terms

As share of income
Distributional effects of fuel tax

<table>
<thead>
<tr>
<th>Large cities</th>
<th>Small cities</th>
<th>Rural areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.3</td>
<td>0.2</td>
<td>0.4</td>
</tr>
<tr>
<td>0.6</td>
<td>0.5</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Absolute terms per income octile
But *variability* of fuel tax payments relative to income is much larger than for income tax.
Is taxing transportation "fair"?

• Rich pay more – but poor sometimes pay a larger share of their income

• **Problematic** if the purpose is to **generate revenues**

• **OK** if the purpose is to **correct prices**
  • Prices are usually the same for everyone, for efficiency reasons and to avoid paternalism
  • Increased economic equality usually achieved by taxation and welfare systems
What has stopped congestion pricing attempts?

- Political conflicts between agencies and levels of government
- Referendum/election right before planned introduction
- Science-fiction technology and scope (expensive)
- Design inconsistent with stated objectives
- Moralistic/paternalistic communication
Summary

- Congestion pricing works
- Design the system carefully
- Realistic ambitions, honest communication, consistency with objectives, avoid being moralistic
- Survive the introduction process and people will like you afterwards