

Comments on “The Welfare Consequences of Urban Traffic Regulation” by Isis Durrmeyer and Nicolás Martínez

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Driving in big cities generates externalities:

- Congestion
- Pollution: local and global (climate change)

Research question:

What are the consequences of commonly used policies to address those externalities (with a focus on congestion)?

Model and Empirical Strategy:

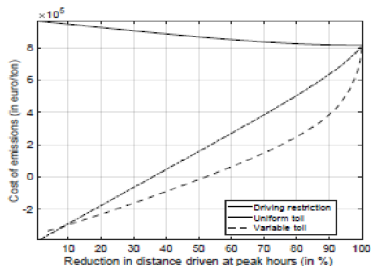
- Amazingly detailed equilibrium transportation model that features
 - Demand: Nested-logit demand for modals that depends on congestion
 - “Supply:” Road technology that determines congestion given quantity
- Separately estimate demand and supply, then use estimated model to evaluate welfare under different policies.

Demand model does not admit option not to travel

- Origin-destination pairs are fixed. Model accounts only for unavoidable trips.
- Estimation restricted then to use people that are only commuting to work or study. This seems reasonable to get accurate estimates for this group of people. But ...
- ... wouldn't occasional travelers be the ones more prone to respond to driving restriction policies? Could that explain low effects in terms of welfare improvements?
- Defining an outside option in IO applications typically requires adding some assumptions about potential market size. Would market size assumptions here need to be stronger than, for instance, in modeling demand in other settings?

Counterfactuals: Going further on carbon (fuel) taxes

- The paper examines the cost of reducing emissions from the different policies.
- They seem to have all the ingredients to build a carbon abatement cost curve from fuel taxes that takes into account congestion.
- It seems this cost would be negative up to large amounts of carbon abated.



Congestion in other modes

- Congestion in other transportation modes (public transit) is accounted for, but not specifically addressed in equilibrium. Maybe unfeasible (computation/model) to introduce this additional channel, but could we use current estimates to assess the potential relevance of this feedback effect? Perhaps in a back-of-the-envelope calculation?

Demand and supply unobservables

- The paper makes great progress by having an equilibrium model of transportation at very fine scale.
- Would the frontier now be at the incorporation of demand and supply unobservables?

Something like: (i) origin-destination specific unobserved demand shocks and (ii) area specific congestion unobservables (to the econometrician) that may be related to occupancy (correlation between τ_t^a and ν_t^a).

Short v. long-run

- Paper helps us understand the short-run implications of different policies with a very detailed estimated model.
- What margins are important if we wish to move beyond the short-run?
 - Vehicle acquisition;
 - Changing jobs/residence