

A Few Observations On
“Can Pollution Markets Work in Developing Countries?
Experimental Evidence from India”

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WHAT I *LOVE* ABOUT THIS PAPER ...

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- A decade-long collaboration between the researchers and state agency (GPCB) that illustrates both the power and reach of experimental methods.
- An achievement in market design: the first market in PM emissions. A template for both developed and developing countries.
- First causal estimates of both benefits and costs of permit trading, based on rigorous construction of counterfactual emissions.
- Provocative estimates of the broader welfare consequences of market-based PM reduction.

THREE CONVERSATION STARTERS AND A FEW STRAY THOUGHTS

FRAMING THE TREATMENT

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- Status quo command-and-control undermined by poor monitoring technologies and limited enforcement.
- *Both* control and treatment plants were outfitted with CEMS, and compliance in the treatment group enforced via performance bond, both investments in state capacity.
- Is there a counterfactual in which we instead ask, how inefficient is a regulator equipped with better (than previous status quo) monitoring capacity and enforcement powers relative to the market?
 - Can we interpret the 11% reduction in abatement costs holding pollution constant as an initial estimate?

VOLTAGE EFFECTS

- Can this be scaled up vertically and/or horizontally, within India and/or other low income/low state capacity economies?
- What's special about Gujarat? (Or do the authors expect their current work in Maharashtra to produce similar results?) What's special about this research team and the local administrators? Are there GE effects/spillovers about which we should be mindful? What happens to costs at scale?

WELFARE WITH HETEROGENEOUS INDIVIDUALS

In the US, the largest source of variation in the welfare costs of PM2.5 exposure might not be differential exposure, but rather differences in concentration-response (C-R) functions.

Might this be true for the neighborhoods of Gujarat, how might it change the welfare calculation and will we ever be able to fold this sort of EJ concern into market design?



AND A FEW STRAY THOUGHTS

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IDENTIFICATION: MAC schedules are estimated using variation in plant permit bids within compliance periods. What are the threats to identification? Multi-plant firms?