

Chatterjee (2018), 'Market Power and Spatial Competition in Rural India'

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Outline

1. Motivation and overview
2. Reduced-form evidence
3. Model
4. Counterfactuals

Motivation

- ▶ Indian farmers are very poor (medium annual income \approx \$365).

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- ▶ Low farmer revenue partly due to the low prices they receive
- ▶ Intermediaries (main buyers of crops) have monopsony power due to government regulations
- ▶ Farmers are mandated to sell crops to licensed intermediaries at government-designated marketplaces *in their own state*.

Questions

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2. How does removing the interstate trade restriction affect farmer prices/incomes/production?

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prices \uparrow 11%, output \uparrow 7%

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- ▶ Effectively prohibits farmers from selling crops in neighbouring states.
- ▶ Reduces competition between marketplaces across state borders.
- ▶ Treat each physical marketplace as having only one intermediary buyer.

Empirical methodology

- Measure of spatial competition faced by a market m :

$$\text{comp}_m = \sum_{j \in \mathcal{M}/\{m\}} \left\{ \frac{1}{\text{distance}_{mj}} \right\} \mathbf{1}[m \text{ and } j \text{ are in the same state}]$$

Empirical methodology

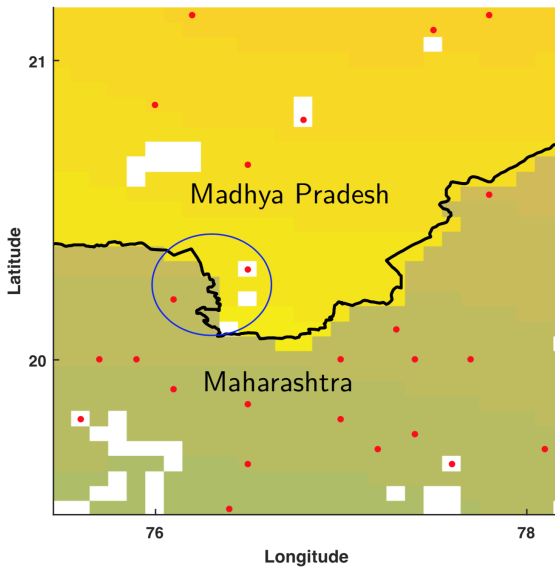
- ▶ Measure of spatial competition faced by a market m :

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- ▶ Analogous measure of interstate spatial competition:

$$\text{comp}'_m = \sum_{j \in \mathcal{M}/\{m\}} \left\{ \frac{1}{\text{distance}_{mj}} \right\} \mathbf{1}[m \text{ and } j \text{ not in the same state}]$$

Example



Empirical methodology

- Main specification:

$$\begin{aligned}\log p_{cmdst}^f = & \beta_0 + \beta_1 \text{comp}_m + \beta_2 \text{comp}'_m + \mathbf{X}'_{cdt} \beta_3 \\ & + \gamma_t + \gamma_c + \gamma_s + \epsilon_{cmdt}\end{aligned}$$

where p_{cmdst}^f is the price a farmer receives for crop c , at market m , in district d , state s , and month t .

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- ▶ Sample: 10 years (2005–2014), 2978 markets.

Empirical results

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- Greater spatial competition increases farmer prices!

Appendix

Causal estimates