

Discussion of “Competition of Spatially
Differentiated Firms: An Estimator with an
Application to Cement”

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November 16, 2010

Spatial Markets

Market Segmentation is difficult problem with overlapping markets.

Neighbour's Neighbour problem shows up, and soon the entire country is in the state space.

Spatial Segmentation is a big issue in Cement, and other bulk

Spatial Price Discrimination

Global Model of Shipments: each plant ships a certain fraction of cement to each market.

What makes this model different is the focus on spatial price discrimination: p_{jn} instead of p_j .

Huge Increase in the number of prices in this model $J \times N$ versus J .

Fixed Point of the FOC with respect to price are solvable because of:

- { Logit shocks ϵ_{nij} to smooth the demand system.
- { High performance solvers.

Not clear what the difference in the predictions of the model look like between the spatial price discrimination versus no discrimination.

Demand Estimates

Improvement on elasticity over Ryan (2009):

Aggregate: $\epsilon = 0.16$ versus $\epsilon = 2.96$.

Firm Level: $\epsilon_i = 5.70$.

Future Work

Hard to take this to the dynamics: the state space became the configuration of the entire southwest.

Look at issues at how we deal with spatial price discrimination:

- { Welfare of price discrimination versus no spatial discrimination.
- { Basing point controversy: price from a common location la Steel in the 1950s.

Issue of the role of international competition in cement.