Discussion of Song

"Estimating Platform Market Power in Two-sided Markets with an Application to Magazine Advertising"

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Summary

- Combines structural estimation and two-sided markets
  - Internalize positive externality between the two sides ➔ incentive to be big
  - Platforms compete on both sides (directly or indirectly)
- Findings:
  - magazines set consumer prices below marginal cost but earn large mark-up on advertisers
  - Merger into monopoly can be welfare enhancing for both consumers and advertisers
  - Both findings specific to two-sided markets
- Clear intuition, enormous work in implementation

Empirical Estimation

- Consumer demand:
  - x includes
  - IV for and = j and j's average p and n in other segments
- Advertiser demand:

$$n_j^B = \left(1 - F\left(\frac{p_j^B}{\omega_j n_j^A} | \boldsymbol{\theta}\right)\right) M_B \Longrightarrow \log(\omega_{jt}) = \mathbf{w}_{jt}\gamma + e_{jt}$$

  - Assume F(.)~lognormal(0,1.4), no IV
- Bertrand style profit maximization on each magazine

Comments on advertiser demand

$$n_j^B = \left(1 - F\left(\frac{p_j^B}{\omega_j n_j^A}|\boldsymbol{\theta}\right)\right) M_B \quad \Longrightarrow \quad \log(\omega_{jt}) = \mathbf{w}_{jt}\gamma + e_{jt}$$

- F(.) seems arbitrary, it dictates demand sensitivity to price and readership
  - Is it possible to estimate parameters in F(.)?
- Endogeneity of price and readership?

Comments on unique solution of market shares

- Given parameter space {θ}, there may exist multiple solutions for market shares
- Claims that this does not affect estimation with IV for price and market shares on the right hand side
  - If same $\{\theta\}$ leads to multiple {s}, is it possible that same {s} leads to multiple solutions of $\{\theta\}$?
- How does this affect elasticity and merger simulation?
  - Elasticity needs $\frac{d(s)}{d(p)}$
  - Merger simulation needs $s(p)$ to calculate profit and then search for optimal p

Comments on model choice and IVs

- Assume competitive bottleneck
  - Allow advertisers to multi-homing with no direct competition of advertisers between platforms
  - Evidence on multi-homing and lack of exclusive dealing?
- Assume demand shocks are independent between TV magazines and other magazines
  - Do different segments target same readers (e.g. married women)?
  - Do same advertisers advertise in multiple segments?
  - Do publishers engage in bundle price across segments?
- Does estimation account for (1) a publisher's ownership on multiple TV magazines, and (2) market structure changes in the data?

Other comments

- Consumers and advertisers have different quality rankings on magazines
  - The offered explanation is magazines with large market shares do not fully exploit readership in advertiser pricing
  - Does this violate the assumption of Bertrand optimal pricing?

- More intuition of why merger leads to lower advertising price for some magazines?

- Platforms may differentiate for better targeted advertising
  - How would this affect estimation and counterfactuals?