#### Discussion of Sinkinson & Starc "Consumer Advertising Competition in Prescription Drugs"

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# This paper

- Research Question
  - What's the effect of DTCATV on the demand of self and competing products?
  - How do firms choose DTCATV strategically in a dynamic setting?
  - What if we ban DTCATV or allow firms to collude in DTCATV?
- Contribution
  - Local political ads displace local drug ads on TV and therefore serve as IV for DTCATV → help identify causal effect of DTCATV
  - A structural model of strategic and dynamic advertising decisions
- Findings:
  - DTCATV has business stealing effect on brand-name drugs, but market expanding effect on non-advertising generics

### Demand estimation (static)

- Dep. Var = monthly revenue
  - Why not quantity?
- IV validity
  - Correlated with DTCATV
  - Orthogonal to the error term
- Comment on IV:
  - Political ads are not drug-specific
  - Actual IV = political ads \* drop of Lipitor ads with Dr. Jarvik in April-September 2008
    - Drop of Lipitor ads is part of DTCATV, and could affect demand of all statins directly
  - What if using the same firm's DTCATV in other drug classes?

# Heterogeneous effect of DTCATV

- Shows that the effect of DTCATV differ for brand-name and generic drugs
- Does the effect of DTCATV differ by drug age?
  - Is the business stealing effect smaller over time?
  - Does the advertising effect vary by the attributes of competing drugs?
  - Does the market expansion effect apply to brand-name non-advertising drugs?
  - Does the effect of DTCATV depend on the intensity of direct-to-doctor advertising?

### Structural model of DTCA decisions

- Every firm makes a monthly decision of DTCA with market shares as the state variable
- Why do we need a dynamic model of DTCA?
  - Drug age and patent status
  - Consumers may be reluctant to switch RXs
    - New patients, stayers, switchers, quitters
  - Today's ads may affect future demand via depreciation
  - Learning about rivals' DTCA
  - Learning about the effect of DTCA
  - Coordinate with pricing and direct-to-doctor advertising

# Identification issues in the dynamic model

- How to identify the transition matrix without knowing who (or how many) start, stay, switch, or quit statins?
- The DTCA and revenue data are from 7/2007 to 11/2008. This only applies to a small time window in a drug's whole patent life. How to capture the advertising effects over time?
- Assumptions on firms' objective, policy variables, and information structure

#### Questions on a larger picture

- Informative or persuasive advertising?
- Business stealing advertising does not necessarily reduce consumer welfare
  - Switches may lead to better drug-patient match
- Advertising contents
  - A statin ad rather than Lipitor ad?
- Other firm decisions pricing, me-too drugs, direct-to-doctor advertising

#### In summary

- Interesting read
- Refinement of IV
- A better connection between static demand estimation and dynamic supply decisions
- Be careful in welfare analysis