

A Structural Analysis of the Competitive Landscape of
Brick-And-Mortar Pharmacies

by

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Comments by

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Summary (1)

- Use aggregate sales data for OTC drugs aggregated from individual transactions to sales of a drug within a pharmacy to estimate 188 separate logit demand models (47 ATC2 * 4 Years)
- Market is a combination of all OTC drugs in an ATC2 sold across all pharmacies in the data set within a geographic area (post code) within a year
- Outside good is a measure of similar drugs that may be sold by pharmacies not in the data set

Summary (2)

- Compute the pharmacy markups for each product and compare them to the markups when
 1. the pharmacy maximized its joint profit across the portfolio of all (OTC) drugs within the ATC2 sold in that pharmacy
 2. all the pharmacies in the market set the collusive price
 3. They find that relative to the computed markup, under (1), the markups would increase by about 0.5% while, under (2) markups would be about 45% higher
- Also find that markups do not vary that much by the level of urbanization levels
 1. relative to cities, the markups in the rural and suburban areas are higher by .5%
 2. but CS relative to TW is about 1.5% higher in rural and suburban areas relative to cities

Comments/Questions (1)

- Really interesting paper
 - Important issue
 - Cool data set, also have price instruments (whole sale prices)
- Provide more details (perhaps some in the appendix)
 - Why are markups higher in rural areas but also CS relative to TW (intuition?)
 - Was current ownership structure of pharmacies taken into account (i.e., when more than pharmacy is owned by the same entity)
 - Role of national chains?
 - Sensitivity of markups to outside good?
 - Any restrictions imposed? (why is max own elasticity across estimations -1)
 - Extreme vales? (minimum own elasticity in rural areas: -145,765.18 ... look at shares)

Comments/Questions (2)

- Estimation
 - Heterogeneity
 - ATC2 is too broad a category. Consider ATC3 or ATC4.
 - Markups by type of drugs
 - Nests: molecule and formulations (tab vs liquid etc.)
 - Complementarities in some drugs (particularly OTCs)
 - May affect markups (see Bokhari and Mariuzzo, IJIO 2018)
 - Perhaps aggregate from transitions to combinations of drugs purchased (A, B, C, A&B, A&C, selectively)
 - or use AIDS type models
 - Covert to DDD or some other similar measure
 - See also Frank Verboven's work on revenue based shares

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