Consumer Choice in Electricity: Empirical Causes and Methodological Implications

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Overall points

- **Results not surprising**
  - o **Look at what retail consumers confront –**
    2006 FTC Behav Econ conference; 2007*Energy Policy*
- **Unpacking brand loyalty, switching costs, and search**
  - o **Puller et al.'s empirical contribution**
  - o **Some questions on empirical assumptions**
- **"Behavioral economics" or response to costs?**
- **Policy implications: What difference does it make?**
  - **Policies to make markets work better**
  - **Regulation as way to mitigate all three (especially residential)**
- **How should we react to average cost pricing?**

Prior work on residential electricity choices

Considerable raw data on reluctance to choose

- Both domestic and international

Extensive efforts at persuasion, “education” required

- Door-to-door marketing (UK)
- Website instruction (many others)
- Even in best case (UK), extensive switching back

Choosing not to choose

- “Brand loyalty” not unusual in other markets
- How often does one switch toothpaste, cereal brands?

Shopping in Pennsylvania

A few inquiries ….

Puller et al. contribution: The attempt to unpack

Choices to stick with the incumbent all of "brand preference, switching costs, search costs"?

Incumbent brand preference:"Differentiation," risk aversion, or not wanting to bother?

- **Schmalensee "pioneering brands"**

If "search" is "seeing if new is as good as old," can one separate "brand preference" from "search costs"?

If switching costs low, does that reduce costs of search as *ex ante* verification?

Could Steve answer the venerable "More taste or less filling?"

A role in Miller Lite's revival of the old ad campaign?

How do they do it (I think)?

Used to thinking about variables, not "moments," but that's my shortcoming

1. Seek *N* "brand preference" variables indicating "decision to consider", for each present supplier *I*

2. "Switching costs": $N - 1$ probabilities P_I of choosing supplier *I* <u>independent of which supplier one had</u>

Can extract this from looking at data on $N[N - 1]$ data points from those who had supplier *I* and chose a new supplier *J*   *I*

3. Use data on households who moved into new homes and thus had to search, to estimate how search matters

<u>#2 critical and questionable, esp. for incumbent, green</u>

Behavioral or conventional economics?

Puller et. al. approach not one of identifying mistakes

Assume (and attempt to separately estimate) brand preference or actual costs (switching, search)

Attempt to keep explanations within the paradigm rather than "throw in the towel"

Is "search costs" a neoclassical or behavioral concept?

External vs. internal? Is that just a preference?

How about costs of "switching"?

Is "brand loyalty" irrational?

But what difference does it make?

- Depends on policy objective
- Make markets work better, then it matters
  - Invest in programs to reduce search costs
  - Invest in policies to reduce switching costs (like number portability in telephones)
- But what about whether to have markets?
- Models incorporating costs (all three) show that opening markets can reduce welfare
  - Incumbent free to exploit the three costs
  - Some who switch worse off than under regulation
  - Let the PSC do it for me!
- Let 65% of the market (C&I) choose; it's worth it

Three contexts; many questions

- **How to interpret SSNIP or UPP tests for mergers**
  - **What is the price that needs to be increased profitably by 5-10% over 1-2 years (or whatever)?**
  - **What affects pricing in unilateral models?**
- **What would a monopoly or oligopoly outcome be if consumers based decisions on average cost?**
  - o **Will output rise or fall under nonlinear pricing schemes?**
  - o **If marginal price below average price, too little output already?**
  - o **If marginal price increasing, consume too much?**
- **How do we do cost-benefit tests generally?**
  - **What is the area under an average price demand curve?**