

Monica Giuliatti, J. Otero and M. Waterson

SUPPLY COMPETITION AND PRICE BEHAVIOUR IN THE UK ELECTRICITY SUPPLY INDUSTRY

Monica Giuliatti, Aston University, Aston Business School, Birmingham, B4 7ET, United Kingdom,
e-mail address: m.giuliatti@aston.ac.uk

J. Otero: Universidad del Rosario

M. Waterson: Warwick University

Overview

Competition in UK energy supply has arguably proceeded further than in any other country. Not only have all UK consumers been able to choose their electricity supplier since May 1999, but also since March 2002 there has been no supply price regulation. Therefore, an experiment of international significance is taking place, concerning the behaviour of consumers and their suppliers in relation to a key product. The focus of this paper is on the development over time of tariff structures for supply to domestic customers. Here, one null hypothesis would be that, as a result of competition, prices converge together quickly. An alternative is that prices would remain somewhat dispersed, as a consequence of firms exploiting significant search and switching costs and product differentiation. By examining the pattern of prices and changes in this pattern over time, we aim to tease out information about search costs, switching costs and the extent to which the market is or is becoming competitive in practice.

Method

Our analysis of the changes in electricity retail prices since the introduction of competition takes into account geographical, product market and temporal dimensions. Our data set consists of a balanced panel of 48 bimonthly price observations for each firm active in the market over the period February 1999 to December 2006. The empirical analysis relies on econometric methods for the analysis of persistence and price dispersion in order to test theoretical hypotheses about the nature of consumers' switching and search costs.

Results

By separating the difference between the incumbent's price and entrants' prices into two elements either side of the median non-incumbent price, we obtain approximate measures of search and of switching costs. The surprising thing is how resistant high incumbent prices are to change, and how it remains worthwhile for some non-incumbent suppliers to quote, and do business at, prices that are significantly non-competitive, in the face of evidence that internet usage has increased somewhat. Our results indicate that an initially negative trend in search costs becomes positive and statistically significant across regions and payments methods, while a positive trend in switching costs becomes negative and statistically after the removal of price controls.

Conclusions

On one view, electricity supply is a homogeneous good market in which consumers quickly learn through their own or others' experience how easy it is to switch suppliers in order to save money. As a result, companies aiming to capture new business would need to price competitively and companies wanting to retain business would need to ensure their offer did not move too far out of line with entrants' offers. Hence as companies learnt more about their competitors' moves, differences in the trend values of prices would tend to shrink. The removal of price controls in the UK has, if anything, led to the

gains from switching supplier away from the incumbent to grow over time. Thus, whilst the market has not seen major anticompetitive moves by established players by any means, nor has a fully competitive market emerged.

References

- Battisti, G, Giuliatti, M., Basioudis, D., 2006. Switching as a diffusion process: Evidence from the UK residential gas market. Aston Business School Research Paper 0623 (July). Aston University, United Kingdom.
- Brown, J., Goolsbee, A., 2002. Does the internet make markets more competitive: Evidence from the life insurance industry. *Journal of Political Economy* 110, 481-507.
- Burdett, K., Judd, K.L., 1983. Equilibrium price dispersion. *Econometrica* 51, 955-970.
- Giuliatti, M., Otero, J., Smith, J., 2006. Testing for stationarity in heterogeneous panel data in the presence of cross section dependence. Warwick Economics Research Papers Series 758, Warwick University, United Kingdom.
- Giuliatti, M., Waddams Price, C., Waterson, M., 2005. Consumer choice and competition policy: A study of UK energy markets. *The Economic Journal* 115, 949-968.
- Hadri, K., 2000. Testing for stationarity in heterogeneous panel data. *The Econometrics Journal* 3, 148-161.
- Im, K., Pesaran, M.H., Shin, Y., 2003. Testing for unit roots in heterogeneous panel. *Journal of Econometrics* 115, 53-74.
- Pesaran, M.H., 2006. A simple panel unit root test in the presence of cross section dependence. Cambridge University DAE Working Paper #0346 (September 2003, revised January 2005, this version February 2006).
- Stahl, D., 1989. Oligopolistic pricing with sequential consumer search. *American Economic Review* 79, 700-712.
- Varian, H., 1980. A model of sales. *American Economic Review* 70, 651-659