Nonlinear Pricing and Tariff Differentiation

February 2012

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CCP Policy Briefing

BACKGROUND

- Nonlinear pricing is frequently observed in real world oligopolistic markets (i.e. markets with few suppliers) often in the form of quantity discounts which are not totally explicable in terms of costs.
- However, the theory of oligopolistic nonlinear pricing (or second degree price discrimination more generally) remains incomplete and largely untested.
- In particular, the literature has paid little attention to potential asymmetries between firms' pricing strategies.

METHODOLOGY

- The authors use liberalisation of the British retail electricity industry to examine how theoretical predictions compare to the outcomes in this particular case of oligopolistic tariff competition.
- The main focus of the study is on potential asymmetries between firms' pricing strategies.
- The authors draw on a database of tariff structures at the individual firm level within each of 14 regions at 14 six-monthly intervals over the period 1999-2005.

KEY FINDINGS

- Consistent with the theory, the authors find that each oligopolist offered a single two-part electricity tariff.
- However, contrary to the predictions of current theory, suppliers varied considerably and systematically in their chosen tariffs.
- It is shown that, throughout the time period and across all geographical regions, relative to the incumbent, entrants typically selected tariffs with a higher fixed fee and a lower marginal price.
- Similarly, there were also systematic variations amongst the entrants' tariffs and, rather than diminishing, these asymmetries increased over the time period. These tariff asymmetries cannot be attributed to asymmetric costs or the existence of brand loyalty or market frictions.
- The evidence suggests that firms may have differentiated their tariff structures with the effect of segmenting the market according to consumers' usage patterns, with some firms offering tariffs that are more attractive to lower volume consumers and other firms offering tariffs targeted on consumers with high usage.
- It is observed that by the end of the period, collectively, the seven firms provided a range of different two-part tariffs which qualitatively resembled a monopolist's optimal menu of two-part tariffs.

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THE CCP

The ESRC Centre for Competition Policy (CCP), at the University of East Anglia, undertakes competition policy research, incorporating economic, legal, management and political science perspectives, that has real-world policy relevance without compromising academic rigour.

FOR MORE INFORMATION

The full working paper (12-2) and more information about CCP and its research is available from our website: www.competitionpolicy.ac.uk

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