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CCP CENTRE FOR COMPETITION POLICY

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How Far Does Economic Theory Explain Competitive Nonlinear Pricing in Practice?

CCP Executive Summary

How Far Does Economic Theory Explain Competitive Nonlinear Pricing in Practice?

BACKGROUND

- The retail sector of the electricity industry in Great Britain was traditionally separated into 14 geographical regions, each with an incumbent monopolist. Consumers were only able to buy from their local incumbent, and arbitrage was not possible.
- The industry was privatised in 1990/1, and the household retail sector was opened to competition in 1998/9. Significant entry occurred and consumers were able to switch away from their regional incumbent (or any subsequent supplier) to any entrant without financial penalty.
- The average prices of incumbents (although not of entrants) continued to be regulated until April 2002 but no regulatory constraint was imposed on tariff structures. Suppliers' freedom to offer alternative structures was confirmed in the Privatisation Act which explicitly permits but does not mandate two-part tariffs.

METHODOLOGY

- Liberalisation of the British electricity market is used to examine how the predictions of several recent theoretical papers compare to the development of oligopolistic tariff competition in practice.
- The authors adopt an approach which differs from recent theoretical papers in three respects:

  (i) Tariffs are examined at the level of individual firms, highlighting the importance of tariff asymmetries, rather than considering regularities across firms. A simple summary statistic is introduced, the ratio of the fixed fee to marginal price, which is referred to as a tariff 'weighting'.

  (ii) There is a focus on establishing a series of stylised facts through descriptive and reduced form analysis.

  (iii) A market is identified where each oligopolist employs a single two-part tariff.
- A database of tariff structures is employed, observed at the individual firm level, within each of 14 regions, at 14 six-monthly intervals, 1999-2005.

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KEY FINDINGS

- Consistent with recent theories, the authors find that each oligopolist offered a single two-part electricity tariff, and a lump sum discount to consumers who purchased both electricity and gas.
- However, inconsistent with those theories, the authors find that firms vary considerably in their chosen tariffs within a given market in ways that cannot be attributed to marginal cost differences.
- In exploring the asymmetries between firms, the authors find that:

  (i) relative to incumbents, entrants tend to select two-part tariffs with higher tariff weightings (higher fixed fees and lower marginal prices);

  (ii) despite likely symmetric costs, entrants showed differences in their tariffs that were systematic across regional markets and time, with some entrants regularly favouring fixed fees (marginal prices) that were much higher (lower) than the incumbents', while other typically remained much closer to the incumbent; and

  (iii) these tariff asymmetries increased over time.

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 (CCP Working Paper 09-7) and more information about CCP and its research is available from our website: www.ccp.uea.ac.uk

ABOUT THE AUTHORS

- **Steve Davies** is a founding member of CCP and Professor of Economics at the University of East Anglia. His research interests include: the economics of competition policy; tacit collusion; merger simulation; and nonlinear pricing. He is a member of the Academic Panel which advises the Office of Fair Trading.
- **Professor Catherine Waddams** is Director of the Centre for Competition Policy. She has published widely on privatisation, regulation and the introduction of competition, especially in energy markets, in the UK and elsewhere.
- **Dr Chris M. Wilson** completed his PhD at CCP and is now a lecturer at Loughborough University.