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CCP CENTRE FOR COMPETITION POLICY

February 2012

Speed of Mobile Network Penetration

CCP Policy Briefing

Market Structure, Regulation and the Speed of Mobile Network Penetration

BACKGROUND

- In the context of a growing market with consumer network externalities, the speed of a new product's market penetration is an important summary measure of how well the market is performing for potential consumers.
- Mobile network penetration has been expanding rapidly in recent years, although there are signs it is reaching maturity in advanced countries.
- There is an important difference between mobile networks and more traditional markets because spectrum limitations have been addressed by strict licensing of operators. This eliminates the threat of entry as a mechanism by which competition works.

METHODOLOGY

- The aim of the paper is to identify those structural features of a partly regulated market that provide the best competitive environment to maximise the market penetration of a new product: mobile telephony.
- The focus of the analysis is on three structural features: the number of firms, the conditions of ownership (private versus state), and the existence and independence of an industry regulator.
- A supplementary issue is whether the effect of a more competitive market structure works mainly through the average price level as distinct from non-price-level elements.
- The analysis draws on data from a sample of thirty countries over the sixteen years (1991-2006) in which average penetration rose from 2% to 97% of the population. The dataset includes a range of market structures from monopoly up to seven networks.

KEY FINDINGS

- The history of market structures is found to matter: the analysis reveals that the speed of consumer uptake is maximised in the presence of five firms.
- Findings are consistent with the view that relatively few firms may be sufficient for competition in relatively homogeneous product markets.
- More provisionally, it is found that market structure effects do not appear to work exclusively through the level of prices.
- Digital technology, standardisation, privatisation and independent regulation are also important positive factors.
- Findings also cast light on how consumers respond to competition between multiple standards: diffusion is faster when there is standardisation.

POLICY ISSUES

- Findings are consistent with the view that a balance may need to be struck between investment incentives for network industries characterised by large sunk costs and the benefits of an apparently more competitive market structure, but this balance may require five firms.
- This finding is particularly relevant when determining the number of spectrum licenses to be granted, but it is also relevant for merger policy.
- Findings additionally support the view that private ownership and independent regulation are also desirable in the absence of an entry threat.

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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 (12-3) and more information about CCP and its research is available from our website: www.competitionpolicy.ac.uk

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