

Energy: Competition and Regulation

Dermot Nolan
February 2015

ofgem

Genesis

- Energy (electricity and gas) traditionally supplied by State monopolies, analogous to telecoms and water
- Funding determined by Ministers – generally viewed as “essential services”
- 1980s saw major changes in these sectors – State monopolies were privatised in telecoms, energy and water.
- Privatisation seen by then Government as promoting efficiency in itself, but also seen as linked to driving competition – that the benefits of competition could be brought to formerly monopolistic sectors
- Implicit (or explicit?) expectation that, over time, regulation around the competitive elements would “wither away” and that these services would be treated the same as any other product

Why independent regulation?

- Various economic regulators were set-up around that time – there have been some mergers/changes but the general framework still exists today: Ofcom, Ofgem, Ofwat, ORR, etc
- Primary statutory aim to protect consumers from market power abuse by (privatised) companies
- Independence also designed to stimulate investment as well as to protect investors from ex post appropriation of their assets by Government
- Regulators designed to be a reservoir of technical and economic expertise that would not exist in most Government departments
- Model of independent regulation gradually taken on by EU and extended across member states

Regulatory architecture

- Regulatory bodies duties generally focussed on bringing competition to former monopolies where possible
- Regulators generally apply ex ante regulatory rules but may have ex post competition powers
- OFT/CMA designed to apply competition law across all sectors, plus have the power to review competition in any market via market studies

Energy

- Electricity has 3 (?) main components: (i) generation – cost of producing electricity; (ii) networks – cost of transporting electricity across the country and to your home; (iii) supply – costs of retailing, billing, etc.
- Gas is similar (i) commodity; (ii) networks; (iii) supply

Generation

- Generation technologies: chiefly gas, coal, nuclear. Variation in fixed and variable cost, with variable cost of gas and coal depending upon fossil fuel prices
- Recently increase in renewable generation such as wind, biomass.
- Key point is generation technologies are seen as fundamentally competitive – there can be a market

Networks

- Networks seen as natural monopolies –transmission and distribution.
- Subject to direct price regulation, though regular (usually 5 year) price controls
- Incentive-based approach – designed to address issue of asymmetric information

Supply

- In last 15 years, coalesced into 6 larger suppliers (Big 6)
- These are (to varying degrees) vertically-integrated – companies own electricity generation and supply businesses
- Some independent suppliers, and some recent evidence of growth

Outcomes

- By the early '00s the outcomes delivered by regulatory and market framework seen as successful
- Retail markets were all fully de-regulated
- Generation market seen as competitive with a considerable number of different generators
- Wholesale gas markets de-regulated
- Network unbundling (networks separated from generation and supply) plus clear evidence of sustained falls in network costs

Other sectors

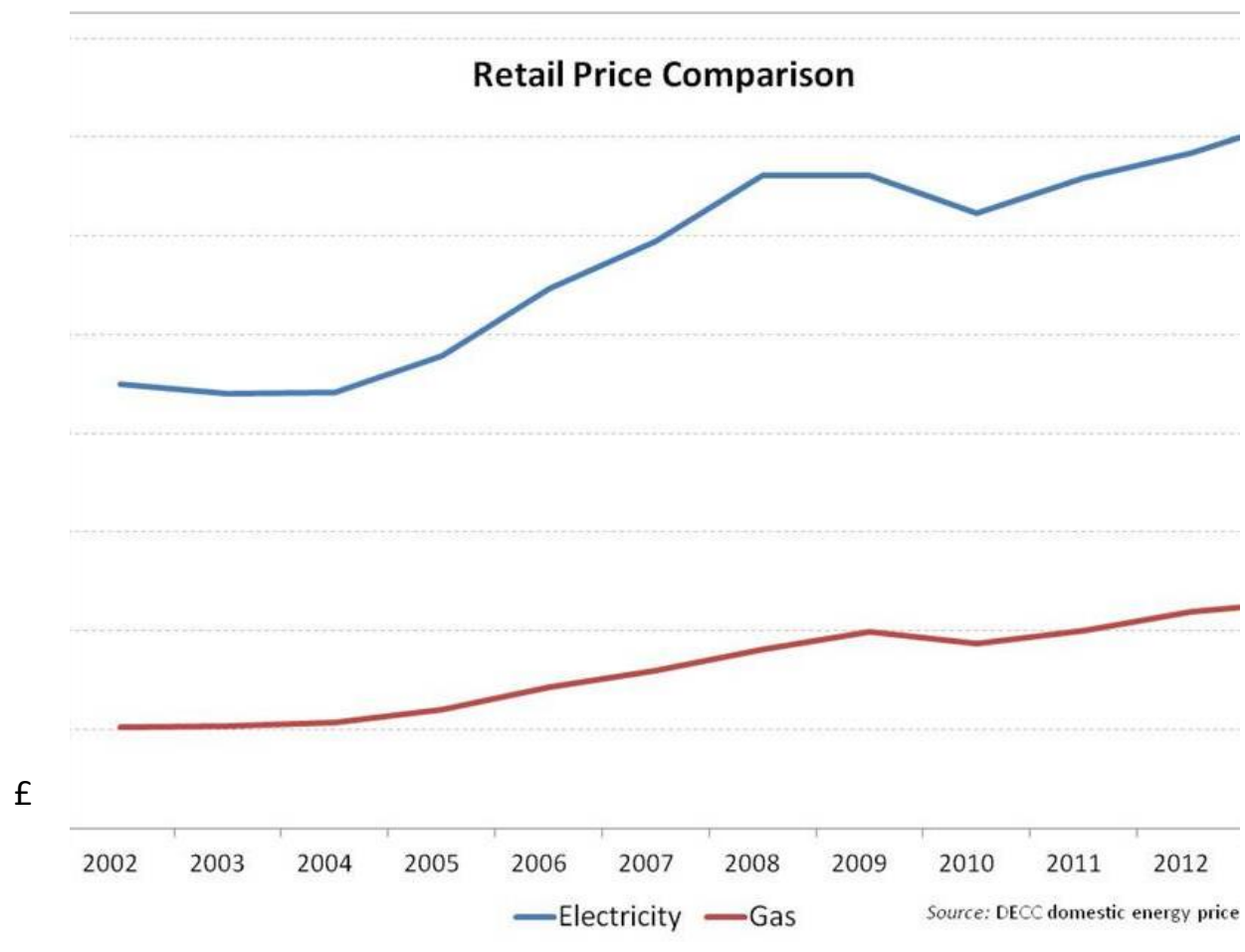
- Water composed of a number of regional monopolies subject to price regulation, but some moves towards more competition
- Telecoms has seen faster technological change; growth of mobile sector as an alternative to fixed-line though BT still subject to some price regulation
- Post – Royal Mail gradually being exposed to competition

Climate

- Energy key element of de-carbonisation
- 2008 Climate Change Act – sets up cycle of 5 year carbon budgeting
- Commitment to 15% of energy from renewables by 2020
 - Governments ‘stated ambition’ to achieve 30% electricity from renewables as part of the energy mix.
- EU emissions trading scheme (EUETS) sets price for carbon

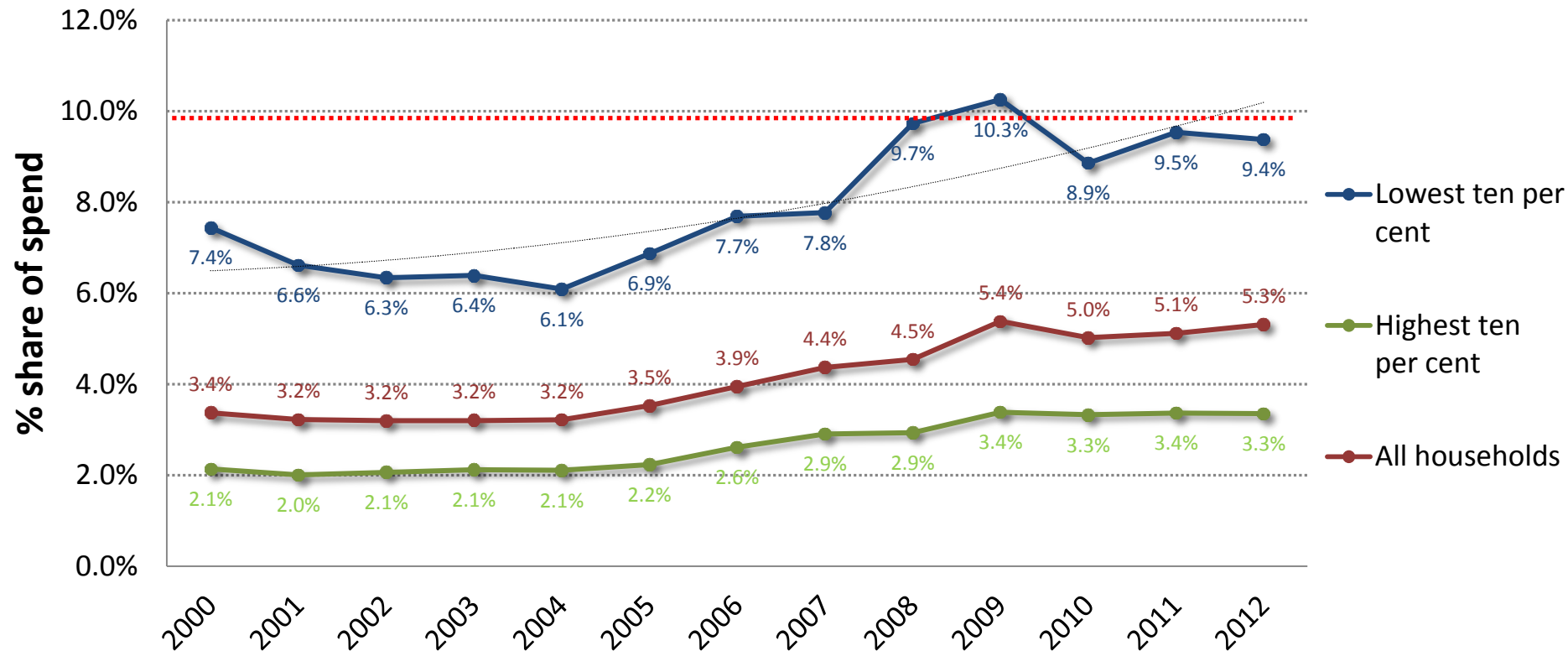
Troubles

- Energy prices have risen considerably since 2005, predominantly driven by fossil fuel increases
- De-carbonisation of the sector has complicated regulatory and policy space – Government committed to bringing on more renewables and has designed specific supports for such generation
- Consumer dis-satisfaction has risen – perception of poor customer service and diminishing trust in suppliers
- Investor confidence seems to have fallen at a time when significant new investments are needed



Average Weekly Household Energy Expenditure by income deciles 2000-2012

Average Share of Gas and Electricity in Weekly Household Spend (Excluding Housing Costs) by Income Deciles, %



Source: ONS "Family Spending", various releases (1993-2013); own calculations. The survey covers around 5,000 households across the UK. Data are for gross income deciles. Weekly expenditures exclude housing costs (rent, mortgage interest and council tax).

Prices and import dependency

UK import dependency 1970 - 2012



Expectations

- Unsurprising that price rises have brought increased scrutiny and intervention – similar patterns in other EU countries
- Concerns that complexity of tariff structures and associated firm behaviour have put industry in “unhappy equilibrium”
- Questioning of the idea that energy is like any other product or service, with calls for various different forms of intervention that are specific to energy markets
- Some have questioned the role of competition in energy markets

Responses

- Concept of the “trilemma”: **Affordability; De-carbonisation; Security of Supply**
- Government has put in place the Electricity Market Reform (EMR) legislation
- Variety of elements: (i) Capacity auction to stimulate new (mostly gas) entry in generation; (ii) Contracts for Differences (CfDs) for renewable generation to stimulate new renewable entry
- Regulatory architecture has become more complex

Market Reference

- Ofgem engaged in a number of studies and interventions into retail competition
- Ultimately, energy markets referred to the Competition and Markets Authority (CMA) in 2014, with report due by end-2015
- CMA has published initial views on scope, including retail competition, structure of generation market, and vertical links between them

Future trends

- Fossil fuel prices were forecasted to rise over time, but last couple of months have questioned that assumption
- Environmental costs also forecasted to rise as more renewables come onto the system
- Technological innovations in the offering through Smart meter roll-out and associated Smart Grid improvements
- Should facilitate competition and empower consumers
- Increasing role of EU – move to an EU-wide energy market with greater interconnection and flows between member states

Future debates

- If energy prices rise over time, questions about competitive and regulatory delivery, as well as about degree of de-carbonisation, unlikely to go away
- Whether a competitive model of delivery for energy is the right one is likely to be a continuing issue
- Ultimately, regulatory powers and actions are (quite properly) circumscribed by societal views and expectations
- But hopefully scope to facilitate innovation, new and potentially more efficient business models, and the driving down of costs to consumers

Ofgem is the Office of Gas and Electricity Markets.

Our priority is to protect and to make a positive difference for all energy consumers. We work to promote value for money, security of supply and sustainability for present and future generations. We do this through the supervision and development of markets, regulation and the delivery of government schemes.

We work effectively with, but independently of, government, the energy industry and other stakeholders. We do so within a legal framework determined by the UK government and the European Union.