Competition Issues in UK Retail Energy Markets

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(with Steve Davies, Tina Chang and Chris Wilson)

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Policy background

- European energy policy
  - Opening retail markets
  - Unbundling debate

- BERR select committee inquiry

- OFGEM inquiry
  - Energy markets
  - Competition Act investigation into Scottish Power and Scottish and Southern Energy
Competition Issues in UK Energy Retail Markets

❖ Supply side
   ➢ Structure of industry: horizontal and vertical
   ➢ Evidence from price structures

❖ Demand side
   ➢ Switching
   ➢ Consumer ‘accuracy’

❖ Outlook
Supply side: horizontal structure

- Originally 14 regional electricity and 1 national gas market/ incumbents

  Consolidation of players, so now 6

- Independent entrants have exited or been taken over

- Is the market regional or national?
Supply side: horizontal National Market Shares (Ofgem 2007)

If national, market for electricity evenly supplied
For gas, still a dominant player
If regional, remaining dominance by electricity incumbents with interactions between markets.
Role of dual fuel

- One third of consumers, 80% of switchers, are dual fuel.

- In each region the main switching is from incumbent gas supplier to incumbent electricity supplier or vice versa.

- Suggests that dynamics more like a duopoly in each region for at least some consumers.
Competition issues in horizontal structure?

- Good news: dynamically incumbents losing market share, increasingly as prices have increased rapidly in last twelve months

- Concern: if regional market, still dominance (and in national gas market); incumbent mark-ups remain

- “customers who have yet to switch can still save on average (more than) £92” (Ofgem, 2008)

- If national, conditions for co-ordinated effects look promising; difficult to detect
Vertical structure

Regional Incumbent Market Shares

Dotted - Separate; Solid red - integrated 2007; Blue - Scotland
## Market Share of incumbent, 1999 to 2007

<table>
<thead>
<tr>
<th>Market share</th>
<th>Coef.</th>
<th>Std. Err.</th>
<th>t</th>
<th>P&gt;t</th>
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<tbody>
<tr>
<td>Time</td>
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<td>0.68</td>
<td>-13.35</td>
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<tr>
<td>Time sq</td>
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<td>0.064</td>
<td>7.96</td>
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<td>1.66</td>
<td>2.47</td>
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<tr>
<td>constant</td>
<td>93.93</td>
<td>2.18</td>
<td>43.13</td>
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n=126

On average 4 percentage points more market share if vertically integrated: effect remains even without Scotland
Evidence from price structures

- Ratio of fixed cost per year to unit cost per kWh - means of differentiating a homogeneous product
- Include ‘virtual’ standing charges
- Could be used to soften competition by dividing market?
- Did entrants choose different price structure from incumbents?
- Has ratio varied over time?
- What can we conclude about competition?
Average level of ratio has fallen slightly over time, i.e. fixed cost a smaller proportion of total bill. Especially as energy costs have risen.

Big increase and then fall in variation of the ratio. Increase in variation coincides with end of price cap and consolidation; may be to soften competition? Recent decrease with increasing fuel costs, move to more national pricing?
“SWITCHING RATE HITS 5.1 MILLION IN 2007” (Ofgem April 08)

- Switching increasing over time, particularly in response to price increases

- Concerns about some groups (pensioners, unemployed and those on low incomes), but not a direct competition issue

- Survey on what motivates people to search (based on 05 questionnaire and switching in previous 3 years)
- How much is the most you think you could save per month if you shopped around?
- How much time did you spend searching around and looking for the necessary information?
- How long do you think it would take of your own time to switch once you had all the necessary information?

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<th>Search</th>
<th>Switch</th>
<th>MFX</th>
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<td>-0.0002*</td>
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<tr>
<td>switch</td>
<td>-0.0032** 0.0015</td>
<td>-0.0007**</td>
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</table>

Searching and switching depends weakly on expected gain. More on expected switch than expected search time. Mainly on whether switched other markets.
Do consumers switch ‘well’?

- Used consumers estimate of expenditure to eliminate errors in consumption estimates and knowledge of tariffs

- Calculated the change in expenditure from old to new supplier for consumers who switched only to save money

- Across two datasets (00 and 05), specifications and consumption perturbations, the results are remarkably robust.
Actual Gains Made versus Maximum Gains Available
8-19% of consumers selected their cheapest supplier.

Average annual gains of £16-22, but in aggregate, switchers appropriated only 28-51% of the maximum.

20-32% of consumers selected a more expensive supplier, losing an average annual surplus of £14-35 even excluding switching costs.

Compares with a less robust estimate of 42% of loss-makers in the New York telephone market (Economides et al 2005)

Together with switching costs, may impede market competitiveness. How does this compare to other markets/decisions?
Outlook for UK retail energy

Achieved much
- six strong competitors
- ownership separation of half distribution/incumbents
- genuine deregulation
- active/accelerating switching

Continuing concerns
- incumbency power and mark ups on regional basis
- potential for co-ordinated effects nationally
- pressure for reduced suppliers through European consolidation
- inaccurate consumer switching may reduce it discipline effect

Welcome Ofgem’s review – and more data for research/policy