To: DECC
From: Professor Derek Bunn
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Energy Retail Markets Comparability Study

A Peer Review

1. Context and Background

London Economics have produced a substantial report in March 2012, entitled "Energy Retail Markets Comparability Study", in response to a requirement by DECC to make comparisons between the UK retail energy market and international retail energy markets. The terms of reference were to undertake this with respect to:

- Competition, in particular its impact in putting downward pressure on prices
- Market openness and attractiveness (regulatory, profitability, etc)
- Consumer prices (for households and the commercial and industrial sectors)

In this context, the retail *energy* market was interpreted as *electricity* and *gas*.

This peer review has been commissioned as part of the quality assurance process concerning the methodology, analysis, results and conclusions in that report.

2. Methodology and Analysis

The report, and its annex, contains an extensive synthesis of comparative data for descriptive benchmarking, accompanied by some regression models to explore potential drivers of prices. The descriptive data analysis is a reasonable calibration of the recent trends and the current state of the British energy market, and provides an approach that can be replicated in future years. The further analyses, including the regressions, give useful insights into approaches and variables which seem, *prima facie*, to be promising, but offer some difficulties in interpretation. These are useful results in terms of suggesting how further work may, or may not, proceed.

The choice of comparative countries for the descriptive benchmarking is appropriate, with an emphasis upon Europe and the United States, together with Canada, NZ and, Japan. Evidently it is a sample, and its selection did not appear to follow any particular principles, other than the obvious need for an EU comparison. Nevertheless, it provides a useful international context.

The report provides a very clear summary of a substantial amount of data, particularly in the European context, and the supporting commentaries on each country are useful references. This part of the work is the most transparent and valuable part of the study. In general, however, it is not obvious that the same countries need to be the comparators in both the residential and industrial samples, despite the convenience.

For the residential sector, price comparisons across Europe would appear to be the most relevant, given the EU aspirations for the single energy market. The value chain analysis, with fiscal and environmental components, gross supplier margins as well as the ratios of residential to industrial prices, is clearly important for policy comparisons. For the industrial sector, presumably the comparisons ultimately relate to retaining competitiveness, and in that respect one might expect to see countries selected and compared according to industrial and product markets.

Apart from price comparisons, a number of other analyses were undertaken, with mixed successes in terms of the value of the results:

- The Volatility analysis of the prices raises questions of what one would expect to see and why. If retail prices are more volatile, it could mean that retail prices are following the commodity prices more closely (a good thing?), or that other costs including environmental (green taxes and carbon prices) are feeding through (not a bad thing?); whereas lower volatility is generally seen as offering some price stability to consumers and less agitation to the media (also a good thing?). So, monitoring volatility is useful, but it is not clear where to take the results. I think more could have been made on how the retail volatility links to the underlying wholesale commodity volatilities in each market.
- The Profitability analysis is obviously difficult and I think the attempt to look at pure retail companies was rather frustrating in this study. The sample is too small and unstable (Greece EBIT going from bottom (2005) to top (2010) over the two periods, for example).
- The Competition analysis is obviously important and draws particularly upon the scrutiny that the European Commission gives to this topic. The report is very good on measures of market concentration, and interestingly gives most emphasis (eg in the later regressions) to C3 over HHI. I thought more could have been done on regulation as well as market concentration, especially in the retail sector. Indeed this could be a factor confounding the regression results in which counter-intuitive negative signs were found for the concentration variable. [It could be that some of the more concentrated markets remained more tightly regulated for a while, eg France]. The report does make the very good point repeatedly that number of competitors is not necessarily a measure of degree of competition, especially in some of the countries with highly regionalised suppliers, and this may also be a factor explaining the counterintuitive C3 sign in the regression results.
- The Fundamental Regression analyses proved to be useful in terms of linking fuel variables, energy supply per capita and wage rates; the latter two variables being particularly innovative proxies in this context. Similar to the earlier descriptive profitability analyses, the use of WACC did not prove to be useful in the regressions, presumably because it is confounding many aspects.

Overall, the report offers a thorough status report on the gas and electricity retail markets, in comparison with other markets, and its strength is the range of data sources and viewpoints taken. In general, the report's conclusion that GB is not departing from the pack in terms of prices, profitability and other measures, appears to be convincing. In terms of providing a new framework, going forward, for DECC to use in monitoring these markets, beyond the careful re-syntheses of EU and other descriptive data, the use of financial and competition variables in regression modelling still leaves open many questions in terms of reliable methodology.

3. Small points

3.1 This is obviously a draft and as a vast amount of work has been assembled quite quickly; the report would benefit from further editing both for grammatical mistakes, commentaries on the data (eg in some of the Tables, comments on the trends being "stable" or otherwise seem at odds with the data); and in terms of editing out peripheral material to retain and emphasise the key points.

3.2 In 4.1.2, the use of weighted averages over different time periods may exaggerate the impact of recent trends. Also, regarding the gross supplier margin in GB, Figure 43 could have gone back further than 2006, and that might have raised more concern and discussion about the current 20% levels, whether they are normal, and/or how they have related to the commodity cycle.

3.3 In 5.1, this is an unusual definition of volatility from a financial perspective, but is a reasonable measure of variance in the price data. I note that subsequent figures define volatility slightly differently (%).

3.4 In the regression models, I wonder if the results are strongly biased by influential observations; eg in gas, the UK wholesale market is very different from the Continental market and the NBP effect may be confounding the retail comparisons. It is often common in studies like these to regress mark-ups above wholesale prices ("Lerner indices") for these reasons.

4. Final Comments

Overall, I consider the analysis to be reasonable and the conclusions to be robust, transparent and appropriate for the review DECC has intended. The data analysis is thorough and the commentaries are perceptive. The report provides a vast synthesis of data, and demonstrates how they can provide clear comparisons.

Beyond the descriptive summaries, the development of econometric models is well-known to be difficult in this context, where countries have many idiosyncrasies, and the markets are evolving at different speeds. Therefore, for market monitoring, seeking to compare specific coefficients may be too challenging for robust policy evaluations.