

A Micro-Econometric Approach to Geographic Market Definition in Local retail Markets: Demand Side Considerations

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This paper develops an empirically implementable framework for antitrust market definition. Using a demand side model of grocery shopping behaviour, the author analyses consumers' substitution between retail outlets in reaction to price changes. The main findings are that consumers substitute to a large extent between fascias and towards larger stores with a larger net sales area. Only a small fraction of customers switch to grocery shops that are further away. In addition, the author finds a large heterogeneity between consumers with poorer households being more sensitive to price and distance. Wealthier households are more likely to choose grocery shops that are further away.

In terms of characterising the UK supermarket structure, the paper finds that Asda, Morrisons and Tesco are in strongest competition with each other while Sainsbury's consumers are more likely to take their demand to Tesco and Morrisons than to Asda.

Major comments:

The framework for this analysis grounds on a sound theoretical framework. It focuses on the demand side and yields testable restrictions. The model focuses on distance and price as the main determinants of supermarket choice.

The model is applied to the UK groceries market and carefully estimated in a mixed multinomial model for discrete store choice. It uses innovative data and state-of-the-art econometric techniques, allows for substantial heterogeneity between households using household size, car ownership and social class and allows for a wide range of store characteristics.

The methodology could be developed further to generate a measure of the extent of supermarket competition and its implications for relative consumer welfare using section 2.2 but I regard this as an issue for future research which is beyond the scope of this paper.

Minor comments:

If necessary the paper could be shortened in the following ways:

- Section 2.2 is theoretically relevant and interesting, but is not used in the empirical analysis and hence could be omitted.
- Section 5 Estimation could be shortened somewhat.

There are a couple of typos in the manuscript:

- P.4: "Therefore demand q_k accruing at store k depends on the vector of prices..."
- P.10: random one-stop shopping trips....at least 60 percent of weekly (**grocery**) spending..."
- P.15: "The parameters of interest.....**log-likelihood** function..."
- P.16: "This section presents....described in the **previous** two sections."
- P.18/19: "The MMNL estimates...on average more price sensitive **consumers** are less sensitive..."
- P.19: "Hence it is of interest to empirically examine whether the **restrictions** imposed..."