BUYER POWER AND THE SUPPLY CHAIN DISCUSSION PAPER

Introduction

1. This paper has been prepared to inform a discussion among economists who have researched and published work on topics relevant to the CC's investigation of the UK groceries market. The CC's intention in preparing this paper and conducting this discussion is to ensure that all strands of argument in the economic literature relevant to its investigation are fully explored. The Inquiry Group will consider the outcomes of the discussion alongside the other evidence presented to it in the course of the inquiry.

2. One of the competition concerns identified by the OFT's reference of the UK groceries market to the CC is the multiple grocery retailers' ability to exercise buyer power and the possible resulting consumer welfare loss[1].

3. This paper is intended as a basis for a theoretical discussion of the exercise of buyer power and various forms of vertical restraints and the type of evidence that might indicate whether anti-competitive outcomes are likely to arise in the UK groceries market(s)[2]. First, whether retailer buyer power may distort competition in upstream (procurement) markets, and if so when this might result in consumer harm. Second, whether retailer buyer power may adversely affect competition in the downstream (retail) market. Finally, whether the nature of certain vertical agreements between retailers and their suppliers may have anti-competitive effects.

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[1] http://www.oft.gov.uk/NR/rdonlyres/1A2D7FA2-FEA3-4459-9B25-4A737A20023D/0/oft845.pdf
[2] Further information on the issues considered in the UK Groceries investigation can be found in the Issues Statement at http://www.competition-commission.org.uk/inquiries/ref2006/grocery/index.htm

Effects of Buyer Power on Upstream Markets

4. Bargaining theory provides some insights into what might influence a buyer's bargaining strength[3]. Buyer power appears to arise from both the buyer's ability to substitute away from a supplier, and the supplier's ability to substitute between different sales channels to reach consumers. Substitution is more credible for the buyer and less credible for the supplier as the buyer increases in size. Size has typically been viewed as a good proxy for buyer power, and could be measured in absolute terms or by considering the proportion of sales accounted for by each customer[4].

5. The textbook approach to assessing the effects of buyer power on output suggests that, if supply curves are upward sloping, oligopsonistic buyers can influence the market price by restricting input purchases[5]. Some empirical work has been carried out to test the assumption that supply curves are upward sloping, however, we have found no recent studies which indicated that this is the case for the agricultural or manufacturing industries supplying the grocery trade[6].

6. Even if oligopsonistic firms could be shown to restrict their input purchases, the effect on consumers is ambiguous. If the buyers are perfectly competitive in their downstream (retail) market, any potential gains from restricting output are competed away. It seems that seller concentration, retailer concentration upstream (both absolute and *relative to sellers*) and retailer concentration downstream would

[3] See Inderst and Shaffer, The Role of Buyer Power in Merger Control (in preparation)
[4] Other factors influencing buyer power may be the existence of competing products and/or own label goods (because of the threat to partially or fully substitute the products on the shelf) and certain purchasing techniques such as e-auctions appear to increase buyer power (which may be because they cause an information asymmetry).
[5] See Dobson, Waterson and Chu (1998)
[6] Shea (1993) estimated the slope of the short run supply curve for 26 manufacturing industries in the U.S, by regressing prices on output and input costs, using output in related industries as a demand shock instrument. Shea finds significant upward sloping supply curves for 16 industries and significant downward sloping supply curves for only four industries. However, the sample of industries is primarily lumber and construction materials. The only agricultural industry is prepared feeds, which displays a significantly downward sloping supply curve.

influence the extent to which consumer prices and quantities are affected by intermediate market negotiations[7,8].

7. In addition to the effect that buyer power might have on input purchases, it has been argued that buyer power influences upstream innovation levels and product variety. One line of reasoning is that the greater exercise of buyer power reduces the profit levels of upstream suppliers, which in turn curtails investments in R&D. This might be because of the lower cash available for investment, or because future returns on investment are expected to be lower so incentives are dampened. An alternative argument is that the presence of large buyers actually *increases* suppliers' incentives to reduce marginal costs as this reduces their customer's ability to switch to alternative sources of supply[9].

8. Another view is that upstream market power may lead to a reduction in product variety, either because a larger firm pursues a single sourcing strategy or because dominant buyers 'free ride' on the contributions of other buyers to product variety[10]. Both of these strategies may lead to a loss of consumer welfare.

9. It is also plausible that, while buyer power may reduce innovation among upstream suppliers, there may be an increase in welfare if either there was excessive innovation at the upstream level (which may arise as a result of monopolistic competition) or if there is a countervailing increase in innovation at the downstream level.

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[7] See Veendorp (1987), Bjornerstedt and Stennek (2001) and Horn and Wolinsky (1988) for models of bilateral market power.

[8] Empirical evidence is mixed. Lustgarten (1975) showed that the impact of buyer concentration on seller margins may be greater when seller concentration is high, whereas the more recent report by London Economics for Defra (2004) concluded that there was a very weak (and often negative) correlation between concentration in the food retail industry and farm gate – retail price spreads across EU states. They also concluded that in the majority of UK supplying industries considered, there was evidence of symmetric price transmission (eg upstream price shocks were passed through immediately).

[9] See Inderst and Wey (2005) and Inderst and Wey (2003)

[10] See Inderst and Shaffer (2004) and Mathewson and Winter (1995)

Issues for discussion

- What factors contribute towards a greater exercise of buyer power? And what are the best measures of buyer power?
- Can buyer power lead to retailers purchasing less than the competitive amount? Under what conditions could this lead to significant consumer welfare loss?
- Does buyer power reduce innovation?
- To what extent are any of these concerns likely to apply in the UK groceries market(s)?

Effects of Buyer Power on Downstream Markets

10. The basic concern about the dynamic effects of buyer power is that greater bargaining power confers a significant commercial advantage to larger retailers. Larger retailers may obtain better terms and conditions which translate into a price differential that handicaps smaller retailers. Over time this disadvantage may cause significant groups of competitors to exit the market as they can no longer compete (n.b in the groceries industry this might be exacerbated if wholesalers go out of business). Ultimately the contention is that only a few larger retailers will be left operating in the distribution market and retail prices will ultimately increase above competitive levels. The difficulty is identifying whether this is happening in practice and if so when the 'tipping point' is likely to occur.

11. Price differentials may arise for several reasons, as previously noted. Input price discrimination may in fact be welfare enhancing compared to uniform pricing, if it incentivises downstream firms to increase their own efficiency to obtain a better input

price[11]. However, one particular concern is that, as a result of one buyer negotiating a price reduction, a supplier increases prices to other buyers to compensate for the loss of revenues (note that this conflicts with the findings in the textbook case where all buyers would benefit from reduced prices if a dominant buyer restricted output). This situation has commonly been termed a 'waterbed effect'.

12. The 'waterbed effect' contention has often been rejected as it is arguable that if a supplier could increase prices to other buyers, it would do so regardless of the price that it is charging the powerful buyer. Thus for a 'waterbed effect' to be theoretically sound, there must be some interdependence between different buyers' prices[12]. The welfare effect from a waterbed is ambiguous, as for the weaker buyers there is conflicting upward cost pressure and downward pricing pressure.

13. A further possible effect of buyer power on downstream markets may arise through the predatory buying of inputs. This may not be a plausible strategy for grocery retailers, in particular because the markets that they procure from may be geographically wider than the markets that they compete in downstream.

Issues for discussion

- Could upstream buyer power harm consumers through an increase in concentration in the downstream market? If so, how can you identify whether this is occurring and when it reduces consumer welfare?

- How realistic is the concept of a waterbed effect? And under what conditions this effect would be detrimental to consumer welfare?

- To what extent do these concerns apply in the UK groceries market(s)?

[11] See Inderst and Valletti (2006)
[12] Inderst (2006)

Effects of Vertical Agreements

14. A further aspect of the relationship between retailers and their suppliers is the nature of vertical agreements. Some vertical agreements may have a similar impact on competition as vertical integration, where contracts are efficiency enhancing and reduce vertical externalities such as double marginalisation. However, in some circumstances vertical agreements may give rise to competition concerns, for example if they have exclusionary effects, reduce innovation or foreclose entry[13].

15. There are a number of practices which we have been told and/or previously found to be present in the UK groceries market(s): slotting allowances; pay to stay fees; category management; copy cat behaviour; exclusivity agreements and resale price maintenance. The table below explains the nature of these practices and identifies their possible effects on competition. The effects of these practices may be pro-competitive, neutral or anti-competitive. The discussion will centre around the circumstances under which these practices are detrimental to consumer welfare.

[13] See Marx and Shaffer (2005), Marx and Shaffer (2004), Rey, Thal and Vergé (2006)

Practice	Description	Neutral or positive effects	Anti-competitive effects
Slotting allowances	One off payments from suppliers to retailers for access to shelf space	Facilitates efficient allocation of a scare resource (shelf space). Compensates retailers for risk of taking on new product. Signals manufacturer's confidence in product's success. Contributes to cost of replacing products on shelves.	May exclude smaller suppliers if they lack adequate access to capital markets. May exclude smaller suppliers if large manufacturers bid up the price of shelf space to raise rivals' costs. May reduce product innovation and variety. Retail prices might be higher compared to marginal payments as the retailer has no incentive to lower prices to increase sales. May cause scarcity of shelf space, if retailers limit shelf space as a means of extracting rent.
Pay to stay fees	Ongoing payments to ensure continued presence of existing products	Facilitates efficient allocation of a scare resource (shelf space).	May exclude competitors. Retail prices might be higher compared to marginal payments as the retailer has no incentive to lower prices to increase sales.
Category management	Allocating shelf space among different products in a category to satisfy demand in that category as a whole. A 'category captain' may help the retailer to do this.	Securing information relevant to shelf space allocation decisions.	Category captain may learn information about rivals plans Category captain may hinder the expansion of rivals, reduce variety Category management may promote collusion among retailers Category management may facilitate collusion among manufacturers.
Copy cat behaviour	Retailer copying branded products and selling them as own brand.	Reduces prices of branded products as they have to compete with copy cat rival products.	May reduce innovation, in particular if the retailer has advance knowledge of product launches. Customers intend to purchase branded good but purchase copy cat product by mistake.

Practice	Description	Neutral or positive effects	Anti-competitive effects
Exclusivity agreements (i)	Manufacturer agrees to exclusively sell to retailer	Guarantees distribution channel for supplier. Might stimulate retailer-specific investment which manufacturer would not undertake without guarantee of demand.	Loss of intra-brand competition at different outlets. Facilitates upstream collusion, leading to loss of inter-brand competition. Possible foreclosure of new entry in downstream market.
Exclusivity agreements (ii)	Retailer agrees to exclusively buy from manufacturer	Guarantees distribution channel for supplier. Might stimulate retailer-specific investment which manufacturer would not undertake without guarantee of demand.	Loss of inter-brand competition in retailers' stores. Possible foreclosure of new entry in upstream market.
Resale price maintenance	Supplier recommending retail prices	Supplier may have better knowledge of consumer demand which it can share with retailers. Provides retailers with a sufficient margin to promote new products.	Reduces both intra-brand and inter-brand competition. Facilitates collusion between retailers/suppliers.

Issues for discussion

- Under what circumstances might the various (vertical) practices affecting retailers and their suppliers result in a reduction of consumer welfare?

- Does this depend on who instigates the practices / agreements?

REFERENCES

Bjornerstedt, J and Stennek, J	"Bilateral Oligopoly", *The Research Institute of Industrial Economics Working Paper No. 555,* 2001
Dobson, P, Waterson, M and Chu, A	"The Welfare Consequences of the Exercise of Buyer Power", *OFT Research Paper 16*, September 1998
Federal Trade Commission Staff	Report on the Federal Trade Commission Workshop on Slotting Allowances and Other Marketing Practices in the Grocery Industry
Horn, H and Wolinsky, A	"Bilateral monopolies and incentives for merger", *RAND Journal of Economics,* Vol. 19, No.3, Autumn 1988
Inderst, R	"Leveraging Buyer Power", June 2006
Inderst, R and Shaffer, G	"Retail Mergers, Buyer Power and Product Variety", March 2004
Inderst, R and Shaffer, G	"The Role of Buyer Power in Merger Control", chapter for the ABA Antitrust Section Handbook, Issues in Competition Law and Policy (W.D. Collins, ed., in preparation)
Inderst, R and Wey, C	"Bargaining, Mergers, and Technology Choice in Bilaterally Oligopolistic Industries", *The RAND Journal of Economics,* Vol. 34, No. 1, Spring 2003
Inderst, R and Wey, C	"Countervailing Power and Upstream Innovation", November 2005
Inderst, R and Valletti, T	"Price Discrimination in Input Markets", March 2006
London Economics	"Investigation of the determinants of farm-retail price spreads", Final Report to DEFRA, February 2004
Lustgarten, S	"The Impact of Buyer Concentration in Manufacturing Industries", *The Review of Economics and Statistics*, Vol. 57, No. 2, May 1975
Majumdar, A	"Waterbed Effects and Buyer Mergers", *CCP Working Paper 05-07,* June 2005
Marx, L and Shaffer, G	"Slotting Allowances and Scarce Shelf Space", November 2004
Marx, L and Shaffer, G	"Upfront Payments and Exclusion in Downstream Markets", August 2005
Mathewson, G.F and Winter, R.A	"Buyer Groups", Working paper, August 1995
Peters, J	"Supplier and Buyer Market Power, Appropriability, and Innovation Activities", 1997
Rey, P, Thal, J, and Vergé, T	"Slotting Allowances and Conditional Payments", January 2006
Shea, J	"Do Supply Curves Slope Up?", *The Quarterly Journal of Economics*, Vol. 108, No. 1, Feb 1993
Veendorp, E.C.H.	"Oligoemporistic Competition and the Countervailing Power Hypothesis", *The Canadian Journal of Economics,* Vol. 20, No. 3, Aug 1987