The waterbed effect working paper

Contents

Page

Introduction

1. In this paper, we consider a possible distortion of competition in the supply of groceries originating from a 'waterbed effect'. The waterbed effect has been discussed before both in the UK and abroad,[1] albeit without the benefits of fully developed theoretical models. The possibility of a 'waterbed effect' distorting competition has been raised in this inquiry by the Association of Convenience Stores (ACS) which, through its advisers (Europe Economics and Professor Roman Inderst), submitted an economic model ('the ACS model') to explain how such an effect might work to the detriment of consumers.[2] In the working paper on buyer power published alongside the Emerging Thinking document (ET) in January 2007, we stated that we would continue our analysis of the ACS model and attempt to test its hypotheses.

2. A waterbed effect is one way in which the exercise of buyer power by retailers could distort competition and adversely affect consumers. Such a distortion to competition could arise because of an increase in the disparity between the competitive position of large and small retailers, and the disparity between the prices that each group pays for supplies. Small retailers may lose sales, which, in turn, reduces their share of the market, and they may end up raising prices (as in the ACS model), or go out of business altogether. The waterbed effect results in harm to small retailers; however, consumer detriment arises only in specific circumstances.

3. In this paper, we provide an in-depth discussion of the ACS model. This discussion is informed not only by a more detailed study of the model, but also by submissions from Tesco and Sainsbury's that offer a critique of the model, as well as discussions between CC staff, the ACS and its advisers. We first highlight the model's key

[1]The CC has previously referred to waterbed effects—for example, in the Safeway merger inquiry in 2003, where it commented that 'there may be some waterbed effect for some classes of suppliers' (paragraph 2.248). However, it did not have enough evidence to come to a firm conclusion on this issue. The EC Guidelines on horizontal agreements also explicitly contemplate the possibility of waterbed effects. See *Guidelines on the applicability of Article 81 of the EC Treaty to horizontal cooperation agreements* (2001/C 3/02), paragraphs 126 and 135.

[2]*The 'Waterbed Effect': How Non-Cost Related Discounts to Large Retailers can Harm Consumers*. Published at: www.competition-commission.org.uk/inquiries/ref2006/grocery/pdf/main_party_submissions_acs_waterbed_effect.pdf.

assumptions and present the conditions under which consumer welfare declines. We then review third-party submissions on the ACS model. Next, we assess each key assumption and attempt to test the necessary conditions for a waterbed effect to occur in practice against available data.

4. In light of our assessment of the ACS model, third-party submissions and the available data, we conclude that any waterbed effect is likely to be of limited impact in the markets that are the subject of the present market investigation, and further, that there is no evidence that consumers in the UK markets for grocery retailing have been adversely affected as a result of any possible waterbed effect.

The ACS model

Intuition

5. The intuition behind the ACS model can be expressed in the following terms. The starting point is that the size of a buyer determines its buyer power vis-à-vis its suppliers. Larger buyers therefore always obtain better terms than smaller buyers. The reason for this stems from the ability of large buyers to leverage their position. Should a large buyer stop purchasing, this would affect the profitability of its suppliers far more than in the case of a small buyer. Moreover, when a large buyer withdraws its orders with a specific supplier, this would generally have little effect on its own business. The same cannot be said for small suppliers.[3] In sum, in the ACS model, the bargaining strength of buyers depends solely on their size.

6. Because large retailers are able to secure better deals from their suppliers, they incur lower input costs than small retailers. These lower costs then translate into a cost advantage when large retailers compete with smaller retailers for final consumers.

[3]In the economic model submitted to us this happens as all buyers are supposed to face the same fixed cost of accessing an alternative source of supply to the one they are currently using. And for larger retailers, it is then easier to switch away from their existing suppliers. This greater ease of switching implies that larger retailers are able to negotiate a better deal with their suppliers.

The waterbed effect occurs when large retailers become larger, through, for example, the acquisition of additional outlets. As their bargaining position improves even further, they obtain better terms of trade from suppliers, which translate into a greater competitive advantage vis-à-vis smaller retailers. As small retailers lose customers to large retailers, their scale diminishes, which further deteriorates their bargaining position. With less buyer power, small retailers are even less likely to extract discounts from suppliers.

7. The offer to final consumers by grocery retailers with less buyer power may worsen (eg the price charged by these grocery retailers to final consumers may increase). If this were to happen, the customers of the smaller retailers would clearly be worse off. Whether *on average* consumers will be adversely affected depends on the way in which larger grocery retailers set their retail offer. If the larger retailers' offer does not improve enough as a result of their improved terms of trade, the net effect in the short term on average downstream prices or quality might be negative.

8. The ACS adds that these short-term effects may be reinforced by changes in the structure of both the supplying and retailing industries. The ACS develops a dynamic model of the waterbed effect which sets this out. A greater exercise of buyer power will reduce suppliers' profits. As some suppliers exit because of the low margins earned from large retailers, this will adversely affect the bargaining position of all retailers. However, smaller retailers may be more significantly affected than larger retailers. Further, if some small retailers exit the market (or are acquired by larger retailers), larger retailers may become even larger whilst small retailers further decrease in size. Both these changes may reinforce any waterbed effect.

Key assumptions of the ACS model

9. In this section, we highlight the key assumptions that underpin the economic model submitted by the ACS. In a subsequent section, we will discuss the validity of each assumption in turn, and the robustness of the ACS results when each assumption is relaxed.

(a) Retailers purchase directly from a monopolistic supplier

10. In the ACS model, the retailers purchase their goods directly from a monopolistic supplier. Not only does the model not consider different degrees of competition in the upstream market, but there is also no formal analysis of the wholesale sector. Although this assumption appears to be unrealistic, it is often made for analytical convenience in the related economic literature on supplier-retailer interaction. It is usually justified on the basis that it provides a benchmark against which to measure different aspects of buyer power.

(b) A retailer's size determines its buyer power

11. In the ACS model, a retailer's size determines the extent of its buyer power. The exercise of buyer power allows larger grocery retailers to extract significant non-cost-related discounts from their suppliers compared with smaller retailers.

12. This is formalized in the model by assuming that all retailers face a fixed cost of switching away from the monopolistic supplier.[4] This determines a situation where retailers earn discounts that are proportional to their size.[5]

[4]The theory predicts that the outcome of a bargaining process depends on the parties' 'outside options', which represent what they could achieve if negotiations broke down. A fixed cost of switching supplier makes the larger retailers' outside option a better one relative to the smaller retailers'. As a result, larger retailers will fare better in the negotiating process.

[5]Several theoretical explanations have been put forward for why size may confer buyer power. First, a large buyer may, by virtue of its size, have better outside options than smaller buyers. This is the case in Katz (1987) where a large buyer may more credibly threaten to integrate backwards, thereby rendering the supplier itself redundant. Another reason why large buyers may get better deals from suppliers may reside in the production technology of the supplying industry. In Chipty and Snyder (1999), smaller buyers negotiate over volume to be produced in addition to the one already destined to large buyers; if suppliers

(c) Discounts affect the unit (wholesale) price and are non-cost-related

13. The ACS model assumes that contracts between suppliers and retailers take the form of simple wholesale prices (linear prices) and do not include lump sum payments. The ACS acknowledges that supply contracts in the retail industry are often highly complex.[6] However, the ACS points out that the qualitative results of the model should extend to other forms of contract, so long as the discounts obtained by retailers affects the unit price.

14. With this assumption of simple linear pricing, when retailers obtain a discount, they will have an incentive to lower final consumer prices (ie to pass on part of the discount they obtain from the suppliers). By contrast, if discounts are given exclusively in the form of lump sum payments, they result purely in a transfer of profits between suppliers and retailers without affecting the final retail price. With this latter type of payment arrangement, there is no scope for a waterbed effect to arise.

15. It is only when large retailers extract discounts that affect the unit price paid to suppliers that the waterbed effect may occur. In this case, part or all of the discounts will be passed through to final consumers in the form of lower retail prices.

(d) Large retailers' gains are small retailers' losses

16. In the ACS model, the lower prices charged by large retailers have the effect of winning over a share of the small retailers' customers. This is because firms compete over a market of fixed size, implying that one firm's gain is another firm's loss. This further reduces the smaller retailers' size and consequently worsens their bargaining position vis-à-vis suppliers. As mentioned above, this process could lead to smaller

operate with increasing marginal costs, this leads to smaller buyers obtaining worse terms. Another possible explanation is that large buyers may be more likely to destabilize collusion, as in Snyder (1996). Alternatively, size may confer buyer power if suppliers are risk averse, as in De Graba (2003).

[6]The ACS contends that the assumption of linear pricing is not too far-fetched and that even with linear pricing, retailers pass on changes in input prices to consumers. See ACS, *The 'Waterbed Effect'. How Non-Cost Related Discounts to Large Retailers can Harm Consumers*, p10, footnote 6.

retailers charging higher prices while larger retailers charge lower prices.[7] The net average effect for consumers, under conditions set out in the next section, can be negative.

Necessary conditions for a negative impact on consumers in the short run

17. In the ACS model, although the waterbed effect may occur, it does not automatically lead to consumer detriment. As large buyers grow larger, they tend to charge lower prices to consumers. Facing such low prices, small retailers may then be forced to react by lowering prices. If ultimately retail prices of large and small retailers decline, consumers would gain in the short run.

18. However, the ACS model predicts that under specific circumstances the waterbed effect can negatively affect consumer welfare. For this to happen it must be the case that small retailers, having less buyer power, end up charging higher prices. The waterbed effect will lead to higher prices at small grocery retailers (and to higher average prices to consumers) when initially there is a significant differential between the buyer power of the large and the small retailers (ie size is a very important determinant of buyer power). It follows that consumers who continue shopping at small retailers' outlets will be worse off.

19. Furthermore, a high market share for the large grocery retailers increases the likelihood of a waterbed effect materializing and adversely affecting consumers on average. This happens because in the ACS model, the larger the retailer, the less competitive pressures it faces. This, in turn, reduces a large retailer's incentive to cut retail prices. Consequently, larger retailers pass through a relatively small percentage of their input price reduction while smaller retailers may increase their prices

[7]The small retailer faces two opposing incentives in relation to setting its retail prices. On one hand, it has an incentive to raise its retail price as it would like to pass through its higher input prices. On the other hand, it would like to lower its retail price to respond to the price reduction of its larger competitors. Whether the net effect is a price increase or a price reduction will depend on the specific value of the parameters of the model.

significantly. As a result, even though a larger share of total consumers gets a (marginally) better deal, the average price paid increases as a minority of consumers are significantly worse off.

The waterbed effect in the long run

20. The ACS also presents a stylized version of the waterbed effect model in a dynamic setting. The model predicts that increased buyer power leads to suppliers exiting and thus a more concentrated upstream market. This, in turn, negatively affects all retailers, but particularly small retailers with no buyer power.

21. One key feature of this dynamic version is an adjustment of the upstream market towards increased concentration. In particular, the number of suppliers selling to small retailers should decline.

Third party views on the ACS model

22. Tesco specifically addressed the ACS model in its reply to our working paper on buyer power. Sainsbury's advisors (RBB Economics) also commented on the ACS model in a specific submission.[8] Both argued against the existence of waterbed effects of the kind envisaged by the ACS model. We discuss their evidence in the next two sections before assessing the ACS model and considering the evidence on the existence of a waterbed effect.

Tesco's criticisms

23. Tesco submitted that there were three main weaknesses in the ACS model:

(a) The model assumes that all retailers face the same fixed cost of switching supplier so the cost of switching supplier is proportionately more expensive for

[8]RBB Economics *The potential for 'waterbed effects' in the UK grocery retail industry*, March 2007, published at: www.competition-commission.org.uk/inquiries/ref2006/grocery/pdf/main_party_submissions_sainsbury_response_to_acs.pdf.

smaller retailers. In effect the model assumes that there are unlimited economies of scale in grocery retail. If such economies existed, larger retailers would always operate at lower costs than their rivals. This is equivalent to an assumption that retail industries are natural monopolies, which is clearly not the case.

(b) For a price increase by a supplier to result in a 'waterbed' effect, it is not sufficient to show that small retailers face more intense competition from larger retailers. It must also be shown that facing more intense competition actually reduces small retailers' incentives to invest in lower costs and greater efficiency. In contrast, in our experience competition from rivals only increases the incentive to invest in achieving lower costs and greater efficiency.

(c) The model assumes that suppliers choose to use contracts which damage the competitiveness of their smaller customers and so ultimately weaken their own bargaining position against larger retailers. If it was true that suppliers faced the type of market dynamics assumed to exist in the model, suppliers would not use the per-unit-type cost structure for negotiations with retailers that the model assumes. Suppliers would have an incentive to use other cost structures, such as charging both a per-unit price and a lump sum, to counter the potential damage to smaller customers.

Sainsbury's criticisms

24. RBB, on behalf of Sainsbury's, also stated that some of the assumptions on which the ACS model is built are not relevant to the reality of the retail industry. RBB criticized the dynamic version of the waterbed effect, highlighting its inconsistencies and omissions. Below we summarize the salient points of RBB's submission:

(a) As there are countless examples of upstream competition, the hypothesis of a single monopolistic supplier is unrealistic. If, instead of a monopoly, the upstream market operates in perfect competition, RBB noted that no waterbed effect would arise. With perfect competition, all buyers would purchase at a price close to the

marginal cost of production. As a result, no retailer would be able to extract better deals than others. Alternatively, no supplier could charge higher prices to a subset of buyers.

(b) As grocery retailers purchase from a variety of suppliers, and there are countless examples of multi-sourcing, the hypothesis of a fixed cost of switching supplier is unrealistic. RBB presented an alternative model that leads to retailers multi-sourcing and produces lower final prices for consumers.

(c) RBB also noted that the dynamic version of the waterbed effect is contrived on a theoretical level. As each retailer faces a monopolistic supplier, it is not clear how a reduction in the number of suppliers affects the bargaining position of buyers. In fact, RBB argues, it would appear that each retailer's fallback option (ie vertical integration) remains unaffected. And without a deterioration of the bargaining strength of small buyers, there is no waterbed effect.

(d) Finally, RBB maintains that in a dynamic setting, firms' incentives to invest and improve their cost efficiency matter, and that the ACS model fails to take into account this aspect of competition. By incorporating this aspect into the ACS framework, the waterbed effect gives retailers an incentive to become more efficient. As they lower their marginal cost, retailers lower their price and gain additional sales. This increased scale of business gives the efficient retailer greater leverage to extract better terms of trade with their suppliers.

Assessment of the key assumptions of the ACS model

25. To determine whether the ACS model is simply a theoretical model with no real relevance to the UK grocery sector, we examine each of its key assumptions in the following paragraphs. In particular, we discuss the relevance of each assumption to the reality of this sector, and how robust the ACS results might be when these assumptions are relaxed.

Assessment of assumption (a): retailers purchase directly from a monopolistic supplier

26. We consider that this assumption severely limits the applicability of the ACS model to the UK grocery retail sector. In particular, the absence of a wholesale sector from the model is not innocuous. Because of their buyer power, the wholesale sector, as well as 'buyer groups', may act to reduce the advantage enjoyed by large retailers. In the ACS model, a buyer's bargaining strength is directly related to its size. If retailers can aggregate their purchases, which is the function of the wholesale sector or 'buyer groups', they may obtain better terms of trade than if they were acting independently. In this case, the difference in input costs between large and small retailers either diminishes or vanishes. The presence of a wholesale sector therefore minimizes (or eliminates) the waterbed effect.

Assessment of assumption (b): a retailer's size determines its buyer power

27. In the ACS model, the size of the buyer determines its ability to obtain non-cost-related discounts. As a result, large grocery retailers always pay less than small retailers. But for the waterbed effect to materialize, the difference in the prices paid must widen as large retailers become bigger. For example, a supermarket chain may increase in size through the acquisition of other grocery stores in local markets where there is no overlap. These acquisitions strengthen the bargaining position of the chain, and ultimately enable the chain to obtain better terms of trade.

28. There are many theoretical arguments that point to a direct relationship between buyer size and buyer power.[9] However, we consider that the connection between size and buyer power is not a straightforward issue. From a theoretical viewpoint it is not size per se that determines a retailer's bargaining strength but the way in which

[9]Some arguments relate to a greater ease for large buyers to integrate upstream. Another argument considers that if suppliers produce with increasing returns to scale, small retailers may get a worse deal if their purchases are seen by the supplier as being 'negotiated at the margin' and therefore more expensive to produce. Alternative explanations consider that for large buyers it is easier to break collusive agreements between suppliers, or relate to suppliers' risk aversion.

size relates to the damage that the retailer would inflict to a supplier by switching to another supplier, or to the ease with which a retailer may switch. In technical terms, size is only relevant insofar as it affects suppliers' and retailers' outside options.

29. We also note that the fixed cost of switching hypothesized in the ACS model does not have a clear correspondence in actual negotiations. While we understand that this hypothesis is a modelling device to link size and buyer power, we consider that this is a serious shortcoming of the model when it comes to its practical relevance for the UK groceries sector.

30. It appears that there are many possible justifications for the existence of fixed costs of switching of the kind hypothesized in the ACS model. As a result, the relationship between buyer size and buyer power would ultimately be an empirical question.

31. We consider that given the lack of consensus on the role of size in determining buyer power, an empirical analysis of the relationship between buyer size and buyer power would shed light on the question. One way to empirically assess this relationship is to analyse prices paid by grocery retailers of different sizes to suppliers. In its investigation into the supply of groceries in 1999/2000, the CC conducted various analyses to assess whether there were significant differentials between the prices paid by large and small retailers for grocery supplies. The CC found that, on average, there were differences, but that there were cases where smaller retailers paid lower prices. In some cases, there was no statistically significant difference between 'large' retailers, even though they were of different sizes (eg Tesco and Sainsbury's).

32. For the present investigation, [✂] submitted an analysis of supplier-retailer negotiations conducted by [✂].[10] The authors interviewed the sales directors of eight suppliers of varying sizes on a range of issues concerning negotiations with retailers. The majority of suppliers interviewed stated that the largest customers would 'almost always' obtain the best trade terms. This implies that a number of factors other than sheer size may also impact the outcome of negotiations between suppliers and retailers. For example, the authors mentioned that growth potential and 'legacy' effects could also impact the terms of trade.

33. Prior to publication of ET in January 2007, we conducted an analysis of price data for 15 suppliers of branded goods. Whilst the analysis was preliminary, it did not indicate the presence of systematic price differentials in favour of larger grocery retailers. Since the publication of ET, we have expanded the analysis, requesting additional data from suppliers. Our preliminary analysis of the prices charged by 29 suppliers indicates that increases in purchase volumes will tend to lead to customers paying less. We are still refining this analysis, and we will examine whether this effect is economically significant.[11]

Assessment of assumption (c): discounts affect the unit (wholesale) price and are non-cost-related

34. We consider that assuming that contracts take the form of a simple unit price is a strong assumption. Relaxing this assumption would alter the predictions of the ACS model. As already discussed, assuming that contract takes the form of linear pricing implies that any change in the terms of trade between suppliers and retailers will lead to a change in the final consumer price. However, in a model where the contract takes the form of a two-part tariff—the retailer would pay a lump sum to its supplier, and the unit price would be close to the marginal cost of production—any change in

[10] [✂]
[11] See working paper on supplier pricing to retailers and wholesalers (July 2007).

the terms of trade would take the form of a change to the fixed part of the tariff and therefore would hardly affect the final retail price. We do not consider that the qualitative results of the ACS model could be extended to these forms of contracts.

35. We also note Tesco's comment that suppliers would have an incentive to negotiate on the lump-sum element of the tariff, and consider that it is not clear that the qualitative results of the model would extend to a setting where two-part tariffs are employed.

36. Next we consider the evidence on the type of contracts used between suppliers and retailers and whether negotiations focus on the unit price or on the fixed part of the tariff.

37. The supplier survey conducted on behalf of the CC by GfK indicates that around 70 per cent of suppliers make regular or occasional payments to grocery retailers as marketing contributions or other promotional investments. Other forms of payment are less common. However, 43 per cent of respondents stated that they paid some 'other rebates' to retailers. Overall, this suggests that in trading between grocery retailers and suppliers, contracts are not of the form assumed by the ACS in its model. In fact, tariffs tend to have multiple parts, where the unit price is only one portion.

38. The qualitative survey conducted by [✂] on supplier-retailer negotiations also provides some useful insights. In their small sample, all suppliers interviewed said that they would resist as much as possible any reduction in unit costs, preferring to differentiate in terms of their trade investment.[12] Consistent with this, they also found

[12] [✂]

that a substantial proportion of the difference in trade terms obtained by different customers would not show up in the 'headline' or invoice price.

39. When contracts between suppliers and retailers include fixed payments, and when the two parties negotiate over these payments, the discounts obtained by large suppliers would not be passed on to consumers in the form of a lower retail price. As a consequence, small retailers would therefore not lose business to larger retailers. The presence of contracts with multipart tariffs in the UK grocery sector tends to militate against the possibility of a waterbed effect.

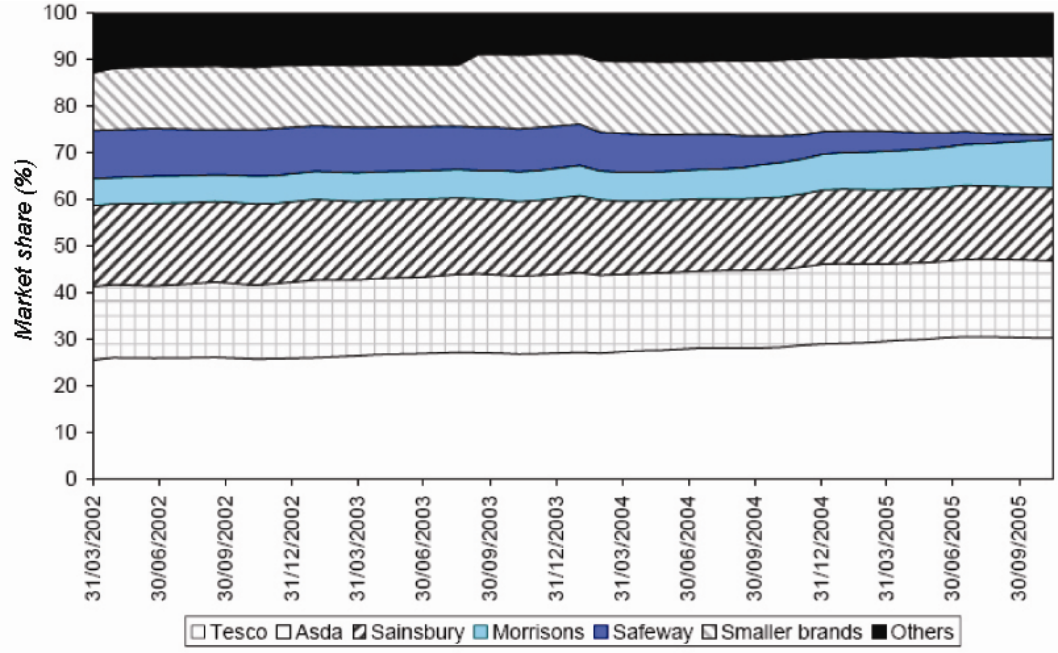
Assessment of assumption (d): large retailers' gains are small retailers' losses

40. In the ACS model, large and small retailers compete over a market of fixed size. Any gains of large retailers translate to a loss for small retailers. This ignores market expansion effects which would make a waterbed effect and consumer harm less likely, by extending the number of consumers who benefit from the low prices charged by larger retailers.

41. We note that the data provided in the Office of Fair Trading's reference decision for the current market investigation regarding the evolution of market shares over time in the UK grocery sector do not appear to support a clear relationship between grocery retailers' prices and sales. The data is reproduced in Figure 1.

FIGURE 1

Grocery national shares of supply by value, 2002 to 2005



Source: TNS data, till roll.

42. Figure 1 shows that the share of 'smaller brands' (which includes symbol groups, such as Spar and Costcutter) has actually increased since 2002. Because these shares are measured by sales value, this figure is not necessarily inconsistent with a waterbed effect. Indeed, while volume declines, prices could increase sufficiently to see the value share rise over time. However, for a waterbed effect to be at work, we should observe a significant increase in prices charged by such 'smaller brands' over time. We have seen no evidence that this is the case; however, we will review any additional evidence that is submitted or that we can gather on this issue.

Assessment of assumption (e): large retailers' pass-through only depends on competition from small retailers

43. The incentive that larger retailers have to pass through their input price reductions is determined solely by competition with smaller retailers. This in principle ignores the possibility that competition among larger retailers may determine a higher pass-though rate.

44. In addition, a higher pass-through rate would make consumer harm less likely as the large share of the market served by larger retailers would enjoy a bigger discount.

45. We consider these issues further in the next section as we review the evidence we currently have on the existence of waterbed effects and their harm to consumers.

Evidence on the existence of a waterbed effect and of harm to consumers

46. In this section, we consider direct evidence of the existence of a waterbed effect, and its possible effect on consumer welfare.

Direct evidence of a waterbed effect

47. We considered data from the GfK report which addresses more directly the interaction between the terms offered to large and small retailers. Considering price first, the GfK report shows that only 7 per cent of suppliers 'agree' or 'strongly agree' that when larger customers negotiate a lower price, prices are increased to smaller customers. However, effects on non-price factors seem more common. For example, 40 per cent of suppliers indicate that when demand from large customers increases, there could be supply shortages to smaller grocery retailers. More generally, 21 per cent of suppliers indicate that when larger customers require better or additional services, service levels to small customers become worse as a result.

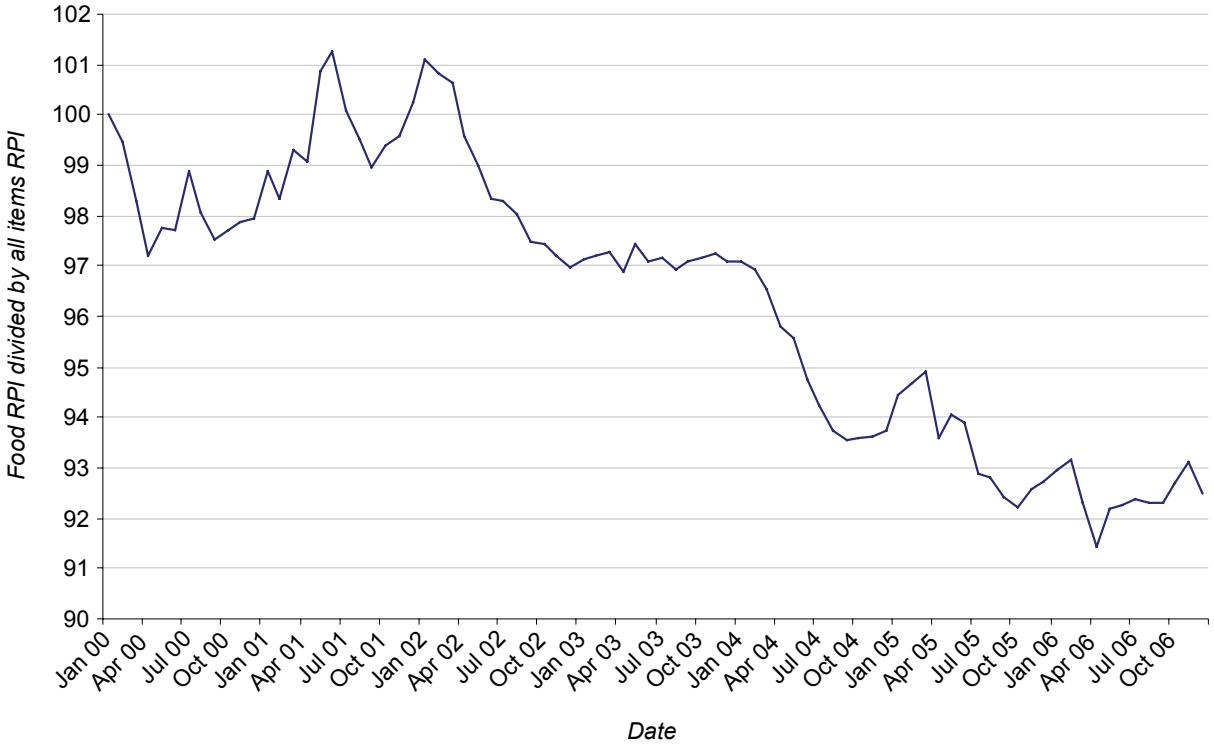
48. While this evidence suggests that waterbed effects may exist in principle, the majority of suppliers do not believe this to be the case. In fact, a vast majority of suppliers (93 per cent) do not agree that there is a waterbed effect on price. This suggests that any waterbed effect taking place is likely to be limited to a minority of suppliers and affect aspects of the offer other than price.

Direct evidence of a consumer detriment

49. In relation to the possible detriment to consumers in the working paper on coordinated effects, we have shown evidence that prices in food have declined in real terms since 2000. This is reproduced in Figure 2.

FIGURE 2

Trend in real food prices since 2000



Source: CC analysis of ONS data.

50. In order for a waterbed effect to have been in operation and harming consumers on average during a period in which real prices for food products have decreased, we would expect to have witnessed a very substantial deterioration in the price and non-price offer at smaller retailers. We have not seen evidence that this has been the case. We understand that there has been a recent upturn in real food prices, although it would be speculative to associate this change with an increased waterbed effect.

51. This data would support the view that if any waterbed effect is in operation, it probably only affects prices in a marginal way. Furthermore, even if a waterbed effect was changing the conduct of some suppliers, this would not lead to significant increases in retail prices. Unfortunately, we do not have data on trends in the non-price elements of the retail offer over time.

Direct evidence of a long-run effect

52. The dynamic version of the ACS model predicts that the number of suppliers would decline over time as large retailers exercise a greater degree of buyer power. First, we note in our working paper on supply chain profitability[13] (published with Emerging Thinking in January 2007) that we do not have strong evidence suggesting that buyer power has led or is leading to suppliers of groceries exiting the market in numbers greater than what might be expected to arise from normal competitive behaviour.

53. In addition, we do not have evidence suggesting that suppliers willing to supply to smaller grocery retailers have reduced in number. This casts further doubt on the possibility of a long-run waterbed effect.

Conclusion

54. The main conditions that make a waterbed effect more likely and potentially harmful to consumers in the ACS model can be summarized as follows:

(a) Buyer size reflects buyer power, and as a result large grocery retailers can extract significant non-cost-related discounts compared with smaller retailers.

(b) These non-cost-related discounts affect the unit price (as opposed to fixed payments in the overall tariff) paid by grocery retailers to their suppliers.

---

[13] Available at: www.competition-commission.org.uk/inquiries/ref2006/grocery/pdf/emerging_thinking_supply_chain_profitability.pdf.

(c) The lower prices charged by large grocery retailers lead to growth of large grocery retailers at the expense of small grocery retailers (as opposed to growth from an increase in the total size of the market).

(d) In the long run, the number of suppliers willing to sell to smaller grocery retailers will decline as buyer power of large grocery retailers increases.

55. In light of third-party submissions regarding the ACS model and our own assessment of the model, it appears that any waterbed effect that may exist is likely to be of limited impact, affecting a minority of suppliers of groceries and largely not affecting the price aspects of the retail offer. While we will continue reviewing any further evidence submitted to us and will continue to analyse suppliers' price data, we consider that the likelihood that a waterbed effect is resulting in material detriment to UK consumers of groceries appears, at this stage, very small.