

The waterbed effect in supplier pricing

Introduction

1. In this appendix we consider a possible distortion of competition in the retail supply of groceries arising from a ‘waterbed effect’. The waterbed effect has been discussed before, both in the UK and abroad,¹ albeit without the benefit of fully developed theoretical models. The ACS has raised the possibility of a ‘waterbed effect’ distorting competition, submitting an economic model (‘the ACS model’) to explain how such an effect might work to the detriment of consumers.² In July 2007, we published a working paper presenting a detailed analysis of the ACS model. The ACS submitted a response to our working paper maintaining that ‘under the circumstances prevailing in the UK’s grocery market the operation of a waterbed effect is both possible and likely’.³
2. A waterbed effect is one way in which grocery retailers could exercise buyer power, distorting competition and adversely affecting consumers. Such a distortion to competition could arise because of an increase in the disparity between the competitive position of large grocery retailers and smaller 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. A number of parties, including the ACS, the FWD and the British Brands Group (BBG), have argued that large grocery retailers are able to make purchases from suppliers at substantially lower prices than smaller retailers and wholesalers. They submitted that this cost advantage distorted competition and, in particular, contributed to a ‘waterbed’ effect. This effect suggests that smaller grocery retailers and wholesalers pay higher prices for supplies, reflecting a weaker bargaining position. We analyse the prices charged to grocery retailers and wholesalers by their suppliers in Appendix 5.3.
4. In this appendix, we begin by explaining the waterbed effect theory. We then provide an in-depth discussion of the ACS model. This discussion takes account of various submissions from the ACS, Tesco and Sainsbury’s critique of the ACS model, as well as discussions between CC staff, the ACS and its advisers. We first highlight the ACS model’s key 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 of the ACS model. Finally, we attempt to test the necessary conditions for a waterbed effect to occur in practice against available evidence.

¹The CC has previously referred to waterbed effects—for example, in the Safeway 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.

²The ‘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.

³ACS submission, ‘Response from the Association of Convenience Stores to the Competition Commission working paper on the waterbed effect’, 27 July 2007.

The theory of the waterbed effect

5. According to the waterbed effect theory, the size of a buyer determines its buyer power vis-à-vis its suppliers. Large buyers therefore always obtain better terms than small buyers, because of 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.⁴ In sum, for the waterbed effect to operate, the bargaining strength of buyers should depend solely on their size.
6. Because large grocery 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 grocery retailers compete with small retailers for final consumers. The waterbed effect occurs when large grocery retailers become larger, through, for example, the acquisition of additional stores. 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 small retailers. As small retailers lose customers to large grocery 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.⁵
7. The offer to final consumers by retailers with less buyer power may worsen (eg the price charged by these retailers to final consumers may increase). If this were to happen, the customers of the small retailers would be worse off. Whether *on average* consumers will be adversely affected depends on the way in which large grocery retailers set their retail offer. If the large grocery retailers' offer does not improve as a result of their improved terms of trade, there might be a negative net effect in the short term on average downstream prices or quality.

The ACS model

Key assumptions

8. The ACS has developed an economic model of the waterbed effect that will inevitably assume some simplifications of 'real world' conditions. We have tested these assumptions to understand whether they might accurately reflect the 'real world'. We have also tested the model's predictions against available data on the UK groceries market.
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.

⁴In the ACS model, this happens, as all buyers are supposed to face the same fixed cost of accessing an alternative source of supply as the one they are currently using. For large retailers, it is then easier to switch away from their existing suppliers. This greater ease of switching implies that large retailers are able to negotiate a better deal with their suppliers.

⁵The usual analysis of waterbed effects (including the analysis presented to us in the ACS model) focuses on price effects. In theory, a waterbed effect could also operate with respect to non-price factors. We consider this issue further below.

(a) Retailers purchase directly from a monopolistic supplier

10. In the ACS model, retailers purchase their goods directly from a monopolistic supplier, and have an option of switching supplier at some additional cost. However, the ACS model does not consider different degrees of competition in the upstream market, and there is 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 accepted 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 large grocery retailers to extract significant non-cost-related discounts from their suppliers compared with small retailers.
12. The model assumes that all retailers face a fixed cost of switching away from the monopolistic supplier.⁶ This determines a situation where retailers earn discounts that are proportional to their size.⁷

(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.⁸ 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 affect 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 suppliers). By contrast, if discounts are given exclusively in the form of lump-sum payments, they result 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. The waterbed effect may only occur when large grocery retailers extract discounts that affect the unit price they pay to suppliers. In this case, part or all of the discounts will be passed through to final consumers in the form of lower retail prices.

⁶The 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 large retailers' outside option a better one relative to the small retailers'. As a result, large retailers will fare better in the negotiating process.

⁷Several 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 small 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 Chippy and Snyder (1999), small buyers negotiate over volume to be produced in addition to the one already destined to large buyers; if suppliers operate with increasing marginal costs, this leads to small 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).

⁸The ACS stated that the assumption of linear pricing was possible and that even with linear pricing, retailers would 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.

(d) Large grocery retailers' gains are smaller retailers' losses

16. In the ACS model, the lower prices charged by large grocery retailers have the effect of winning over a share of the small retailers' customers. This is because firms compete in a market of fixed size, implying that one firm's gain is another firm's loss. This further reduces the small retailers' size and consequently worsens their bargaining position vis-à-vis suppliers. As mentioned in paragraph 8, this process could lead to small retailers charging higher prices while large grocery retailers charge lower prices.⁹ The net average effect for consumers, under conditions set out in the next section, can thus be negative.

(e) Large grocery retailers' pass-through depends on competition from small retailers

17. In the ACS model, the large grocery retailers' incentive to pass through their input price reductions is determined by competition with small retailers.

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

18. In the ACS model, although the waterbed effect may occur, it does not automatically lead to consumer detriment. As large grocery retailers grow larger, they tend to charge lower prices to consumers. Small retailers may then be forced to react by lowering prices. If both large grocery retailers and smaller grocery retailers lower their prices, consumers gain in the short run.
19. 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, charge higher prices. This will happen when initially there is a significant differential between the buyer power of large grocery retailers and smaller grocery 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.
20. 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 grocery retailer's incentive to cut retail prices. Consequently, large grocery retailers pass through a relatively small percentage of their input price reduction while small retailers may increase their prices 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

21. The ACS model also looks at the waterbed effect model in a dynamic environment. As some suppliers exit because of the low margins earned from large grocery retailers, the bargaining position of all retailers is adversely affected, since the upstream market has become increasingly concentrated. However, small retailers

⁹The small retailer faces two opposing incentives in relation to setting its retail prices. On the 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.

may be more significantly affected than large grocery retailers, given their lack of buyer power. Further, if some small retailers exit the market (or are acquired by large grocery retailers), large grocery retailers may become even larger whilst smaller grocery retailers further decrease in size. Both these changes may reinforce any waterbed effect.

Other parties' views on the ACS model

22. Both Tesco and Sainsbury's argued against the existence of waterbed effects of the kind envisaged by the ACS model.

Tesco's criticisms

23. Tesco said 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 small retailers. Tesco submitted that, in effect, the model assumed that there were unlimited economies of scale in grocery retail. If such economies existed, large grocery retailers would always operate at lower costs than their rivals. This is equivalent to an assumption that retail industries are natural monopolies, which Tesco submitted was not the case.
 - (b) For a price increase by a supplier to result in a waterbed effect, Tesco submitted that it was not sufficient to show that small retailers faced more intense competition from large grocery retailers. It must also be shown that facing more intense competition actually reduced small retailers' incentives to invest in lower costs and greater efficiency. In contrast, in Tesco's experience, competition from rivals increased the incentive to invest in achieving lower costs and greater efficiency.
 - (c) Tesco submitted that the ACS model assumed that suppliers chose to use contracts which damaged the competitiveness of their small customers and so ultimately weakened their own bargaining position against large grocery retailers. If 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 assumed. 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 small customers.

Sainsbury's criticisms

24. RBB, on behalf of Sainsbury's, also criticized the ACS model. RBB said that:
- (a) The hypothesis of a single monopolistic supplier was unrealistic. If, instead of a monopoly, the upstream market operated in perfect competition, 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) The hypothesis of a fixed cost of switching supplier was unrealistic. RBB presented an alternative model that leads to retailers multi-sourcing and produces lower final prices for consumers.

- (c) The dynamic version of the waterbed effect was contrived. As each retailer faced a monopolistic supplier, it was not clear how a reduction in the number of suppliers affected the bargaining position of buyers. In fact, RBB argued, it would appear that each retailer's fallback option (ie vertical integration) remained unaffected. And without a deterioration of the bargaining strength of small buyers, there was no waterbed effect.
- (d) In a dynamic setting, firms' incentives to invest and improve their cost efficiency mattered. The ACS model failed to take this aspect of competition into account. By incorporating this aspect into the ACS framework, the waterbed effect gave retailers an incentive to become more efficient. As they lowered their marginal cost, retailers lowered their price and gained additional sales. This increased scale of business gave the efficient retailer greater leverage to extract better terms of trade with its suppliers.

Assessment of the key assumptions of the ACS model

25. We next look at each of the key assumptions of the ACS model to assess the model's relevance to the UK grocery sector. We also assess the robustness of the ACS results when these assumptions are relaxed.

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

26. The ACS said that the results of its model were robust to changing this assumption. However, we found that altering this assumption was likely to impact on the magnitude of the waterbed effect, and thus this assumption limits the applicability of the ACS model to the UK grocery sector.
27. The degree of upstream competition is not an unimportant assumption. In the case of perfect competition upstream, suppliers will charge marginal cost, and there is no scope for suppliers to charge large grocery retailers and smaller grocery retailers different prices. Without any difference in input cost, there is no waterbed effect. It follows that in a highly competitive upstream market, it is unlikely that the waterbed effect would arise to any significant extent.
28. In addition, the wholesale sector is an important feature of the UK groceries sector that is absent from the ACS model. Because of their buyer power, wholesalers, especially within affiliated 'buying groups', may reduce the advantage enjoyed by large grocery retailers. In the ACS model, a buyer's bargaining strength is directly related to its size. If small retailers can aggregate their purchases through wholesalers, they may obtain better terms of trade than if they were acting independently. In this case, the difference in input costs between large grocery retailers and smaller grocery retailers either diminishes or vanishes. The presence of a wholesale sector therefore reduces (or eliminates) the waterbed effect.

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

29. 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 smaller grocery retailers. But for the waterbed effect to materialize, the difference in the prices paid must widen as large grocery retailers become bigger. For example, a large grocery retailer may increase in size through the acquisition of other grocery

stores. These acquisitions strengthen the bargaining position of the retailer, and ultimately enable it to obtain better terms of trade.

30. There are many theoretical arguments that point to a direct relationship between buyer size and buyer power.¹⁰ However, in our view, the connection between size and buyer power is not straightforward. A retailer's bargaining strength depends on the impact of switching to another supplier and the ease with which a retailer may switch.
31. We also note that the fixed cost of switching hypothesized in the ACS model does not reflect 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.
32. In our view, there are many possible justifications for the existence of fixed costs associated with switching, of the kind hypothesized in the ACS model. As a result, the relationship between buyer size and buyer power is ultimately an empirical question.
33. We consider that given the lack of consensus on the role of size in determining buyer power, it would be necessary to conduct an empirical analysis of the relationship between buyer size and buyer. One way to assess this relationship empirically is to analyse prices paid by grocery retailers of different sizes to suppliers. In the 2000 investigation, the CC conducted various analyses to assess whether there were significant differences between the prices paid by large grocery retailers and smaller grocery retailers for grocery supplies. The CC found that, on average, there were differences, but that there were also cases where small retailers paid lower prices. In some cases, there was no statistically significant difference between large grocery retailers, despite their difference in size (eg Tesco and Sainsbury's).
34. For the present investigation, [redacted] submitted an analysis of supplier-retailer negotiations conducted by [redacted].¹¹ 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 their largest customers would 'almost always' obtain the best trade terms. However, a number of factors other than 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.
35. Our analysis of the prices charged by 29 suppliers indicates that increases in purchase volumes will tend to lead to customers paying less (see Appendix 5.3). However, our results indicate that the data is non-linear, which could imply that benefits from scale are exhausted beyond a certain threshold. Our results also appear to be driven largely by the non-primary brands, suggesting that we have not found any strong evidence to support a waterbed effect with respect to primary brands in particular.

¹⁰Some 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 suggest that large buyers find it easier to break collusive agreements between suppliers, or relate to suppliers' risk aversion.

¹¹[redacted]

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

36. The ACS model assumes that contracts take the form of a simple unit price. Relaxing this assumption would alter the predictions of the ACS model. As already discussed, assuming that contracts take 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. If, instead of assuming linear pricing, we assume non-linear pricing including a unit price and fixed payments, any change to the terms of trade would imply that both parts of the tariff are affected. On this basis, changes to only the fixed payment would not affect the final retail price. In this specific case, the ACS model would not show any waterbed effect. As a result, we do not consider that the qualitative results of the ACS model could be extended to these forms of contracts.
37. 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.
38. 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 large grocery retailers.
39. 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.
40. The supplier survey conducted on behalf of the CC by GfK¹² 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.
41. The qualitative survey conducted by [redacted] on supplier-retailer negotiations also provides some useful insights. In their small sample, all suppliers interviewed said that they would resist any reduction in unit costs as much as possible, preferring to differentiate in terms of their trade investment.¹³ Consistent with this, they also found that a substantial proportion of the difference in trade terms obtained by different customers would not show up in the 'headline' or invoice price.
42. We note that linear and two-part tariffs are two extreme models of the relationship between suppliers and retailers. However, we also note that the assumption of linear pricing in the ACS model favours the ACS's hypothesis. This is not to say that in a more complex environment the waterbed effect will not materialize, but the use of contracts with multi-part tariffs in the UK grocery sector tends to militate against the possibility of the waterbed effect operating in a material fashion.

¹²Research on suppliers to the UK grocery market (January 2007). Available at: www.competition-commission.org.uk/inquiries/ref2006/grocery/pdf/uk_grocery_market.pdf.

¹³[redacted]

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

43. In the ACS model, large grocery retailers and smaller grocery retailers compete over a market of fixed size. Any gains of large grocery retailers due to lower prices translate into a loss for smaller grocery retailers. This ignores any possible market expansion effects. Relaxing the fixed-size market assumption allows for the possibility that the total number of consumers who benefit from the low prices charged by large grocery retailers can increase, and this would make a waterbed effect less likely because the amount of small retailer 'loss' measured by the model is instead captured by the increased number of consumers. In addition, the possibility of consumer harm is harder to show because the number of consumers that benefit from low prices is increasing alongside those consumers that might be adversely affected by increasing prices at smaller stores. We also note that an expanding market seems consistent with the UK grocery sector that we currently observe.

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

44. The ACS model assumes that the incentive that large grocery retailers have to pass through their input price reductions is determined solely by competition with small retailers. This ignores the possibility that competition among large grocery retailers may determine a higher pass-through rate.
45. In addition, a higher pass-through rate would make consumer harm less likely, as the large proportion of consumers served by large grocery retailers would enjoy a bigger discount.
46. We consider these issues further in the next section, as we review the evidence we have on the existence of a waterbed effect in the UK grocery sector and of any consequent consumer harm.

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

47. 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

48. We considered data from the GfK survey of suppliers on the terms offered to large grocery retailers and smaller grocery retailers. The GfK report shows that only 7 per cent of suppliers 'agree' or 'strongly agree' that when large customers negotiate a lower price, prices are increased to small 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 small grocery retailers, although it seems likely that any such shortages would be occasional and temporary, and might not be sufficiently systematic or pronounced to give rise to a waterbed effect. More generally, 21 per cent of suppliers indicate that when large customers require better or additional services, service levels to small customers worsen. The extent to which this could lead to a waterbed effect would depend on the impact of service levels on the ability of small retailers to compete, and on whether the effect of decreased service levels was systematically related to buyer size.

49. Moreover, the vast majority of suppliers (93 per cent) do not agree that there is a waterbed effect in relation to the price aspects of the supply of groceries to retailers. This suggests that any waterbed effect taking place is likely to be limited to a minority of suppliers, or that it affects aspects of the offer other than price.

Evidence of consumer detriment

50. In the ACS model, the impact of the waterbed effect on consumer welfare is ambiguous. The large grocery retailer will reduce its price, while the effect on the retail price at small stores is not clear-cut. Consumers will only sometimes be worse off on average. The assessment of consumer detriment is complex, and in the absence of a more direct testable proposition, we can evaluate consumer detriment in qualitative terms. In paragraphs 51 to 56, we present a qualitative assessment of the likelihood of a consumer welfare loss resulting from a waterbed effect.
51. For consumers to be worse off on average, the large grocery retailer must only pass on to consumers a small portion of the input price reduction that it extracts from the supplier (see paragraph 21). If, instead, competition is sufficiently intense downstream, large grocery retailers will be pressured to pass through a large portion of the non-cost-related discounts. As a result, the presence of competition between large grocery retailers will tend to benefit consumers, even in the presence of a waterbed effect. While we have found that there are combinations of features of certain local markets, including high and persistent levels of concentration, which prevent, restrict or distort competition in those markets, we have also observed that there is vigorous competition between grocery retailers in other local markets. Where competition between retailers is vigorous, discounts will result in lower retail prices that benefit consumers on average as a large proportion of the market would benefit from higher discounts.
52. The ACS model also assumes that large grocery retailers' gains are small retailers' losses (see paragraph 17). However, allowing for market expansion will further mitigate the negative impact on consumers on average. That is, low retail prices also attract new consumers. In the presence of a significant market expansion, the impact on consumer welfare is likely to be positive. Although it is difficult to separate the market expansion effect from the 'business stealing' effect empirically, it is likely that lower retail prices allow some consumers to purchase products that were previously not affordable.
53. In Section 3 and Figure 3.5 of the main report, we have shown that prices of food have declined in real terms since 2000. 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 of small retailers. We have not seen evidence of such a deterioration. We understand that there has been an upturn in real food prices during 2007, although it would be speculative to associate this change with an increased waterbed effect.
54. This data supports 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 is changing the conduct of some suppliers, this would not lead to significant increases in retail prices. We cannot undertake a qualitative analysis of the trends in the non-price elements of the retail offer because we do not have the relevant data.

Direct evidence of a long-run effect

55. The dynamic version of the ACS model predicts that the number of suppliers would decline over time as large grocery retailers exercise a greater degree of buyer power. We note in our working paper on supply chain profitability¹⁴ 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 might be expected to arise from normal competitive behaviour.
56. Our analysis of trends in the number of convenience stores and specialist grocery stores in Appendix 5.1 indicates that the number of convenience stores in the UK grocery market is increasing, albeit we have also observed a decline in the number of non-affiliated independent stores and specialized stores. In addition, the presence of a waterbed effect is difficult to reconcile with our observations in Appendix 5.2 that entry by a supermarket into a high street or local shopping centre during 1999 to 2006 has had no identifiable effect on convenience stores in those areas surveyed.

Conclusion

57. The ACS has submitted an economic model of the waterbed effect which has significantly contributed to the available economic theory on this issue. However, for the reasons set out above, we have concerns regarding the validity of the assumptions in the ACS model in the context of the UK groceries sector, and note that changes to certain assumptions of the model (such as the introduction of wholesalers, or allowance for a competitive upstream market) could considerably reduce, or entirely negate, the operation of any waterbed effect. On the basis of our assessment of the model and submissions that we have received from other parties, we find that the ACS model does not provide a basis for concluding that a waterbed effect operates in the UK grocery sector.
58. Moreover, the evidence that we have reviewed does not support a conclusion that a waterbed effect operates in UK grocery retailing to any material extent. If a waterbed effect had been operating in recent years, we would have expected to observe an increased disparity in the input costs paid by large grocery retailers and smaller grocery retailers, increases in the relative prices charged to consumers by small retailers and a shift of overall consumer demand from small retailers to large grocery retailers. The evidence that we have reviewed is not consistent with these expected observations.
59. Accordingly, we conclude that, to the extent that any waterbed effect exists in the UK grocery retailing sector, it 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. In addition, we conclude that the likelihood that a waterbed effect is resulting in material detriment to UK consumers of groceries is very small.

¹⁴Available at:

www.competition-commission.org.uk/inquiries/ref2006/grocery/pdf/emerging_thinking_supply_chain_profitability.pdf.