THE MODELLING OF INDEPENDENT CONVENIENCE STORES

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Background

1 From the very earliest stage of the inquiry it was understood between the Competition Commission and ACS that it would be impracticable for the Commission to gather evidence from the 50,000+ convenience stores known to operate in the UK, or even from the 30,000+ stores which are members of ACS itself.

2 With this in mind, ACS' economics advisor, Europe Economics (hereafter "we" or "us"), suggested that a good way forward might be to undertake an exercise which would enable the Commission to understand the economics of convenience stores by building stylised models of different types and sizes of store. This exercise would, it was proposed, be based on actual stores operated by a small number of ACS members who had agreed to provide financial and other data, in confidence, to Europe Economics. The results of the modelling would ideally enable the Commission to understand where competition issues – particularly movements in costs or margins – would bite on such stores, and thereby to understand the likely effects of remedies or other policy changes.

3 The exercise proved easier to envisage than to complete. The principal problem was that of identifying members willing to share data which they would not normally present to third parties. For some of them there were problems in extracting data that we regarded as relevant from the data that they use for managing the business. The result was that data gathering took much longer than had originally been envisaged.

4 A second-order problem was that not all participants were able to provide the degree of data disaggregation that we regarded as desirable. For that reason, a certain amount of re-aggregation has had to be done with some store data to ensure a reasonably standard form of presentation.

The stores

5 We knew from the outset that, if we were to keep the effort within manageable bounds, we would be able to deal with only a tiny fraction – by no stretch of the imagination a statistically representative sample – of the population of UK convenience stores. In the end we analysed data from eight stores, broken down as follows:

- By revenue: one has annual revenue of under £300,000, two have revenue between £300,000 and £500,000, three have revenue between £500,000 and £1 million, one has revenue between £1 million and £2 million, and one has revenue in excess of £2 million. In all cases the revenue excludes VAT where VAT would be charged (food, of course, is zero-rated).

- By type of area: three are city or suburban (none city-centre), two are in provincial market towns, and three are rural.

– By location: one is in the Bristol area, one in the Manchester area, one in the Newcastle-upon-Tyne area, three in Norfolk[1], one in Shropshire, and one in Dumfriesshire.

Sources of store revenue

6 For purposes of analysis, we broke down store revenue into five principal categories:

– groceries excluding alcohol

– alcohol

– confectionery/news/tobacco (CTN)

– non-grocery; and

– Lottery.

7 Logically, Lottery could be aggregated with non-grocery but the industry norm is to treat Lottery separately. There are some 30,000 lottery terminals across the UK[2], shared between convenience stores, some Post Offices, larger newsagents and a number of larger stores and supermarkets, so we estimate that no more than about 1 in 3 convenience stores has a lottery terminal.

8 In addition, we distinguished revenue received from Paypoint and Payzone. These are facilities whereby customers can pay utility bills and TV licences over the counter for onward transmission to the supplier.

9 On average, the breakdown of revenue by the five categories listed above was:

– groceries excluding alcohol: 23 per cent

– alcohol: 23 per cent

– CTN: 35 per cent

– non-grocery: 14 per cent

– Lottery: 3 per cent

10 If we aggregate the first three categories above, they account for an average of 81 per cent.

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[1] The inclusion of three stores in Norfolk in our small sample is accidental. We were grateful to receive a last-minute offer, which we accepted, of data from a Norfolk store operator covering two additional stores.

[2] Source: http://lottery.merseyworld.com/Info/FAQ_tickets.html

11 However, that aggregation would not be entirely congruent with the definition of groceries set out in the OFT's document (OFT 845) outlining its reasons for making the CC reference. To get closer to the OFT's definition we need to eliminate tobacco, tobacco products, newspapers and magazines, but add in cleaning products, toiletries and household goods. We do not have precise percentages of revenue accounted for by these seven product groups, but our estimate is adjusting for them would reduce the 81 per cent estimated above to between 60 and 70 per cent – for the simple reason that tobacco, news and magazines are an important part of convenience store revenue, whereas cleaning products, toiletries and household goods are much less so.

12 A mid-range estimate is that, on average, about 65 per cent of convenience store revenue is accounted for by the OFT's definition of groceries.

Variations in store revenue

13 However, there is very substantial variation in revenue sources as between stores. Specifically:

- alcohol revenue ranges from a low of 5 per cent of total revenue to a high of 50 per cent
- grocery ranges from 11 per cent to 37 per cent
- CTN ranges from 23 to 78 per cent
- non-grocery ranges from 2 per cent to 30 per cent.

14 In our small sample, these variations are not correlated with store size, location, or type of area. The conclusion we draw is that revenue make-up has much more to do with local circumstances than with any other factor.

15 To support this anecdotally, we can report that the owner/operator of the Shropshire store told us that she was aiming to attract substantial additional business into her store when a local CTN rival close by retired and closed the store. She went on to estimate that acquiring all the rival's CTN business would almost double her own revenue, the result of which would be a quite substantial shift in the proportions of the total. But it was evident that the situation described by the store owner was purely local in origin and effect, and could not be read across to the generality of convenience stores.

16 It follows that remedies or policy changes resulting in revenue shifts could have widely differing effects on different stores.

Gross margins

17 Gross margins vary primarily by product category. Specifically:

- margins on grocery are the highest of all the five categories, at an average of 25 per cent, with a range from 20 to almost 28 per cent.

- margins on alcohol are the next highest, averaging 20 per cent, and ranging from 14 to 25 per cent. One store owner suggested that, although pure gross margins on alcohol may be higher, at around 22-23 per cent, it is a product particularly vulnerable to pilferage, so that the effective gross margin is no more than about 20.

- margins on CTN emerge at an average of 18 per cent, with a range from 14 to 25 per cent. Interestingly, margins on confectionery and news are characteristically around 24 to 25 per cent each, but tobacco pulls the overall CTN figure down substantially. Retailers who sell priced packs of tobacco products earn margins only of around 4 per cent, whereas those who can obtain non-priced packs are able to charge slightly more at retail, thereby achieving margins of between 7 and 8 per cent.

- we had too little detailed data to assess average margins on non-grocery products. The one convenience store that provided disaggregated margins for non-grocery products showed an average of 27 per cent. However, there are very substantial differences between different product types. Over-the-counter pharmaceuticals and stationery (in this one case) attracted margins of 50 per cent or more. On the other hand Paypoint and Payzone allow the retailer a fixed margin of only 0.5 per cent. We also understand that mobile phone top-up payments characteristically allow the retailer a margin of no more than between 0.5 and 1 per cent.

- National Lottery products, whether tickets for lottery draws or scratch-cards, allow retailers a fixed margin of 5 per cent, regardless of sales volume.

18 This evidence, small-scale though it is, is consistent with what we have been told about the impact on convenience stores of joining a symbol group. In round terms, it is larger stores – those turning over more than about £1 million per annum excluding Lottery sales – that are eligible for symbol group membership. However, symbol group membership by itself does not bring better discounts or higher gross margins. Indeed, we have been told that discounts may actually fall slightly when retailers enter symbol group membership at the lowest level of purchases; but that the primary benefits are access to promotional and special offers not available through cash-and-carry outlets, and other forms of marketing and branding support.

19 Low-margin products, especially Paypoint, Payzone and mobile phone card top-ups, and to a lesser extent National Lottery and tobacco products, form part of convenience store portfolios for the simple reason that they attract footfall. No retailer that we have spoken to said that he or she would seriously contemplate giving up such products once acquired, no matter how slender the margins. On the other hand, no retailer was able to tell us what the effect of having Paypoint/Payzone or a National Lottery terminal was on other product revenue.

20 The margins we learned of from the eight store operators are broadly consistent with what is reported in IGD's report *Convenience Retailing 2006*, which we assume the Commission has.

Costs

21 As with data on revenue and margins, data on costs too is available with varying levels of detail.

22 We have detailed cost data for three of the stores surveyed: the largest store in the sample, turning over £50,000 a week, and two mid-range stores, turning between £12,000 and £16,000 per week.

23 For the largest store, fixed costs amount to 10.6 per cent of turnover. Almost 70 per cent of fixed costs are made up of salaries and wages. Rent and rates make up a further 9 per cent , with the remaining categories each contributing less than 4 per cent. Of these, accountant fees, bank charges, and repairs and maintenance are the largest items.

24 For the mid-range stores fixed costs are about 14 per cent of turnover. This higher figure (compared with the 10.6 per cent for the large store) could possibly indicate economies of scale as fixed costs are shared over lower sales. For the mid-range stores as well, salaries and wages remain the most important component of costs, representing over 60 per cent of costs. Rent represents a further 7 per cent, with the remaining categories shared out in small percentages between electricity, business rates, maintenance etc.

25 Labour costs present a particularly difficult problem, since the owner/operator of a c-store is able to take a notional salary, an actual salary, or dividends, or a combination of salary and dividends. A further complication is that some owners work full-time in the store, others part-time, and others not at all. So far as we can tell, the choice depends very much on the personal circumstances of the owner(s), and practice is not correlated with store size.

26 Following discussions with retailers we adopted a number of simplifying assumptions as follows:

– for each type of store we calculated the number of labour hours which would be required to service a particular level of revenue. Our assumption is that a c-store will be open for at least 98 hours per week (14 hours per day for 7 days). In addition time is required for goods handling, which, in the case of those who buy from cash-and-carry outlets, implies absence from the shop. From the data we had, we calculate that the very smallest c-stores have a ratio of about £50 of revenue for each staff hour. Thus, a revenue of £300,000 per annum requires 6,000 labour hours. The ratio increases somewhat with revenue, to about £75 revenue per staff hour among medium-sized stores, and to about £100 per hour for the large stores, where relatively large values of Paypoint/Payzone revenue arise. For the middle-sized small store we used a figure of £60.

- we then multiplied the required number of labour hours by a notional average hourly rate, which appears in the model as £6.75. This figure is based on the National Minimum Wage rate (£5.35 for an adult) plus an allowance for the fact that most employers pay above it, plus on-costs, and an allowance for holidays and sickness. We know that the figure is likely to be higher in city centre locations and lower in rural, but different rates can be easily modelled.

- the model does not distinguish between owner/operators and third party employees in the allocation of remuneration. We are aware that for the smallest stores, normal practice is that husband and wife, or partners, run the store and take as remuneration whatever is left after all costs and required reinvestments have been met. Third party labour is then used only to the extent necessary, either to give the owners some rest or to provide cover when one of them is required for other purposes, such as going to the cash-and-carry outlet. The effective hourly rate earned by some owner/operators is then often far below the £6.75 we have modelled, and indeed below the NMW rate.

27 Although we do not have a figure for the salaries and wages paid all stores in our sample, we were generally given details on the number and types of workers employed. These served as useful checks on labour hours calculated by the model.

28 Other costs are derived closely from what we were told by store owners. In detail they vary significantly, but in aggregate much less so. The larger the store, the larger the percentage of gross margin swallowed up by overheads – for example symbol group membership fees, promotional costs, loss of small business rate discounts, higher unit waste disposal costs, and (especially for stores that operate multiple open-deck chillers) much higher electricity costs.

29 Proximity of supermarkets

30 The stores in the sample were also asked how close they were to a supermarket or Big Four- owned convenience store, and what changes they had observed in market conditions as a result .

31 Common comments on the impact of a new supermarket were that the whole High Street changed in response, with the early demise of butchers and bakers. For those stores that remain in business, operators of four of the shops which provided data to us expressed concern that it was wholesalers who might retrench or shut down as a result of the loss of shops to them, in turn reducing choice and viability for the stores that remain. Owners of stores that are further away from Big Four-owned stores expressed no concern over their viability. All this is unsurprising, but it does not help in modelling, so at this stage we have not attempted to factor in the impact of supermarket proximity on c-store viability.

The model

32 The model is a simple Excel spreadsheet which enables a user to enter desired input values for such factors as store revenue, gross margin, and costs, and to ascertain the

impact on store pre-tax profit of shifts in input values over a five-year period. The model allows for annual percentage changes in revenue, margins and costs.

33 The stores are divided into three types:

- small (annual revenue up to £500,000);
- medium (revenue >£500,000 and up to £1 million);and
- large (>£1 million).

34 The small and medium stores are further sub-divided into three: no Lottery and no Payzone/Paypoint, Payzone/Paypoint but no Lottery, and Payzone/Paypoint and Lottery. The largest store type is assumed to have both.

35 In the Excel spreadsheet, cells coloured yellow indicate those which any user may amend as he/she sees fit. They happen to contain values determined by Europe Economics for initial model runs. The cells coloured green are derived from data provided by the eight stores described above. Entries in these cells too can be amended by users. The model then calculates the effects of specified changes in revenue, margin and cost on the pre-tax profit of the stores. The financial outputs appear in the outlined box at the bottom of each worksheet. There are three separate worksheets for the small- and medium-sized stores and one for the large stores.

Conclusions

36 Using the same increase/decrease assumptions across all store types, the following emerges.

37 The very smallest type of convenience store, modelled at £300,000 revenue per annum, is barely viable. The notional modelled salary of just over £40,000 (for two people together) takes the business slightly into loss, yet at just under £20,000 per person the remuneration is substantially below the current national average wage of roughly £25,000 – and for very much longer hours than the standard. Even a modest diminution of revenues and a realistic escalation of costs takes the business into serious loss by year 5; the only way of avoiding a loss would be for the owners to take ever smaller amounts of remuneration.

38 A minimum revenue of about £500,00 per annum is needed for a small store to remain above break-even without the owners eating into their notional remuneration.

39 The inclusion of Paypoint/Payzone and/or Lottery has substantial effects on the overall margins of all store sizes because the gross margins on these products are so thin. A worthwhile development of the model, though one we have not attempted to include at this stage, would be to explore the effect of these services on footfall and therefore on revenues from other sources.

40 On the assumptions modelled, most of the medium and large types of c-store are achieving minimal profit or breakeven by year 5. In our view this margin is inadequate for the long term, and can only result in a weakening of the capacity of the c-store sector to survive, let alone to exercise competitive constraint on larger rivals. Even more certainly, it creates insurmountable barriers to expansion.

41 A reduction in the buyer power and seller power of supermarkets would show through as increases in revenue and margin in grocery and alcohol for the c-store operators. Relatively modest improvements here would make for substantial improvements in their pre-tax margins.
