

Trends in the entry and exit of small stores

Introduction

1. This appendix analyses changes in the structure and composition of the grocery retail landscape. In particular, we evaluate trends in the number of convenience stores and specialist stores over time and as a result of local supermarket entry.
2. We observe that there has been an ongoing and significant decline in the number of convenience and specialist stores over the past 50 years. However, we observe a more complex picture of both entry and exit of convenience and specialist stores since 2000. In this period, the convenience store data shows a considerable amount of movement from the unaffiliated independent stores classification into the symbol group classification (eg Londis, Premier, Mace). We also observe conflicting data sources that suggest overall numbers of convenience stores are increasing, in contrast with other data and a widely accepted view that numbers are decreasing across the UK. More specifically, in some areas we observe that some specialists have continued the long-term trend to exit from trading and observe other specialists becoming more prevalent.
3. In the areas which we have reviewed, specialists have continued to show a net decline in the overall number of stores although they seem to be exiting at a slower rate than previously. The ongoing entry of new specialists over the period suggests that barriers to establishing a new store, where there is sufficient demand for one, are not prohibitive.
4. Finally, our analysis indicates that entry by a supermarket into an area results in an increased rate of net exit for greengrocers and local food markets. In contrast, the net

rate of exit for bakeries declines with local entry by new supermarkets. Other types of specialist stores seem unaffected by the entry of a supermarket.

5. The remainder of this appendix is structured as follows. First, we set out trends in convenience store numbers over time and second we evaluate trends in specialist stores. We then consider the effect of supermarket entry on both convenience and specialist stores including an econometric analysis in which we control for fixed location effects and a time trend for each location.

Trends in convenience stores

6. In reviewing the trends in convenience store numbers we refer to a number of data sources which emphasize different aspects of the trends that we are observing. The ONS has maintained a long-term record of retail store outlets, the Institute of Grocery Distribution (IGD) publishes the number of total UK convenience stores based on its own and others' research, and Experian Goad has a very detailed database of more than 1,000 shopping centre locations across the UK over the past eight years.
7. Grocery retailers and symbol groups with significant numbers of convenience stores include:
 - Budgens—46 convenience stores;
 - CGL—1,254 convenience stores;
 - Costcutter—1,300 convenience stores;
 - Sainsbury's—262 convenience stores;
 - Somerfield—148 convenience stores;
 - Spar—2,168 convenience stores; and
 - Tesco—1,190 convenience stores.

8. ONS data is collected for the number of non-specialized stores with a main activity of retail sale of predominantly food, beverages or tobacco. We note that Verdict Research uses the ONS data when developing its publications on retail store numbers in the UK.¹ Although this data has been collected by the ONS since 1950, changes in the Standard Industrial Classification (SIC) allow us only to track trends in convenience store numbers since 1993. We have also adjusted the data to remove those stores greater than 280 sq metres.² Figure 1 shows an increase in the number of convenience stores over the period from 1993 to 2005 of around 26,000 to 38,000. This data excludes forecourts, specialist food retailers and other retail outlets with a main purpose other than provision of food, beverages or tobacco and is not directly comparable with the IGD statistics we refer to in the following paragraphs.³

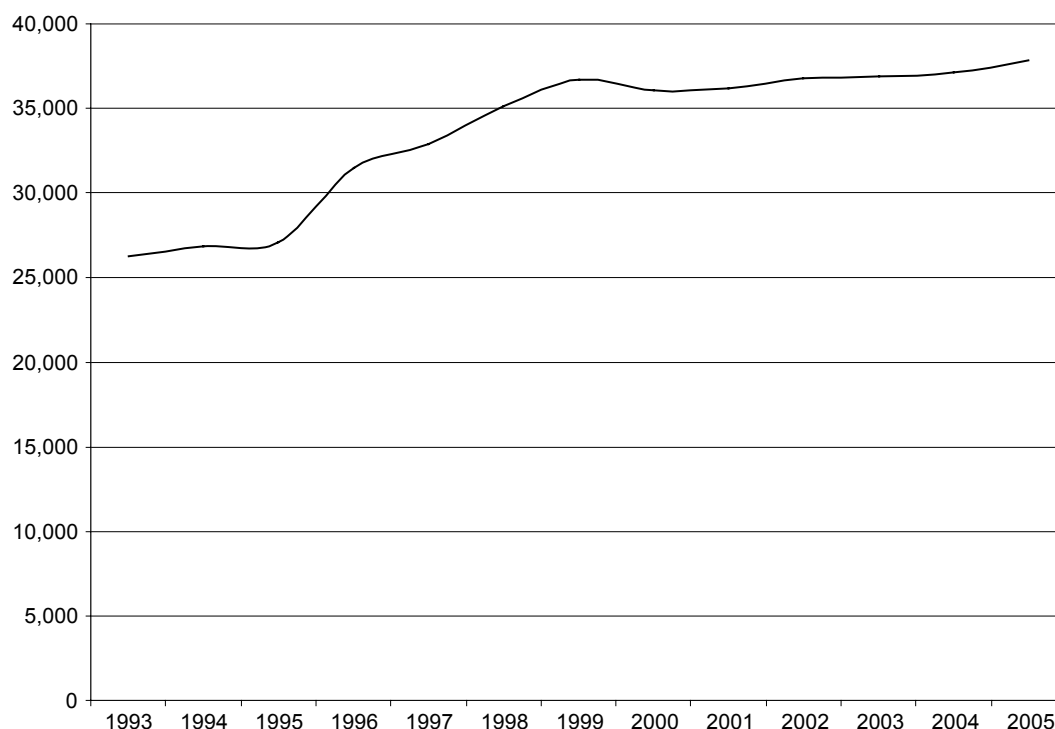
¹Verdict Research, that publishes data on the total number of stores and subcategory, is based on figures from the ONS and cross-checked and adjusted with reference to store number information and opening plans provided by individual retailers and relevant trade associations. Verdict Research does not publish the data on a subcategory basis consistent with the rest of our analysis in these provisional findings.

²The IGD classifies stores greater than 300 sq metres as supermarkets and the number of these stores has been removed from the ONS data.

³Total specialist food retail outlets in 2005 totalled approximately 42,000 in the ONS data. However, we do not measure the change in tobacco or non-specified specialist outlets at Figure 4.

FIGURE 1

Number of convenience stores, 1993 to 2005



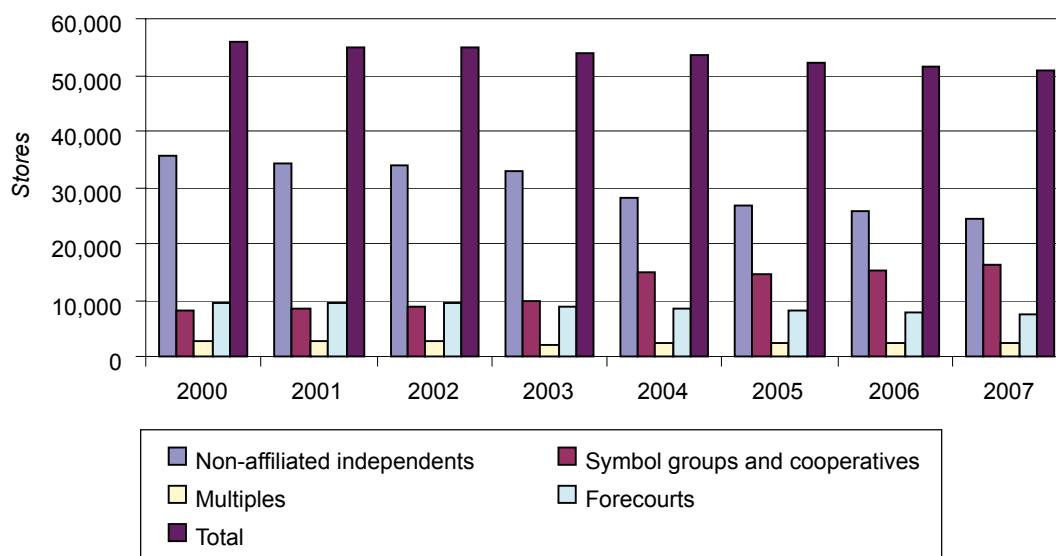
Source: CC analysis of the ONS and IGD supermarket data.

Note: ONS data is collected on the number of non-specialized stores with a main activity of retail sale of predominantly food, beverages or tobacco. IGD data on the number of supermarkets (stores larger than 280 sq metres) is removed from the total for the period 2000 to 2005. The CC has assumed that the supermarket sector grew at 1 per cent a year through the period 1993 to 1999 calculated from a base IGD number for 2000.

9. We next reviewed IGD figures on trends in the convenience store sector. The grocery industry in general considers the IGD figures to be authoritative on the trends in the UK grocery industry. IGD figures are obtained from a number of sources and validated through a committee of interested parties. The IGD convenes a committee to assist with compiling the published data and relies on different sources for different classifications. There are five main classifications for convenience stores: non-affiliated independents, symbol groups, cooperatives, forecourts and multiple owned. For the purposes of our analysis we have combined symbol groups and cooperatives into one classification. In the period since 2000 we observe a declining total number of convenience stores from approximately 56,000 to 51,000 stores (see Figure 2).

FIGURE 2

Number of convenience stores in the UK, by type, 2000 to 2006



Source: CC analysis of data from the Knowledge Store/IGD.

Note: Forecourts are petrol filling station based and do not include those sites operated jointly between an oil company and a retailer.

10. Within the sub-classifications we observe two related trends in Figure 2. First, non-affiliated independent stores have decreased from around 35,500 to 24,500. Secondly, this decrease has mostly been offset by number of symbol group and cooperative stores doubling from around 8,000 to 16,000. The IGD notes that the decline in the number of non-affiliated independent stores that it classifies is less than half the decline of previous years (3.6 per cent over 2005).
11. Finally, we analysed data from Experian Goad on the total number of convenience stores.⁴ We discuss the parameters of this dataset, and submissions that we have received on it, in Annex 1.
12. Our analysis shows that between 2000 and 2006 there has been considerable 'churn' of convenience stores, with substantial entry and exit of small grocery stores in all categories. We have examined trends, between 2000 and 2006, in the number of

⁴Experian is a global analysis and information company that also provides data and analysis for leading grocery retailers in the UK. Charles Goad started the Goad database in 1965 at the request of the Department of Trade and Industry.

convenience stores and specialist grocery retailers across high streets and town centres in the UK. This shows that in 1,115 high streets and town centres the total number of multiple convenience stores⁵ has increased from 400 to 647 (62 per cent increase), and the total number of independent non-affiliated convenience stores⁶ has increased from 476 to 844 (77 per cent increase). Total convenience stores in these areas has increased from 876 to 1491 (70 per cent increase). Notably, the growth seen in convenience stores owned by the major grocery retailers is mirrored by the growth of non-affiliated independent convenience stores. Graphs on the net entry and exit of these stores can be seen in Annex 2.

13. Given our observations of the various datasets, it seems that there is a great deal of dynamism and change occurring within the industry. We do not consider that the convenience store sector is in a broad-based decline. In contrast, at least in some areas of the UK it appears that there is strong growth in both non-affiliated independent and multiple and symbol group convenience stores. In addition, there seems to be strong growth in the number of symbol group and multiple convenience store outlets across the UK.⁷
14. Our conclusion is in contrast to a widely-held view that there is broad-based decline of the convenience store sector across the UK. We consider that this view is largely derived from the significant changes currently being experienced by the non-affiliated independent classification of the convenience store sector.
15. We note that the dataset published by the IGD indicates a large decline in non-affiliated independent stores and convenience stores generally, across the UK. The number of non-affiliated independent stores is obtained by the IGD from a national

⁵Convenience stores owned by multiple retailers (eg Sainsbury's or Tesco) or affiliated with symbol groups.

⁶Convenience stores that are not owned by a multiple retailer or affiliated with a symbol group.

⁷We note that this conclusion is also consistent with analysis compiled by the Advanced Institute of Management Research, *How does UK retail productivity measure up?*, November 2006.

list of convenience stores compiled by the Knowledge Store, a division of William Reed Publishing.⁸ This list is compiled using a mixture of weekly magazine distribution records, telephone interviews, volunteered information from events such as trade shows, and information obtained from third parties to characterize the stores on their circulation list.⁹ We have a concern that some new non-affiliated independent convenience stores may not subscribe to these publications nor be caught within the variety of data sources utilized by the Knowledge Store. That is, the data collection method employed to develop this database potentially misses some new non-affiliated independent convenience stores that enter the sector.

16. We also note that this data is in direct contrast to the trends presented in the data we have analysed from Experian Goad. One explanation for this apparent discrepancy could be that there is a different trend in the areas covered by the Experian Goad data compared with the national level data compiled by the Knowledge Store.¹⁰
17. Given the data collection methodology employed by Goad, we are confident that its dataset is robust. To examine the high level of convenience store entry shown in the Experian Goad data, we looked at the previous recorded use of convenience stores to assess whether this growth represented a reclassification of existing stores or completely new entry. We found that around 10 per cent of new convenience stores represent reclassifications from other retailing categories (ie stores that retained the same fascia while changing sector). Nevertheless, 65 per cent of convenience store entry occurs on sites which were not previously involved in the groceries trade, or

⁸William Reed Publishing is the publisher of 22 magazines for the grocery sector, including the widely-read *The Grocer*.

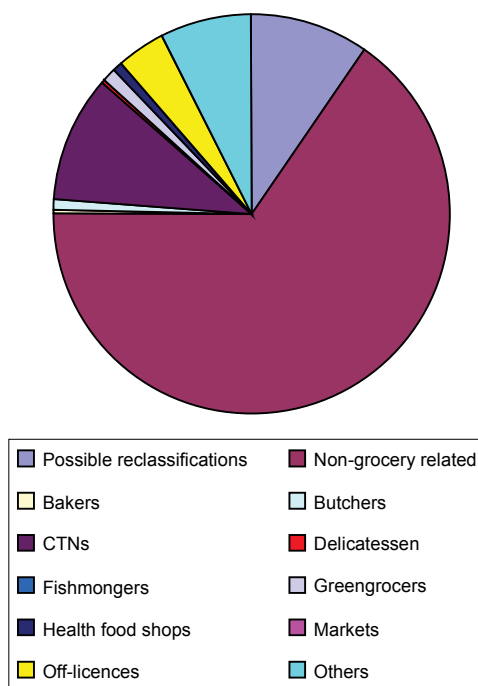
⁹The full list of sources reads: (1) telemarketing/telechecking; (2) fax-outs; (3) registration cards and inbound calls; (4) web research; (5) returns; (6) data population companies, including Yell, 118118.com; (7) data purchases, including from Companies House, Mintel, and AC Nielsen.

¹⁰We note that the two data sources differ in their geographical coverage. The Experian Goad data is explicitly targeted at shopping centres and high streets. As such, despite the fact that rural areas (eg Sheringham) are included in the data, isolated shops in villages or estates will not be picked up. The differences that we observe in the respective databases can therefore be taken partially to reflect differences in the trends between town centres and more rural areas.

any subsection of it.¹¹ A further 25 per cent of new entry by convenience stores reflected changes in ownership as well as category. As a result, we do not consider that the high level of entry in convenience stores in the Goad data can be explained by classification issues (see Figure 3).

FIGURE 3

Previous site use for convenience store entrants



Source: CC analysis of Goad data.

Trends in specialist stores

18. In this section we review data from the ONS that shows a long-term decline in the number of specialist grocery retailers. We also analyse the exit and entry rates, by sector, across all of the 1,115 high streets and town centres in our Experian Goad sample.

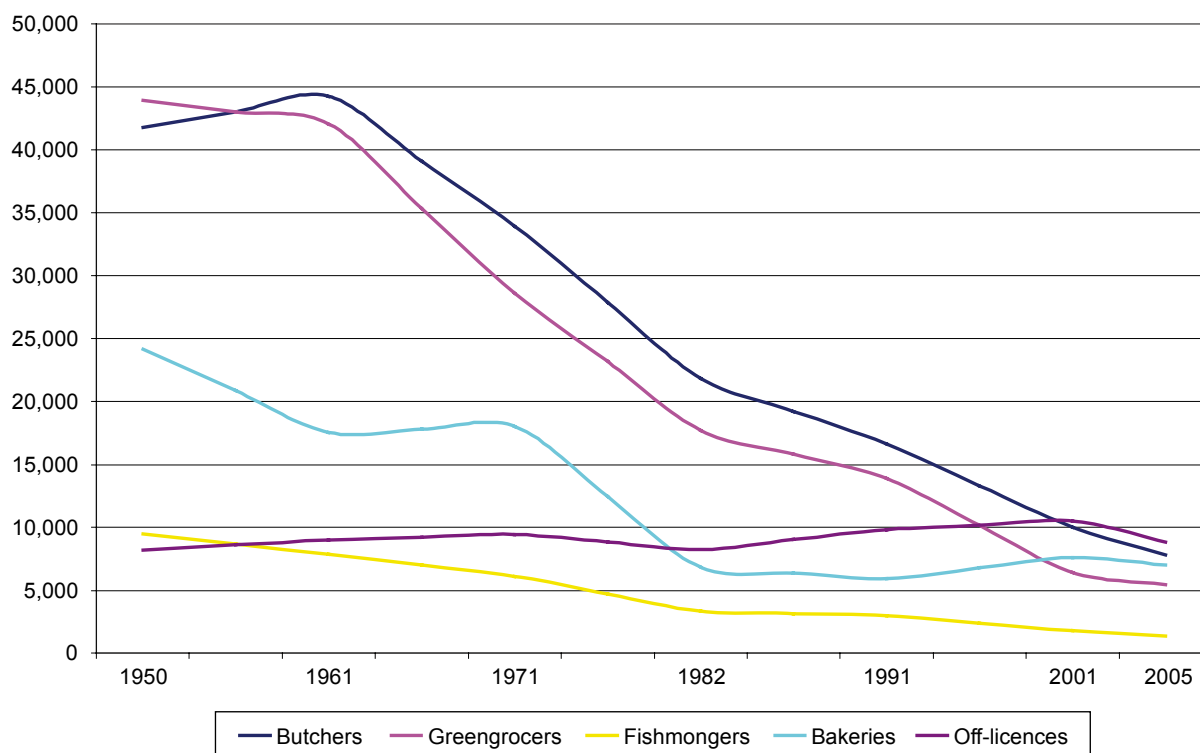
19. As we note in paragraph 8, the ONS has tracked the number of store outlets since 1950. Although there have been some amendments to the SIC classifications over

¹¹These sectors were not in our dataset, therefore we do not know what these stores were used for, or who owned them, prior to them becoming a convenience store.

this period, the specialist store classifications are comparable over time. Figure 4 shows an ongoing decline in all specialist sectors that we review. In contrast, off-licences appear to have maintained their numbers throughout the period and the number of bakeries has remained static since around 1980.

FIGURE 4

Long-term trends in the number of specialist grocery stores



Source: 1950 to 1971 based on Censuses of Distribution, 1982 to 2005 on Retail Surveys undertaken by ONS.

Notes:

1. Over this period the definitions used for low-level business splits within retail have evolved and are only roughly comparable over the entire period. There are also methodological differences that contribute to differences between the two datasets which make it difficult to directly compare the data over this extended period of time and account for at least some of the variation between the datasets. The SIC received major revisions in 1972, 1980, 1992 and again at the subsection level in 2003 (affecting the continuity of the data). These caveats apply to all the definitions that follow.
2. Butchers are defined as the sale of meat and meat products. Since 1980 this category also includes poultry and game, previously classified with fishmongers. The 1971 figure is a calculated figure obtained from the Monopolies and Mergers Commission report *Discounts to Retailers*, May 1981.
3. Greengrocers sell vegetables, fruit or a combination of these with flowers or fish. In 1950 those greengrocers that also sold fish were classified as fishmongers.
4. Fishmongers sell wet, dried and shell fish. In 1950 it also included sales of fish items with greengrocery (reclassified 1961 to greengrocery). Shops selling poultry and game were classified with fishmongers 1950 to 1971 and reclassified to butchers from 1980 onwards.
5. Bakeries are defined as the sale of bread, cakes, flour confectionery and sugar confectionery. In 1950 this did not include depots from which 'roundsmen' operate but were included in later years.
6. Off-licences are defined as business retailing alcoholic drinks for consumption off premises. Those attached to public houses are excluded.

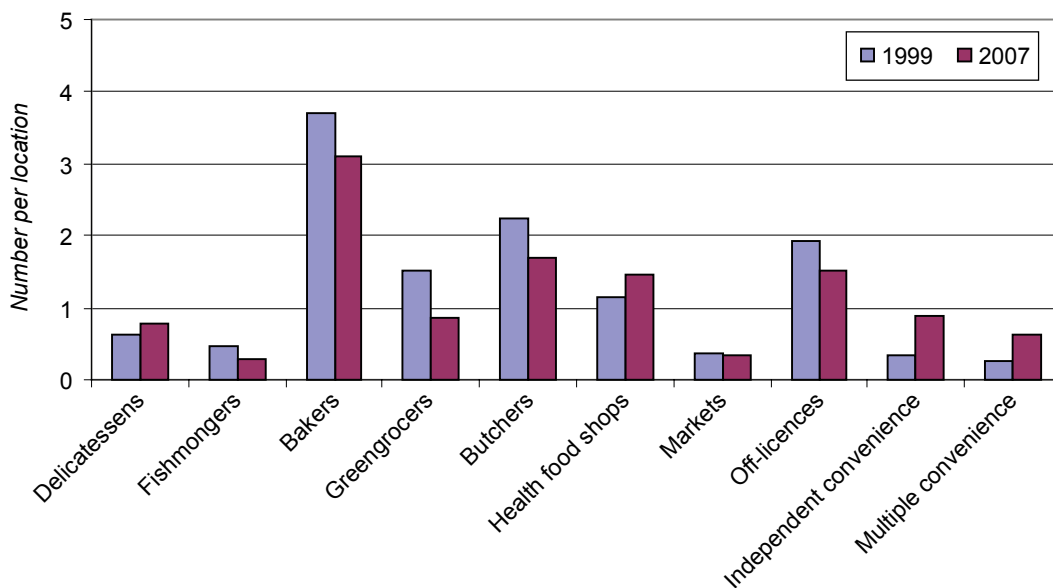
20. The Experian Goad database allows us to analyse specific entry and exit of specialist stores across the locations that are surveyed since 2000. These graphs are presented in Annex 3. From this analysis we observe that overall the specialist grocery store sector is in decline over the period. However, beyond this dramatic decline in the number of specialist grocery stores there are four additional points to note.
21. First, the declines are, in many cases, becoming proportionally smaller over time. This indicates that many specialists continue to survive despite the apparent pressures of increasing competition from supermarkets and national trends towards convenience shopping at the expense of speciality shops. Moreover, this evidence is not consistent with the argument that a decline in the high street is gathering pace; rather the decline appears to be slowing.
22. Second, even where exit rates are substantial and the sector appears to be in serious decline, entry continues to occur. This suggests a lack of prohibitive barriers to entry; new specialist grocery retailers open where sufficient demand for such stores exists.
23. Third, in some cases, we see large increases in the exit rates. This might reflect the effect of below-cost selling by supermarkets of the products in which these shops specialize. For example, 2003 and 2004 saw an unusually large exit rate from the off-licence sector. However, this may also reflect the increased competition provided by supermarkets.
24. Finally, delicatessens and health food stores have seen net entry over the last eight years. This may reflect broad trends in consumer demand towards premium and

healthier food, both of which are evident in the leading grocery retailers' move towards stocking healthy own-label ranges and fresh fruit and vegetables.

25. Figure 5 shows a comparison of two snapshots that capture the developments in the specialist and convenience store sector over the last eight years. As previously discussed, we have seen increases in health food shops, delicatessens and convenience stores. However, in absolute terms the decline in the number of greengrocers, butchers, bakers, fishmongers and off-licences has outweighed these increases. As a result, for the selected sectors below, the average number per location has fallen by one store or 8 per cent over the course of this period.

FIGURE 5

Average number of stores per location, by sector (1999 vs 2007)



Source: CC analysis of Goad data.

26. This indicates a reduction in the choice of store that consumers typically face in these areas. However, this does not, in itself, tell us anything about the range of products that those consumers are offered. Moreover, it is not clear what has caused these changes. In the next section we examine whether the changes in each sector can be attributed to the effect of a supermarket entering the surveyed area.

Conditional entry analysis on specialist and convenience stores

27. We have analysed the Experian Goad dataset to assess the extent to which the opening of new supermarkets has an impact on the entry or exit of specialist and convenience stores. In this analysis we take the exit rate of locations in which a supermarket has entered and compare it with a control group of locations in which entry has not occurred. These graphs are presented in Annex 4. In the econometric analysis that follows in paragraphs 33 to 39, we additionally control for fixed location-specific effects and location based trends, that is, the identified trend of growth or decline of that sector in the town absent the supermarket entry event.
28. In summary, this analysis shows that over 1999 to 2006 entry by a supermarket into a high street or local shopping area caused net exit by greengrocers and local markets and the net entry of bakers. During this period, supermarket entry had no identifiable effect on fishmongers, butchers, off-licences, delicatessens, convenience stores and health food stores.
29. Further, the analysis shows that during the period the entry of a convenience store operated by Tesco, Sainsbury's or M&S caused the net exit of convenience stores and other specialist retailers.
30. As a result, we found that entry by a supermarket has a mixed effect on high street shopping. For fishmongers, butchers, off-licences, delicatessens, convenience stores and health food stores, the effect of supermarket entry over the period 1999 to 2006 has been neutral. For greengrocers and local markets, the effect has been detrimental with higher rates of exit, and for bakers supermarket entry has been beneficial.

31. The ACS, in reviewing this analysis based on Experian Goad data, suggested that it was surprising that the presence of new supermarkets encouraged the entry of independent convenience stores. In particular, it said that the data we rely upon was unlikely to be representative of developments in the wider UK grocery market, and our reliance on it, in this context, was incorrect. However, our analysis does not show this. Rather, it shows that while there is an upward trend in the number of convenience stores, supermarket entry had no identifiable effect.
32. More specific analysis of the various specialist and convenience stores entry and exit patterns over the period 2000 to 2006 is set out in Annex 4.

Econometric analysis

33. In this empirical analysis we estimate the effect of local entry by supermarkets on the retail composition of shopping centres. We evaluate this effect on the net exit rate of various categories of retailers. We use a difference-in-difference estimator to evaluate such an impact.

34. Using panel data we specify a simple empirical model as follows:

$$(1) \text{ NEX}\%_{it} = A_i + \delta AT_{it} + \beta_1 \text{ SUPENT}_{it} + \beta_2 \text{ TMS}_{it} + \varepsilon_{it}$$

35. In this model $\text{NEX}\%_{it}$ represents the net exit rate of a specific category of retailer in location i at time t . A_i is the fixed effect for each location and T is a time trend, therefore AT_{it} is the time trend for each location. SUPENT_{it} represents the entry of supermarket in location i at time t . The variable TMS_{it} represents the opening of a small convenience store bearing the fascia of Tesco, M&S or Sainsbury's in the surveyed area.¹² We vary the SUPENT_i variable to focus our analysis on entry by the

¹²It has been submitted that such stores compete using advantageous purchasing terms and thereby force the exit of competing small and specialist retailers.

leading four retailers or on the location of entry (town centre, edge of centre or out of centre). The model can be specified as follows:¹³

$$(2) \text{ NEX}\%_{it} = A_i + \delta AT_{it} + \beta_1^{TC} \text{SUPENT}(TC)_{it} + \beta_2^{EOC} \text{SUPENT}(EOC)_{it} + \beta_3 \text{TMS}_{it} + \varepsilon_{it}$$

$$(3) \text{ NEX}\%_{it} = A_i + \delta AT_{it} + \beta_1^{TC} \text{SUPENT}(TC)^{\text{big4}}_{it} + \beta_2^{EOC} \text{SUPENT}(EOC)^{\text{big4}}_{it} + \beta_3 \text{TMS}_{it} + \varepsilon_{it}$$

36. In interpreting the results that follow, we note that the dependent variable is the net exit of stores. Therefore we take positive coefficient estimates to indicate a factor that discourages entry or encourages exit.
37. The entry of a new supermarket into a location is shown to increase the net exit rate of greengrocers and markets. In particular, it is the opening of new supermarkets located within the town centre that adversely affects the number of markets. In contrast, new supermarket entry into any site within the area affects the net exit rate of greengrocers.
38. The net exit rate of bakers is reduced when a new supermarket enters the area. This might therefore be comparable with the results identified by Tesco in Professor Neil Wrigley's work on the effect of entry by a Tesco Express into a town.¹⁴ In this study the increased footfall created by the new supermarket drawing customers into the town centre increased the opportunities for further entry by other retailers. However, we note that only bakers enjoy this beneficial effect. Some sectors appear unaffected by the entry whilst, as noted, some decline in the face of competition from the new supermarket.

¹³We also tried the regression with lagged dependent variables to see if the response to entry was delayed by a year. The results were generally insignificant.

¹⁴Wrigley, N: *The effects of corporate foodstores on the high street: Rebalancing the debates?*
www.competition-commission.org.uk/inquiries/ref2006/grocery/pdf/third_party_submissions_other_org_prof_neil_wrigley.pdf,
 and *Relocalising Food Shopping*:
www.competition-commission.org.uk/inquiries/ref2006/grocery/pdf/third_party_submissions_other_org_prof_neil_wrigley_no2.pdf.

39. The coefficients on the TMS variable are generally insignificant with the exception of health food shops and convenience stores. The net exit rate of health food shops is sharply increased when a convenience store with a Tesco, Sainsbury's or M&S fascia appears in the area. This might be taken to reflect the strength of these stores in health-based product categories.

TABLE 1 Results of regression (1)

	<i>Net exit rates</i>		
	<i>Convenience stores</i>	<i>Independent convenience stores</i>	<i>Multiple convenience stores</i>
SUPENT	6.39 (1.26)	1.14 (0.16)	-6.94 (-1.24)
TMS	18.27† (3.12)	13.3 (1.32)	18.14‡ (3.36)
Location fixed effect	Yes	Yes	Yes
Location fixed effect × time	Yes	Yes	Yes
Observations	3,848	2,329	2,517
R ²	0.433	0.464	0.546

Source: CC analysis of Goad data.

* $p < 0.05$.

† $p < 0.01$.

‡ $p < 0.001$.

Note: t statistics in parentheses.

TABLE 2 Results of regression (2)

	<i>Net exit rates</i>		
	<i>Convenience stores</i>	<i>Independent convenience stores</i>	<i>Multiple convenience stores</i>
SUPENT(TC)	1.26 (0.12)	8.22 (0.57)	-0.926 (-0.08)
SUPENT(EOC)	-9.55 (-0.57)	-26.72 (-0.94)	-3.28 (-0.18)
TMS	18.33† (3.13)	13.46 (1.34)	17.96‡ (3.33)
Location fixed effect	Yes	Yes	Yes
Location fixed effect × time	Yes	Yes	Yes
Observations	3,848	2,329	2,517
R ²	0.433	0.464	0.545

Source: CC analysis of Goad data.

* $p < 0.05$.

† $p < 0.01$.

‡ $p < 0.001$.

Note: t statistics in parentheses.

TABLE 3 Results of regression (1)

	<i>Net exit rates</i>				
	<i>Greengrocers</i>	<i>Bakers</i>	<i>Butchers</i>	<i>Fishmongers</i>	<i>Delicatessens</i>
SUPENT	5.535† (2.42)	-5.162† (-3.21)	-0.0354 (-0.02)	3.493 (1.23)	-4.591 (-1.17)
TMS	2.538 (0.67)	3.909 (1.49)	-3.824 (-1.39)	4.429 (0.92)	-1.931 (-0.34)
Location fixed effect	Yes	Yes	Yes	Yes	Yes
Location fixed effect × time	Yes	Yes	Yes	Yes	Yes
Observations	5,259	7,481	6,550	2,307	3,214
R2	0.515	0.308	0.439	0.659	0.529

Source: CC analysis of Goad data.

* $p < 0.05$.

† $p < 0.01$.

‡ $p < 0.001$.

Note: t statistics in parentheses.

TABLE 4 Results of regression (2)

	<i>Net exit rates</i>				
	<i>Greengrocers</i>	<i>Bakers</i>	<i>Butchers</i>	<i>Fishmongers</i>	<i>Delicatessens</i>
SUPENT(TC)	5.440 (1.06)	-7.502* (-2.22)	-1.083 (-0.32)	12.72 (1.58)	-12.21 (-1.41)
SUPENT(EOC)	-2.316 (-0.43)	1.133 (0.30)	-7.052 (-1.87)	12.36 (1.71)	12.74 (1.41)
TMS	2.526 (0.67)	3.923 (1.49)	-3.835 (-1.40)	4.301 (0.89)	-2.100 (-0.37)
Location fixed effect	Yes	Yes	Yes	Yes	Yes
Location fixed effect × time	Yes	Yes	Yes	Yes	Yes
Observations	5,259	7,481	6,550	2,307	3,214
R2	0.514	0.308	0.439	0.660	0.529

Source: CC analysis of Goad data.

* $p < 0.05$.

† $p < 0.01$.

‡ $p < 0.001$.

Note: t statistics in parentheses.

TABLE 5 Results of regression (1)

	<i>Net exit rates</i>			
	<i>Health foods</i>	<i>Off-licences</i>	<i>Off-licences</i>	<i>Markets</i>
SUPENT	-3.319 (-1.43)	0.880 (0.42)		0.205 (0.08)
SUPENT(big4)			2.814 (1.12)	
TMS	8.890* (2.41)	-3.861 (-1.24)	-3.894 (-1.25)	3.003 (0.64)
Location fixed effect	Yes	Yes	Yes	Yes
Location fixed effect × time	Yes	Yes	Yes	Yes
Observations	5,378	6,322	6,322	2,109
R ²	0.366	0.424	0.424	0.598

Source: CC analysis of Goad data.

* $p < 0.05$.

† $p < 0.01$.

‡ $p < 0.001$.

Note: t statistics in parentheses.

TABLE 6 Results of regression (2 and 3)

	<i>Net exit rates</i>			
	<i>Health foods</i>	<i>Off-licences</i>	<i>Off-licences</i>	<i>Markets</i>
SUPENT(TC)	-6.455 (-1.34)	-0.884 (-0.20)		12.80† (2.63)
SUPENT(EOC)	8.244 (1.60)	-1.781 (-0.35)		-4.564 (-0.84)
TMS	8.936* (2.42)	-3.839 (-1.23)	-3.872 (-1.24)	2.463 (0.53)
SUPENT(TC)big4			3.508 (0.77)	
SUPENT(EOC)big4			-0.323 (-0.05)	
Location fixed effect	Yes	Yes	Yes	Yes
Location fixed effect × time	Yes	Yes	Yes	Yes
Observations	5,378	6,322	6,322	2,109
R ²	0.366	0.424	0.424	0.600

Source: CC analysis of Goad data.

* $p < 0.05$.

† $p < 0.01$.

‡ $p < 0.001$.

Note: t statistics in parentheses.

Experian Goad data

1. Goad data has been collected on more than 1,000 shopping centres since 1965. At present, there are 1,300 surveyed shopping centres. The dataset we have used in our analysis covers 1,115 shopping centres across the UK for the period 1999 to 2007. These locations are defined consistently throughout the dataset though they have no fixed size in geographic or demographic terms. We have removed any new locations during this period from our analysis to maintain the consistency of the sample.
2. Experian's Goad data is collected in person by Experian's own team of surveyors on either an annual or biennial survey of specified shopping centre locations, in which the type of business conducted at each outlet within that location is recorded. The descriptions are based on three levels of aggregation: primary activity, category, and Goad class. The surveyors collect information on: primary activity; retail category; fascia; company details; address; estimated floorspace and Ordnance Survey coordinates. Each address is given a unique Goad number. This allows us to observe whether a store with certain characteristics remains at that address each time the survey is conducted.
3. We received submissions relating to the Experian database from both the ACS¹ and the GeoData Institute (GDI)² at the University of Southampton (commissioned by Tesco). The ACS submissions, whilst accepting the validity of the Experian Goad database, suggested that the data is not representative of the whole of the UK. The

¹ACS submission:
www.competition-commission.org.uk/inquiries/ref2006/grocery/pdf/main_party_submissions_acs_response_working_papers.pdf
and hearing of 14 June 2007.

²Submission to the Competition Commission by the GeoData Institute, University of Southampton, advised by Professor Neil Wrigley (University of Southampton) and Professor Graham Clarke (University of Leeds), August 2007.

ACS noted that the Experian Goad database concerned itself only with shopping centre locations and considered it incomplete because many convenience outlets operate in estates, non-central neighbourhoods and other secondary areas and villages not covered by this database.³ It instead endorses the IGD database which shows national trends in a subset of the small store sectors that we analyse in this appendix and which is generally considered an authoritative database on trends in the UK grocery sector. We discuss the IGD database in paragraph 15.

4. In contrast, the GDI submission corroborates the analysis undertaken in this appendix and goes on to extend it in a number of ways. First, it looks at regional variations in the trends we identify. It then also examines the different trends that are evident in different sections of the convenience stores (eg symbol groups). This submission points towards the existence of a considerable entrepreneurial dynamic in this sector.

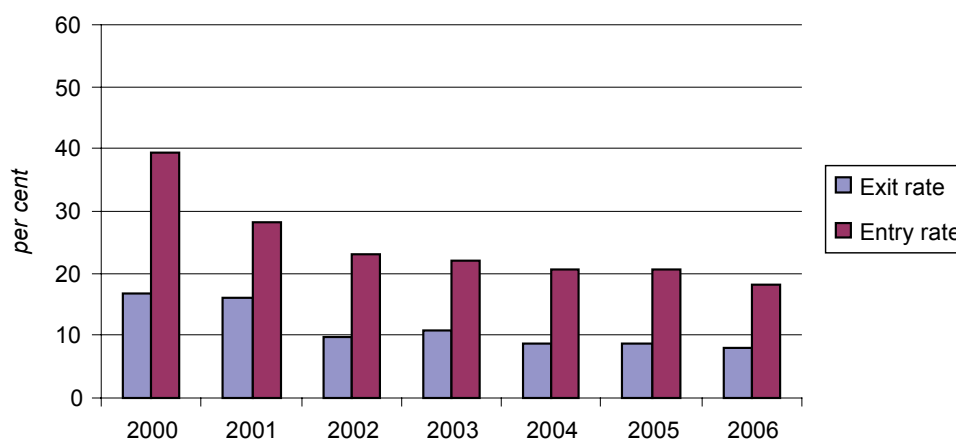
³We note that the Experian Goad data is focused on shopping centres not necessarily town centres, although in small towns this is likely to be the same. Experian Goad does include some non-central and other secondary areas where these areas contain a shopping centre.

Entry and exit of convenience stores

1. In the figures below, we have defined entry as the appearance of a new store in a sector, but not a transfer of the ownership of a store within a sector (eg a change in the ownership of a butcher's shop).

FIGURE 1

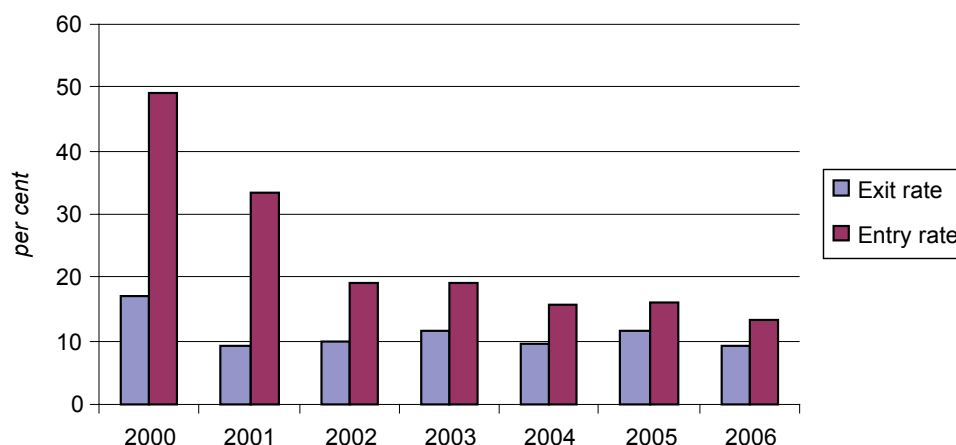
Non-affiliated independent convenience stores (<280 sq metres): exit and entry rates



Source: CC analysis of Goad data.

FIGURE 2

Multiple convenience stores (<280 sq metres): exit and entry rates



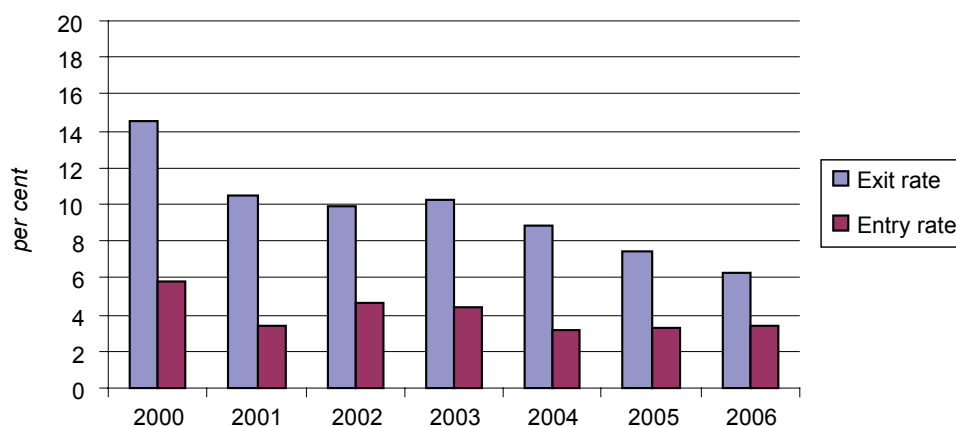
Source: CC analysis of Goad data.

Entry and exit of specialist stores

1. In the figures below, we have defined entry as the appearance of a new store in a sector, but not a transfer of the ownership of a store within a sector (eg a change in the ownership of a butcher's shop).

FIGURE 1

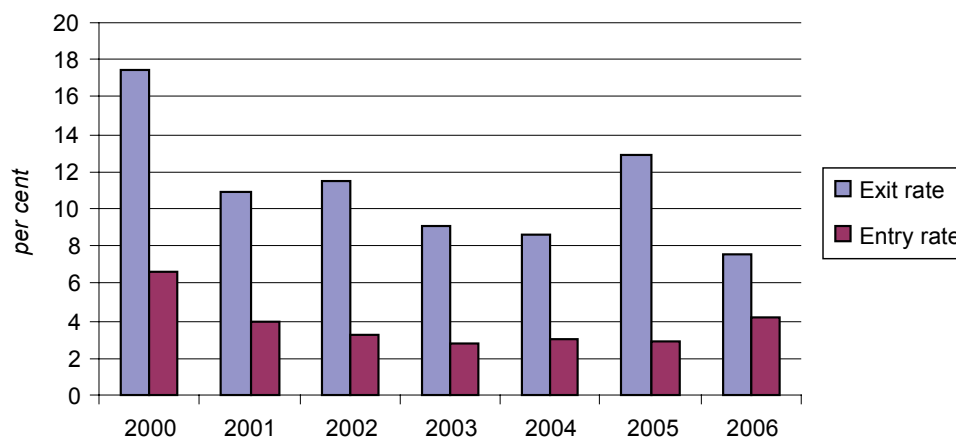
Fishmongers: exit and entry rates



Source: CC analysis of Goad data.

FIGURE 2

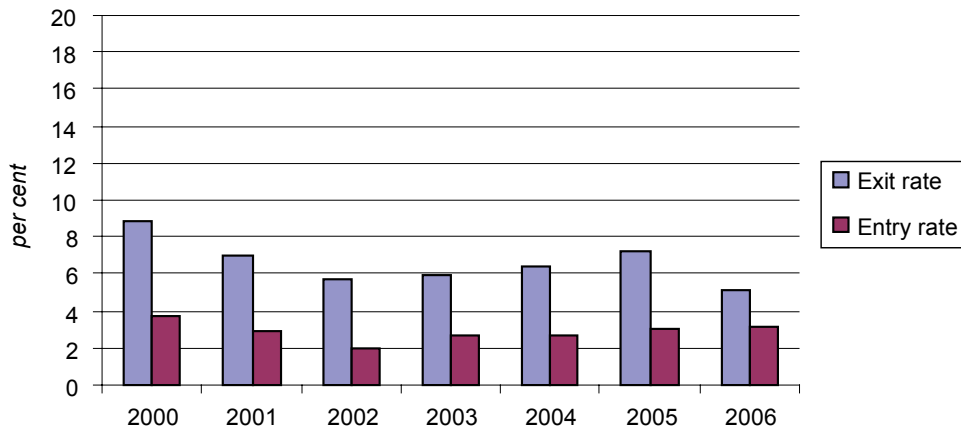
Greengrocers: exit and entry rates



Source: CC analysis of Goad data.

FIGURE 3

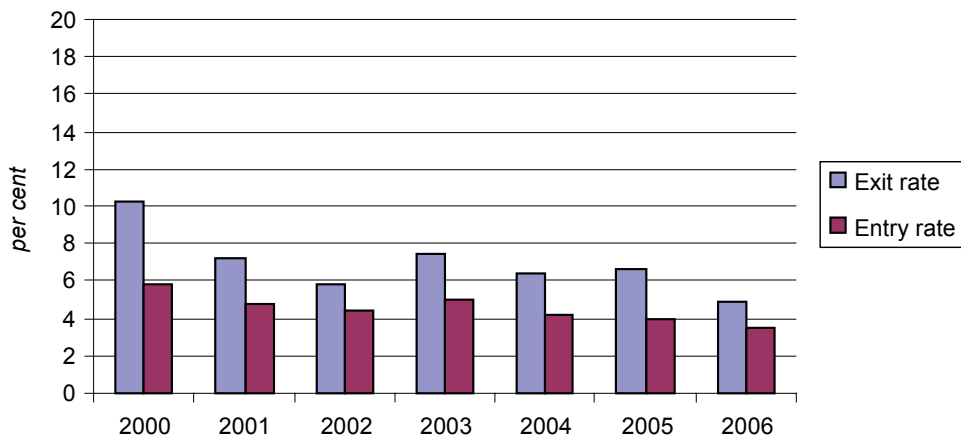
Butchers: exit and entry rates



Source: CC analysis of Goad data.

FIGURE 4

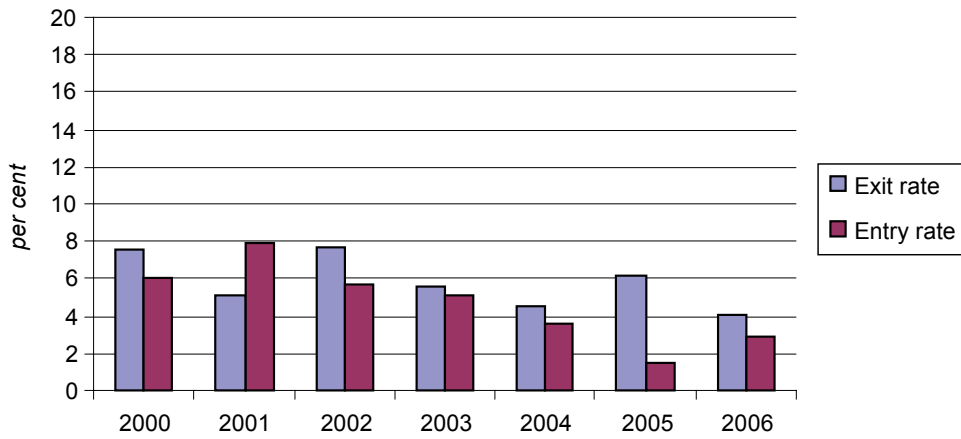
Bakers: exit and entry rates



Source: CC analysis of Goad data.

FIGURE 5

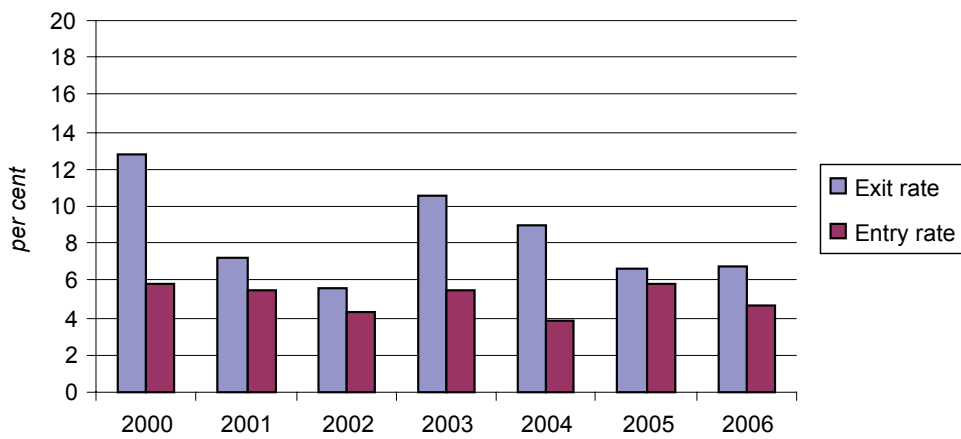
Markets (street and farmers markets): exit and entry rates



Source: CC analysis of Goad data.

FIGURE 6

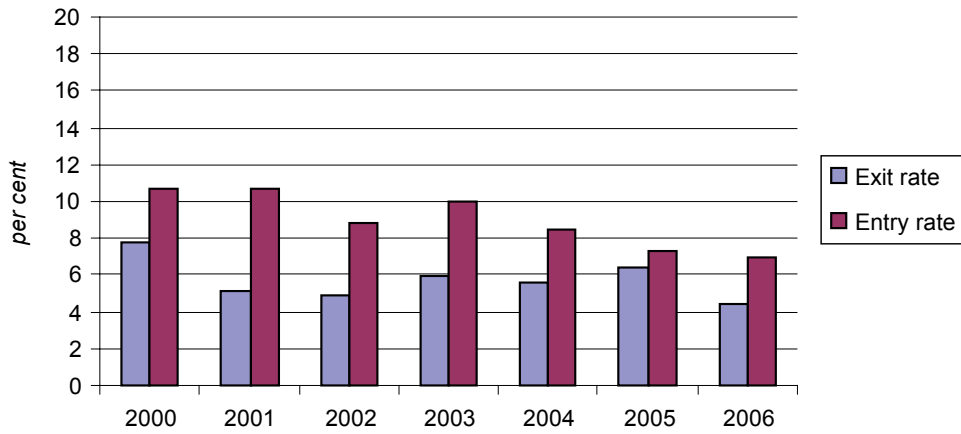
Off-licences: exit and entry rates



Source: CC analysis of Goad data.

FIGURE 7

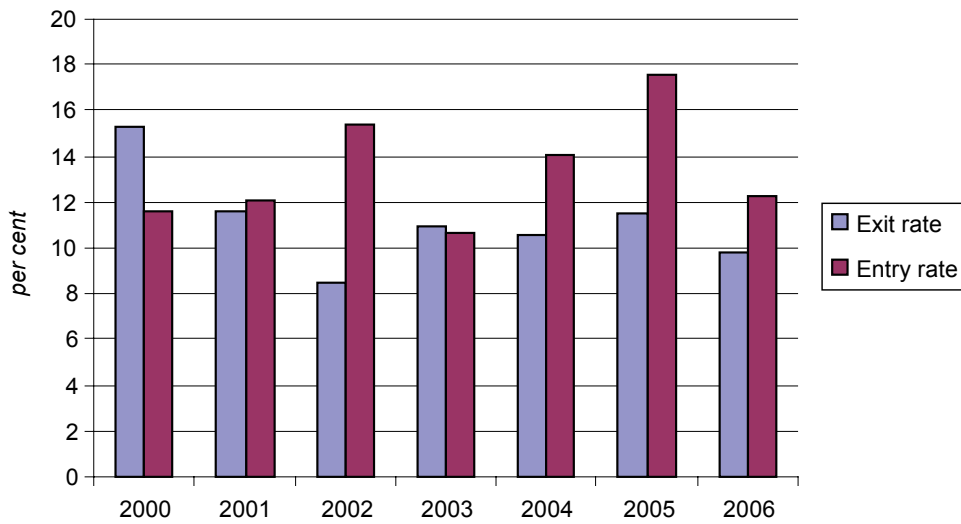
Health food shops: exit and entry rates



Source: CC analysis of Goad data.

FIGURE 8

Delicatessens: exit and entry rates



Source: CC analysis of Goad data.

Effect of supermarket entry

1. We have analysed the Experian Goad dataset to assess the extent to which the opening of new supermarkets has an impact on the entry or exit of specialist and convenience stores. In this analysis we take the exit rate of locations in which a supermarket has entered (SUPENT), and compare it with a control group of locations in which entry has not occurred (NO SUPENT). We note that the trends observed in the graphs are not in every case statistically significant after controlling for fixed location-specific effects and location based trends.
2. There is a greater net exit of greengrocers in locations where there is supermarket entry than where there is no supermarket entry. The difference varies from little more than one percentage point in 2000, to as much as 15 points in 2001/02. In each of the last three years, exit has been greater in locations where supermarket entry has been observed.
3. There is a higher exit rate for butchers in locations where supermarket entry is observed. However, there is also a higher entry rate of butchers where there is supermarket entry. This results in a fairly comparable net exit rate for butchers regardless of whether there is supermarket entry or not (the exception being 2004/05, where there is a much higher exit rate where there is supermarket entry and, conversely, in 2003/04, where there is a small net entry where there is supermarket entry).
4. For fishmongers, in all but two of the observed years, supermarket entry is linked to higher exit rates; in 2004/05, the difference was 20 percentage points. The net

fishmonger exit over the last four observed years is an average of 15 percentage points higher where there is supermarket entry.

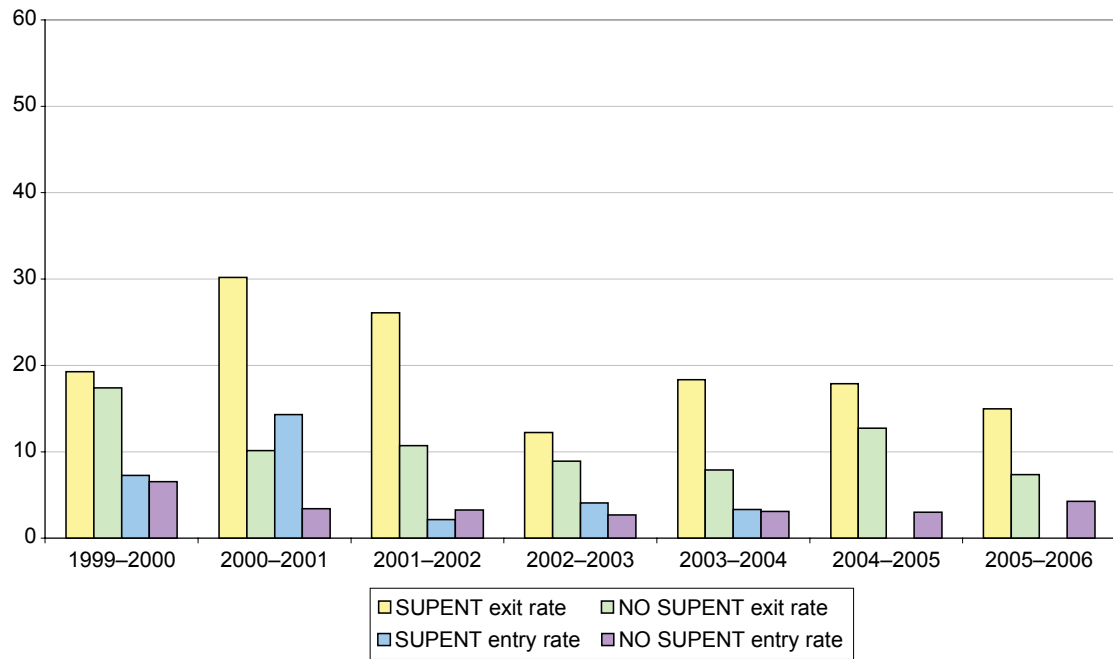
5. For off-licences, where supermarket entry is observed there is generally a greater exit and a greater entry rate. Since 2002, the net exit is higher with supermarket entry than with no supermarket entry.
6. Delicatessens display high exit and entry rates compared with most other sectors. In relation to both exit and entry, locations with supermarket entry see higher rates than those with no supermarket entry. However, this level of churn is not obvious in the net exit rate of delicatessens which displays no clear pattern over the reviewed period, with both positive and negative net exit rates for locations with supermarket entry and no supermarket entry.
7. Health food shops, a category which has been expanding since 1999, displays a different trend from most sectors. Higher exit rates are associated with no supermarket entry, whereas supermarket entry appears related to lower exit rates. Supermarket entry also generally displays a higher entry rate than no supermarket entry. This combination leads to negative net exit (ie net entry), overall; the rate of net entry is more pronounced where there is supermarket entry.
8. The bakery sector also shows high rates of exit and entry with supermarket entry. However, where there is supermarket entry, the net exit rate is lower than in locations with no supermarket entry, and in some cases, is negative (ie displaying net entry).
9. The number of multiple convenience stores in the shopping centres included in the dataset increased between 2000 and 2006. Supermarket entry appears generally to be associated with higher exit and higher entry rates (ie more churn). However, the

entry rates are higher than the exit rates, leading to negative net exit rates. In each year, we observe net entry in areas without supermarket entry. In contrast, since 2003/04, areas witnessing supermarket entry have seen positive net exit rates.

10. The independent convenience store sector also experienced growth in the reviewed locations between 1999 and 2006. Noticeably, net entry rates are more pronounced than in the multiple convenience store sector.

FIGURE 1

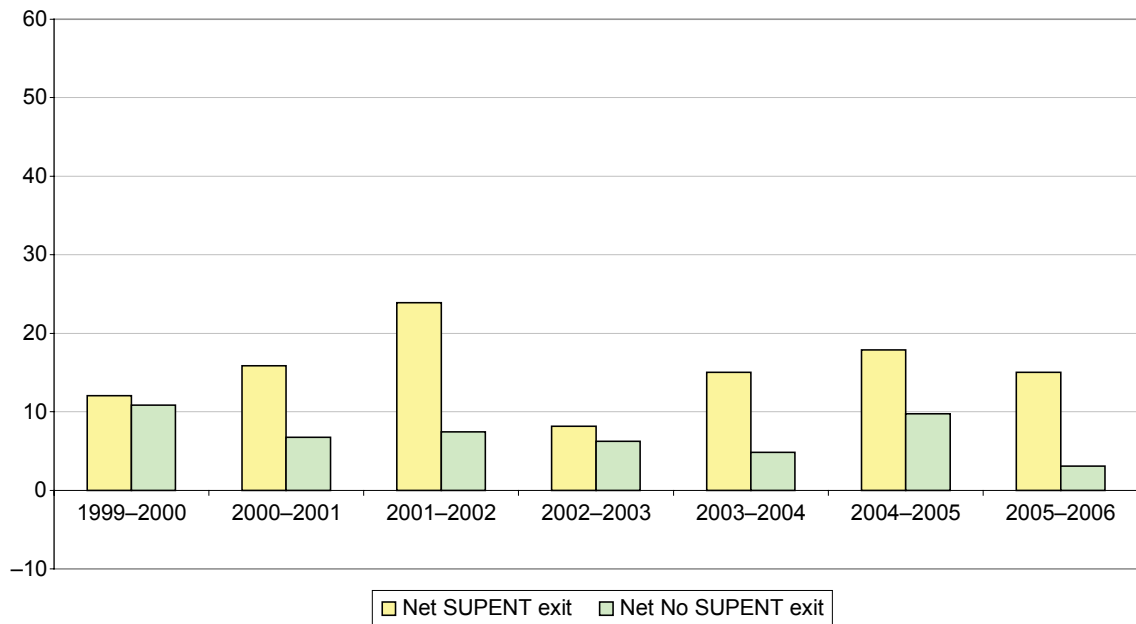
Greengrocer entry and exit rates, supermarket entry or no supermarket entry



Source: CC analysis of Goad data.

FIGURE 2

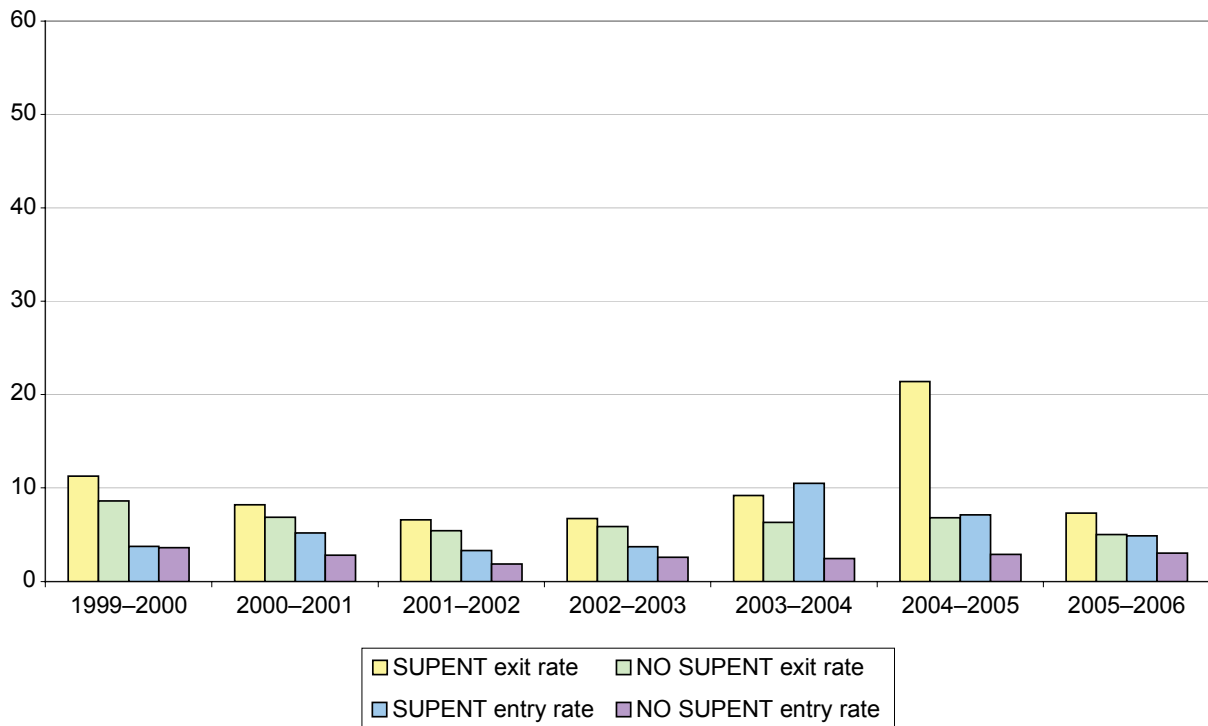
Greengrocers: net exit rates, supermarket entry or no supermarket entry



Source: CC analysis of Goad data.

FIGURE 3

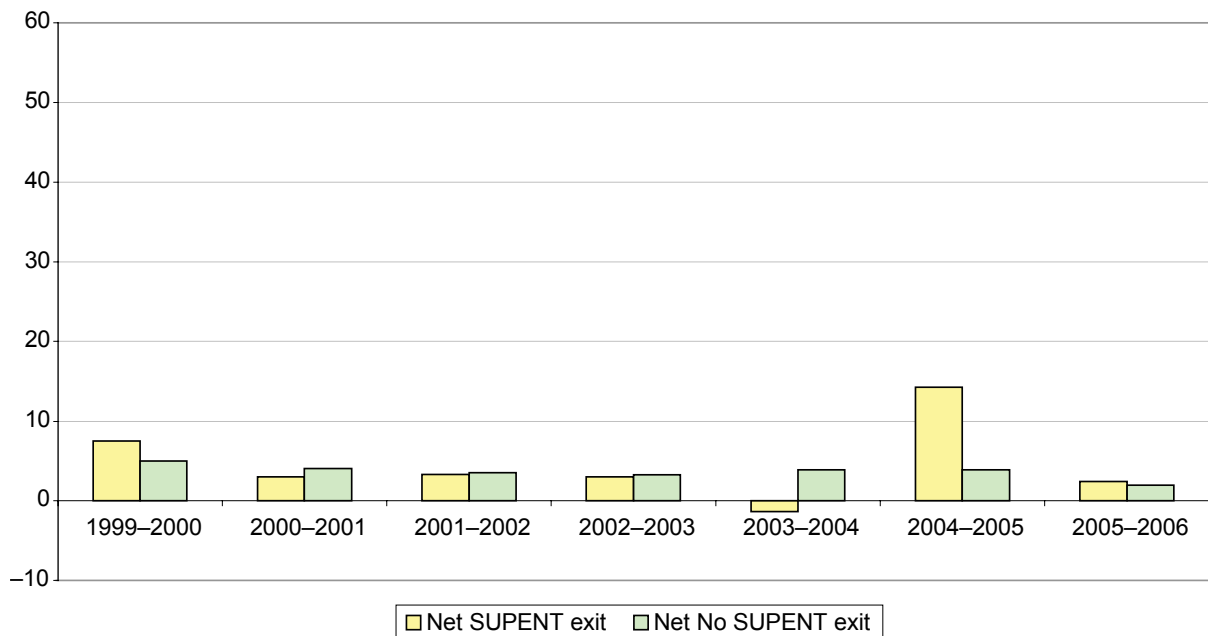
Butchers entry and exit rates, supermarket entry or no supermarket entry



Source: CC analysis of Goad data.

FIGURE 4

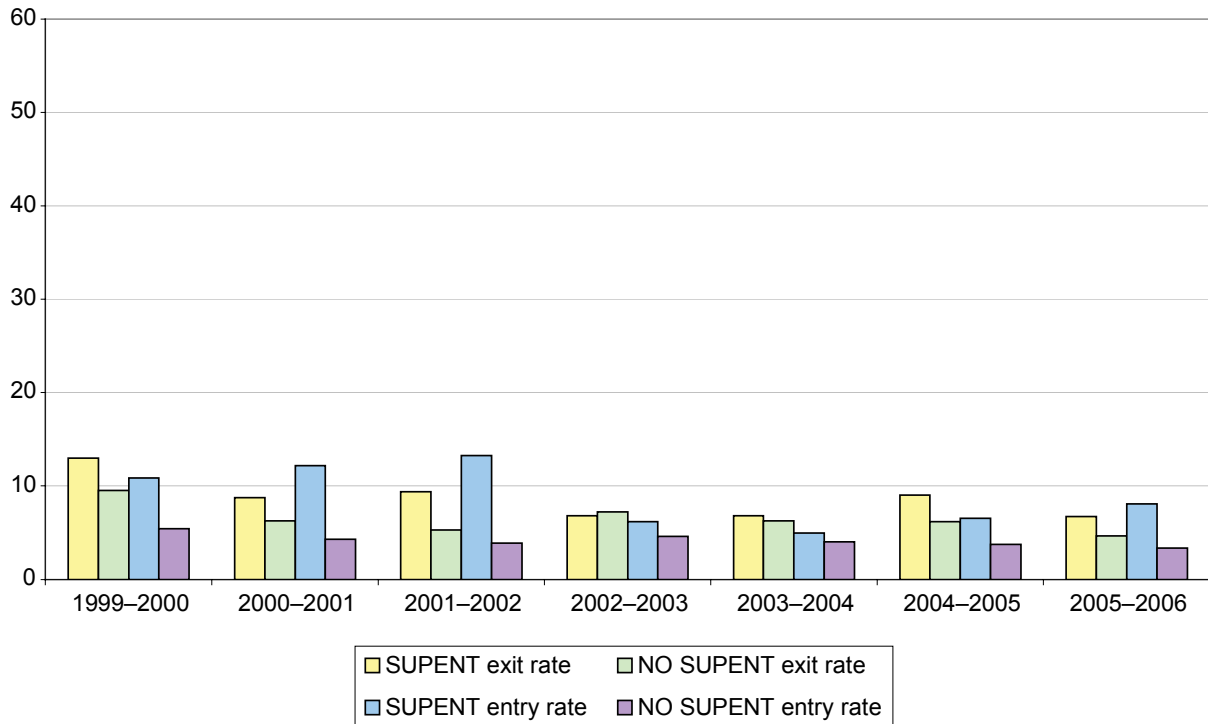
Butchers: net exit rates, supermarket entry or no supermarket entry



Source: CC analysis of Goad data.

FIGURE 5

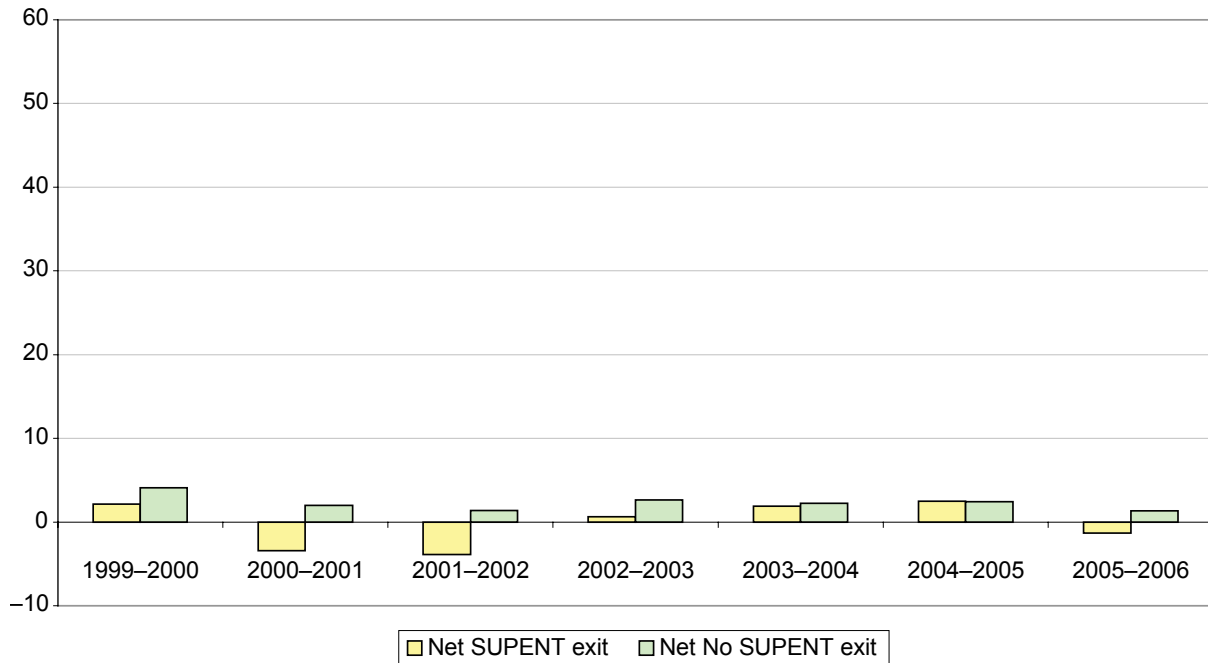
Bakers entry and exit rates, supermarket entry or no supermarket entry



Source: CC analysis of Goad data.

FIGURE 6

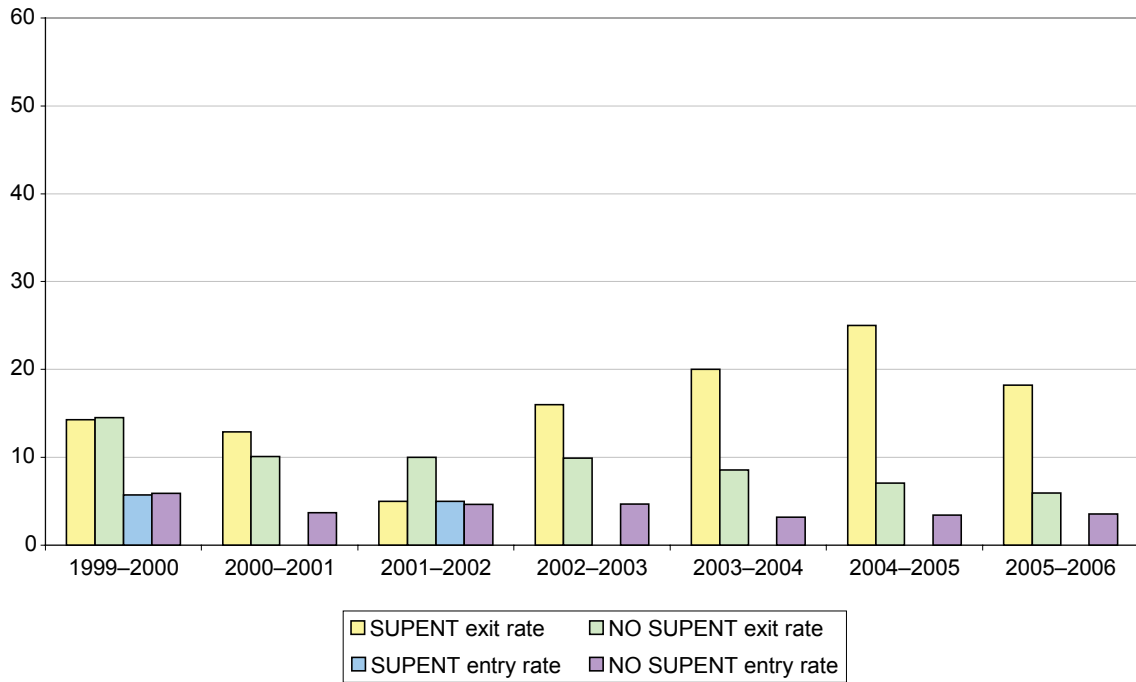
Bakers: net exit rates, supermarket entry or no supermarket entry



Source: CC analysis of Goad data.

FIGURE 7

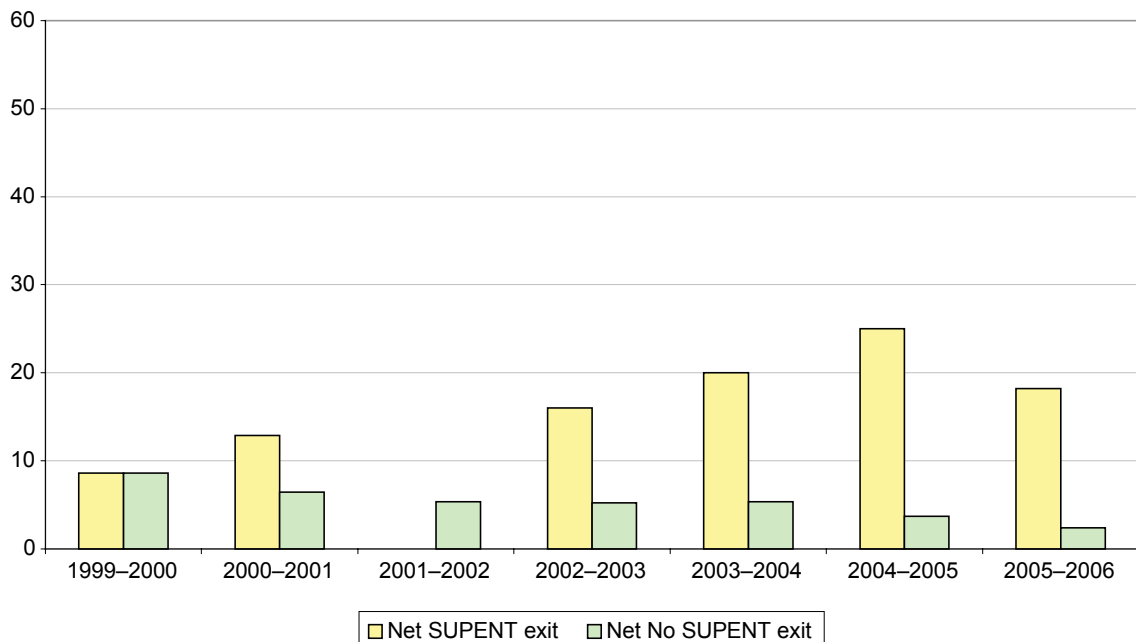
Fishmongers entry and exit rates, supermarket entry or no supermarket entry



Source: CC analysis of Goad data.

FIGURE 8

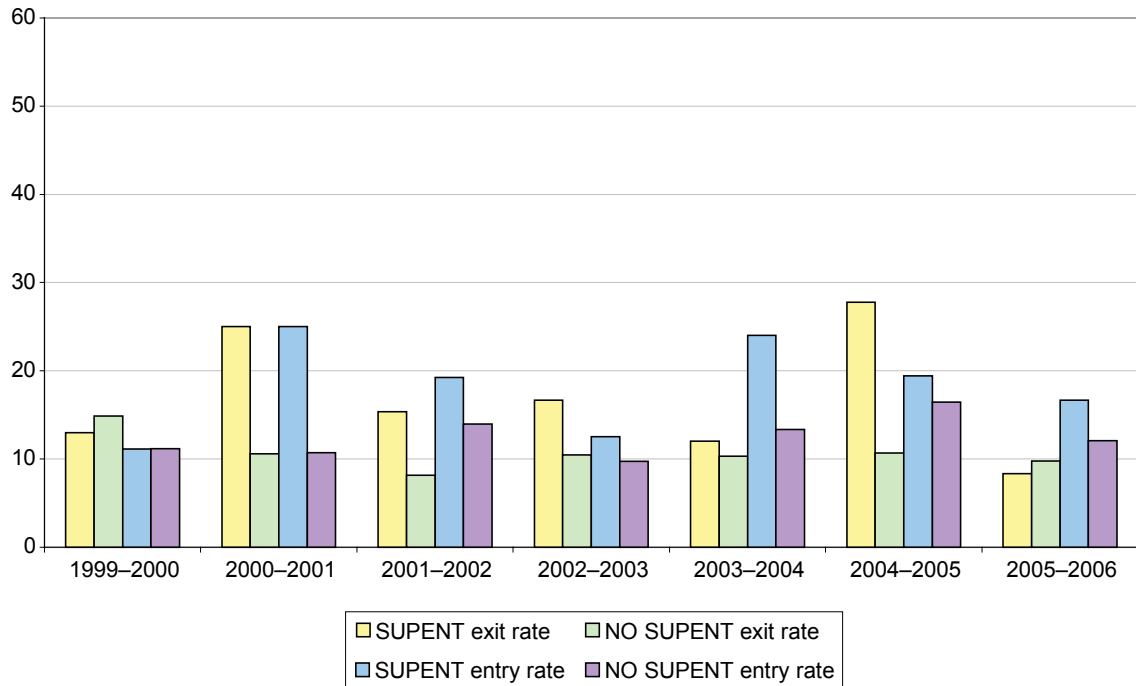
Fishmongers: net exit rates, supermarket entry or no supermarket entry



Source: CC analysis of Goad data.

FIGURE 9

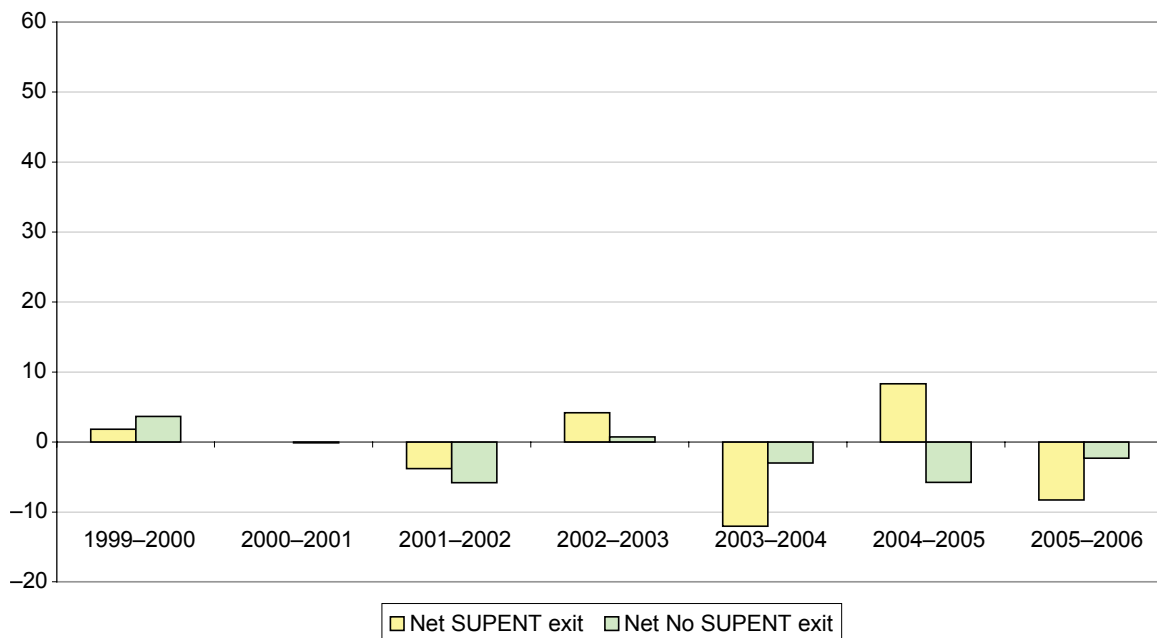
Delicatessen entry and exit rates, supermarket entry or no supermarket entry



Source: CC analysis of Goad data.

FIGURE 10

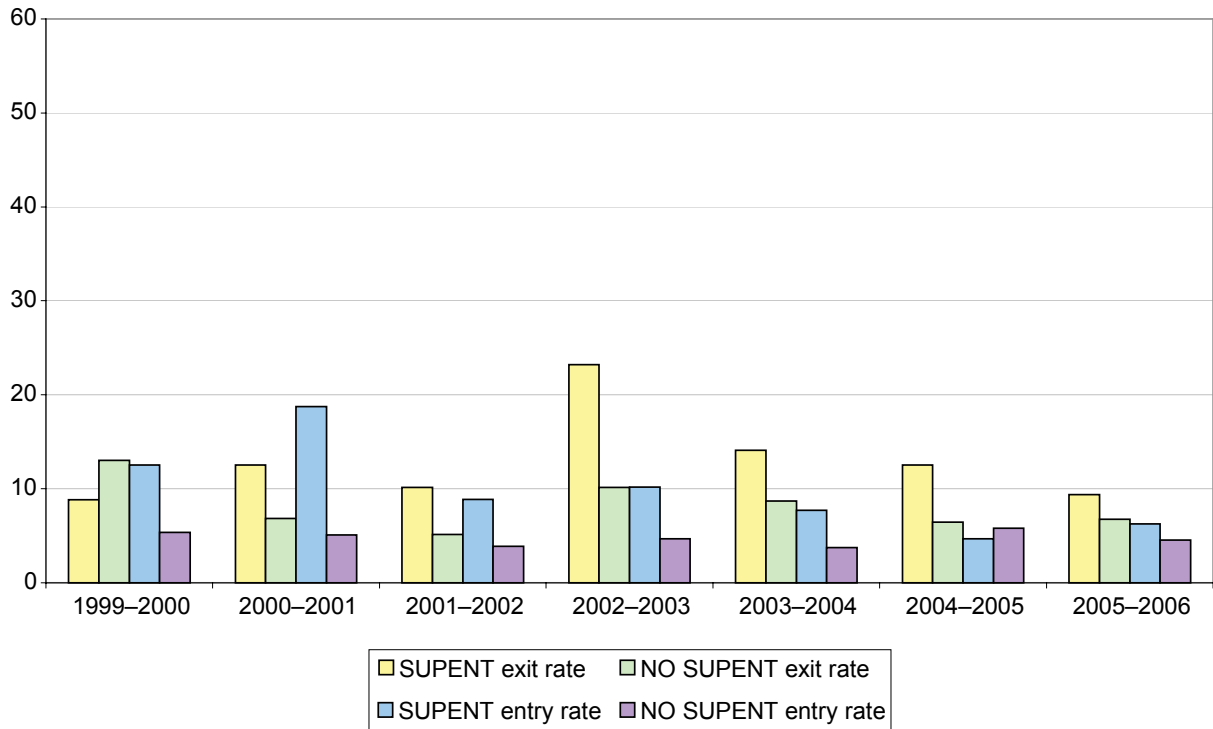
Delicatessens: net exit rates, supermarket entry or no supermarket entry



Source: CC analysis of Goad data.

FIGURE 11

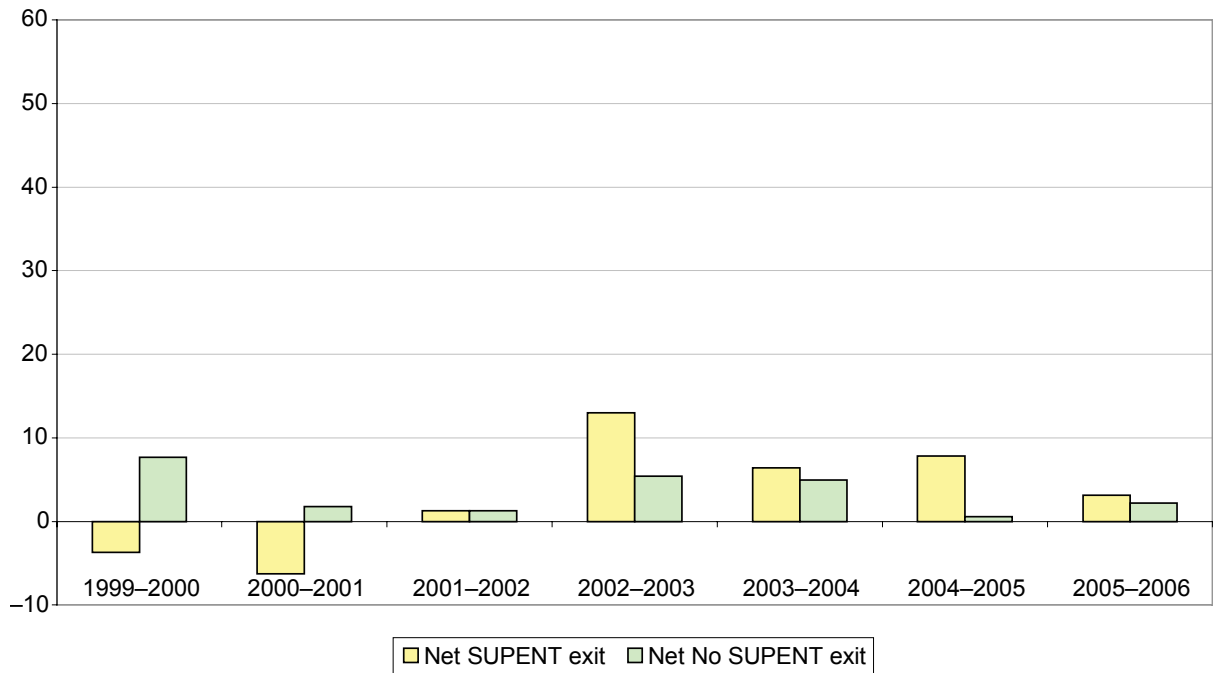
Off-licence entry and exit rates, supermarket entry or no supermarket entry



Source: CC analysis of Goad data.

FIGURE 12

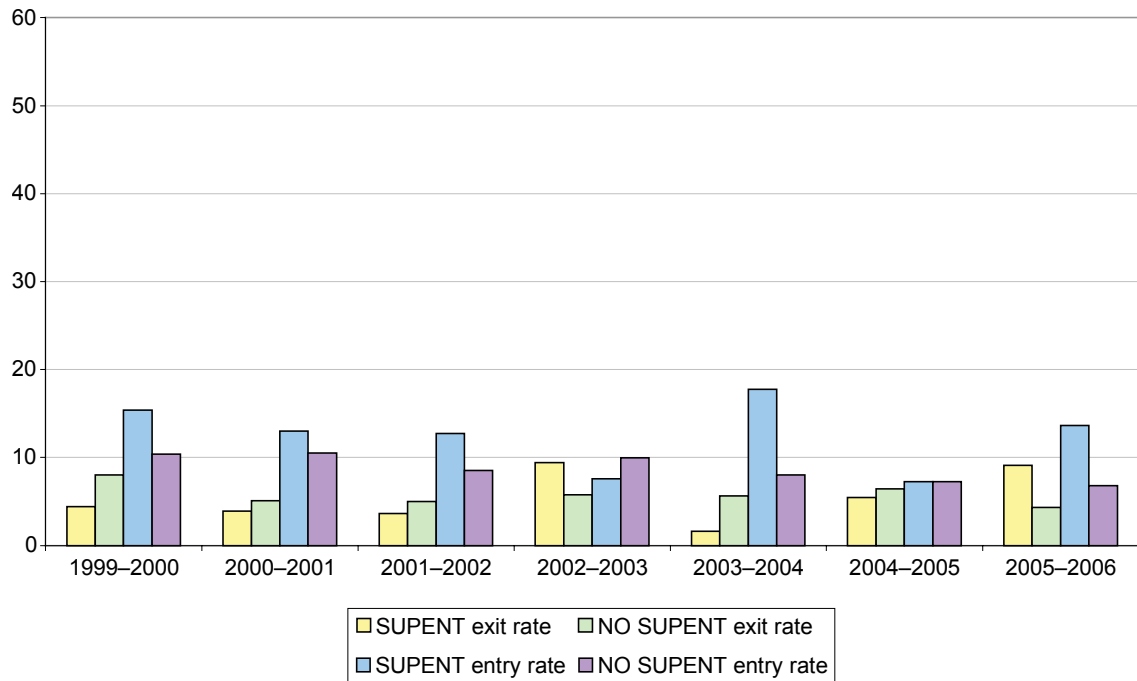
Off-licences: net exit rates, supermarket entry or no supermarket entry



Source: CC analysis of Goad data.

FIGURE 13

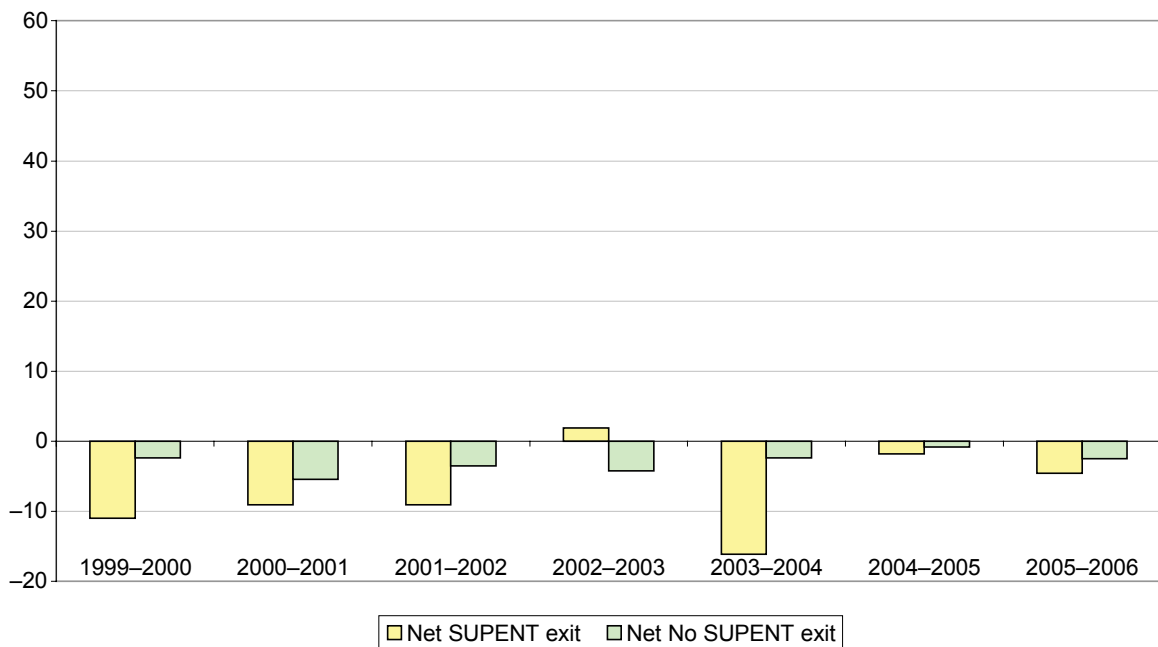
Health food shops entry and exit rates, supermarket entry or no supermarket entry



Source: CC analysis of Goad data.

FIGURE 14

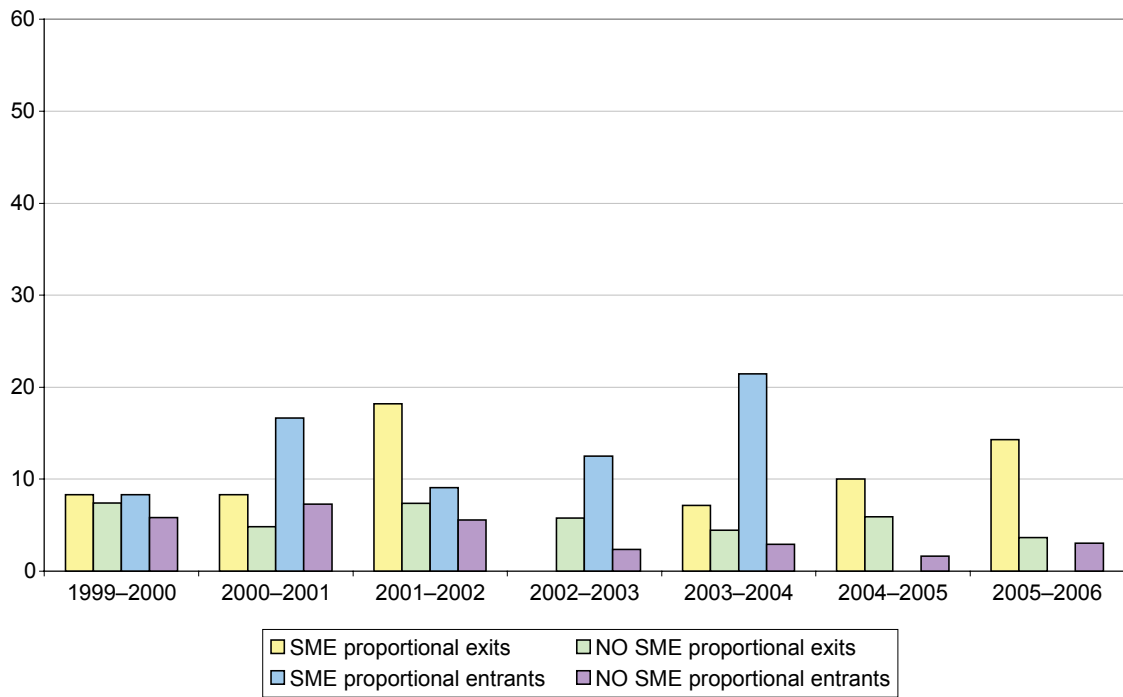
Health food shops: net exit rates, supermarket entry or no supermarket entry



Source: CC analysis of Goad data.

FIGURE 15

Markets: entry and exit rates, supermarket entry or no supermarket entry



Source: CC analysis of Goad data.

FIGURE 16

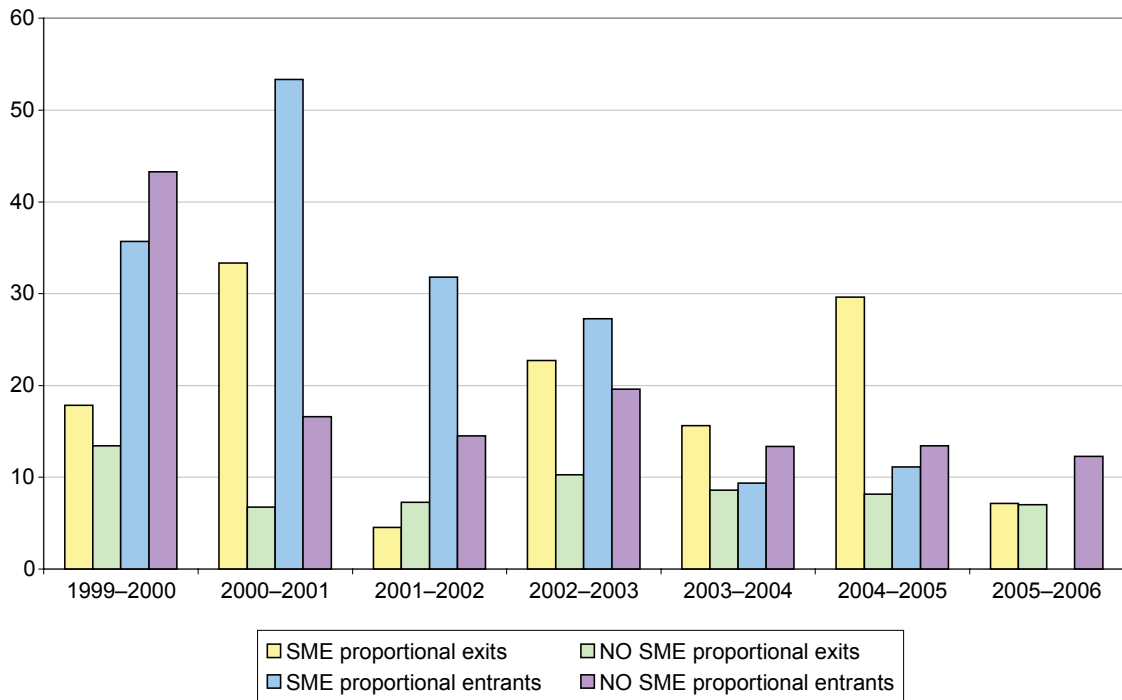
Markets: net exit rates, supermarket entry or no supermarket entry



Source: CC analysis of Goad data.

FIGURE 17

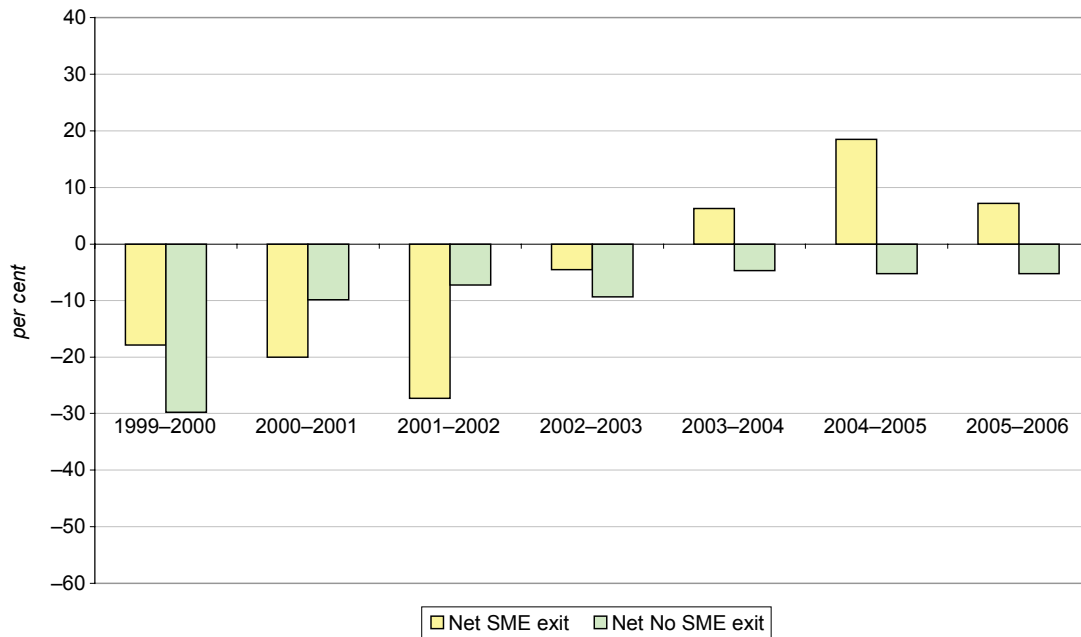
Multiple convenience stores (<280 sq metres) entry and exit rates, supermarket entry or no supermarket entry



Source: CC analysis of Goad data.

FIGURE 18

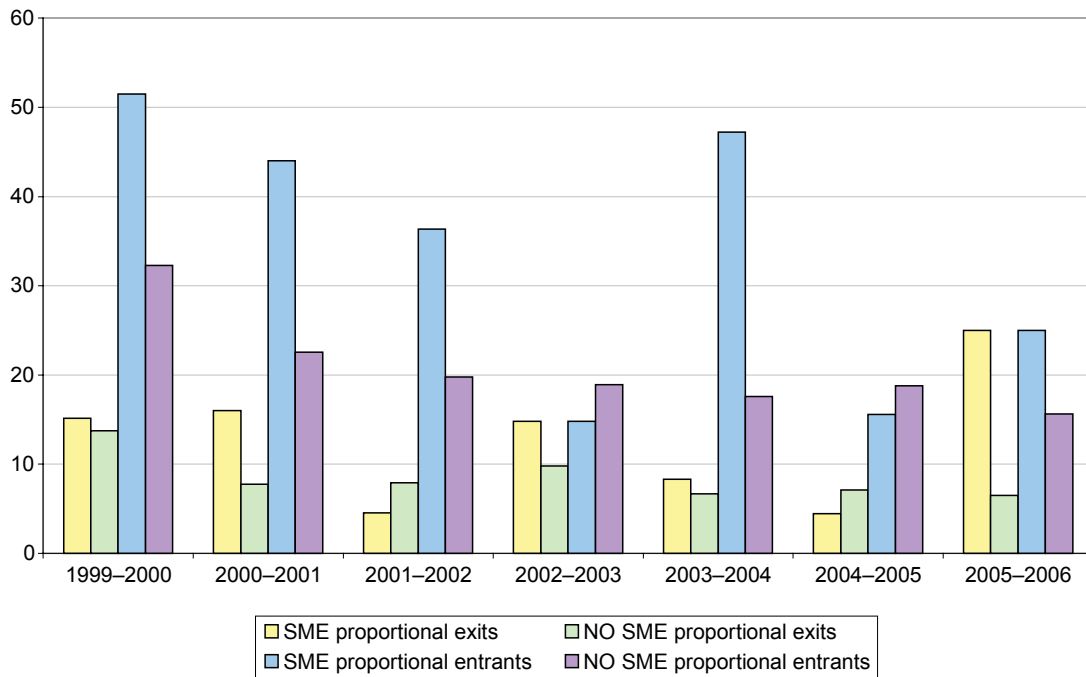
Multiple convenience stores (<280 sq metres): net exit rates, supermarket entry or no supermarket entry



Source: CC analysis of Goad data.

FIGURE 19

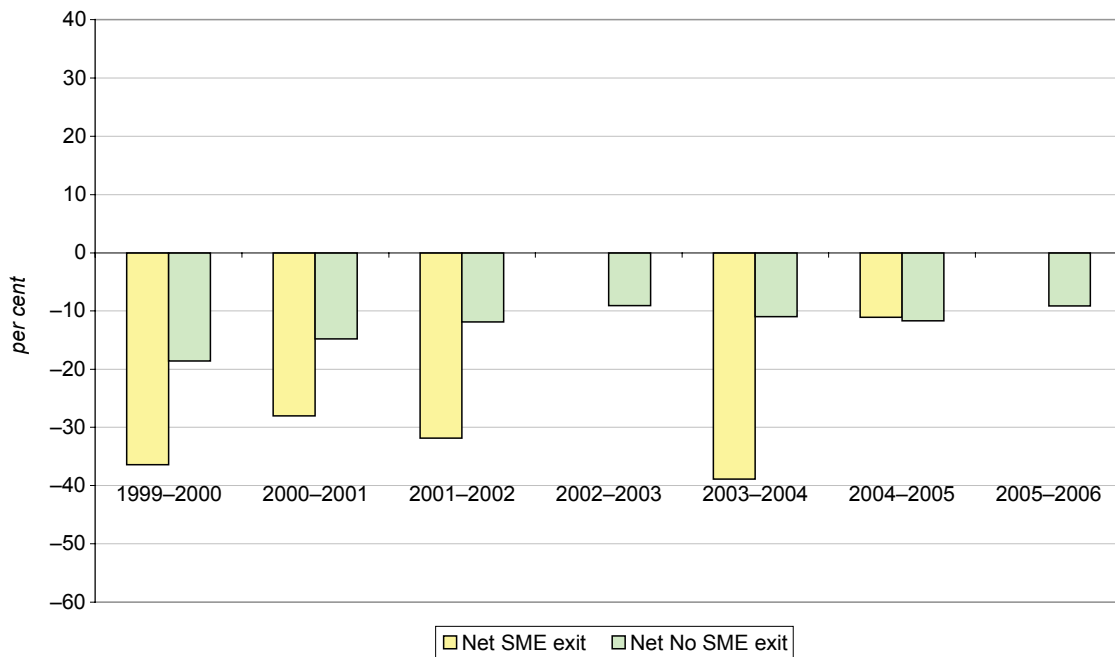
Independent convenience stores (<280 sq metres) entry and exit rates, supermarket entry or no supermarket entry



Source: CC analysis of Goad data.

FIGURE 20

Independent convenience stores (<280 sq metres): net exit rates, supermarket entry or no supermarket entry



Source: CC analysis of Goad data.