Local areas of concentration and their persistence

1. This appendix assesses, first, the extent to which there are currently stores that face few competitors, and second, the extent to which stores with few competitors in 2000 remained in that position in 2006.[1]

Local areas of high concentration in 2006

2. The following paragraphs set out our analysis of the extent to which local markets for larger grocery stores and local markets for mid-sized and larger grocery stores are concentrated.[2]

Larger grocery stores

3. Taking larger grocery stores first, we have used the following criteria to identify larger grocery stores that face little or no competition:

   (a) Stores with a groceries sales area greater than 1,400 sq metres are considered as target stores.[3]

   (b) Effective competitors must have a groceries sales area greater than 1,400 sq metres or greater than 75 per cent of the target store's groceries sales area.[4]

   (c) Consistent with our definition of the relevant product market by store fascia, Aldi, Lidl, Netto, Iceland and Farmfood stores are excluded as both target and competitor stores.

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[1]We use the term 'few competitors' to indicate a situation where a store has a limited number of competitors within an isochrone. For the purposes of our analysis this is often a situation where a store has 0 or 1 competing fascia, and in other cases it is where a grocery retailer has a large proportion of the available floorspace for groceries in an area. No conclusions, however, should be drawn from our use of these metrics as the basis for our analysis as to our view regarding the minimum number of fascias required to act as an effective competitive constraint on a grocery store.
[2]Our analysis is undertaken using a database of stores provided by the main parties in response to the main party questionnaire. We acknowledge that some stores included in the analysis may have since closed or relocated and other stores may have opened which will not be reflected in the analysis. The combined effect on the total number of stores with few competitors will depend on the location of these entries and exits and their proximity to other stores.
[3]A target store is the store at the centre of the isochrone. We have defined the product market for larger grocery stores as stores larger than 1,000 to 2,000 sq metres, which will vary across local markets according to the distribution of store sizes in that market. However, for the purposes of this analysis, which covers many local markets, we have used 1,400 sq metres.
[4]Thus the minimum size a competitor store can be is approximately 1,000 sq metres (assuming the target store is 1,400 sq metres).

(d) Consistent with our definition of the relevant geographic market, effective competitors must be within either a 10- or 15-minute drive-time of the target store.

4. Our analysis shows that 350 larger grocery stores in Great Britain[5] (20 per cent of all larger grocery stores) have no competing fascia within a 10-minute drive-time isochrone (see Table 1). For 24 of these stores, there was, however, another store operated by the same grocery retailer within the isochrone. Using a 15-minute drive-time isochrone, 117 larger grocery stores in Great Britain (7 per cent of all larger grocery stores) have no competing fascia.

TABLE 1 **Number of different fascias surrounding stores with a grocery sales area larger than 1,400 sq metres**

Number of competing fascias	*Number of target stores 10-minute isochrone*	*Number of target stores 15-minute isochrone*
0	350	117
1	612	297
2	483	405
3	276	497
4	47	290
5	12	133
6	2	36
7	1	8
Total number of stores in analysis	*1,783*	*1,783*

Source: CC analysis.

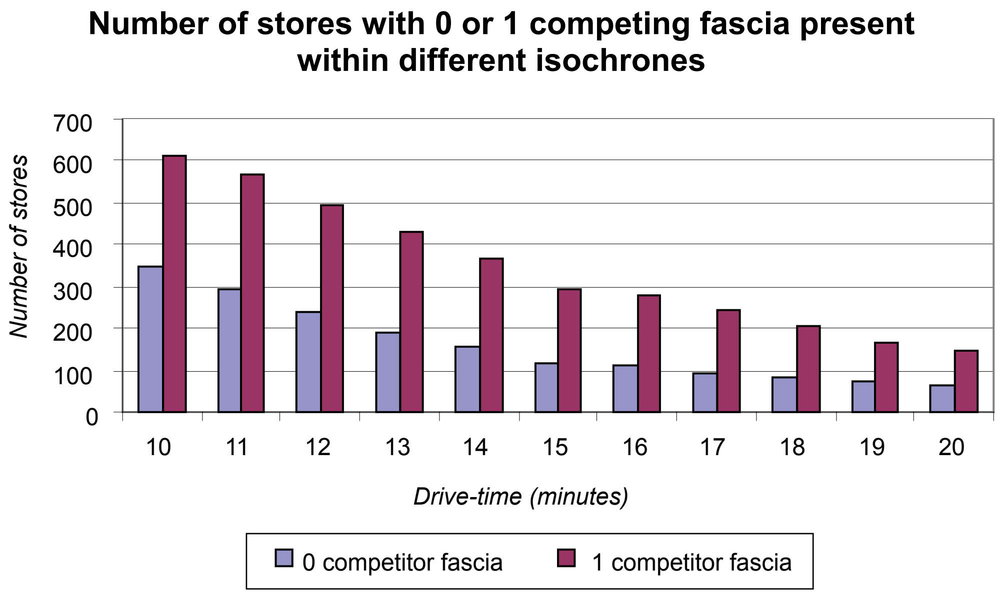
5. Looking at those stores which face 0 or 1 competing fascia, 962 larger grocery stores in Great Britain (54 per cent of all larger grocery stores) fall in to this category using a 10-minute drive-time isochrone and 414 larger grocery stores in Great Britain (23 per cent of all larger grocery stores) fall in to this category using a 15-minute drive-time isochrone. Of these 414 larger grocery stores, 63 have another large grocery store operated by the same grocery retailer within 15 minutes' drive-time.

[5]We have excluded Northern Ireland from this analysis as we are concerned that data limitations may result in the total number of areas of high concentration being overstated.

6. Having reviewed grocery retailers' plans for new store entry, we do not see the numbers in Table 1 changing significantly in the very near future, although over time new entry might change the number of stores facing few competitors.[6] We analyse the extent to which this has occurred between 2000 and 2006 in paragraphs 16 to 27.

7. Figure 1 shows the sensitivity of our analysis to different sized isochrones. As the size of the isochrone increases, the number of competing fascias present increases, and as a result, reduces the number of stores with few competitors.

FIGURE 1



Source: CC analysis.

8. A breakdown of larger grocery stores with 0 or 1 competitor fascia by grocery retailer is set out in Table 2. The vast majority of stores with few competitors, about 84 per cent, regardless of whether the isochrone is 10 or 15 minutes, belong to Asda, Morrisons, Sainsbury's and Tesco.

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[6]The overall impact of new grocery store entry (and closure) is dependent on where the stores are located and their proximity to other stores.

TABLE 2 **Fascia of larger grocery stores with 0 or 1 competing fascia**

Grocery retailer	*Number of target stores 10-minute isochrone*		*Number of target stores 15-minute isochrone*	
	No	*%*	*No*	*%*
Asda				
Booths				
CGL				
Regional Co-ops				
M&S				
Morrisons				
Nisa-Today's		✄		
Proudfoot				
Sainsbury's				
Somerfield				
Spar				
Tesco				
Waitrose				
Total	962		414	

Source: CC analysis.

9. The proportion of larger grocery stores of each grocery retailer facing 0 or 1 competing fascia is set out in Table 3. Taking a 15-minute isochrone, most grocery retailers have 25 to 30 per cent of their stores facing 0 or 1 competitor. [✄] and [✄], however, have a significant lower proportion at around 15 per cent, while all [✄] stores face more than 1 competitor.

TABLE 3 **Stores with 0 or 1 competing store as a percentage of all relevant stores operated by the facia**

	Percentage of stores 10-minute isochrone	*Percentage of stores 15-minute isochrone*
Asda		
Morrisons		
Sainsbury's		
Tesco	✄	
Waitrose		
CGL		
Somerfield		
M&S		
All stores greater than 1,400 sq m	54	23

Source: CC analysis.

10. Table 4 shows the area 'type' of stores with few competitors within 15 minutes' drive-time.[7] It is important to interpret these percentages relative to the proportion of such areas across Great Britain to see which types of area are under- or over-represented. We can see that stores with few competitors are more likely to appear in 'prospering smaller towns' or 'coastal and countryside' areas (a combined 58 per cent, against 32 per cent of Great Britain as a whole). This might suggest that at least some stores with few competitors are located in areas whose current population may be insufficient to support an additional large competing grocery store.[8]

TABLE 4 **Area types and concentration of the area (defined using Grocery Sales Area)**

	Area types of stores with 0 or 1 competing fascia		*All stores above 1,400 sq m in area type*		*Area types over Great Britain as a whole*
	No	*%*	*No*	*%*	*%*
Centres with industry	7	2	153	9	8
Coastal and countryside	109	26	176	10	12
Industrial hinterlands	41	10	209	12	16
London centre	2	0	31	2	2
London cosmopolitan	5	1	35	2	3
London suburbs	2	0	77	4	4
Manufacturing towns	27	7	152	9	7
New and growing towns	12	3	112	6	5
Prospering smaller towns	144	35	425	24	20
Prospering southern England	52	13	154	9	8
Regional centres	12	3	209	12	13
Thriving London periphery	1	0	50	3	2
Total	414	100	1,783	100	100

Source: CC analysis.

11. So far we have considered the number of competing fascias within different isochrones. An alternative way of analysing the extent of local concentration is to measure each retailer's share of groceries floorspace in an area. Table 5 shows the

[7]We use an area classification system developed by the ONS to characterize the location of the 414 stores with 0 or 1 competing fascia within 15 minutes. The area specification is taken from the National Statistics Area Specification statistic and is undertaken at the Local Authority District level. The classification uses 42 socio-demographic indicators to classify local authority districts into 12 broad types. More information on the methodology and use of these area types can be found under: www.statistics.gov.uk/about/methodology_by_theme/area_classification/about.asp#geographic.
[8]We note evidence submitted by Tesco in response to the retail competition working paper which Tesco told us showed a positive relationship between population and the extent of local choice. We identify a positive relationship between population and the number of larger grocery stores/total sales area within an isochrone. However, we also identify many instances where two or more larger grocery stores are operating in areas with relatively low populations and also many instances where only one larger grocery store is operating in high population areas.

number of larger grocery stores, by grocery retailer, according to their share of grocery floorspace in an area.[9]

[9]We calculate which group a store falls into by dividing the sum of each fascia's sales area by the total sales areas of all relevant stores within a 15-minute isochrone.

TABLE 5 **Number of larger grocery stores, by retailer, according to share of grocery floorspace in an area**

	Number of stores in floorspace share group—15-minute isochrone									
Fascia	*0–10 %*	*10–20 %*	*20–30 %*	*30–40 %*	*40–50 %*	*50–60 %*	*60–70 %*	*70–80 %*	*80–90 %*	*90–100 %*
Asda										
Morrisons										
Sainsbury's										
Tesco										
Waitrose										
CGL										
Somerfield										
Regional Co-op										
M&S										
Other*										
Total	75	324	410	350	262	166	62	16	1	117

Source: CC analysis.

*Other includes relevant stores belonging to Booths, Nisa-Today's, Proudfoot and Spar.

Mid-sized and larger grocery stores

12. We now examine the extent to which local markets for mid-sized and larger grocer stores are concentrated and so adjust the previous selection criteria (as set out in paragraph 3) accordingly:

    (a) Stores with a groceries sales area greater than 280 sq metres are considered as target stores.

    (b) Effective competitors must be within a 10- (or 15-) minute drive-time of the store.

    (c) Effective competitors must have a groceries sales area greater than 1,400 sq metres or greater than 75 per cent of the target store's grocery sales area and be larger than 280 sq metres.

    (d) We exclude Aldi, Lidl, Netto, Iceland and Farmfood stores as both target and competitor stores.

13. It is important to note that our database of stores between 280 and 1,400 sq metres is less comprehensive than for stores greater than 1,400 sq metres as we do not know the location of all independently-owned stores in this size range. This means that we are likely to over-estimate the number of stores in this size bracket that face 0 or 1 competing fascia.

14. Table 6 shows that of the 4,611 relevant stores in Great Britain with a grocery sales area greater than 280 sq metres, 790 (17 per cent) have no competitors within 10 minutes and 312 (7 per cent) within 15 minutes. Considering stores with only 0 or 1 competing fascia, we find 1,977 at 10 minutes and 902 at 15 minutes. This equates to between 43 and 20 per cent of all stores greater than 280 sq metres respectively. This compares with 54 and 23 per cent for stores greater than 1,400 sq metres.

TABLE 6 **Number of competing fascia surrounding stores with a grocery sales area greater than 280 sq metres**

Number of competing fascias	*Number of target stores 10-minute isochrone*	*Number of target stores 15-minute isochrone*
0	790	312
1	1,187	590
2	989	712
3	792	795
4	425	669
5	280	578
6	109	458
7+	39	497
Total number of stores in analysis	4,611	4,611

Source: CC analysis.

15. A breakdown of mid-sized and larger grocery stores with 0 or 1 competing fascia in Table 7 shows that around 50 per cent of mid-sized and large grocery stores with 0 or 1 competitor belong to [✂]. In addition, a fairly high proportion of stores for both [✂] and [✂] face few competitors within a 10- (and 15-) minute isochrone.

TABLE 7 **Fascia of mid-sized and larger grocery stores with 0 or 1 competing fascia**

	Number of target stores			
	10-minute isochrone		*15-minute isochrone*	
Grocery retailer	*No*	*%*	*No*	*%*
Asda				
Booths				
Budgens				
CGL				
Regional Co-ops				
Costcutter				
Kwik Save				
M&S		✂		
Morrisons				
Nisa-Today's				
Proudfoot				
Sainsbury's				
Somerfield				
Spar				
Tesco				
Waitrose				
Total	1,977		902	

Source: CC analysis.

Persistence of areas of high concentration

16. The following paragraphs assess the extent to which areas of high concentration have persisted over time. We expect this to be informative as to the existence of barriers to entry in local markets.

17. The starting point for our analysis is a list of 209 stores identified in the CC's 2000 Supermarkets investigation where each store at that time had 0 or 1 competing fascia store within a 15-minute isochrone.[10] We have replicated the selection criteria used in 2000 to calculate the number of competing fascias each of these stores faced in 2006 (ie the extent to which new entry has taken place since 2000). We exclude 23 stores in Northern Ireland from our analysis due to data limitations, and so the analysis is undertaken on 186 target stores.

18. The 2000 analysis adopted the following set of criteria:
    - *(a)* all stores operated by the then largest five grocery retailers with a net sales area greater than 600 sq metres were considered as target stores; [11]
    - *(b)* effective competitors had to be within a 15-minute drive-time of the target store;
    - *(c)* effective competitors had to have a net sales area greater than 1,400 sq metres or greater than 75 per cent of the target store's net sales area;
    - *(d)* Lidl, Aldi, Netto and M&S stores were not considered as effective competitor fascias; and
    - *(e)* where the target store had a car park, potential rivals were required also to have access to a car park in order to qualify as effective competitors.

[10]This list of 209 stores is not comparable with our analysis of the number of stores currently facing 0 or 1 competing fascia. That is, no conclusions can be drawn regarding the extent to which the number of local markets that are highly concentrated has increased or decreased over this period.
[11]Tesco, Sainsbury's, Asda, Safeway and Morrisons.

19. In the following tables we set out the current status of monopoly and duopoly stores.[12] Using the criteria defined in 2000, Table 8 shows that of the 63 monopoly stores in 2000, 50 remain monopolies in 2006 and 10 became duopolies.

TABLE 8 **Status of monopoly stores that existed in 2000**

			2006			
Fascia (2000)	*Monopolies in 2000*	*Fascia (2006)*	*Monopoly*	*Duopoly*	*3 or more fascia*	*Closed**
Tesco						
Sainsbury's						
Asda						
Morrisons						
Safeway			✂			
Total stores	63		50	10	1	2

Source: CC analysis.

*Closed refers to stores that have either physically closed or been acquired by fascias which we do not consider to form part of the product market.

20. Table 9 shows that of the 123 duopolies in 2000, 71 remain duopolies whilst 18 have seen additional competitors entering the area. We note that 29 of the 123 stores in duopoly areas that existed in 2000 appear to have become monopolies in 2006. We attribute this to a number of factors:

(a) the exit of an existing competitor;

(b) an increase in the net sales area of the target store since 2000 (so that a store that was deemed to be an effective competitor in 2000, having a net sales area greater than 75 per cent of the target store's net sales area, is no longer of sufficient size);

(c) possible differences in the specifications of the drive-time model used; and

(d) differences in the measurement of the size of a store.

[12]We use the term 'monopoly' and 'duopoly' store as these were the terms used in the 2000 report. In the current inquiry we would refer to these stores as having 0 or 1 competing fascia present within the isochrone.

TABLE 9 **Status of duopoly stores that existed in 2000**

			2006			
Fascia (2000)	*Duopolies in 2000*	*Fascia (2006)*	*Monopoly*	*Duopoly*	*3 or more fascia*	*Closed*
Tesco						
Sainsbury's						
Asda						
Morrisons						
Safeway			✂			
Total stores	123		29	71	18	5

Source: CC analysis

21. Table 10 shows that of the 186 monopoly and duopoly stores identified in the 2000 Supermarkets investigation, 160 (86 per cent) continue to be in monopoly or duopoly positions in 2006.[13]

TABLE 10 **Status of monopoly and duopoly stores that existed in 2000**

			2006			
Fascia (2000)	*Monopolies or duopolies in 2000*	*Fascia (2006)*	*Monopoly*	*Duopoly*	*3 or more fascia*	*Closed*
Tesco						
Sainsbury's						
Asda						
Morrisons						
Safeway			✂			
Total stores	186		79	81	19	7

Source: CC analysis.

[13]We note that Tesco, in response to the working paper on retail competition, has submitted analysis on the extent of entry into local areas since 2000. Tesco told us that this analysis showed that in areas of high concentration (where a retailer controlled more than 50 per cent of the relevant sales area within the isochrone) the sales area share of that retailer has declined by an average of 5.8 percentage points between 2000 and 2006. We make three observations on these results. First, we consider that this analysis is consistent with our finding that concentrated positions seem to have generally persisted over the last six years. That is, the 5.8 percentage point reduction in the share of the isochrone is sufficiently small that on average these areas continue to have a single retailer controlling at least 44 per cent of the sales area within the isochrone. Secondly, this is an average figure which masks the fact (as illustrated in Tesco's accompanying charts) that an increase in the share of the strongest retailer is observed in many of these already concentrated areas. Thirdly, we note that in areas where Tesco's share of sales area was between 30 and 50 per cent in 2000, its share has on average grown by 2.6 percentage points. The result of this increase will be to create areas in 2006 that were more concentrated than in 2000.

22. We also find that of the 160 persisting monopolies and duopolies 118 have a net sales area greater than 1,400 sq metres, and of these:

(a) 11 have another store operated by the same grocery retailer within the isochrone; and

(b) 36 have applied for or completed an extension since 2000. These vary in size but on average increase grocery sales area by approximately 630 sq metres.

This suggests that there was/is scope for additional floorspace in many of these persisting monopoly and duopoly areas.

23. We note that in those cases where entry has occurred it has in some cases occurred up to four or five years after the 2000 Supermarkets investigation. This illustrates the pace at which the large grocery retail market has corrected itself by attracting entry into uncompetitive areas.

24. To be confident that some form, or combination, of barrier(s) has prevented entry into the relevant isochrone, we also consider whether the isochrone area in which the store is located had a sufficient customer base to support a second (or third) large store. We find that of the 118 persisting duopolies and monopolies with a net sales area greater than 1,400 sq metres:

(a) 116 are in isochrones which have a population that pass the minimum precedent threshold (ie the minimum population that supports two (or three) relevant stores elsewhere in the UK—see Annex 1); and

(b) 34 are in isochrones which have a population that pass the 90 per cent precedent threshold (ie the population which supports 90 per cent of stores with two (or three) relevant stores elsewhere in the UK—see Annex 1).

25. Thus we find that 98 per cent of persisting monopoly and duopoly stores with a net sales area greater than 1,400 sq metres are located in isochrones which we would

consider as being able to support an additional store. Using the higher, more conservative 90 per cent threshold, this percentage falls to 29 per cent.[14] See Annex 1 for more information on these thresholds and the methodology used to define them.

26. Finally, we have identified persisting monopoly and duopoly stores where we have some indication from the main parties that entry may occur in the near future (or since our data was complied). We find that of the 51 monopolies greater than 1,400 sq metres, 40 have no indications of imminent entry whilst nine have signs of one additional competitor and two have signs of two in the near future. Of the 67 duopolies, 53 have no indication of future entry and 14 do. In total, there are 93 persisting monopolies and duopolies larger than 1,400 sq metres (79 per cent) with no indications of new store entry in the near future.

27. We also find that out of the 25 possible future entries, 20 are due to occur within 15 minutes of stores which we would discount on the basis of insufficient population if we were to apply the 90 per cent population threshold. Moreover, 4 of the 11 monopolies and duopolies with another store operated by the same grocery retailer within the isochrone would be discounted if we were to apply the 90 per cent threshold. This demonstrates that entry is (and has been) possible in areas with populations less than the 90 per cent threshold and so suggests that more weight should be applied to using the minimum precedent threshold.[15]

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[14] As we demonstrate in paragraph 27, there are many instances of imminent entry into areas with lower population than this 90 per cent threshold.
[15] This is in addition to the fact that 10 per cent of stores with one (or two) competitors are currently operating in populations less than the 90 per cent threshold.

Deriving minimum population thresholds

1. Each store that we identify as having few competitors within a 10- (or 15-) minute isochrone raises competition concerns. However, in order to undertake an analysis of developments in market structure surrounding a store, we need to be aware of the circumstances that would prevail in a competitive local area. That is to say, for a number of the stores that faced few competitors in 2000, we may find that even in the absence of any barriers, new store entry would have been unlikely to occur. One such reason for this may be an insufficient local population to support an additional store.

2. We therefore seek to identify and discount those stores which were identified in 2000 as having few competitors and which continue to have few competitors in 2006, but which are located in isochrones that appear to lack a sufficient population to have supported new store entry.

3. The principle we adopt is to identify how many large grocery stores might, in the absence of barriers to entry, be operated within 10 (or 15) minutes' drive of a store. We therefore examine the population within a 20-minute catchment of each large store and identify minimum threshold populations which support two (or three) relevant grocery stores[1] using the following criteria:
   (a) The minimum population that supports two (or three) relevant stores.
   (b) The population which supports 90 per cent of stores with two (or three) relevant stores. This is a more conservative threshold, since 10 per cent of stores are currently operating in isochrones with lower populations.

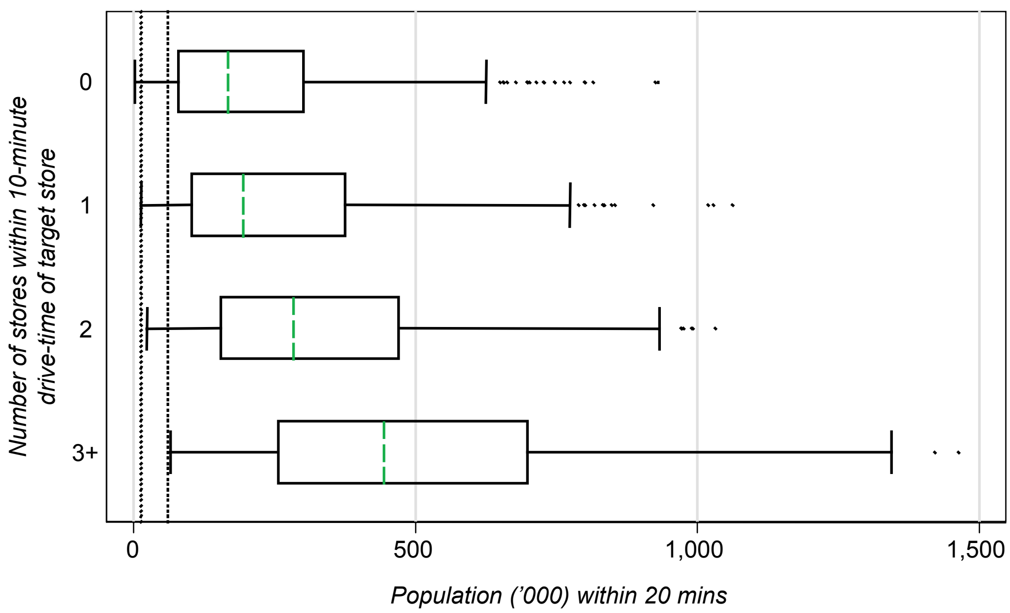
[1]We define a relevant grocery store as one that has a net sales area greater than 1,400 sq metres and is not operated by Lidl, Aldi, Netto and M&S. We use this approach as it most closely resembles the approach taken in the 2000 Supermarkets investigation.

We refer to these as precedent thresholds since, and as we demonstrate below, there are many instances in Great Britain where this population is currently supporting this number of large grocery stores.

4. Figure 1 shows the distribution of population within a 20-minute catchment surrounding each target store conditional on the number of relevant stores within a 10-minute isochrone of the target store.

FIGURE 1

Number of relevant stores within 10 minutes' drive-time and the population within a 20 minute catchment



1st dotted line indicates min population (15,820) which a store with another store within 10 mins
2nd dotted line indicates min population (62,179) which supports 90 per cent of stores with another store within 10 mins

Source: CC analysis.

5. The result of this analysis is that we find that *(a)* 90 per cent of target stores with one additional relevant store within 10 minutes operate on a population greater than 62,179 (as shown in Figure 2) and *(b)* 90 per cent of stores with two additional relevant stores operate on a population greater than 91,958. We term these thresholds the 90 per cent precedent threshold. We believe this to be highly

conservative since 10 per cent or more stores operate in more competitive local markets but with smaller population bases than this benchmark.[2] The minimum observed population that currently supports two relevant stores is 15, 820 (as shown in Figure 1 above) and the same figure of three stores is 22,970. We label these the minimum precedent threshold.

[2]We also note that the assumption underlying Asda's analysis of the need test implies that a population base in the region of 24,000 is required to justify a single 3,000 sq metre store. Thus the implied 48,000 population required for two stores is an estimate of where LPAs would see a need to be filled. Since Asda claimed that this was a restriction on its ability to enter, we presume that smaller populations are also attractive to many retailers and thus this would be an upper bound.