

## OVERVIEW RESPONSE TO QAWP

### An overview of the margin-concentration analysis and other economic evidence relating to geographic market definition

September 2007

#### 1. INTRODUCTION AND SUMMARY

1.1 The CC has undertaken and assessed considerable empirical work in the current inquiry, including the recently updated margin-concentration work, much of which relates to market definition. This evidence, and the arguments that it is intended to support, have moved on considerably since the CC's first publications on this subject.

1.2 We have recently submitted substantial new evidence on product market definition, including a paper addressing some of the CC's questions on our previous work.<sup>1</sup> In this paper therefore, we focus on how the recent evidence we have received relates to geographic market definition.

1.3 Geographic market definition is a critical element of the current inquiry. The CC's conclusions on this aspect of its work will determine if the CC "goes local" and if so how it does so, the way in which it assesses the ownership of land for development, and will set the framework for how it assesses the overall state of competition.

1.4 Having received and analysed the recent data putback, it has become clear that there is now much common ground between CC and Tesco (and indeed other parties) on how geographic market definition should be considered. However, there are also differences. Some of these differences are about interpretation but some relate to an incorrect conceptual approach or to factual and calculation mistakes in the CC's workings, about which reasonable people could not disagree.

1.5 The aim of this note therefore is to provide a summary of the current economic and commercial evidence on the issue of geographic market definition. In what follows, we do not repeat the detailed evidence but, where necessary, we provide cross references.

1.6 The main points which emerge from this review of the evidence are as follows.

1.7 First, there is ample evidence to support a finding of a national geographic market.

1.8 Second, if the CC is not willing to accept the existence of a national groceries market, it needs to consider how to define the individual sub-national markets that it believes exist. In this regard, an objective review of the available evidence suggests that:

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<sup>1</sup> See our submission *New evidence on product market definition*.

- (a) All parties (and academics) appear to agree that the correct conceptual approach for market definition is the hypothetical monopolist test, or SSNIP.
- (b) It is a matter of common sense that, if the CC were to apply the SSNIP conceptual framework to define local markets, such local markets must differ in size and composition across the UK.
- (c) Even when using SSNIP at the conceptual level (we deal with explicit modelling of SSNIP below), any reasonable interpretation of the empirical evidence demonstrates that the majority of local markets are significantly greater than 10 minutes.
- (d) The CC's margin-concentration work appears of limited relevance to the issue of market definition. We believe that there is now strong evidence to suggest this work explains a volume effect (caused by the presence of some fixed costs in stores' payroll). We also feel that the indirect evidence on margins is inconsistent with the more direct evidence on variations in PQRS, and what actually happens in areas with fewer fascia. Finally, and notwithstanding these points, for the purposes of market definition it is critical to note that none of the margin-concentration results are large enough to satisfy the SSNIP test for separate markets.
- (e) In addition to being a conceptual framework, SSNIP can also be modelled explicitly in the grocery market as there is detailed data on customer and store locations. We believe that our "base case" SSNIP model was a reasonable attempt to do this, and this has since been confirmed by Professors I and Smith. This model demonstrates that all markets are different in size, that the vast majority are above 10 minutes and that very many are larger than 30 minutes. Our understanding of the CC's equivalent base case model (homogenous preferences with no price discrimination)<sup>2</sup> is that it yields similar results to our own model. Similarly, the equivalent base case model from RBB<sup>3</sup> also confirms these results, and in fact predicts substantially wider markets than our model. In our view, the conclusions from this reasonable "base case" approach are therefore compelling and robust.
- (f) The CC has suggested that this base case SSNIP model is artificially narrow in its predicted markets because it should include the possibility of a price discriminating hypothetical monopolist (PDHM). In line with the expert opinions of Professors I, Smith and Hausman, we believe there are strong conceptual and theoretical grounds to suggest that a PDHM is too hypothetical in relation to the UK grocery market. Unless the CC has evidence of significant and sustained price discrimination in the market today, it is too speculative to assume that a hypothetical monopolist tomorrow would behave in this way. We also believe that the absence of such behaviour today is relevant to the assessment of these views.

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<sup>2</sup> I .

<sup>3</sup> See *Geographic Market Definition: A Response to Tesco and Professor Hausman*, RBB Economics, August 2007.

Notwithstanding these points, if the PDHM is modelled correctly, it does not alter the three basic conclusions of the base case model: all markets are different; the majority are larger than 10 minutes and many remain larger than 30 minutes. It appears clear that both the CC's<sup>4</sup> and RBB's SSNIP models support this conclusion.

- (g) The CC has also suggested that the base case SSNIP model should allow for customer preferences being heterogeneous. We believe that this addition to the model is unnecessary because it is overly complex and because there is no reason to believe that a homogenous assumption results in any bias. This view was shared by Professors I and Smith. Notwithstanding this, having developed our base case SSNIP model to incorporate this assumption, we can conclude that the no-bias expectation is confirmed; the key results from the base case SSNIP model are unaffected. When combined with PDHM, heterogeneity makes price discrimination less profitable, rather than more profitable.

Moreover, the CC (in its letter of 7 September) stated that the combination of PDHM and heterogeneity was the most theoretical robust approach to SSNIP modelling. Whilst we feel this view is open to debate in the UK grocery market, we note that, when these two additions are properly modelled, the results are similar to those from our base case model.

1.9 Overall, therefore, we believe that the most reasonable and robust conclusions that the CC can gain from all this evidence is that the relevant geographic market is either national or, if the CC is not willing to accept this, that the relevant sub-national markets are all different, significantly wider than 10 minutes in the vast majority of cases and, often, wider than 30 minutes. Maintaining a conclusion that all geographic markets are 10-15 minutes appears to be an unreasonable conclusion from the evidence on which it is based (the margin-concentration results), conflicts with the agreed need to adopt a conceptual SSNIP approach, and simply ignores the substantial additional evidence that suggests an entirely different conclusion.

1.10 This additional evidence includes empirical and survey results on PQRS variations, the actual outcomes in "monopoly areas", the empirical evidence on the numbers of marginal customers and the numbers of stores close to the edge of a 10 minute isochrone, the staff cost models employed by Tesco in operating its business, three explicit SSNIP models and the views of three leading and independent professors of economics.

1.11 By logical extension, we believe that the CC cannot therefore reasonably conclude on local competition concerns arising from local variations in the competitive offer, customer detriment from such variations or on any suggestion that the national outcomes could be somehow better.

1.12 In section 2 we review the main arguments for a national market. In Section 3 we summarise the conceptual approach to SSNIP and describe the evidence that is

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<sup>4</sup> | .

necessary to apply this conceptual technique. In Section 4 we summarise the evidence on which the CC appears to rest its current view of local market definition – the margin-concentration analysis. In Section 5 we describe the current position on explicit SSNIP modelling, whilst in Section 6 we assess the evidence we have seen from other main parties. Finally, in Section 7 we conclude and highlight some of the implications for the CC’s Provisional Findings.

## 2. EVIDENCE FOR A NATIONAL MARKET

2.1 When looking at geographic markets, the European Commission provides some useful guidance:

*“The relevant geographic market comprises the area in which the undertakings concerned are involved in the supply and demand for products or service, in which the conditions of competition are sufficiently homogenous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different in those areas.”<sup>5</sup>*

2.2 We believe that there is ample evidence to support our view that:

- (i) conditions of competition are sufficiently homogenous across the UK to suggest a single national market – the way in which retailers compete, what customers want and how customers behave are essentially the same everywhere;<sup>6</sup>
- (ii) the empirical evidence on competitive outcomes – PQRS – demonstrates that there are no appreciable differences between neighbouring areas in the UK;<sup>7</sup>
- (iii) in relation to both customer and store locations, the UK is a densely packed island, so catchments overlap and make any hard distinction between one catchment and another almost always artificial;
- (iv) the evidence we have seen from all parties<sup>8</sup> suggests that they operate, monitor and assess their business on a national basis, taking initiatives and making competitive responses almost exclusively on a national basis (see Section 6 for more details on this);

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<sup>5</sup> See the *Commission notice on the definition of the relevant market for the purpose of Community competition law (97/C372/03)*.

<sup>6</sup> See, for example, our responses to the Main Party Questionnaire.

<sup>7</sup> See *Quantitative Analysis Working Paper (4): margin-concentration and entry analysis*, September 2007, and *No links between PQRS and local concentration*, December 2006, with a follow-up letter in March 2007.

<sup>8</sup> This evidence includes not only the papers that such parties have submitted to the CC but also they way in which they publicly describe their businesses and the market. Examples include press statements, analyst reports, conference presentations and various descriptions of their operations, their competitors or their performance. These parties do not typically suggest that local markets are important to these views, or to how these parties manage their business (in contrast, for example, to how some parties may report international operations).

- (v) the evidence the CC has seen from Tesco demonstrates that all our commercial strategies are developed and executed on a national basis, including the development of our Customer Plan initiatives and our responses to competitors;
- (vi) Tesco has provided the CC with considerable evidence on how our in-store prices are set in response to our competitors' national price movements and we have provided many examples of in-store prices that match competitors which are not even present in the relevant catchment. It is difficult to see how such a strategy makes any commercial sense unless it is the result of national competition; and,
- (vii) the main sources of information available to customers, on which they partly base their store choices, including brand advertising, media coverage and online price comparisons, are all national, with no appreciable local differences.

2.3 Previous CC inquiries have concluded that markets are essentially local, on the basis that customer shopping is mainly undertaken on a local basis. To be clear, we have always accepted that customer shopping is mainly a local activity. Our disagreement relates to the relevance of this for market definition. As we have discussed with the CC on several occasions, and as has been made clear by Professor Hausman<sup>9</sup>, market definition should be based on the behaviour of marginal customers and should reflect the choices available to them. Indeed, the fact that many customers in a specific catchment shop within 10 minutes of a given store, is entirely consistent with an economic market that is in excess of 30 minutes or is national.

2.4 We believe that the evidence clearly demonstrates that essentially all competitive outcomes in the grocery market (and thus customer benefits) occur on a national basis because of national competition. On the other hand, there appears to be no evidence of sustained competitive outcomes or customer benefits occurring on a local basis, in response to varying levels of local concentration.

2.5 We do understand that the CC has been told about alleged variations in different retailers' offers, and we acknowledge that very small elements of our offer do indeed vary across the UK. However, these variations are not in response to local competition, are significantly below SSNIP threshold levels, and do not have sustained competitive impacts in the areas in which they occur. They must also be judged against the by far more significant activity that takes place in all of our stores, irrespective of which competitors are in the local area.

2.6 It is this description of the competitive process, and the evidence on actual competitive outcomes, that supports our belief in a national market, and it is this description of the competitive process that is absent from the evidence submitted by many of our competitors (which we discuss further in Section 6).

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<sup>9</sup> Professor Hausman, Expert Report, pages 2-7.

2.7 Whilst it is true that the CC has previously found that markets are essentially local, we have always disputed this finding and we see no reason why such a finding need set a precedent in this inquiry.<sup>10</sup> The relevant evidence for a finding to the standard required by the Enterprise Act is available for the CC to review, and we believe this evidence is compelling.

### 3. APPLYING SSNIP AS A CONCEPTUAL APPROACH

3.1 If the CC is not willing to accept the evidence of a national grocery market, then it obviously needs an approach for identifying the size of sub-national markets. It would appear all parties agree that SSNIP is the correct conceptual approach to considering geographic market definition. As RBB has commented:

*“The strength of the SSNIP framework is therefore in providing a coherent structure within which numerous pieces of evidence may be considered and weighed.”*<sup>11</sup>

3.2 As the CC is aware, the SSNIP framework postulates the question of what would happen if a hypothetical monopolist (of a specific area or catchment in this case) were to raise prices by a small but significant and non-transitory amount (usually taken to be 5-10%). When considering what would happen, and in particular, when considering whether such a SSNIP would be profitable, it appears relatively uncontroversial that the following issues should be investigated:

- (i) the number and location of marginal customers, including both customers inside and outside the isochrone to be tested, and the value of their trade;
- (ii) the number and location of alternative stores that marginal customers could switch to following the SSNIP;
- (iii) the variable margins earned on retained and lost customers;
- (iv) customer willingness to switch in response to price increases; and
- (v) the degree to which prices (and other competitive variables) in different local areas are similar and move together, or are correlated with market concentration.<sup>12</sup>

3.3 Thinking about the impact of marginal customers changing their behaviour is central to the whole concept of SSNIP, and this is why we have repeatedly argued

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<sup>10</sup> In particular, in previous findings under the Fair Trading Act 1973 (the FTA), the CC did not define local markets to the standard now required under the Enterprise Act (the Act), and indeed we believe that the test under the FTA was so different to that in the Act that the previous approach of the CC is not a reliable guide to the conduct of this inquiry.

<sup>11</sup> See *Geographic Market Definition: A Response to Tesco and professor Hausman*, RBB Economics, August 2007. This is consistent with the CC’s own Guidelines.

<sup>12</sup> Since we have already discussed this point in the previous section, we do not repeat the conclusions about the similarity of all competitive variables across all regions.

against market definition being based on statements about what the majority of customers do.

3.4 But when thinking about how marginal customers change their behaviour following a SSNIP, it is also common sense that such impacts must differ from market to market, as customer locations and switching options differ from market to market. Local markets cannot all be the same size. The maps of Salisbury and Brixton (see Annex 1), which have previously been discussed with the CC staff and Panel Members, illustrate this point well.

3.5 Remaining at the conceptual level (we discuss explicit modelling of SSNIP in Section 5 below), the CC now has substantial empirical evidence on these points<sup>13</sup> and can easily obtain a rough estimate of the impact of imposing a SSNIP in (say) 10 minutes by looking at the spread of existing trade patterns and the choice of existing stores. We believe that any reasonable interpretation of such estimates would conclude that most markets are beyond 10 minutes.

3.6 This was precisely the point made by Professor Hausman who felt that:

*“The CC concludes that the geographic scope of relevant markets is local, within a 10 or 15 minute drive-time of a given store. This conclusion appears to conflict with the CC’s own evidence on customer behaviour and with information from Tesco about the shopping patterns of customers around its stores (using data from its Clubcard shopper card).”*<sup>14</sup>

3.7 Even if we were only to assess the empirical evidence on two types of demand-side constraint – customers who live outside the isochrone of the centre (or target) store and customers who live close to the edge of the isochrone, close to stores just outside the isochrone – Professor Hausman’s conclusion would be supported. In our recent submission to the CC<sup>15</sup> we showed how:

- [ ] of stores above 1,400 sq. m have more than [ ] of their real world trade outside 10 minutes (using Clubcard data on actual trade patterns), so 10 minutes cannot be the correct isochrone for these stores<sup>16</sup>;
- [ ] of stores above 1,400 sq. m have more than [ ] of their trade outside 15 minutes, so 15 minutes cannot be the correct isochrone for these stores;

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<sup>13</sup> We have provided substantial evidence on the patterns of trade around Tesco stores, the number of customers at different points in isochrones, the numbers of rival stores at different points within and just outside the isochrone, the basket size distribution across customers, the variable profit margin, and a variety of maps to illustrate these points. See for example, response to the MPQ, papers presented to the two staff meetings on Market definition and our responses to the QAWP and RCWP.

<sup>14</sup> Professor Hausman, Expert Report, paragraph 7.

<sup>15</sup> See *Quantitative Analysis Working Paper (2): Market definition – making use of real world data*.

<sup>16</sup> [ ] is the amount of trade that would need to switch to defeat a SSNIP in a market with Tesco’s variable cost margin.

- 59% of Tesco stores have 75% or more of their customers within 5 minutes of the edge of a 10 minute isochrone; and
- the majority of Tesco stores face more than 60% of customers within 5 minutes of the inside edge of the isochrone, and more than 25 stores within 5 minutes of the outside edge of the isochrone.<sup>17</sup>

3.8 We have also noted previously that, if many customers are travelling at least 10 minutes then, since these customers can travel in both directions, the market would reasonably appear to be at least 20 minutes wide for such customers.

3.9 It is difficult to see how any reasonable interpretation of all this evidence could conclude that markets are (i) the same everywhere and (ii) generally 10-15 minutes.

#### **4. THE CC'S CURRENT POSITION ON GEOGRAPHIC MARKET DEFINITION**

4.1 Whilst the Quantitative Analysis Working Paper (QAWP) looks at market definition from both the perspective of a formal SSNIP model and the CCs margin-concentration analysis, the Retail Competition Working Paper (RCWP) appears to ignore SSNIP models altogether, and simply claims that:

*"... in order to capture the geographic scope of the relevant markets, we have identified in our analysis to date local competitive constraints shown by 10-15 minutes isochrones around a store."*

4.2 Thus, the analysis in the RCWP, and in the Land Holdings Working Paper, is all predicated on two assumptions:

- (i) that local markets are the same size everywhere; and,
- (ii) that these local markets are only 10 or 15 minutes in size.

4.3 We appreciate that the CC has not yet reached a conclusion on market definition, but, as we have already discussed, we feel these assumptions defy a common sense or objective economic interpretation of the evidence.

4.4 As far as we can tell, the CC's current view on market definition stems from two sources: its margin-concentration work and its entry modelling. We consider each of these in turn.

#### **The relevance of the CC's margin-concentration work to market definition**

4.5 As noted above, one of the standard pieces of evidence to look for within a SSNIP framework is sustained price differences, correlated with market concentration. For this reason, it is often standard practice to assess price-concentration relationships (or other forms of relationship involving PQRS variables).

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<sup>17</sup> See *Quantitative Analysis Working Paper (2): Market definition – making use of real world data*, page 8.

4.6 Within this context, a margin-concentration relationship may be useful if it accurately picks up evidence of significant and sustained differences in the competitive offer, which are explained by market concentration.<sup>18</sup> However, we believe that this would only be true if:

- (i) there are no other plausible explanations for the estimated differences in margins (such as a volume effect);
- (ii) the predictions of any margin-concentration modelling could be verified against actual data on prices (or other elements of the offer);
- (iii) the econometric modelling of margin-concentration was robust and credible;
- (iv) the predictions of the margin-concentration relationship were large enough to satisfy the SSNIP test; and,
- (v) the predictions of the margin-concentration work could be verified against real outcomes in actual monopoly areas and/or against firms' commercial policies.

4.7 We have submitted considerable, and often very technical, evidence on both the CC's margin-concentration work, and on PQRS, which we see as inextricably linked. It is not the intention of this paper to repeat all of that evidence so we provide (what we believe to be) a balanced and reasonable summary of the work to date, matching the numbered points above.

- (a) **There is considerable evidence to suggest that the CC's work is simply picking up a volume effect.** The CC accepts that its econometric modelling needs to be conducted on variable store margins – so no fixed costs should be included – and that, if a volume effect explains the results, the conclusions from the model would be quite different from those the CC currently draws.

We have submitted substantial evidence to confirm the presence of fixed costs in the payroll element of the model, including:

- (i) a description of the thousands of different store-based tasks that retail employees undertake with an explanation of how the time taken for some of these tasks varies with revenue whilst the time to complete other tasks cannot<sup>19</sup>;
- (ii) the details of our internal staffing and productivity models which show that a considerable portion of staff costs are fixed with respect to store

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<sup>18</sup> In this sense, it would be an exercise in the spirit of the EC's guidance on market definition discussed above.

<sup>19</sup> See *Quantitative Analysis Working Paper 1: Staff costs are not perfectly variable*.

revenue, and that our business operates on the basis of the assumptions and estimates contained in this model<sup>20</sup>;

- (iii) empirical evidence on what happens to variable and fixed staff costs following a store impact, which shows that fixed hours do not change, variable hours fall slightly, resulting in total hours (and thus payroll costs) falling but at a lower rate than the overall reduction in revenue;<sup>21</sup>
- (iv) the results of a dynamic regression model, based on the CC's own models, which shows that store revenues drive variable costs, whilst local competitor presence does not<sup>22</sup>;
- (v) the results of an additional static regression model, again based on the CC's models, which show no evidence of a competitive response, and often significant evidence of a relationship between store revenues and margins<sup>23</sup>;
- (vi) the results of regression models, similar to the CC's own, but based on gross margin (thus removing the fixed cost effect) which demonstrate no relationship between margins and concentration<sup>24</sup>; and,
- (vii) previous CC analysis which shows how staff costs (as a % of store revenue) fall with the size of the store and the sales density, whilst staff costs per square foot do not<sup>25</sup>.

The existence of some element of fixed costs in store payroll therefore is beyond reasonable doubt. The relevant question then becomes whether these fixed costs are large enough to explain the CC's margin-concentration results.

We have also provided evidence on this point and confirmed that the CC's margin concentration results can be explained by recognising a level of fixed payroll costs which are substantially below our own commercial estimates.<sup>26</sup> As such, and notwithstanding the other issues described in this paragraph, there appears to be a logical and empirically-based explanation of the CC's margin-concentration results which would make them invalid for the purposes of market definition.

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<sup>20</sup> See *Quantitative Analysis Working Paper 1: Staff costs are not perfectly variable*.

<sup>21</sup> See *Quantitative Analysis Working Paper 1: Staff costs are not perfectly variable*.

<sup>22</sup> See *Quantitative Analysis Working Paper 4: Margin-concentration and entry analyses*, Section 2.

<sup>23</sup> See *Quantitative Analysis Working Paper 4: Margin-concentration and entry analyses*, Section 3.

<sup>24</sup> See our *Second Response to the Margin-Concentration Paper* and *Response to the Market Definition Paper*.

<sup>25</sup> Handed out at the second marketing definition staff meeting, but contained in the CC's 2000 report.

<sup>26</sup> See *Quantitative Analysis Working Paper 3: Geographic market definition and the SSNIP test*.

- (b) **All analysis of variation in PQRS, which is the more direct measure relevant to SSNIP, demonstrate that there is almost no variation across the UK and absolutely no correlation with local concentration.** The CC has seen extensive evidence on this point, including hundreds of regressions. Specifically, we have run regressions on both aggregate and individual PQRS measures, using different techniques (including the CC's preferred IV approach and the principal components technique), and many different explanatory variables (including the CC's choice of explanatory variables in its own margin-concentration work). We believe the conclusions from all this analysis confirm that there is no significant variation in competitive offer that can be explained by any measure of local concentration.<sup>27</sup>

All of this direct evidence on PQRS refutes the conclusions from the CC's margin-concentration work. Combined with the evidence of a volume effect and the fact that it is consistent with the GfK work, we believe this should leave the CC with serious concerns about relying on the results of the margin-concentration work.

We are of course aware that some of our competitors have suggested to the CC that local variations of PQRS do take place. We discuss this in more detail in Section 6 but would note at this point that: (i) many of the variations described appear not to be correlated with concentration and therefore are not relevant for market definition or to support the CC's margin-concentration results; (ii) the claims of these competitors do not appear to have been verified to anywhere near the standard of the Tesco evidence; and (iii) even if such variations did take place, and were correlated with concentration, they would still need to be large enough to satisfy a SSNIP test to be relied upon for market definition purposes.

It appears to us that the PQRS evidence we have submitted is more robust than other evidence the CC has gathered and that, specifically, the margin-concentration results (which cannot be explained by any analysis of PQRS) suffer from several problems.

- (c) **The CC's econometric modelling of margin-concentration is questionable.** The modelling itself is complex and has to invoke IV techniques in order to overcome statistical problems with the observed data. The main problem is endogeneity – the CC believes that standard regressions will not work because retail entry occurs when local margins are high.<sup>28</sup> There is debate about the CC's use of instruments and there are clearly other, equally robust models that overcome the flawed margin measure and which refute the CC's conclusions.<sup>29</sup>

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<sup>27</sup> See our paper *Local concentration and PQRS measures*, 4 December 2006, our letter of 14<sup>th</sup> March 2007, and *Quantitative Analysis Working Paper 5: PQRS analysis*.

<sup>28</sup> As we have noted previously, this conclusion in itself appears relevant to the assessment of local markets.

<sup>29</sup> See *Quantitative Analysis Working Paper 4: Margin-concentration and entry analyses*.

On the issue of interpretation of the CC's coefficients, Professor Hausman<sup>30</sup> remarks:

*“To the extent that I am interpreting the results correctly (which I may not be), consider Table 11 (an extreme example, but the finding holds generally for the other tables). Columns (1)-(3) find that the maximum effect of large competitor fascia is -0.047. As I understand the CC approach the maximum number of such competitors is 5 so the difference between “monopoly” and “full competition” is approximately -0.235. Yet the estimate in column (4) of the “natural experiment” of a monopoly situation is estimated to be -0.566 or slightly over 2.4 times as large. Thus, I conclude that either I have misinterpreted the CC results or that the CC econometric analysis has serious problems.”*

As noted above, it appears that the CC's margin-concentration results appear to be driven mainly by the fixed cost element of store payroll. This would suggest that any differences in margin are being driven by changes in variable staff cost. Again, this is something that worried Professor Hausman.<sup>31</sup>

*“These econometrics results also cause me to have grave concerns regarding the CC econometric methodology. Tesco, RBB, and the CC all seem to agree that prices are essentially national prices. Thus, the variable cost must change in response to competitive conditions to cause variable margins to change. As an economist I find it extremely difficult to accept that in Table 10 the company (name unknown to me) increases its variable costs by the equivalent of approximately a 25% change in margin when a large competitor locates within 10 minutes drive time. Even more difficult to accept is that when a large competitor locates within 15 minutes drive time, as in Table 11, the company increases its variable costs by the equivalent of approximately a 57% change in margin. From my experience study the supermarket industry in a number of countries, these changes in variable costs are difficult to believe. Instead, they cause me to have severe doubts about the econometric model specification and the econometric estimation.*

*Another way to consider the results is to assume that with competition the gross margin is approximately [1]. I now use the result of Table 11, column (4) and compare the situation to a monopoly situation so the margin increases to [1]. This result implies the gross margin increases by over [1] or by [1], which is too large to be believable. Since the CC has not investigated variable costs so that the margin analysis arises from a “black box” type model, I am especially perplexed by the results. I think a likely explanation is that a significant part of the difference is arising from volume effects that are not being captured by the model specification.”*

Taken together, these points must cast serious doubts over the relevance and robustness of the CC's margin-concentration work.

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<sup>30</sup> Professor Hausman, Expert Report, paragraph 49.

<sup>31</sup> Professor Hausman, Expert Report, paragraphs 50-51.

- (d) **The results of the margin-concentration work are not large enough to satisfy the SSNIP test.** Even if we ignore all of the problems above, if the CC is to use the margin-concentration results for delineating local markets, those results need to be large enough to satisfy the SSNIP test. We have shown that this is not the case.<sup>32</sup> If 10 minutes was the correct definition of the geographic market, stores with no rivals should have been able to raise price by 5% (or margins by [ ] percentage points) above the level of “competitive areas”. The estimated margin effect from the CC’s analysis is only [ ] percentage points. This, in itself, implies that, whatever the CC has found in its margin-concentration analysis, the results are not large enough to justify a finding of a 10 minute market.
- (e) **The predictions of the margin-concentration work are inconsistent with real outcomes in actual monopoly areas and firms’ commercial policies.** Whilst we recognise the validity of econometric and statistical analysis within the CC’s overall evidence gathering process, we believe it is important, wherever possible, to verify any findings against the real world. Sometimes this is hard to do, especially in market definition exercises, but in this case, where the CC believes that 10 minutes is a distinct economic market, it is possible.

There are a number of 10 minute catchments in the UK where only one fascia is present. In these cases, we believe it is highly relevant to ask whether the incumbent retail store behaves as a monopolist and, specifically, whether the store increases price to a point that would satisfy the SSNIP test.<sup>33</sup> We believe that the answer to this question is that such “monopoly stores” do not set prices at such levels and this must be because there are competitive constraints (such as national constraints or competitive constraints from outside the isochrone) acting on these stores that are not being captured in the CC’s analysis. This appears to be the only reasonable conclusion.

4.8 Given the points raised in the previous paragraph, we believe that the CC’s margin-concentration work cannot reasonably be relied on, especially in relation to the issue of geographic market definition. The direct work on PQRS is more robust and more consistent with other aspects of the market, such as retailers’ policies and the outcomes of national competition.

### **The relevance of the CCs entry modelling work to market definition**

4.9 We have already submitted several detailed responses on this issue. In short, we believe that the entry analysis, by its very nature, cannot be of relevance to geographic market definition. It simply demonstrates that customers shop locally (which we accept) by showing that a new store gains sales from existing stores. It does not demonstrate any competitive response to local entry.

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<sup>32</sup> See *Quantitative Analysis Working Paper3: Geographic market definition and the SSNIP test*.

<sup>33</sup> That is, an average price that is at least 5% higher than the same retailer’s prices elsewhere.

4.10 The CC appears to reject this view: “*in the absence of price data [analysis of revenue changes] provides an indirect approach to analyse the competitive reaction of a store.*”<sup>34</sup> We do not understand how the CC can reach this conclusion as a revenue reduction is perfectly consistent with the volume effect we have described previously. And the suggestion that there is “*an absence of price data*” appears at odds with the extensive evidence we have provided (see above) on all PQRS variables. Finally, we believe that the adjusted margin-concentration models described above, which show that competitive presence does not impact on entry once sales revenues have been taken into account, provide a more explicit test of the CC’s hypothesis, and show that it cannot be supported.

## **5. THE INTERPRETATION OF EXPLICIT SSNIP MODELLING EVIDENCE**

5.1 We addressed earlier in this note how the conceptual framework of SSNIP could be applied to the groceries market. An interesting element of the current inquiry is the attempts made formally to apply SSNIP techniques within an overall empirical model. To date, Tesco, RBB and the CC have all published results from these types of model. In this part of the note, we summarise where we believe the evidence is becoming clear and where it is still uncertain.

5.2 It is hard to identify accurately the CC’s current position on SSNIP because the CC’s model has changed several times quite recently and, as the CC is aware, there have been a number of material calculation errors. However, what follows is a best efforts attempt to describe the CC’s current position. Before we do this, we summarise the purpose of our first SSNIP model.

### **Our base case SSNIP model**

5.3 Our original submission on SSNIP, made in late 2006, was intended to provide the CC with a helpful framework and dataset from which it could consider the SSNIP framework more explicitly. From that analysis we drew four conclusions:

- (i) whilst some simplifying assumptions were necessary, it was possible to apply a formal SSNIP model to the grocery market, using real data on store locations and customer behaviour;
- (ii) our model confirmed the common-sense view that all local markets would be of different sizes;
- (iii) our model showed that the majority of markets would be in excess of 10-15 minutes;
- (iv) our model showed that very many local markets would be in excess of 30 minutes.

5.4 This original SSNIP model was an attempt to create a reasonable base case for modelling market definition. As we noted at the time, some assumptions are

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<sup>34</sup> QAWP, paragraph 71.

conservative and some may narrow the markets but, on balance we felt the whole thing was not likely to be biased one way or another.

5.5 We also asked two independent professors of economics to assess our modelling work and to comment on whether they thought it was a reasonable approach to market definition. Professor Smith concludes that:

*“The assumptions that Tesco uses in its modelling are, in my opinion, reasonable. Collectively, they do not appear to systematically bias the subsequent calculations toward making the SSNIP less profitable and thus do not appear to be overly supportive of Tesco’s position.”<sup>35</sup>*

And, in response to comments made by the CC:

*“Overall, given there are potential biases in both directions – and given the results of the sensitivity analysis described below – it does not seem to me that these issues are sufficient to call into question the overall findings of the analysis.”<sup>36</sup>*

5.6 |

5.7 Although not published as such, we believe that both the CC’s equivalent base case (what it calls homogenous, no price discrimination) and the RBB base case provide similar results to our work and confirm that (i) markets are all different; (ii) the majority are beyond 10-15 minutes and (iii) very many markets are beyond 30 minutes.

5.8 However, the CC raised a series of questions about the assumptions in our base case SSNIP model, as did RBB. We believe these essentially boil down to 3 issues:

- (i) whether the method of iteration used by Tesco (expanding isochrones out in 5 minute intervals) is correct;
- (ii) whether the model should take account of heterogeneity in customer preferences; and
- (iii) whether the model should permit price discrimination by the hypothetical monopolist.

5.9 Having now checked the first question raised by the CC we are of the view that it makes no difference to the model results, and so we do not discuss this point further. However, it is important to clarify what has and has not been established on the two remaining points. We begin with price discrimination.

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<sup>35</sup> Professor Smith, Expert Opinion, paragraph 11.

<sup>36</sup> Professor Smith, Expert Opinion, paragraph 17.

## A price discriminating hypothetical monopolist

5.10 The CC has suggested that price discrimination should be included within the SSNIP and that, absent this inclusion, the markets identified will be artificially narrow. We have consistently suggested such an approach was unjustified (because there was no evidence of substantial price discrimination ever taking place in the market) and that, even if it were introduced in the SSNIP test, the results may not be as significant as the CC assumed.

5.11 Professor Hausman's view was similar:

*“Before price discrimination can be used to define markets in a particular merger application, it must be established that a hypothetical monopolist could successfully practice price discrimination. One obvious approach to establishing the feasibility of price discrimination is to demonstrate that price discrimination is currently being practiced by producers in the proposed market. Given that currently uniform national prices are being charged by all the major retailers and the CC has produced no evidence that the quality of service or level of promotions varies systematically by geographic area, I have significant doubts about the feasibility of price discrimination.”*

5.12 And, in commenting on the consistency between this approach and the CC's margin-concentration work, Professor Hausman noted the following.

*“As an example consider two supermarkets which are close to each other, say a Tesco and a JS (e.g. near Cromwell Road in London or along a high street elsewhere). Under RBB's approach the hypothetical monopolist increases price at the JS and all price sensitive customers decide to shop at the Tesco where prices have not increased. Thus, the two stores comprise a geographic market under the RBB approach.*

*However, this approach conflicts with the CC's econometric results (to the extent they are correct). For example in Annex A of the May 2007 report the CC uniformly finds an effect in column (1) of each of the tables of entry of a large competitor with 10 minutes drive-time. Yet under the RBB approach the CC should find no effect because the two stores very close to each other should constrain each other to the extent that entry of a new store outside the two store market should have no significant effect on prices (margins) within the market. The CC's results (and basic knowledge) demonstrate that the two stores near each other cannot comprise a relevant market given observed shopper data.”<sup>37</sup>*

*l .”<sup>38</sup>*

5.13 Professor Smith also had similar concerns:

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<sup>37</sup> Professor Hausman, Expert Report, paragraphs 27-28.

<sup>38</sup> | .

*“I understand that there was a very small amount of local pricing at the time of the previous inquiry (on a store-level basis rather than customer-by-customer), but that this was ended shortly afterwards. Having looked at the CC’s findings in the 2000 Inquiry, it does not seem reasonable to me to assume that the hypothetical monopolist would implement anything more than what has been historically very small local variations. If the reason for national pricing has been that the supermarkets were concerned about previous adverse finding by the CC in relation to price flexing, this would seem to apply equally (if not more so) to the hypothetical monopolist.”<sup>39</sup>*

5.14 We believe there are thus good theoretical and conceptual reasons, identified by the CC previously,<sup>40</sup> to suggest that a PDHM should not be assumed in this case. We also believe that these views are supported by evidence from real “monopoly areas” today: despite the existence of several areas that could be subject to such discriminating behaviour, none exists. We believe the only reasonable conclusion from such evidence is that competitive constraints are in place which are not captured by the PDHM model (such as national constraints or competitive constraints from outside the isochrone).

5.15 However, notwithstanding these points, and in order to test the relevance of the CC’s question, we have tried to model the impact of a PDHM. If this is modelled correctly<sup>41</sup> there is no change in the key results of the base case model, namely that: all markets are different; the vast majority are above 10 minutes and many are above 30 minutes (including Slough). The RBB model which incorporates a PDHM also appears to support these conclusions.

5.16 We believe, therefore, that the sensible conclusion on PDHM is that there are strong conceptual and theoretical grounds to suggest it is too hypothetical to form part of a SSNIP test in the UK grocery market, but also that, if it is undertaken properly, it does not alter the three basic conclusions: all markets are different; the majority are larger than 10 minutes and many are larger than 30 minutes.

### **Introducing heterogeneity into customer preferences**

5.17 A second question posed by the CC is how the base case SSNIP results change if customer preferences are assumed to be heterogeneous – that is, if they depend on more than price when considering switching decisions.

In our initial submissions on this point we suggested that this was a complex process to model and that it was not clear that an assumption of homogenous preferences introduced any bias in the results. | <sup>42</sup>

5.18 This view was also confirmed by Professor Smith:

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<sup>39</sup> Professor Smith, Second Expert Opinion.

<sup>40</sup> See our letter to the CC of 10 September 2007.

<sup>41</sup> That is, after correcting for the CC’s calculation errors.

<sup>42</sup> | .

*“In a number of cases, the effect the CC describes would tend to reduce the overall precision of the SSNIP test (i.e. the accuracy of the estimation of the geographic market) because some factors which affect customers’ switching decisions are not accounted for as a result of a simplifying assumption. These are the assumptions relating to store selection on the basis of factors other than distance (e.g. price or quality) and the restriction to “one stop shopping” baskets. These factors would not bias the results of the SSNIP test unless they were correlated with the number of stores available to customers who might switch. I see no intuitive reason why such a correlation would exist and do not therefore expect any systematic bias to the results from these factors.”<sup>43</sup>*

5.19 However, notwithstanding these points, and in order to test the relevance of the CC’s question, we have tried to model the impact of introducing customer heterogeneity in our base case SSNIP model. The results<sup>44</sup> show that the no-bias presumption was reasonable; the results from our heterogeneous adjusted SSNIP model are very similar to our base case results.

5.20 These results would appear, at first sight, to conflict with those generated by the CC. However, we do not believe that the CC’s approach to this issue is correct. The CC’s assumption of heterogeneous preferences is modelled by assuming that 30% of customers do not switch. This cannot be right because this additional assumption does not actually introduce heterogeneous preferences into the model – it simply applies a restrictive switching assumption, equally, to all consumers.

5.21 Moreover, the CC’s modelling of heterogeneous preferences is done in combination with its PDHM assumption, which further demonstrates the problem with the CC’s approach. Economic theory would suggest that price discrimination typically becomes more difficult once heterogeneous preferences are introduced. The CC’s model, because of the way in which switching has been constrained, delivers the opposite, counter-intuitive results.

5.22 Our heterogeneous adjusted model explicitly introduced customers and store variation. We have extended this model to assess the collective effect of heterogeneity and PDHM. We find that in almost all cases, introducing heterogeneity makes the introduction of price discrimination less profitable, rather than more profitable, as economic theory would predict. In particular, we have fully investigated this extended model in Slough and find that the market is at least 30 minutes wide, and that heterogeneity makes PDHM less profitable.<sup>45</sup>

5.23 We believe the relevant conclusions to draw from all this are that the introduction of heterogeneous preferences, if done correctly (that is, not by simply restricting customer switching) whilst making the model much more complex, does not change the base case results in any significant or meaningful way.

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<sup>43</sup> Professor Smith, Expert Opinion, paragraph 16(b).

<sup>44</sup> See *Quantitative Analysis Working Paper3: Geographic market definition and the SSNIP test*.

<sup>45</sup> See *Quantitative Analysis Working Paper3: Geographic market definition and the SSNIP test*.

5.24 Moreover, the CC (in its letter of 7 September) stated that the combination of PDHM and heterogeneity was the most theoretical robust approach to SSNIP modelling. Whilst we feel this view is open to debate in the UK grocery market, we note that, when these two additions are properly modelled, the results are similar to those from our base case model.

## **6. EVIDENCE RECEIVED FROM OTHER MAIN PARTIES**

6.1 In paragraph 41 of the RCWP, the CC suggests that the majority of parties to the inquiry agree that competition in grocery retailing is characterised by local markets but that Tesco alone continues to submit evidence “that any local market is at least 30 minutes wide in terms of drive time”. Whilst we welcome the fact that the CC goes on to acknowledge it has yet to form a conclusion, we are concerned with how the respective evidence of parties to the inquiry is apparently being assessed.

6.2 First, Tesco is not alone in thinking that the market is national. Our understanding, from the published papers, is that Morrisons also believes the grocery market is national.<sup>46</sup> Second, we have not suggested that “any” local market has to be at least 30 minutes. We have explained why we believe the evidence supports a national market or, if the CC is unwilling to accept this, why all local markets must be different, and why almost all will be over 10 minutes and many over 30 minutes.

6.3 More importantly, we are concerned that the CC is treating evidence from parties in an inconsistent manner. This is obviously not a matter of simply counting up which parties say what and deciding on the majority. We have submitted very extensive empirical, commercial, economic and statistical evidence to the CC. At each stage we have offered the CC our data, our results and have been open to all discussions about how we could try alternative approaches and techniques. In each situation we have responded to the CC and shown that the evidence continues to point in the same direction.

6.4 Many of our competitors, on the other hand, appear to have simply made expressions of agreement with the CC’s working assumptions or findings. We do not believe this can be seen as significant evidence that the CC can consider as supportive of its analysis. When assessing the statements and views of other retailers, we would hope that the CC has challenged those in the same way that it has challenged our statements and views.

6.5 Of course, we have not been given access to the full evidence submitted by other parties but if their public documents reflect their actual evidence to the same degree as ours, we feel relatively confident in assessing the extent to which their assertions have been supported by evidence or analysis.

6.6 Wal-Mart/Asda, for example, says it “agrees that geographic markets are local and considers that most of the CC’s evidence points to competitor interaction within 10 minutes’ drive time.”<sup>47</sup> It is unclear which evidence Wal-Mart/Asda is reflecting

<sup>46</sup> See *Morrisons’ observations on the Competition Commission’s Emerging Thinking*, 23rd January 2007.

<sup>47</sup> See, for example, *Market Definition and Competition*, Wal-Mart/Asda, 2 September 2007.

on here but we presume it can only be either the shopping patterns of average customers or the margin-concentration and entry analyses. Wal-Mart/Asda does not appear to provide or reference any evidence of its own, with the exception of its internal store development process, which employs isochrones. We obviously do not deny that such a system exists but neither would we expect the CC to simply accept that this was a measure of local competition. All retailers look at catchments because, as we have accepted, customers tend to shop locally. This is of limited relevance for geographic market definition unless the CC has seen evidence that Wal-Mart/Asda takes competitive decisions or makes competitive responses on the same basis.

6.7 We understand that Wal-Mart/Asda has told the CC that it does engage in local flexing<sup>48</sup> although it is not possible for us to see what was said at the hearing because it has been excised. However, we would suggest that, for the purposes of market definition, the CC needs to test rigorously whether such flexing was a sustained competitive response, in areas of local concentration, and at magnitudes large enough to satisfy SSNIP. It is our belief that this is not the case.

6.8 On PQRS variation more generally, Wal-Mart/Asda asserts<sup>49</sup> that this is unlikely to happen on quality, but that it has evidence of variations in price and vouchering. It claims that the GfK evidence on range and service is hard to interpret. It would appear that the critical questions for the CC are not whether some small-scale variations exist, but whether these are correlated with concentration and large enough to justify a finding of separate markets. Since we have given the CC significant quantities of data on all of these variables, none of which show any such relationships, we find it difficult to see how the CC can place any additional weight on this aspect of Wal-Mart/Asda's evidence in regard to geographic market definition.

6.9 Sainsbury's has told the CC<sup>50</sup> that it considers "the current definition of the geographic market, being a 10 minute drivetime in an urban area and a 15 minute drivetime in a rural area, to be a reasonable proxy." The first point to note is that this is completely inconsistent with the evidence it gave the CC in 2000 (see Annex 2 for more details):

*"... there was effective competition in all areas of the UK, and in any event a retailer could not discriminate by location even in those areas where there were fewer competitors..."*

*"It was clear that competition was not limited to the stores located within a particular catchment area (defined by specified drive time from a particular store). Store A was constrained by store B if B's catchment area overlapped A's (provided the number of common potential customers was reasonably large) and store B was constrained by store C if the two had overlapping catchment areas. Sainsbury supplied maps to us to demonstrate its view that stores were heavily constrained by the presence of significant overlaps in*

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<sup>48</sup> See *Summary of the hearing with Asda, October 2006*, paragraph 8.

<sup>49</sup> See, for example, *Market Definition and Competition*, Wal-Mart/Asda, 2 September 2007, Section 6.

<sup>50</sup> See *Summary of the hearing with Sainsbury's, October 2006*, paragraph 25.

*catchment areas: Sainsbury believed it unlikely that there were any substantial areas in the UK in which stores were not constrained in this way.”*

*“Conditions of competition were broadly homogenous across the UK. Sainsbury determined its strategies for all key aspects of quality, range, service and price of its offer on a national basis. Even the limited extent to which prices differed in certain stores was determined centrally. Advertising and promotional activity was organized and implemented nationally, as were the primary functions of buying, human resources, distribution, retail activities and IT. Branch managers were responsible for implementing national policies but had no power to alter them.”*

*“Analysis of the geographic market had to look beyond stores located within the catchment area of a supermarket or store and take into account overlapping catchment areas. Such an approach was consistent with European Commission precedents in the retail sector. Consumers located in the catchment area of a given supermarket (based on realistic drive times) had ready access not only to competing stores in that catchment area but also to competing stores in the overlapping segments of neighbouring catchment areas. This was so in almost every part of the UK even when the analysis of what alternative competing stores were accessible within neighbouring areas was limited to the major parties.”*

6.10 We will leave it to the CC to assess why Sainsbury’s has made such dramatic changes to views it has provided to the CC, but we find it difficult to see how the CC can place any reliance on Sainsbury’s more recent evidence.

6.11 The second point to note about the Sainsbury’s evidence is that it is simply a view – there appears to be no supporting evidence. It claims to have a national pricing policy (and has seen no evidence of others price flexing<sup>51</sup>) and limited vouchering activity. It talks about small range variations being determined by demographics, as opposed to competition but suggests that “when it became aware of a competitor opening a store in the catchment of a present store, it would focus on the quality of its operations in its store in advance of that competitor opening.”<sup>52</sup>

6.12 Again, we believe that the CC’s assessment of these statements, when deciding on geographic market definition needs to include a rigorous analysis of whether such policies were a sustained competitive response, in areas of local concentration, and at magnitudes large enough to satisfy SSNIP. Without this, such variations, in the context of Sainsbury’s self-confessed national strategy cannot reasonably lead to the conclusion of local markets. If they did, then the CC must discover why Sainsbury, in the areas where it faces little fascia choice, does not behave like a hypothetical monopolist, or discriminate its offer to the levels required in a SSNIP test. This appears to be a complete contradiction of Sainsbury’s recent views on the market (although consistent with Sainsbury’s previous views).

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<sup>51</sup> See *Summary of the hearing with Sainsbury’s, October 2006*, paragraph 2.

<sup>52</sup> See *Summary of the hearing with Sainsbury’s, October 2006*, paragraph 33.

6.13 Similar assertions on local markets have been made by Waitrose. The reason it appears to put forward for local markets is that customers shop locally.<sup>53</sup> But, as discussed above, this is not evidence of local markets. We have seen no evidence from Waitrose on anything that would relate to the SSNIP conceptual framework – the number and location of marginal customers, the location of alternative stores and the likelihood of those customers switching to defeat a hypothetical price increase. As such, it is difficult to see how this evidence adds to the debate.

6.14 Waitrose also makes assertions about local variations in offer, but this is limited to lists of “various activities that all stores engage in to a greater or lesser extent”. There is no evidence on the extent of these activities, whether they are correlated to local concentration, or whether this is significant enough to satisfy a SSNIP test.

6.15 We have never denied that some small variations in retail offers exist (eg the existence of small variations in the offer, such as range reflecting population demographics). However, we think that the CC needs to apply the same level of scrutiny to these views and claims as it has applied to Tesco’s views, and to assess those views in the context of geographic market definition. Variations in range need to be correlated with local competition if they are to be consistent with a finding of local markets. They also need to be sustained and significant to pass the standard test for defining markets.

6.16 For example, when considering market definition, we think the CC needs to contextualise the variations that are being described to it. Our understanding is that, not only do most variations not relate to local competition or to a detriment in that part of the offer, but they are trivial in the overall competitive mix. For example, all retailers tend to vary a small number of lines in a sub-set of stores, but most retailers will earn 80% of their revenues from only a few thousand lines and these are very rarely varied. Similarly, we would expect that almost all the items that our competitors price check, for example, are available in all stores, at the same price, presented in the same way and promoted at the same time.

6.17 When looking at these views from competitors, therefore, we feel that there are very real questions for the CC to consider before it can rely on these assertions for the purposes of market definition. Nothing in what we have seen suggests that this evidence has been presented to the CC or that any of these competitors has provided as extensive and systematic a review of real data as Tesco has.

## **7. CONCLUSIONS AND IMPLICATIONS**

7.1 In this paper we have attempted to provide an objective view of the relevant evidence that has been presented to the CC on the issue of geographic market definition, including its most recent margin-concentration work. In doing so, we have tried to apply the same standards to the evidence from the CC and our competitors as the CC has applied to our own evidence.

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<sup>53</sup> See *Waitrose Response to the Competition Commission Main Party Questionnaire: August 2006*.

7.2 We appreciate that the CC is still forming its conclusions on all of the evidence we have discussed and on the critical issue of geographic market definition. We hope that this paper will assist the CC in arriving at the most credible, robust and reasonable conclusions.

7.3 On this basis, we believe that it cannot be reasonably open to the CC to find on the evidence before it, that the competitive constraints which operate on UK grocery stores all come from within 10 or 15 minutes.

7.4 Starting from the most simple and least contentious evidence: all markets must be different, but if enough marginal customers can travel more than 10 minutes, in either direction, then this, in itself, suggests that most markets should be at least 20 minutes in size.

7.5 Moving then to the factual position of customers and stores, it appears beyond any reasonable doubt that significant numbers of customers have a variety of store choices beyond a 10 minute isochrone from the central store. This, in itself is enough to convince Professor Hausman that the CC's working hypothesis cannot be correct.

7.6 If we now move from real, factual evidence to the theory of SSNIP, it appears clear from all of the models available to the CC, including its own, that the simple, reasonable model of SSNIP proves that the vast majority of markets are beyond 10 minutes and very many are beyond 30 minutes. Professors Hausman, I and Smith feel that this model does not need to be adjusted for price discrimination or heterogeneous customer preferences but, even when we do this, the results of the models are essentially unchanged.

7.7 If we leave the technicalities of SSNIP models and think about the evidence on competitive outcomes which would be predicted by the CC's margin concentration results, all the evidence shows no PQRS variation in response to local competitive conditions, no existing price increases in actual "monopoly areas", no existing price discrimination in "monopoly areas" and no obvious deterioration in offer that can be picked up by any analysis from any party, including the CC itself. Again, Professors Hausman, I and Smith see this as relevant evidence.

7.8 Thus, we are left in a position where all the available evidence appears to reject markets of 10 or 15 minutes, where such evidence paints a consistent picture, and one that would appear to explain the competitive outcomes we see and the actual commercial policies of retailers in the market.

7.9 The single exception to this evidence, on which the CC appears to be resting the entirety of its current hypothesis is the margin-concentration work. This work is inconsistent with the substantial evidence discussed above, which should be cause for concern in itself. However, from the data files we have received recently, we have also shown that:

- alternative, and equally robust versions of the margin-concentration model, which are not based on a flawed margin measure, give the opposite conclusions (no competitor impacts within 10 or 15 minutes);

- the existence of small amounts of fixed cost in the payroll can fully explain the CC's results and render them irrelevant for geographic market definition;
- there are indeed fixed elements of stores' payroll costs, which are part of the sophisticated financial models we use to manage our business; and
- the impact of own-store entry on fixed and variable store payroll costs responds in exactly the way we would predict, clearly demonstrating a volume effect.

7.10 We believe that any reasonable interpretation of this evidence can only result in the conclusion that either the market is national, or that any sub-national markets must be: (i) different from each other; (ii) larger than 10 minutes in the vast majority of cases; and (iii) larger than 30 minutes in very many cases.

7.11 The implications of such a conclusion on the margin-concentration work, and more generally on geographic market definition, are critical to the CC's assessment of other competitive issues. For example, if the CC reassess the conclusions of the margin-concentration analysis, it would not then be reasonably open to it to conclude that:

- (a) the competitive national outcomes it has observed could be even better or that there may be localised effects that are obscured in national level statistics<sup>54</sup>;
- (b) limited choice could be reducing the extent of competition in grocery retailing in those areas or that there may be an inferior retail offer for customers in those areas<sup>55</sup>;
- (c) to the extent that there are areas of weak local competition, grocery prices in the UK may be higher than would otherwise be the case<sup>56</sup>; or,
- (d) there are weaknesses in competition in local areas that give rise to local variations in competitive outcomes<sup>57</sup>.

7.12 All of these hypotheses are dependent on the CC's margin-concentration analysis and on its assumptions about the nature and size of local markets. All, therefore, suffer from the same problems and, we believe, cannot be reasonably sustained by the CC in its Provisional Findings.

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<sup>54</sup> RCWP, paragraph 4.

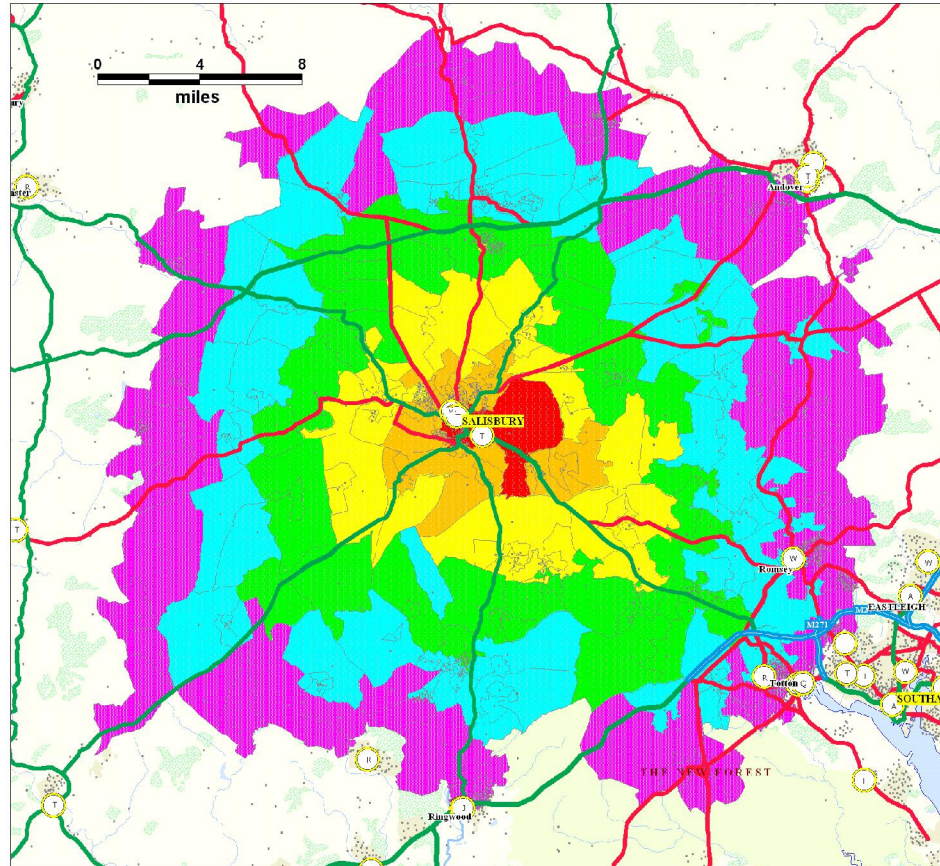
<sup>55</sup> RCWP, paragraph 5.

<sup>56</sup> RCWP, paragraphs 65 and 76.

<sup>57</sup> RCWP, paragraph 80.

# ANNEX 1

## Trade maps of Salisbury and Brixton

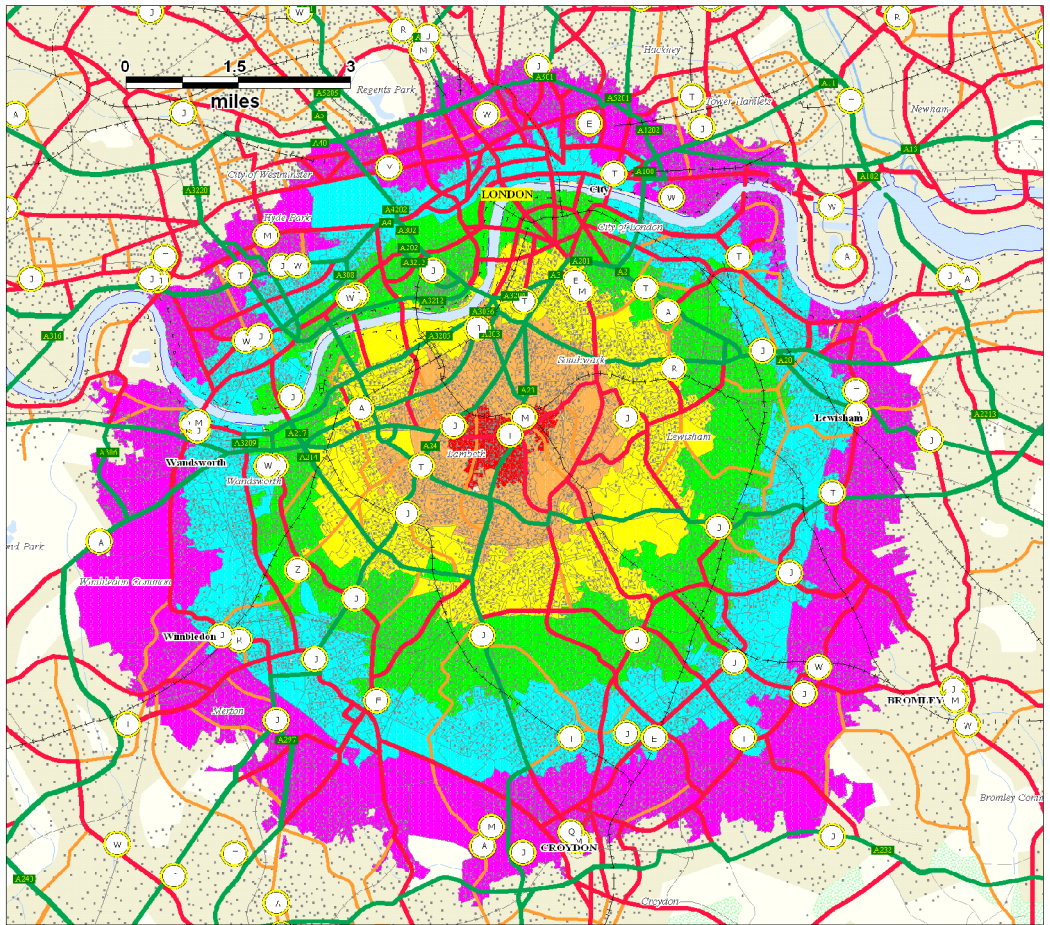


**Salisbury**  
**(SSNIP Pass at 10mins)**  
**- Census Output Areas**  
**- 15k+ (OSS)**

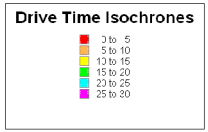


**Cumulative 2001 Popn**  
**by isochrone**

Time_band	Census_Pop
5	18,000
10	48,000
15	86,000
20	98,000
25	138,000
30	223,000



**Brixton**  
 (SSNIP failed at 30m  
 - Census Output Ar  
 - 15k+ (OSS)



**Cumulative 2001 Popn  
 by isochrone**

Time_Band	Census_Pop
5	33,000
10	203,000
15	448,000
20	828,000
25	1,238,000
30	1,757,000

## ANNEX 2

### **Sainsbury's evidence on geographic market definition, provided to the CC inquiry in 2000**

14.160. Sainsbury said it was evident that market shares and concentration indices for postcode areas were defective in that they disregarded demand-side substitutability: shoppers were not confined to shopping in their postcode areas. Moreover, the boundaries drawn for postcode areas had no commercial logic: they were designed to facilitate the delivery of post and had no economic significance in the reference context.

14.161. Sainsbury believed that it was inappropriate and misleading to suppose that competition in grocery retailing took place in economically segregated small geographic markets, whether they were postcode areas or the catchment areas (based on drive times) of particular supermarkets. It was not a simple matter to determine whether the relevant geographic market was national, regional or more localized. Analysis had to recognize that competition among the larger grocery retailers had national, regional and local elements and that the larger grocery retailers also competed with the smaller national retailers and with regional and numerous local retailers. Furthermore, developments in e-commerce would reinforce the non-local nature of the relevant market economically.

14.162. In support of these views Sainsbury, while pointing out that certain of its practices were, so far as it was aware, replicated in the stores of other multiples, made the following points:

*(a)* Conditions of competition were broadly homogenous across the UK. Sainsbury determined its strategies for all key aspects of quality, range, service and price of its offer on a national basis. Even the limited extent to which prices differed in certain stores was determined centrally. Advertising and promotional activity was organized and implemented nationally, as were the primary functions of buying, human resources, distribution, retail activities and IT. Branch managers were responsible for implementing national policies but had no power to alter them.

*(b)* Analysis of the geographic market had to look beyond stores located within the catchment area of a supermarket or store and take into account overlapping catchment areas. Such an approach was consistent with European Commission precedents in the retail sector. Consumers located in the catchment area of a given supermarket (based on realistic drive times) had ready access not only to competing stores in that catchment area but also to competing stores in the overlapping segments of neighbouring catchment areas. This was so in almost every part of the UK even when the analysis of what alternative competing stores were accessible within neighbouring areas was limited to the major parties. The conclusion that a consumer had substantial choice within realistic drive times across catchment areas was even stronger when the other 19 monopolists were taken into account.

*(c)* The analysis of overlapping catchment areas was critical to any analysis of the existence of local markets. It could not be appropriate to find the existence of a local market made up of one catchment area where that area was clearly subject to overlap and competitive threat from stores in a neighbouring area or areas. It was where consumers were based which determined their choice of store: the catchment area of a particular store was irrelevant to a consumer's assessment of where to shop and hence failed to reflect the extent of demand-side substitutability.

*(d)* The localities explored by us gave no reliable indication of the extent of competition faced by the companies within those localities. This was because the analysis of concentration and market shares in individual areas ignored competition from accessible competing outlets in neighbouring areas and because in certain of our illustrative areas, Sainsbury and (judging from the HHI indices) other companies appeared to have market power (in the sense of having large market shares). Yet even in those areas where Sainsbury (according to our illustrative figures) had a high share, consumers in fact had access to competing stores that happened to be situated outside the postcode area.

*(e)* There was no evidence that there was inadequate competition and limited choice of outlets in localities where the level of concentration was high. If this were not so Sainsbury would expect to find high profitability in those localities of those operators with high shares of supply there. In fact, the profitability of Sainsbury stores did not vary systematically or consistently with shares of supply. There was no systematic pattern of profitability by postcode area, by catchment area or by region. Such inter-store differences in profitability that were present were likely to be related to different sites that were more or less favourably situated and to differences in the retailing skills of local management.

14.153. Sainsbury said that there was effective competition in all areas of the UK, and in any event a retailer could not discriminate by location even in those areas where there were fewer competitors. In support of this view Sainsbury made the following points:

*(a)* In almost all areas of the UK shoppers had a choice between two or more of the major parties; and there was clearly extensive further competition from among the other 19 monopolists as well as the many other grocery retailers.

*(b)* It was clear that competition was not limited to the stores located within a particular catchment area (defined by specified drive time from a particular store). Store A was constrained by store B if B's catchment area overlapped A's (provided the number of common potential customers was reasonably large) and store B was constrained by store C if the two had overlapping catchment areas. Sainsbury supplied maps to us to demonstrate its view that stores were heavily constrained by the presence of significant overlaps in catchment areas: Sainsbury believed it unlikely that there were any substantial areas in the UK in which stores were not constrained in this way.