Terms of reference and conduct of the inquiry

Terms of reference

1. On 7 August 2009 the OFT sent us the following reference:

   1. In exercise of its duty under section 22(1) of the Enterprise Act 2002 ('the Act') to make a reference to the Competition Commission ('the CC') in relation to a completed merger the Office of Fair Trading ('the OFT') believes that it is or may be the case that—

      (a) a relevant merger situation has been created in that:

      (i) enterprises carried on, by or under the control of **Sports Direct International plc** have ceased to be distinct from enterprises carried on, by or under the control of **JJB Sports plc**; and

      (ii) as a result, the conditions specified in section 23(3) of the Act will prevail, or will prevail to a greater extent, with respect to the supply of goods in the UK by national sports retailers; and

      (b) the creation of that situation has resulted or may be expected to result in a substantial lessening of competition within any market or markets in the UK for goods or services, including the supply of sports clothing, sports equipment and/or sports footwear.

   2. Therefore, in exercise of its duty under section 22(1) of the Act, the OFT hereby refers to the CC, for investigation and report within a period ending on 21 January 2010, on the following questions in accordance with section 35(1) of the Act—

      (a) whether a relevant merger situation has been created; and

      (b) if so, whether the creation of that situation has resulted or may be expected to result in a substantial lessening of competition within any market or markets in the UK for goods or services.

   3. In relation to the question whether a relevant merger situation will be created, the CC shall exclude from consideration one of the subsections (1) and (2) of section 23 of the Act if they find that the other is satisfied.

   (signed) Amelia Fletcher
   Senior Director, Mergers, Office of Fair Trading
   7 August 2009

Conduct of the inquiry

Information gathering and analysis

2. On 7 August 2009, we posted on our website an invitation to express views to us about the merger, followed by an issues statement on 8 September 2009.

3. We invited a wide range of interested third parties to comment on the merger and sent detailed questionnaires to competitors, potential competitors, suppliers and

trade associations. We gathered oral evidence through 11 hearings with selected third parties. Submissions from third parties and summaries of hearings are on our website.

4. We commissioned GfK NOP to conduct a customer survey at a number of Sports Direct and JJB stores in order to obtain information on customer preferences and behaviour in choosing between fascias and locations for their shopping mission. In total, 2,943 interviews were conducted over a fieldwork period from 17 to 29 September 2009. The survey presentation and report, along with a report from an independent moderator, are available on our website.

5. We received written evidence from Sports Direct, and we posted a non-confidential version of its main submission on our website. On 13 October 2009, members of the inquiry group, accompanied by staff, visited Sports Direct's offices and distribution facility in Shirebrook, along with third-party stores in and around Leicester. We also held a hearing with Sports Direct on 13 January 2010.

6. In the course of our inquiry, we sent to Sports Direct and other parties some working papers for comment.

7. On 11 February 2010, we published our provisional findings and invited comment from all interested parties.

Interim measures

8. The OFT did not request any initial undertakings due to the high level of integration that had occurred. We considered whether any measures were necessary to prevent pre-emptive action by the parties, which might prejudice our inquiry or impede the application of effective remedies at the end of our inquiry should they be required, including the appointment of a hold-separate manager or a monitoring trustee, taking account of the risk factors.[1]

9. Given the evidence received from Sports Direct on the extent of integration of the stores purchased over a period of two years and the centralized nature of Sports Direct's business, we did not impose hold-separate provisions. However, on 4 September 2009, we made an Order to ensure both that the stores purchased by Sports Direct remained viable businesses and that we retained options for divestment in each of the affected local areas should remedies become necessary. Variations to the Order were made on 22 September 2009, 6 October 2009 and 4 December 2009.

10. We issued Directions to appoint a Monitoring Trustee on 11 September 2009 and, on 18 September 2009, Sports Direct appointed Smith & Williamson with our agreement.

Inquiry extensions

11. On 16 September 2009 we extended the period of the reference because Sports Direct had been unable to supply information and documents specified by us in a notice issued under section 109 of the Act.

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[1] *Merger Remedies: Competition Commission Guidelines, CC8,* November 2008, Appendix A, paragraph 14.

12. Upon receiving the required information to our satisfaction, we ended the period of extension on 21 October 2009. The period within which the report on the reference was to be prepared and published was revised to end on 24 February 2010. On 21 October 2009, we published a revised administrative timetable for the inquiry.

13. On 11 February 2010, we published a notice of extension and a further revised administrative timetable. This extension changed the deadline for our inquiry to 21 April 2010.

Appeal to the Competition Appeal Tribunal

14. During our inquiry we have provided Sports Direct with several working papers for comment (see paragraph 6). Some information was redacted from these papers on the basis that it was commercially confidential to the relevant third parties which had provided it or on public interest grounds, following a request from the OFT.

15. On 18 November 2009, Sports Direct applied to the Competition Appeal Tribunal (CAT) to quash our decision to redact some of this information, and to obtain the documents underlying that information. On 4 December 2009, the CAT considered as a preliminary point whether the application was premature, as our decision concerned preliminary working papers, rather than a provisional or final decision in relation to the merger reference. The CAT ruled that Sports Direct's application was not premature.

16. We withdrew our original decision to redact information and, in the light of the CAT's written judgment, published on 14 December 2009, we reviewed and updated our working papers. On 23 December 2009, we provided the updated versions of the relevant working papers, with appropriate redactions, to Sports Direct. Details of the application and the CAT's judgment can be found on the CAT website.

Publication of our final report

17. A non-confidential version of our final report has been placed on our website.

18. We would like to thank all those who have assisted in our inquiry.

The counterfactual

Introduction

1. This appendix discusses what would have happened in the absence of the store transfers, ie the counterfactual.

2. We assessed the following:

   (a) the options available to JJB for each of the 31 stores;

   (b) what Sports Direct would have done in the absence of the store transfers, namely whether it would have closed its existing stores in the 31 locations (to the extent that they existed) and whether it would have opened stores in the 31 locations (or elsewhere) where it was not already present at the time of the store transfers.

JJB's options for each store transferred to Sports Direct

3. We examined the options that would have been available to JJB at the time of the store transfers (ie November 2007 to December 2008) for each store. As the stores were transferred in 31 separate transactions, we judged it unlikely that they would have been sold as a single bloc and, therefore, we considered the options for each of the 31 stores individually. We considered the following options were possible for each store:

   (a) keep the store open; or

   (b) assign the lease on the store to another retailer or close the store.

4. In the case of *(b)*, since we found that the relevant market contains only Sports Direct and JJB (see Section 6 of the main report), the competitive effect of assigning a lease on a store to any third-party retailer, and closing the store, would be the same.

5. We noted that two stores were unoccupied by JJB at the time each was transferred to Sports Direct: Ilford and Lancaster. The Lancaster store was already closed and vacant by the time of the transfer, and JJB had already opened a combined unit (ie a combination of health club plus store on the same premises) nearby. Sports Direct occupied the vacant, former JJB Ilford store without a formal contract, while discussing the terms of its ongoing occupation with JJB. Before discussions regarding the terms of Sports Direct's ongoing occupation were concluded, JJB entered into a CVA and included this property among the leases to be surrendered. We concluded that, in the absence of the transfers, these two stores would have been removed from JJB's portfolio.

6. JJB told us that its loss-making stores would have probably closed and the leases would have been passed on, while its profitable stores would have probably continued trading, provided there was no reason why they would not have continued to be profitable. We accepted JJB's submission and assessed the profitability of each transferred store.

Analysis of each store's profitability

7. We reviewed the financial performance of each of the 29 remaining transferred stores to assess whether JJB would have been better off removing the store from its portfolio.

The appropriate measure of profitability

8. We considered that the appropriate measure of profitability was Earnings before Interest and Tax (EBIT), after each store's share of variable central costs. We used this measure because JJB would have been better off retaining only those stores which contributed to their share of fixed central costs.[1] If a store was not able to cover its share of variable central costs (thereby not contributing any profit to its share of fixed central costs), JJB would have been better off disposing of the store.

9. We assumed that each store's direct costs were variable. These costs include cost of goods sold, staff wages, overheads such as rates and utilities, and rent. We considered whether it was reasonable to classify rental payments as variable (even though a lease commits a tenant to rental payments over its term). We noted that JJB had been able to enter into a CVA in April 2009 whereby it agreed to compromise claims of landlords of approximately 140 closed stores, and we considered it was likely that if JJB had decided to close a store on the basis of financial performance, it would have been able to include the closed store in the CVA. Thus, we considered it reasonable to classify rental payments as variable.

10. Sports Direct stated that a more accurate basis for assessing the financial performance of the stores would have been to use the closest complete half-year period before the relevant transfer. However, we were aware that JJB's business is highly seasonal and our view was that to assess only six months' results would not provide a full picture of a store's performance.

11. Sports Direct also stated that we should have carried out a prospective review, since management decisions are more influenced by likely future performance than historic performance. We agreed with this submission in principle and, to the extent we were able, we undertook the analysis in this way (see paragraph 15). However, JJB was unable to provide us with forecast financial information for all 31 stores.

12. Sports Direct also stated that we should have carried out an analysis of the profitability of the 72 JJB stores which were closed in early 2008, in order to test whether the rationale which we had applied to determine which of the transferred stores were likely to have closed was reasonable. However, we noted that there were many reasons which might have led JJB's management to decide to close the 72 stores in early 2008, which we could not take into account in our counterfactual analysis. Therefore, in determining what would have happened to the 31 stores in the absence of their transfer to Sports Direct, we judged that it was reasonable to focus solely on their profitability.

13. Finally, Sports Direct also submitted that a guide to prospective performance was the actual performance of the stores under Sports Direct's ownership. Sports Direct provided us with estimates of the likely profitability of the transferred stores over the first six months of Sports Direct's financial year, based on actual sales under Sports Direct's ownership and using assumptions based on Sports Direct's own experience of operating the stores in the period immediately after transfer. Sports Direct reduced

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[1] JJB told us that central costs were allocated on the basis of turnover and [✂] of its central costs were fixed.

the actual turnover which it achieved in each store following the transfer by [✂] per cent on the basis that Sports Direct typically generated [✂] revenue per square foot as JJB. However, we did not believe that it was reasonable to estimate the performance of the transferred stores under JJB's ownership based on assumptions taken from Sports Direct's business model. We also did not believe that it was reasonable to assume that the transferred stores were necessarily typical of the whole of JJB's store portfolio. We judged that it was more appropriate to consider the profitability of each store individually. Therefore, we looked at the performance of the JJB stores under JJB's ownership immediately prior to the transfers (see paragraphs 14 to 16 below).

Available data

14. JJB provided us with financial information regarding its entire store portfolio (which included the 31 transferred stores during the time they were part of JJB's portfolio) for the five years to 25 January 2009 and the 26 weeks to 26 July 2009 (part of the year to January 2010).

15. We looked mainly at the results for the year to 27 January 2008, as JJB's management would have focused on this year during its review during late 2007; though, for the first seven stores, which were transferred between November 2007 and January 2008, we also looked at the year to 28 January 2007. Our results are shown in Table 3 at the end of this appendix. Sports Direct stated that this time period was too historic to be relevant to management decisions at the time of the transactions.[2] To accommodate these concerns, we also considered the results one year later, ie for the first seven stores transferred we considered performance in the year to 27 January 2008 and, for all the other stores, we considered performance in the year to 25 January 2009 (see paragraph 17).

16. We assessed the financial performance of the remaining 29 stores (ie the 31 stores except Lancaster and Ilford, discussed in paragraph 5).

The loss-making stores

17. Using the historic information from the last complete financial year, we found that five stores were loss-making ([✂]). Using financial information from the year in which the store transfer occurred, we found that four stores were loss-making ([✂]). We had already concluded that the [✂] store would have closed in any event (see paragraph 5) so we did not consider this store further. We noted that two stores ([✂]) were common to both lists and concluded that these stores would have been closed in the absence of the store transfers. Notwithstanding Sports Direct's submission about the relevance of historic information, we concluded that, in making its assessment of which stores to close, JJB would have used principally the financial information from its last complete financial year. Therefore, we concluded that three further stores ([✂]) were likely to have closed in the absence of the store transfers. We concluded that the store in [✂] was likely to have remained open and trading as a JJB store.

[2]Sports Direct also stated that, for the first seven stores transferred, the full financial year included the 2006 FIFA World Cup, which would have improved the performance of the stores. JJB estimated the World Cup effect to be an increase of £20 million in turnover in the year to 28 January 2007, which equates to an increase of approximately £9 million in gross margin, ie an average of £21,000 gross margin per store. We considered this effect to be small in the context of average store profits at that time.

The profitable stores

18. We found that the remaining 24 stores were profitable on the basis of historic financial information.

19. We noted that the following considerations were relevant to a multi-outlet retailer:

    (a) One of the features of a retail business is the continuous upgrading of its store portfolio, in response to opportunities in particular locations. It is possible that JJB would have found sites near some of the 24 profitable stores which it considered to be superior. It may then have decided to transfer the business to the nearby store and close the existing store.

    (b) Store leases usually have rent reviews every five years, often resulting in an increase in rent. If this increased rent would result in the store becoming loss-making, it may be better to close or dispose of the store.

    (c) JJB told us that, when Sports Direct opened a store nearby, JJB could [✂]. As in *(b)*, if the reduced revenues result in the store becoming loss-making, it may be better to close or dispose of the store.

20. However, where we had no further information, either in relation to the forecast future performance of a store or in relation to JJB's strategy for a store within its store portfolio, we concluded that the store would have continued trading as a JJB store. We had no such information for 19 of the remaining 24 stores.

21. For five of the remaining 24 stores ([✂]) JJB was able to provide evidence regarding future performance and store strategy, which allowed us to undertake further analysis.

22. We found that, with regard to upgrading (ie consideration *(a)*), JJB had two stores in [✂] and decided to keep the store in what it considered to be the stronger location ([✂]). JJB also had two stores in [✂] and decided to keep the store in its preferred location ([✂]). JJB also had a store in [✂] which was approximately 7 miles away from the [✂] store and which had been recently refurbished, and JJB decided to concentrate its business on the [✂] unit. Therefore, we concluded that, absent the store transfers, these three stores ([✂]) would have been removed from JJB's portfolio.

23. With regard to the timing of rent reviews and forecast rental increases (consideration *(b)*), the rent review (September 2008) for the [✂] store was forecast to increase the annual rent from £[✂] to £[✂], which would have resulted in the store making a profit after variable central costs but a loss after all central costs. We judged that JJB would have retained stores which contributed to their share of fixed central costs (see paragraph 8) so we concluded that JJB would have retained its [✂] store.

24. With regard to the effect of Sports Direct openings on nearby JJB stores (consideration *(c)*), Sports Direct had provisionally agreed terms for a new site in [✂], and JJB estimated that it would have seen a [✂] downturn in trade, around [✂], which would have resulted in the store [✂] With regard to the [✂] store, JJB provided us with evidence that Sports Direct had been seeking a unit in [✂] and, if it had found one, it would have had a [✂]. However, JJB did not provide us with any supporting

evidence regarding the reduction in its revenues due to Sports Direct entry,[3] and we did not see any evidence that Sports Direct would have entered these locations absent the store transfers. Therefore, we concluded that we had insufficient evidence to find that JJB would have removed these two stores from its portfolio due to Sports Direct opening a store nearby (we found that JJB would have disposed of its [✂] store for other reasons (see paragraph 22)).

25. On the basis of more detailed information in relation to five of the 24 profitable JJB stores, we found that three of them ([✂]) would have been removed from JJB's portfolio in any event.

26. Sports Direct stated that JJB was concentrating on combined units (a combination of health club plus retail store on the same premises) at the time of the store transfers and was moving away from the high street, and that our evaluation did not take these factors into account.

27. However, JJB told us that, at the time of the store transfers, although opening combined units was a key strategy, it continued to believe that its portfolio should include a variety of store profiles. The only type of store which it was looking to exit was small high street stores.[4] Moreover, although the health clubs business had a healthy profit margin, it required an initial capital expenditure of approximately £[✂] per outlet. Although JJB's stated ambition was to have 100 combined units in operation by 2010, JJB only opened seven units in 2007 and eight in 2008, and only had plans for a further ten units in 2009. We did not think that this strategy would have affected its decision in relation to the 31 transferred stores.

28. We recognized that, for the reasons cited in paragraphs 19 to 25, some of JJB's other profitable transferred stores might have closed in the absence of the store transfers. We also recognized that the likelihood that more stores would have closed was greater in the context of JJB's financial situation at the time of the store transfers and its wider store closure programme (see Section 2 of the main report). However, we had no reliable basis for judging which, if any, further stores would have closed. Therefore, for the purposes of our counterfactual, we assumed that all of the remaining 21 stores remained open. We recognized that more stores might have closed when concluding on the competitive effects of the store transfers (see Section 8 of the main report).

Summary of findings re JJB's transferred stores

29. Table 1 presents a summary of our findings on what would have happened to each of the 31 stores if they had not been transferred to Sports Direct.

[3]Although we only saw the estimated effect of a Sports Direct store opening on a nearby JJB store, we sought to model the effect of the loss of revenues on JJB's profitability. We found that an average reduction in revenues of about [✂] per cent was required before an otherwise profitable store became loss-making (on an EBIT basis, after variable central costs).
[4]This does not mean that it was not looking to sell stores of other types at the same time, as part of a continuous upgrading of its portfolio (see paragraph 19*(a)*).

TABLE 1 **Summary of counterfactual findings, JJB stores**

Stores which would have stayed open and trading as JJB stores, absent the store transfers	*Stores which would have been closed or sold to a non-sports multiple, absent the store transfers*
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	(10 stores)
[✂]	
[✂]	
[✂]	
[✂]	
[✂]	
[✂]	
[✂]	
[✂]	
[✂]	
[✂]	
(21 stores)	

Source: CC.

Sports Direct's options

30. What Sports Direct would have done if it had not acquired the 31 JJB stores, both in terms of closing existing stores and opening new stores, is important as it affects how many different fascias are present in each local market and, therefore, in how many areas Sports Direct competes with JJB.

31. We sought to assess whether, in the absence of the store transfers, Sports Direct would have:

    (a) closed any of its stores in the 31 relevant locations (to the extent that Sports Direct had stores in these locations); and/or

    (b) acquired stores in the 31 relevant locations.

32. Sports Direct told us that its strategic priority was to continue to expand and enhance its store portfolio in the UK, and that it continually looked for opportunities to open or acquire stores in locations where it was not present or was currently under-represented. It also sought to improve its store portfolio, eg by moving to a larger store or one in a better location, or by acquiring a second store.

33. Sports Direct told us that it designated stores as being either 'core' or 'non-core' (a 'core' store fitted its requirements for permanent representation in that locality). Sports Direct said that, if it had no existing representation in a particular location and no alternative sites, it might occasionally acquire a store which it considered to be 'non-core'. Where a 'core' store was acquired in a location where the existing store was 'non-core', Sports Direct's normal practice would be to seek to dispose of the 'non-core' store.

34. Sports Direct told us that all of the 31 stores it acquired from JJB were 'core', with the exception of three stores ([✂], which were non-core, and [✂], which had not been designated as core or non-core).

The closed Sports Direct stores

35. We found that Sports Direct had closed ten stores in locations which were near to acquired JJB stores (Barnsley, Bradford, Bristol, Harrogate, Poole, Huddersfield, Newcastle under Lyme, Sutton, Truro and Wolverhampton).

36. We asked Sports Direct if it would have closed any of these stores in the absence of the store transfers. We found that five of the stores would have closed in any event, for the following reasons:

    (a) Three of the ten stores were Streetwise stores (Barnsley, Bradford and Newcastle under Lyme). The Streetwise business was sold in November 2008. In the absence of the transfers it is likely that the Streetwise business would still have been sold.

    (b) Two stores were closed by Sports Direct prior to the store transfers (Poole and Bristol). In Poole, the JJB store was transferred in March 2008 and the Sports Direct store was closed in November 2007; while, in Bristol, the JJB store was transferred in April 2008 and the Sports Direct store was closed in September 2007. In the absence of the store transfers it appears likely that these stores would still have closed.

37. Of the remaining five stores, four were on leases which were either short term or were due to expire shortly ([✂]). Sports Direct told us that three of these stores were 'non-core' ([✂]) and it did not explore extending the leases in these locations as the acquired JJB stores were considered 'core'. Subsequently, Sports Direct also told us that two of these stores ([✂]) had been on a disposal list since [✂] and [✂] respectively, due to being [✂]. Sports Direct said that the leases for these two stores would not have been renewed [✂]. However, the core store which became available in these locations was the JJB store and, in the absence of the store transfers, we had no basis for concluding that another preferable location would have become available.

38. Sports Direct told us that the store in [✂] was a 'core' store. However, Sports Direct told us that it was likely that it would have entered into discussions with the landlord of this store to renew or extend the existing lease, unless another unit had been found.

39. We concluded that the key reason why Sports Direct did not explore extending the leases for these four stores was because it was able to acquire more desirable store locations from JJB. However, we concluded that, in the absence of the store transfers, Sports Direct would have entered into discussions to extend each of the leases and therefore, the most likely outcome was that each of these four stores would have remained open and trading.

40. One store closed by Sports Direct, for which the lease was not about to expire, was a non-core, former Gilesports store in [✂]. Sports Direct told us that it was likely that this store would not have been closed or sold.

41. Table 2 summarizes our conclusions on each Sports Direct closed store.

TABLE 2 **Summary of counterfactual, Sports Direct closed stores**

Closed stores which would have stayed open and trading as Sports Direct stores, absent the store transfers	*Closed stores which would have been closed, absent the store transfers*
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
[✂]	[✂]
(5 stores)	(5 stores)

Source: CC.

The new Sports Direct stores

42. We asked Sports Direct if it would have opened stores in any of the 31 locations in the absence of the store transfers.

43. Sports Direct told us that its strategic priority was to continue to expand and enhance its store portfolio, and that it continually looked for opportunities to open or acquire stores in locations where it was not present or was currently under-represented. It told us that its approach to store openings was frequently opportunistic, obtaining stores when they became available.

44. Sports Direct told us that, in many of the locations where it acquired a store from JJB, it had considered an alternative site. In some cases, it had considered more than one alternative site, for example in [✂], Sports Direct considered [✂] alternative sites and, in [✂], it considered [✂] alternative sites. Sports Direct's submissions were corroborated by evidence from other sources in relation to some locations, for example JJB told us that Sports Direct had provisionally agreed terms for a new site in [✂], and we were aware that Sports Direct had been in the market for a unit in [✂].

45. Sports Direct told us that it had made offers for sites in 11[5] out of the 31 locations in which it had acquired a JJB store. Offers for [✂] of the sites ([✂]) were accepted but its offers for the other [✂] sites were rejected, mainly on the basis of price. We noted that some of the offers which had been rejected had been made a long time ago (eg Sports Direct's discussions relating to the sites in [✂] and [✂] took place in 2004 and 2005). In respect of the [✂] sites for which the offers were accepted, [✂]. We noted that, in July 2008, Sports Direct opened a store in Hounslow, despite it being near to a store in Isleworth which it had acquired from JJB in April 2008 (see Appendix E).

46. Sports Direct stated that the rate at which it opened stores in locations where it was under-represented, or in order to replace non-core stores, was relatively low:

    (a) Sports Direct told us that, in July 2008, it identified [✂] locations in which it was not represented sufficiently. Sports Direct classified the locations by priority ([✂], gave each location an average ranking (calculated by reference to turnover and costs), and also identified whether any Sports Direct or JJB store(s) were already present in that location. In the year to 26 April 2009 it opened stores in only [✂] of these [✂] locations (plus a further [✂] stores transferred from JJB). Sports Direct submitted that the probability of it opening a store on a permanent basis in a particular location in a given year was relatively low.

[5]The 11 sites were: [✂].

(b) Sports Direct also told us that, in the year to 26 April 2009, it identified [✂] 'non-core' stores that it wished to replace in its portfolio, of which only [✂] were actually replaced. Sports Direct submitted that the probability of replacing a 'non-core' store in a particular year was also relatively low.

47. We concluded that, absent the store transfers, Sports Direct would have aimed to acquire new stores in the locations where it had in fact acquired a JJB store. However, we could not predict if sites would have become available, or if Sports Direct would have been successful in acquiring these sites, or where precisely such sites would have been located.

TABLE 3 **Summary of financial information, JJB stores**

Store name	*Date transferred*	*Revenue last f/y* £	*Gross margin* £	*Gross margin* %	*EBIT before central costs* £	*Variable central costs* £	*EBIT after variable central costs* £	*Fixed central costs* £	*EBIT after all central costs* £
Barnsley	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Wood Green	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Newcastle under Lyme	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Newport	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Huddersfield	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Basildon	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Newcastle	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Washington	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Llanelli	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Harrogate	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Eltham	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Truro	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Wolverhampton	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Poole	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Farnborough	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Twickenham	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Ilford	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Inverness	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Bristol	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Sutton	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Bradford	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Walthamstow	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Ealing	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Uxbridge	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Bedford	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Lancaster	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Orpington	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cardiff Bay	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
York	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Worthing	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Salisbury	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
	[✂]	[✂]			[✂]		[✂]		[✂]

Source: CC based on JJB financial data.

Note: Financial data is the 52 weeks ended 27 January 2008 with the exception of the first seven stores transferred, for which the financial data is the 52 weeks ended 28 January 2007.

Diversion ratios

1. This appendix sets out our estimates of diversion ratios and describes how these estimates were obtained from our customer survey.

2. The diversion ratio from retailer A to B measures the percentage of all lost sales that would switch to retailer B as a result of a price increase by retailer A.

3. We estimated diversion ratios using responses to the question: 'If you had known before you set off today that this particular shop was unavailable, from where would you have tried to purchase the main item in your basket instead?'. Diversion ratios obtained in this way differ from the standard definition of diversion (see paragraph 2) because they do not use responses to a hypothetical price increase. However, it is common to use survey results in this way because it has been found that customers understand the question of where they would shop if their chosen store were closed better than they understand questions about how they would respond to a hypothetical price increase.

4. Table 1 presents the unadjusted responses from Sports Direct's customers. Each entry in the table represents the percentage of customers surveyed who said that they would switch to a particular retailer or type of retailer if the store they had shopped at that day had not been available.

TABLE 1 **Unadjusted diversion ratios from Sports Direct to other retailers**

per cent

	Retailers present in the surveyed area						
	Sports Direct only	*JD only within 2 miles*	*JJB only within 2 miles*	*JJB and JD within 2 miles*	*JD within 2 miles and JJB 2–5 miles*	*JD within 2 miles and JJB 5–10 miles*	*JJB only within 5–10 miles*
JJB	4	22	46	34	12	14	28
Another Sports Direct branch	6	19	7	20	24	25	20
JD	2	8	1	10	14	12	4
Supermarkets	31	12	8	4	6	9	12
General clothing/footwear retailers	10	2	3	10	6	8	1
Internet (all mentions)	5	4	3	2	2	3	3
Club shops	1	0	1	0	0	1	1
Branded outlet	2	0	0	0	2	0	0
Market/market stall	0	1	0	1	1	0	1
Other shop	2	5	2	5	2	2	3
Don't know	29	14	16	11	22	12	17
Nowhere else	6	10	10	4	10	9	8
Total	100	100	100	100	100	100	100

Source: GfK NOP survey.

5. Table 1 shows the results broken down according to which competitors were present in the particular area surveyed to allow for the fact that diversion ratios may change when customers are faced with different real-life options. Breaking results down in this way is useful for geographic market definition because it helps to show how diversion patterns vary with the distance between Sports Direct and its nearest alternatives. It is also useful for obtaining appropriate estimates of diversion for

particular types of overlap area.[1] This information is particularly important for our critical loss analysis (see Appendix E), which adjusts average diversion ratios in overlap areas by the percentage of Sports Direct's stores operating in areas near to an acquired JJB store.

6. The responses in Table 1 are unadjusted responses because they include those respondents who said they did not know where they would go as well as those who said they would use another Sports Direct store. Table 2 presents adjusted results which remove these responses. The rationale for removing respondents who said that they would switch to another Sports Direct store if their chosen store were not available is that diversion ratios should express the number of customers switching to a particular retailer as a percentage of all lost sales: those customers who would switch to another Sports Direct store are not 'lost sales'. The rationale for removing customers who indicated that they 'didn't know' what they would do is that they would have to take one of the other options available in the event of a price increase by Sports Direct, ie they would either have to continue shopping at Sports Direct, switch to another retailer or cease purchasing altogether.

7. Removing the 'don't know' responses is equivalent to assuming that these customers would divert to other retailers in the same proportion as the remaining respondents, which may under or overstate diversion to an individual retailer. On the other hand, results in Table 1 are likely to underestimate total diversion. We judged that the true diversion ratios are likely to lie somewhere between the two. All the results presented in our product market definition analysis (see paragraphs 6.28 and 6.29 of the main report) are taken from Table 2, although we considered the implications of true diversion ratios being lower than our estimates in our hypothetical monopolist test (see paragraph 6.32 of the main report). We used unadjusted diversion ratios in our critical loss analysis (see Appendix E), which used the most conservative estimates that we felt were reasonable inputs to the model.

TABLE 2 **Adjusted diversion ratios from Sports Direct to other retailers**

per cent

	Retailers present in the surveyed area						
	Sports Direct only	*JD only within 2 miles*	*JJB only within 2 miles*	*JJB and JD within 2 miles*	*JD within 2 miles and JJB 2–5 miles*	*JD within 2 miles and JJB 5–10 miles*	*JJB only within 5–10 miles*
JJB	6	33	61	48	22	23	44
JD	3	12	1	14	25	19	6
Supermarkets	48	18	11	6	11	15	19
General clothing/footwear retailers	15	3	4	14	11	13	2
Internet (all mentions)	8	6	4	3	4	5	5
Club shops	2	0	1	0	0	2	2
Branded outlet	3	0	0	0	4	0	0
Market/market stall	0	2	0	1	2	0	2
Other shop	3	8	3	7	4	3	5
Nowhere else	9	15	13	6	18	15	13
Total	100	100	100	100	100	100	100

Source: GfK NOP survey; CC calculations.

Note: Original percentages adjusted to remove 'don't know' and 'another Sports Direct store' responses.

[1]We recognized that the results did not always appear consistent. For example, for areas where there is a JD store within two miles, diversion to JJB is higher in areas where there is a JJB store between 5 and 10 miles away than where there is a JJB store within 2 to 5 miles. We judged that his result was likely to reflect differences in local preferences and customer locations, as there were only one or two surveyed JD stores in each type of area. Nonetheless, we considered the results broken down in this way were useful as they presented a general picture of how diversion from Sports Direct to JJB and other retailers varies depending on the proximity of Sports Direct, JJB and JD stores.

8. Table 2 shows that:

(a) in areas where neither a JJB store nor a JD store was present within 2 miles, 6 per cent of surveyed customers would switch to JJB;

(b) in areas where a JD store was present within 2 miles (but a JJB store was not), 33 per cent of surveyed customers would still switch to the nearest JJB store, indicating that Sports Direct customers would rather incur higher travel costs to shop at JJB than switch to JD, and suggesting that JD is a weak substitute for Sports Direct; and

(c) in areas where a JJB store was present within 2 miles (but a JD store was not), 61 per cent of surveyed customers would switch to JJB.

9. We looked at whether customers' propensity to switch to different retailers varies with their intended use for the product they purchased from Sports Direct. Table 3 shows our results, broken down by type of purchase made. It shows that diversion patterns were similar, regardless of the intended use for the purchase.

TABLE 3 **Adjusted diversion ratios from Sports Direct to other retailers by intended use of purchase**

per cent

	Clothing for sport	*Football shirt*	*Clothing for casual use*	*Footwear for sport*	*Footwear for casual use*	*Equipment*
JJB	50	54	41	52	42	49
JD	20	18	18	17	22	22
Supermarkets	8	4	18	9	12	7
General	4	0	2	7	6	0
Internet	2	0	0	4	2	0
Other	2	4	0	2	0	4
Nowhere	14	21	22	9	16	18
Total	100	100	100	100	100	100

Source: GfK NOP survey; CC calculations.

Note: Original percentages adjusted to remove 'don't know' and 'another Sports Direct store' responses.

10. Sports Direct identified a number of potential sources of bias in estimates of diversion ratios obtained from our customer survey, discussed in turn below.

(a) Sports Direct submitted that our survey contained an in-built bias by imposing an assumption of one-stop shopping by category. We did not think that this criticism undermined the results of the survey because interviewees were asked where they would have considered shopping for the main item they purchased, focusing their responses on alternatives for a single item.

(b) Sports Direct submitted that stated preference surveys were highly unreliable. We accepted that stated preference is subject to bias of indeterminate direction but we noted that our questions were designed to minimize this bias.

(c) Sports Direct submitted evidence showing that respondents at Sports Direct stores were likely to have over-reported JJB as an alternative, due to high brand awareness. We thought that respondents would be aware of many different brands when deciding how to respond, and brand awareness would not bias responses towards any retailer, in particular JJB. We also thought that, if it were the case that customers were more likely to switch to retailers with high brand-awareness than lesser-known alternatives, it would be a relevant feature of switching behaviour.

(d) Sports Direct noted that purchases were made at bricks-and-mortar shops, biasing responses to bricks-and-mortar options. We did not believe that responses were biased towards any particular option as interviewees were not prompted in their answers. We recognized that we did not interview customers shopping online on the Sports Direct website but, as these customers currently account for approximately 5 per cent of Sports Direct's total revenue, we believed the responses of those shopping at bricks-and-mortar retailers would provide a more relevant description of the constraints facing Sports Direct.

(e) Sports Direct raised concerns that one of the screening questions mentioned 'sports', biasing respondents towards sports retailers. We did not believe any bias was likely, as a range of professions were offered as options in this question and it was difficult to see why interviewees would focus on one in particular.

(f) Sports Direct submitted that the categories defined in our survey for purchases placed too much emphasis on sport. We did not think that this criticism undermined the results of the survey as we included categories for leisure as well as sport. The categories we used were: footwear for sport; clothing for sport; sports equipment; football shirt; footwear for leisure; clothing for leisure; and other.

11. Sports Direct also raised concerns about how we had used these estimates of diversion ratios as inputs for our analysis. Sports Direct's said that our analysis dismissed individual competitors on the basis of low diversion ratios, while the relevant consideration should have been the cumulative diversion to all alternative competitors.

12. However, we believed that the hypothetical monopolist test takes into account cumulative diversion and noted that the diversion to alternative individual retailers was not an input to our calculation. Rather, we looked at diversion rates between Sports Direct and JJB to see whether the rates were sufficiently high for the two retailers to be considered within their own relevant market. We noted that diversion between two retailers is lower when diversion to alternative options is higher. Therefore, if the cumulative diversion to other retailers had been above a critical level, then the diversion rate between Sports Direct and JJB would not have been large enough for a 5 per cent price increase by both retailers to be profitable.

13. In addition to our hypothetical monopolist test, we looked at the diversion to individual retailers and the cumulative diversion to particular types of retailers. We performed this analysis because we recognized that the sports goods and fashion industries within which Sports Direct and JJB operate are highly differentiated, and some retailers outside of the market (as defined in Section 6 of the main report) are likely to provide some constraint on the parties, albeit a much weaker constraint than the parties exert on each other. Looking at diversion to other alternatives in this way helped us to identify which retailers, or types of retailer, were likely to provide a stronger constraint than others. We also looked separately at diversion to Internet retailers to determine whether the type of retail channel was important to customers, and at diversion to 'other shops' to assess whether customers would switch to retailers specializing in a subset of the range of products offered by Sports Direct. In both cases, we considered the cumulative diversion to each type of retailer.

14. We also recognized that our analysis of market definition was based on the switching options identified by the average customer rather than by the customers who would be likely to switch in response to a price increase (known as 'marginal' customers). We considered how stated diversion by marginal customers (identified as those responding that they would switch to another retailer or stop purchasing in response

to a 5 per cent price increase) compared with diversion rates by average customers. We found that diversion by marginal customers to JJB was higher than diversion by average customers. The (unadjusted) weighted average diversion[2] of the marginal customer to JJB was 32 per cent compared with 20 per cent for the average customer across all surveyed areas.

15. However, we judged that, in this particular case, it was not appropriate to use only responses from marginal customers. We took this view because very few respondents indicated that they would switch in response to a small price increase and using their responses alone would risk relying on too small a sample, and would disregard useful information from other customers.

[2]We weighted each response by the amount they had spent on that visit and the number of their purchase occasions in the last three months.

Local entry analysis

Introduction

1. This appendix sets out our analysis of the local effect of new retailer entry, in particular by JJB, on revenues, prices and margins at existing Sports Direct stores. This analysis indicates whether JJB would have exerted a competitive constraint on Sports Direct in the affected areas absent the store transfers.

2. If JJB does act as a constraint on Sports Direct in local overlap areas, we would expect JJB entry near to a Sports Direct store to have a negative effect on Sports Direct's revenues, prices and margins. We also compared the effect of JJB entry with the effect of entry by other retailers to see whether other competitors also provide a constraint.

3. Finally, we looked at whether the transfer of a store from JJB to Sports Direct has an effect on Sports Direct's revenues, prices and margins. If a JJB store is a local constraint on a Sports Direct store, we might expect the revenues, prices and margins of the Sports Direct store to increase when the ownership of the JJB store is transferred to Sports Direct, since common ownership would remove competition between the two stores.

4. Common ownership could also lead to revenues increasing if some customers who are closer to the original Sports Direct store but used to travel further to the acquired JJB store because they valued shopping at JJB switch to the original Sports Direct store after the store transfer (because there is no longer any point in incurring higher travel costs since the two stores are now operated by Sports Direct). Finding evidence that revenues increased would suggest diversion between the two stores and that JJB would have exerted a competitive constraint on Sports Direct in the affected areas absent the store transfers. (We noted that not finding an effect would not indicate the reverse is true. For example there may have been a lag between the store being transferred and being re-opened as a Sports Direct store, or the old JJB customers could be closer to the new Sports Direct store and have no reason to switch to the incumbent store.)

Data

5. We used store location information provided to us by Sports Direct, JJB, JD, Footlocker, Argos, Matalan and Tesco. The information contained postcodes and opening and closing dates for all stores that were open for at least one week in the last two years. The Sports Direct store information also showed which of the Sports Direct stores were acquired from JJB.

6. From the postcode information we calculated longitude and latitude grid references, and hence the distances between each Sports Direct store and each store of all of the above competing retailers.

7. We used Sports Direct's weekly store level sales data, aggregated across [✂] product categories, to obtain total revenue, total wholesale cost and total units sold

for each Sports Direct store for the last five years.[1] Sports Direct also provided data on advertising, marketing, refurbishment spend, some staff costs and maintenance expenditure at each local store, which we added to each store's total wholesale cost. Finally, Sports Direct provided a list of certain local events that in its view adversely affected local store revenues, and the date when each of these events occurred ('local negative demand shocks'). These events included extreme weather conditions, fires, security alerts, bomb scares and crimes.

8. We used this information to calculate the average price and margin at each store at each date. Using the information on which Sports Direct stores were transferred from JJB, we also calculated the average revenue, price and margin across all non-transferred stores at each date.

Analysis: graphs

9. We first identified which non-transferred Sports Direct store was closest (up to a cut-off around 3 miles) to each transferred store (or second closest if the closest was not open before and after the acquisition date). We then created a series of graphs for those Sports Direct stores near a transferred JJB store where we had a sufficient length of data to plot a meaningful series (see Annex 1).[2]

10. We plotted the 12-month moving average price, percentage margin and revenue at each closest non-acquired store over the whole time period (blue line), as well as the overall average price at the closest store before and after the nearby acquisition date (green line). On the same graph, we plotted moving and overall averages for the average non-acquired store as a comparator (red and yellow lines). This comparison tried to identify whether the acquisition caused revenues, prices or margins to change in the nearby non-acquired stores more than on average.

11. No consistent picture emerges from these graphs of local prices and margins before and after a nearby JJB was acquired by Sports Direct. In some cases the average price of the closest competitor was lower after the acquisition date, in others it was higher and in others there was no observable change. Since Sports Direct sets prices nationally, any change in the average price seen at a local store will be due to a switch to cheaper products causing the average price to fall rather than local price differences (referred to as compositional effects).

12. Further, although margins appear to be lower post-transfer in all of these local areas, so does the average margin over all non-transferred stores. Therefore, any fall in margin would not appear to be specific to the Sports Direct stores near to a transferred store. Similarly, in all of the revenue graphs, local revenue falls but so does the average revenue at all non-transferred stores. Average store revenues post-transfer are lower than pre-transfer but this result appears to be part of a trend of falling revenues at all Sports Direct stores over this time period.

13. Annex 1 also includes a table summarizing the average price, percentage margin and revenue at all JJB's non-transferred stores before and after the store transfer period, and distinguishes the results for stores which are located near to transferred JJB stores. The results show that, on average, the performance of non-transferred

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[1]There were some problems with the Sports Direct sales data including negative costs and instances where the mark-up over cost appeared to be in excess of 4,000 per cent. These problems were probably the result of the way the data are recorded in the Sports Direct system (aggregated by category) and till checks (where an item is scanned to check that the till works but no corresponding payment is recorded), as well as possible data entry errors. To deal with these problems, we dropped all instances where costs or sales were negative, where costs or sales were positive but the quantity sold was zero, and where the quantity sold was positive but the cost of sale was zero. These observations were a very small proportion of the total.
[2]It was not possible to present a graph if there was not a nearby Sports Direct both before and after the acquisition.

stores was not affected by whether the store was near to a transferred JJB store or not. The prices in all non-transferred stores appeared to have increased over the period, though margins and revenues appeared to have fallen.

14. Overall, it is difficult to discern a consistent picture from these graphs and tables. In particular, they do not allow us to isolate the effect of the acquisition and of local competition from other more general factors affecting local store performance (such as national trends in demand for sporting goods). For this reason, we conducted regression analyses to look for the specific effect of the local acquisitions and competition on Sports Direct's store performance.

Analysis: fixed effects regression

15. A fixed effects regression analysis allows us to control for store fixed effects and national trends, of the type discussed above, and so allows us to isolate the effect of JJB's entry and the store acquisitions.

16. We constructed a dataset of the number of Sports Direct, JJB, JD, Footlocker, Argos, Matalan and Tesco stores within 0–2-, 2–5- and 5–10-mile distance bands from each Sports Direct store. Taking the difference between these variables allowed us to observe the entry and exit of various local stores. For example, if the variable jjb_0_2 (the number of jjb within 0–2 miles of each Sports Direct store) falls from 2 to 1 in one week, this means a JJB store in this distance band closed down in this week.

17. We also constructed a dummy variable ('near_acquired') which took the value 0 prior to a local (within 10 miles) store transfer date, and the value of 1 from the date of the nearby store transfer onwards. We combined the entry and exit data and the near-acquired dummy with the price, revenue and margin data for each Sports Direct store to give us a panel dataset comprising:

    (a) each Sports Direct store;

    (b) its average price and margin;

    (c) its total revenue; and

    (d) local entry, exit and store transfer information for each week since 2005.

18. We began with regressions of the change in store level revenue on changes in the acquisition dummy and number of competitor variables,[3] since revenue (rather than price or margin) is the variable with the most local variation and so likely to give the best results. The equation we estimated was of the form:

    $$\ln R_t - \ln R_{t-1} = a + b(A_t - A_{t-1}) + c(C_t - C_{t-1}) + dD_t + fS_t + e_t$$

    where $\ln R_t$ is the natural log of revenues in week t, A_t is the value of the acquisition dummy in week t and C_t is the number of retailers of a particular type in week t. D_t is a time dummy for a particular week, S_t is a dummy equal to 1 if there is a local demand shock in the relevant week and e_t is the error term.

[3]We looked at the change in revenue rather than revenue levels because the change (ie the difference between the value in the previous period and the value in the current period) removes any store-specific effects that might impact revenue, such as footfall or store size. This technique dramatically reduces the amount of information we need to include in the model to obtain valid results.

19. The coefficients in which we were interested were b and c, where the former captures the permanent effect that transfer of a nearby JJB store has on revenues and the latter captures the permanent effect of a change in the number of a particular retailer located nearby on revenues. To see why these effects are permanent, it is easier to look at the equation in level terms:

$$\ln R_t = a + bA_t + cC_t + dD_t + fS_t + e_t$$

20. Coefficient b measures how much higher/lower revenues are when A_t is equal to 1: ie in the week the JJB store was transferred and every week thereafter. For example, if b is equal to 0.05 then Sports Direct revenues are 5 per cent higher in areas where a JJB has been transferred nearby than where no store transfer has occurred (all else held constant).

21. Coefficient c measures how much higher or lower revenues are when there is one more or less of a particular retailer. For example, if c is equal to –0.03 for retailer X, then revenues are 3 per cent lower when there is an additional retailer X in the same area. This means that when retailer X enters an area, there is a reduction in revenues of 3 per cent in the period after entry. Revenues would then remain 3 per cent lower than they would otherwise have been for every period that an additional retailer X remains in the same area.

22. Using this basic model, we tested for the impact of entry events up to 10 miles away. As the coefficients on all entry events further than 5 miles away were insignificant and did not affect our estimates of the other coefficients, the results reported in Table 1 below are from a version of the basic model that includes entry events up to 5 miles away only.

TABLE 1 **Weekly effect of entry and acquisitions on Sports Direct revenues**

	Coefficient	*Se*	*T*	*p*	*ci95*
Dnear_acquired_all	[✂]	[✂]	[✂]	[✂]	[✂]
Dsd_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Dsd_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Djjb_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Djjb_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Ddw_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Ddw_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Djd_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Djd_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Djd_5_10	[✂]	[✂]	[✂]	[✂]	[✂]
Dfl_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Dfl_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Darg_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Darg_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Dmat_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Dmat_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Dtes_ex_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Dtes_ex_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Dtes_hp_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Dtes_hp_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Dtes_met_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Dtes_met_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Dtes_ss_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Dtes_ss_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
shock	[✂]	[✂]	[✂]	[✂]	[✂]
N	[✂]				
r2	[✂]				

Source: CC analysis of Sports Direct sales data and JJB, JD, Footlocker, Argos, Matalan and Tesco store location information.

Notes:
1. tes_ex is Tesco Express, tes_met is Tesco Metro tes_hp is Tesco HomePlus tes_ss is Tesco Superstore.
2. dw is DW Sports Fitness clubs, which have small sports stores attached; these clubs were originally owned by JJB and recently sold to DW Sports Fitness. The data comes from JJB.

23. These results show the estimated relationship between the change in revenue and:

(a) whether the store is within 10 miles of an acquired Sports Direct store (Dnear_acquired_all);

(b) entry/exit of other Sports Direct competitors within 0–2 and 2–5 miles of each Sports Direct store (Dsd_0_2 and Dsd_2_5);

(c) entry/exit of JJB competitors within 0–2 and 2–5 miles of each Sports Direct store (Djjb_0_2 and Djjb_2_5);

(d) entry/exit of JD, DW Healthclubs, Footlocker, Argos, Matalan and Tesco competitors within 0–2 and 2–5 miles of each Sports Direct store (eg Djd_0_2 and Djd_2_5);

(e) a dummy variable 'shock' equal to 1 in the week where there was an event that affected the local store's revenues (from the list of the local demand shocks that Sports Direct gave us); and

(f) time dummies (one for each period), to control for national time trends (such as the downward revenue trend suggested in the revenue graphs). The coefficients on these time trends are not reported in Table 1.

24. The model in Table 1 uses robust standard errors,[4] and the starred results in bold highlight those variables that are statistically significant according to these robust standard errors. The results show that the entry of another Sports Direct store within 0–2 miles of an existing store causes revenues at the existing store to fall by, on average, [✂] per cent. Sports Direct entry within 2–5 miles has a smaller, but still significant, negative effect of [✂] per cent on revenues. We interpret these coefficients as a permanent reduction in revenue relative to what revenues would have been under the counterfactual of no entry. When we use weekly data, we are looking for this step change to occur in the week after entry.

25. Entry of a JJB store within 0–2 miles of a Sports Direct store causes Sports Direct store revenues to fall by, on average, [✂] per cent. JJB entry further away is not associated with a significant effect on Sports Direct store revenues. This result accords with our market definition, which found the geographic market likely to be no wider than 5 miles (see Section 6 of the main report). Entry by any other retailer is not associated with a significant effect on Sports Direct's revenue at any distance band.[5]

26. As we would expect, the coefficient on the shock dummy is also negative and significant, and suggests that in a week that there was a local negative demand shock Sports Direct's revenues fell by, on average, [✂] per cent. This is most likely a temporary effect occurring only in the week of the demand shock (unlike the entry effects) and we would not expect to see this effect persist over time in a dynamic model. These local negative demand shocks were quite serious events, (see paragraph 7), and it is therefore striking that the average effect of entry by JJB had a negative effect on Sports Direct revenues more than a [✂] the magnitude of these local negative demand shocks. Given the extreme conditions of the local negative demand shocks, this gives us an indication that the relative magnitude of the effect of JJB (and Sports Direct) entry on local store revenues is large, which in turn suggests that the competitive constraint imposed on Sports Direct by JJB is strong.

27. The coefficient on the near_acquired dummy variable is not significant at the 5 per cent level but is significant at the 10 per cent level. This may be because we do not have enough variation in this variable (ie not enough changes in whether a store becomes near to an acquired store). Annex 2 of this appendix presents tables of the number of each type of event (ie entry and exit by different stores; transfer of a nearby JJB store) in our dataset. This shows that, while there were more than 250 entries and 100 exits of Sports Direct stores within 0–5 miles of existing Sports Direct stores, there were only 113 changes in total to the near_acquired dummy. Alternatively, it could reflect the fact that being near to an acquired JJB store is not associated with a contemporaneous effect on revenue.

28. We concluded that this result provided only weak evidence that, if a JJB store within 10 miles of an existing Sports Direct store were transferred to Sports Direct, there would be a positive impact on the existing Sports Direct store's revenue (Table 1 suggests around [✂] per cent).

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[4]We initially estimated all models using OLS, with standard errors computed in the normal manner. We then used these results to test for heteroskedasticity using a Breush-Pagan/Cook-Weisburg test. OLS assumes that the error term has a constant variance, or is homoskedastic. Failure of this assumption is known as heteroskedasticity. It does not lead to biased estimates of the coefficients but can lead to incorrect inferences being made about the significance or otherwise of the estimated coefficients as the standard errors will be incorrect. Because the results of this test led to strong rejection of a null of homoskedasticity (P values of 0.000), we used standard errors that were robust to unknown forms of heteroskedasticity. We note that heteroskedasticity is a common feature of panel data models such as those used in this analysis and as such we did not consider it likely to indicate problems of misspecification in this particular case.

[5]The exception is entry by Tesco Express, which has a positive significant coefficient on entry within 2–5 miles. However, we know that Tesco Express do not sell any sports goods, so we did not place any weight on this result.

29. As with all empirical work, the exact size of the coefficient is estimated with uncertainty. However, the results presented in Table 1 suggested that:

(a) Entry by a JJB store within 2 miles of a Sports Direct store has a significant negative effect on that Sports Direct store's revenue, and this effect is similar in magnitude to the negative effect on existing Sports Direct revenues caused by the entry of a new Sports Direct store. Both effects appear large in magnitude when compared with the effect of local adverse demand shocks.

(b) Sports Direct entry 2–5 miles away has less of a negative effect on existing Sports Direct revenues than does a closer Sports Direct entry, but it appears to be more important than JJB entry 2–5 miles away.

(c) Entry by other competitors does not have a significant effect on Sports Direct revenues.

(d) A nearby JJB store being acquired by Sports Direct may have a positive effect on existing Sports Direct store revenues, although we place less weight on this result.

30. We checked that these results were not being driven by insignificant variables by dropping those variables that were not significantly different from zero at the 10 per cent level. This did not change the sign or general magnitude of the coefficients, and hence we considered the results to be robust to this check.

Refinements/extensions

Dynamics

31. We tried to extend the model by including lags in the entry variables and in the near_acquired dummy to allow us to look for whether the entry or store transfer continues to cause revenues to change beyond the initial week, because, for example, it takes customers time to discover that a new store has opened. While the previous results already test for a permanent impact on revenue, this is restricted to the week after entry or store transfer. Adding lags would allow the step change to be spread over a number of weeks.

32. However, including these lags meant that none of the coefficients was statistically significant, most likely due to there not being enough variation in the data to estimate the increased number of coefficients (see Annex 2 for the number of each type of event).

33. We therefore aggregated the weekly data into monthly data to look at the effect of entry and near_acquired in the month rather than the week of entry/acquisition. This analysis allowed us to test for any step change in revenues that occurred a month after the entry/acquisition. The results are presented in Table 2.

TABLE 2 **Monthly effect of entry and acquisitions on Sports Direct revenues**

	Coefficient	*se*	*T*	*p*	*ci95*
Dnear_acquired_all	[✂]	[✂]	[✂]	[✂]	[✂]
Dsd_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Dsd_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Djjb_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Djjb_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Ddw_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Ddw_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Djd_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Djd_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Djd_5_10	[✂]	[✂]	[✂]	[✂]	[✂]
Dfl_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Dfl_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Darg_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Darg_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Dmat_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Dmat_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Dtes_ex_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Dtes_ex_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Dtes_hp_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Dtes_hp_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Dtes_met_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Dtes_met_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Dtes_ss_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Dtes_ss_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Shock	[✂]	[✂]	[✂]	[✂]	[✂]
N	[✂]				
r2	[✂]				

Source: CC analysis of Sports Direct sales data and JJB, JD, Footlocker, Argos, Matalan and Tesco store location information.

Notes:
1. tes_ex is Tesco Express, tes_met is Tesco Metro tes_hp is Tesco HomePlus tes_ss is Tesco Superstore
2. dw is DW Sports Fitness clubs, which have small sports stores attached; these clubs were originally owned by JJB and recently sold to DW Sports Fitness. The data comes from JJB.

34. While the magnitude of the coefficients on Sports Direct and JJB entry is larger (which is unsurprising since this model looks for an effect after one month rather than only one week), the general pattern remains the same: Sports Direct has the most negative impact on Sports Direct revenues within 0–2 miles, which falls away for greater distances, but JJB also has a significant negative effect not much smaller in magnitude than the effect of Sports Direct entry. Again, JD does not appear to have a significant effect.

35. However, the near_acquired coefficient is no longer significantly different from zero at the 10 per cent level. This could be because in aggregating the data we lose some of the information, in the sense that we do not know when in the month the nearby store was transferred (eg at the beginning or towards the end). It could also be because a nearby store transfer does not have a persistent effect on revenues. It is therefore difficult to be confident about the results on the near_acquired dummy either in Table 1 or in Table 2, although there is weak evidence that the store transfer has a positive effect on nearby Sports Direct revenues.

36. The coefficient on the local demand shocks is also no longer significant in Table 2, and has fallen in magnitude compared with Table 1. Again, this could be because we lose information about when in the month the shock occurred. However, we judged that it is most likely because these local demand shocks are temporary and their effects last only a week (see paragraph 26). Therefore, when averaged over the entire month, the effect of the local adverse demand shock disappears (although they still appear to have some negative effect on local Sports Direct store revenue). This is in contrast to the effect of local competitor entry, which is larger over a whole

month than a single week, indicating that the effect of competitor entry is spread over a longer period than the initial week.[6]

37. Coefficients on some other retailers are also significant in this monthly regression (DW Sports Fitness club stores within 2 miles, Tesco Homeplus between 2 and 5 miles and Tesco Metro within 2 miles). We noted that using a 5 per cent significance level meant that in 5 per cent of cases we would find a variable is significant when actually it is not. As we have estimated a very large number of coefficients (including separate coefficients for every week to control for seasonality), we were not surprised by these results. We also did not attach any weight to them as in many cases they were counter-intuitive (eg Tesco Metro does not stock sports goods or clothing) and in all cases they had no clear pattern: for example, a coefficient that was significant in the monthly regression was not in the weekly regression. This is in contrast with estimated results for JJB entry/exit, which gave a consistent picture across all different models.

Price and margin regressions

38. As outlined above, the effect of competitor entry on Sports Direct revenues gives an indication of customer switching between Sports Direct and other retailers. However, this does not provide any information as to variation in the local competitive offering as a result of entry of competing retailers. To explore this further, we regressed prices on the same variables as with Table 1 for the revenue regression. However, as noted in paragraph 11 the variation in local prices is due only to composition effects. We considered this reason to explain why the coefficients estimated in the prices regression were not significant.

39. We also replicated the analysis for the two available measures of local margin:

    (a) revenue minus wholesale and other locally varying costs; and

    (b) profit margins recorded in the store level financial data.

40. This second measure of store margins is only recorded every month and so we aggregated the weekly entry and acquisition data into monthly data. However, using either of these measures of local margin did not give any statistically significant results, so we concluded that this analysis did not provide any indication that Sports Direct has varied its local competitive offer according to local competition.

41. The lack of significant changes in store level profitability or margins as a result of entry by competing retailers could be because Sports Direct does not vary its competitive offering according to local conditions. It could also be because the step change in profitability at existing Sports Direct stores does not occur the week (or month) after the entry event. If a change in the local competitive offer takes longer than a week or a month to implement, the entry regressions would not pick up this effect. This is covered further in Appendix F.

JJB entry effect on different Sports Direct product categories

42. The results presented so far include Sports Direct revenues across all products (or average prices or margins across all products) at each Sports Direct store. However, Sports Direct classifies its products into categories. It may be that entry by JJB and

[6]Under this approach, less informational content was lost in the number of competitor variables as we used the month-on-month change in the average number of a particular type of competitor.

other competitors has more of an effect on certain Sports Direct product category revenues than others. This would be the case if customers were more likely to switch between Sports Direct and competing retailers for some product categories than others, and if the competitive constraints imposed by various retailers are different across different product categories.

43. To test this effect we ran the regression presented in Table 2 at the monthly level for each separate product category. We used the monthly model since the revenues for each category at each store are much smaller compared with the overall revenue at a Sports Direct store, and so using monthly data increased our ability to pick up a significant effect. The results are presented in Table 3. Where there is no coefficient reported, the coefficient was not significant.

TABLE 3 **Entry effects on different Sports Direct product categories**

[✂]

Source: CC analysis of Sports Direct sales data and store location data from Sports Direct, JJB, JD and Footlocker.

44. Overall these results show that a new Sports Direct opening within 2 miles of an existing store has a similarly negative effect on most Sports Direct product categories in the region of [✂] to [✂] per cent. Similarly, JJB entry has a significant effect on Sports Direct revenues for most product categories ([✂]out of the [✂] categories considered) of around [✂] to [✂] per cent.

45. The coefficients on Footlocker entry do not give a consistent picture, as some are positive and others negative. There is no relationship between the sign of the estimated coefficient and whether it is a product category Footlocker actually stocks. Only one coefficient for JD is significant, and this has a positive effect. As a result, and given that these stores do not have a significant effect on Sports Direct revenues overall, we judged that these results were not reliable.

46. Therefore, the category level analysis suggested that, in the month following entry, JJB has a negative impact in the region of [✂] to [✂] per cent on Sports Direct for most product categories. This impact occurs for a similar number of categories affected by the entry of a new Sports Direct store nearby. Further, JJB appears to have a much more consistent and significant negative effect on Sports Direct revenues than do other retailers.

47. This result suggested that we can simplify our analysis of competitive effects by looking at competitive constraints for the bundle of products offered by both Sports Direct and JJB rather than looking at competition for each individual product category. This is because if competitive conditions were very different on a category-by-category basis, we would have expected to see the impact of JJB entry having a very different effect on different categories. As we did not find this result, we concluded that the strength of competitive constraint from JJB to Sports Direct is similar across the range of Sports Direct's products.

JJB entry when other retailers' stores are nearby

48. We looked at whether the entry of a nearby JJB had a different effect on Sports Direct's revenues depending on whether there is also a JD, a Footlocker, an Argos, a Matalan or a Tesco nearby to the existing Sports Direct. If JJB entry had a lower negative effect on Sports Direct's revenues in areas with other retailers present, it might mean that JJB acts as less of a constraint on Sports Direct in these areas.

49. We created a dummy variable for the presence of each of the non-JJB retailers, equal to 1 where that retailer is present within 2 miles and equal to 0 otherwise. We then ran regressions including an interaction term between JJB entry and these dummy variables. This allowed us to separate the effect of JJB entry in areas where other retailers are present.

50. However, these interaction terms were not significant. For Footlocker, we noted that this could be because of the relatively low number of observations (there are only around 60 Footlocker stores). However, for all other retailers we had sufficient observations to allow us to identify any effect. This result suggested that JJB entry has a similar effect on Sports Direct revenues regardless of the level of nearby competition from other retailers.[7]

Refinements to the near_acquired dummy

51. As for the entry variables, we considered that it would be useful to split out the near_acquired dummy according to different distance bands, ie the dummy near_acquired_0_2 would take the value 1 if at the acquisition date of a JJB store within 0–2 miles of an existing Sports Direct store, and similarly for larger distance bands. However, we did not consider there to be enough variation within the variables defined in this way to give meaningful results (see Annex 2 of this appendix).

Sports Direct comments on analysis

52. Sports Direct raised a number of concerns in relation to our entry analysis, discussed in turn below.

    (a) Our entry analysis results are inconsistent with our survey results, because our entry analysis suggested that a new JJB store obtained most of its revenues at the expense of retailers other than Sports Direct.

    We considered that a new store opening will typically generate new demand and does not derive all of its revenue at the expense of nearby retailers. It will also attract customers within its own geographic area that are outside the geographic area of the incumbent Sports Direct store. We found that our entry analysis was consistent with our survey results in suggesting that Sports Direct and JJB are each other's closest competitors because, of all the retailers we investigated, only entry by JJB had a negative and significant effect on Sports Direct's sales.

    (b) Our entry analysis only tests the entry and exit effects of a small proportion of competitors. Further, it looks only for individual effects, whereas what matters for competition is the cumulative constraint.

    We recognized there are more potential competitors whose entry effect we could not test in this framework due to lack of data. However, we noted that we did include JD and the supermarkets, which our survey indicated had the next highest diversion ratios after JJB. If entry by an excluded retailer were to have an effect (despite a lower diversion ratio), we would expect to see an effect caused by the entry of those retailers for whom we did have data (and who had relatively higher diversion ratios), which we did not find to be the case.

[7]Tesco HomePlus was one exception. However, the coefficient on the interaction between JJB entry and Tesco HomePlus was negative and so does not suggest that JJB acts as less of a constraint in areas where a Tesco HomePlus was also present.

(c) There are more JJB exits than there are exits by other competitors, which may drive the stronger result for JJB. For example, if exiting JJB stores run closing-down sales in the month prior to exit, Sports Direct's revenues could fall in the month prior to the JJB exit, which would make the increase in Sports Direct's revenues in the month following the JJB exit appear more pronounced.

We investigated this possibility by estimating the impact of JJB entry and exit events separately. Results from the monthly model are presented in Table 4 below and show that the reverse is true: JJB entry events have a larger impact than JJB exit events. Both types of event are significant when they occur within 5 miles of the incumbent Sports Direct store although, as with the previous results, the impact of entry or exit declines as distance increases.

Specifically, the entry of a JJB store within 2 miles is associated with a [✂] per cent reduction in the incumbent Sports Direct store's revenues and the entry of a JJB store between 2 and 5 miles away with a [✂] per cent reduction. This is in contrast to the exit of a JJB store within 2 miles, which is associated with a [✂] per cent increase in revenues, and the exit of a JJB store between 2 and 5 miles away, which is associated with a [✂] per cent increase in revenues.

TABLE 4 **Monthly effect of JJB entry and exit on Sports Direct revenues**

	b	*Se*	*t*	*p*	*ci95*
Dnear_acquired_all	[✂]	[✂]	[✂]	[✂]	[✂]
Dsd_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Dsd_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
entry_jjb_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
entry_jjb_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
exit_jjb_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
exit_jjb_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Djd_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
Djd_2_5	[✂]	[✂]	[✂]	[✂]	[✂]
Shock	[✂]	[✂]	[✂]	[✂]	[✂]
N	[✂]				
r2	[✂]				

Source: CC analysis of Sports Direct sales data and store location data from Sports Direct and JJB.

(d) Our analysis of the differences between the weekly and monthly models is inconsistent, as we do not reflect the fact that the effect of being near an acquired JJB store becomes insignificant when we move to the monthly model but we do put weight on the increased effect of JJB entry/exit obtained from the monthly model.

This partly reflects differences in the way the variables are constructed: the monthly dataset contains the average number of competitors of each type for each observation, which provides some information about when in the month the entry/exit event occurred. On the other hand, the acquisition dummy takes the value of 1 in the month of acquisition and 0 otherwise, so is the same regardless of whether the acquisition occurred towards the beginning or end of the month. As a result of its lower informational content, we are less confident about results relating to this variable. However, we also recognized the insignificant result could reflect the fact that the acquisition of a JJB store has no long-run impact on the incumbent Sports Direct store. We were unable to differentiate between these alternative explanations and therefore considered that, when taken overall, our results provided only weak support that the acquisitions had a positive effect on nearby Sports Direct revenues.

(e) Counter-intuitive results in relation to entry by other competitors are ignored or dismissed, even though they are more significant than the effect of acquired JJB stores in the weekly analysis.

When estimating a very large number of coefficients, as is the case in this analysis, some of the estimated effects may appear significant when their true impact is insignificant.[8] To discriminate between variables that have a real impact from these spurious variables, we estimated a number of related specifications, all of which are described above. We considered those effects which were consistent across specifications to be robust and accordingly placed weight on these results in our conclusions; those effects which did not give a consistent picture we did not consider to be sufficiently robust to be conclusive.

It is our view that if any other retailer had an entry impact comparable to the effect of JJB on Sports Direct, it would be reflected in a similarly consistent negative revenue impact. As we did not find this result, we concluded that our results provided evidence that JJB is a strong competitive constraint on Sports Direct and is the closest competitor amongst those included in our analysis.

Conclusions

53. A number of consistent results emerge from the above analysis:

(a) Entry by a JJB store within 2 miles of a Sports Direct store has a significant negative effect on that Sports Direct store's revenues, and this effect is similar in magnitude to the entry of a new Sports Direct store. Both effects are large compared with the effect of local adverse demand shocks. As these results were consistent across the specifications tested in this model, we considered they provided robust evidence that JJB exerts a strong competitive constraint on Sports Direct.

(b) The entry of a new Sports Direct store 2 to 5 miles away has a less negative impact on revenues than a new Sports Direct store entering fewer than 2 miles away, but has a stronger effect than the entry of a new JJB store 2 to 5 miles away. Neither the entry of a new Sports Direct store nor a new JJB store affects revenues when they enter more than 5 miles away. Again this result is consistent across specifications and so we considered it provided strong evidence in support of local markets approximately 5 miles in radius.

(c) Entry by other competitors does not have a significant effect on Sports Direct's revenues. As this result was also consistent across specifications, we considered it strong evidence that JJB is the closest competitor to Sports Direct. Although we have only considered a sub-set of competitors, we have included the next closest substitutes for Sports Direct identified by our customer survey. As we did not find an impact of entry by these retailers, we believed it to be very unlikely that entry by retailers which our customer survey identified as less close substitutes would have an impact.

(d) The effects described above are consistent across the majority of individual product categories stocked by Sports Direct. This result suggested that we can simplify our analysis of the competitive effects of the store transfers by looking at

[8]This result is because, in a large panel dataset with little time series variation, standard errors computed in the normal way will understate the true variance. This effect may lead to some variables appearing significant when they are not (ie a Moulton bias) – see *Quantitative techniques for competition and anti-trust analysis*, Peter Davis and Eliana Garces, Princeton University Press (2009), page 253.

the competitive constraints for the bundle of products offered by both Sports Direct and JJB, rather than looking at competition for each individual product category.

Graphs of JJB's prices, margins and revenues before and after nearby acquisitions

Price

	Before first acquisition	*After last acquisition*	*Change %*
Mean of non-acquired stores near to acquisitions	[✂]	[✂]	[✂]
Mean of all non-acquired stores	[✂]	[✂]	[✂]

% Margin

	Before first acquisition	*After last acquisition*	*Change %*
Mean of non-acquired stores near to acquisitions	[✂]	[✂]	[✂]
Mean of all non-acquired stores	[✂]	[✂]	[✂]

Revenue

	Before first acquisition £	*After last acquisition £*	*Change %*
Mean of non-acquired stores near to acquisitions	[✂]	[✂]	[✂]
Mean of all non-acquired stores	[✂]	[✂]	[✂]

[✂]

Entry and exit by different retailers & acquisitions of JJB by Sports Direct

	Number of entries by Sports Direct within:		*Number of entries by JJB within:*		*Number of entries by JD within:*	
	0–2 miles	*2–5 miles*	*0–2 miles*	*2–5 miles*	*0–2 miles*	*2–5 miles*
2005	14	23	7	12	27	21
2006	23	48	2	-	2	2
2007	31	65	9	11	5	9
2008	20	55	7	4	11	11
2009	4	1	-	-	2	3

	Number of exits by Sports Direct within:		*Number of exits by JJB within:*		*Number of exits by JD within:*	
	0–2 miles	*2–5 miles*	*0–2 miles*	*2–5 miles*	*0–2 miles*	*2–5 miles*
2005	-	-	14	28	15	9
2006	-	-	15	14	20	36
2007	21	29	26	39	20	37
2008	22	25	124	143	6	7
2009	3	-	3	4	5	5

	Total number of changes to near acquired within		
	0–2 miles	*2–5 miles*	*5–10 miles*
2007	9	17	34
2008	9	21	39
2009	-	-	3

Critical loss analysis

Introduction

1. This appendix sets out our analysis of whether Sports Direct's incentives to set its national prices have changed as a result of the store transfers. As the analysis is based on a set of very restrictive assumptions, we treat the estimated price increases as an indication of pricing pressure resulting from the transfers rather than as a prediction of actual price movements.

2. An increase in Sports Direct's prices has two offsetting effects:

   (a) Sports Direct loses the revenue previously earned on those customers who switch to other retailers as a result of the price rise; and

   (b) Sports Direct earns a higher mark-up over cost on those customers who do not switch.

3. In areas where a Sports Direct store overlaps with a transferred JJB store, the proportion of customers switching to other retailers in response to a price increase falls as lost sales that would have gone to JJB are now retained by Sports Direct, through its ownership of the transferred store. This effect creates an incentive to increase prices post-transfer, since those customers who would have switched to the transferred store are now retained (the first of the two offsetting effects discussed above). The strength of this effect will be related to the percentage of Sports Direct customers that would switch to JJB in response to a price increase, known as the diversion ratio,[1] as well as the margin on sales lost.

4. Only Sports Direct stores which previously faced competition from a transferred JJB store will be able to recapture lost sales in this way. In areas unaffected by the acquisitions, diversion to other retailers will remain the same following a price increase. To account for this, we adjusted our estimates of the percentage of Sports Direct customers who would switch to JJB by the proportion of Sports Direct stores affected by the acquisitions.

5. The two key inputs to our model were (i) margins and (ii) diversion ratios between the parties. We used Sports Direct's average gross margin and diversion ratios obtained from our survey to estimate the pricing pressure resulting from the transfers. The strength of pricing pressure differs according to the geographic market definition used and, because there is uncertainty over the extent of the geographic market in particular local areas, we performed our analysis both for a 5-mile geographic market and for a 2-mile geographic market.

Data

Margins

6. The appropriate margin to include in the model is the mark-up over avoidable costs, because the cost of losing customers to other retailers is the lost sales revenue less

[1]Technically the diversion ratio is the value of sales that would be captured by JJB in response to a price increase by Sports Direct, expressed as a percentage of the total value of sales that would switch in response to a price increase.

the costs that can be avoided as a result of not supplying these customers. The costs that can be avoided depend on the volume of sales lost as well as the time period under consideration. In this case, we only considered small reductions in sales (for example, a 1 per cent price increase might lead to a 2 per cent reduction in sales if customers are relatively price sensitive). We judged that the only costs that could be avoided through this kind of reduction in sales were wholesale costs. Therefore, we considered the gross margin (ie sales value less wholesale cost, expressed as a percentage of sales value) to be the appropriate measure of margin to use.

7. Sports Direct submitted that the appropriate margin for the calculation was the pre-acquisition margin because this measure captured best Sports Direct's incentives at the time of the acquisitions. Sports Direct told us that this margin was [✂] per cent.

Diversion ratio

8. Our customer survey asked Sports Direct's customers what they would do in the absence of their current Sports Direct store. The responses to this question allowed us to obtain estimates of the diversion ratio between Sports Direct and JJB (and other retailers) (see Appendix C). Conducting interviews in areas with differing levels of local competition allowed us to obtain different estimates of diversion ratios for areas with differing degrees of local competition between Sports Direct and JJB. For example, diversion to JJB was higher where there was a JJB present within 2 miles than where the nearest JJB was further away. These results allowed us to obtain an estimate of diversion that took into account the strength of local competition in the overlap areas where a transfer occurred.

9. To estimate area-specific diversion ratios, we classified each Sports Direct store in an affected overlap area into one of the five overlap types outlined in Table 1 of Appendix C. In areas where there was one or more open JJB store within the same local market, we allocated the appropriate estimate of diversion equally between the acquired store and the remaining JJB store(s).[2] For example, a store in an area with two JJB stores present within 2 miles (one transferred and one not transferred) but no JD store would have an estimated diversion to the acquired store of 23 per cent (46 divided by 2). Through this approach, we sought to capture the fact that when a transfer occurred in an area where another JJB store remained open, some competition was lost but less than in areas where no JJB stores remained.

10. We then calculated the average of these area-specific diversion ratios across all Sports Direct areas within 5 miles of an acquired JJB store, which we found to be 20 per cent. We repeated this analysis for all Sports Direct areas within 2 miles of an acquired JJB store, and found an average diversion of 30 per cent.

11. We used area-specific diversion ratios rather than the average over all surveyed areas because a number of areas were surveyed where there was no JJB present, and we were only interested in estimating diversion in overlap areas. By not adjusting this estimate for the numbers of respondents who replied that they did not know what they would do, or who said they would divert to another Sports Direct store, we believed that our result was conservative. We used unadjusted diversion ratios because we wanted to use the most conservative inputs we considered reasonable in view of the strong assumptions underlying the model. For the same reason, we presented a range of simulated price increases around these estimates to allow for sensitivities in the way our diversion ratios and margins had been calculated.

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[2]Even though we recognized that actual diversion is likely to depend on relative proximity.

12. We adjusted the average diversion ratios obtained in this way by the percentage of Sports Direct stores affected by the acquisitions. To calculate this percentage, we used store location data to find out how many acquired JJB stores were within 5 miles of an existing Sports Direct store at the time of the transfers, as well as the total number of Sports Direct stores in operation during the transfer period.[3] Table 1 shows each Sports Direct store which was within 5 miles of a transferred JJB store and which was trading for at least one period prior to the transfer. In addition, it includes Sports Direct's store in Hounslow because it opened shortly after the transfer of JJB's Isleworth store, and would have opened under our counterfactual (see Appendix B). We also identified the number of Sports Direct stores that were within 2 miles of a transferred JJB store. The Sports Direct stores shown in bold italics would have closed in our counterfactual, or were within 5 miles of an acquired JJB store that our counterfactual assumes would have closed anyway (see Appendix B). We excluded these stores from our analysis, which gave a total of 34 Sports Direct stores within 5 miles of an acquired JJB store and, by the same approach, 14 Sports Direct stores within 2 miles of an acquired JJB store.

[3]The transfer period was between November 2007 and December 2008 (see paragraph 3.1 of the main report).

TABLE 1 **Sports Direct stores within 5 miles of a transferred JJB store**

Sports Direct store	*Nearest acquired JJB*	*Distance to acquired JJB*	*Nearest non-acquired JJB*	*Distance to nearest non-acquired JJB*
CARDIFF SS	***GRANGETOWN, CARDIFF***	***1.78***	***CARDIFF QUEENS WEST***	***0.23***
YORK	***YORK***	***2.52***	***YORK CLIFTON MOOR***	***2.66***
NABURN DI	***YORK***	***2.62***	***YORK CLIFTON MOOR***	***4.90***
BRADFORD FORSTER SQ	***BRADFORD***	***0.30***	***BRADFORD FORSTER SQ***	***0.00***
BRISTOL	***BRISTOL***	***4.66***	***CABOT CIRCUS***	***0.15***
BECKTON	***ELTHAM***	***4.33***	***WEST THURROCK***	***8.95***
ROMFORD	***ILFORD***	***4.13***	***WEST THURROCK***	***7.51***
GREENWICH	***ELTHAM***	***3.16***	***CROYDON***	***9.83***
BARNSLEY CORTONWOOD	***BARNSLEY CHEAPSIDE***	***4.77***	***ROTHERHAM RETAIL***	***4.82***
BEDFORD	***BEDFORD***	***2.06***	***KEMPSTON RETAIL PARK***	***0.00***
LEWISHAM LOAMPIT	***ELTHAM***	***3.33***	***CROYDON***	***7.24***
BROMLEY	***ELTHAM***	***3.81***	***CROYDON***	***5.35***
BROMLEY LW	***ELTHAM***	***3.68***	***CROYDON***	***5.42***
LLANELLI STEPNEY GS	***LLANELLI***	***0.07***	***SWANSEA FFORESTFACH***	***7.77***
ILFORD	***ILFORD***	***1.65***	***ENFIELD SDS (S.D)***	***9.06***
UXBRIDGE SS	UXBRIDGE	0.37	HAYES	3.87
FULHAM	EALING	4.91	SHEPHERDS BUSH	1.71
WOLVERHAMPTON BC	WOLVERHAMPTON	0.08	WOLVES RETAIL PARK	0.66
BASILDON SW	BASILDON SOUTHERNHAY	0.15	WEST THURROCK	9.57
HANLEY	NEWCASTLE UNDER LYME	2.33	SHREWSBURY	0.12
NEWCASTLE	NEWCASTLE CENTRE	0.11	GATESHEAD OOT (S.D)	2.60
GATESHEAD SW	NEWCASTLE CENTRE	2.50	GATESHEAD OOT (S.D)	0.23
GREENFORD	EALING	2.94	HAYES	3.07
TEAM VALLEY	NEWCASTLE CENTRE	3.59	GATESHEAD OOT (S.D)	3.29
FRIERN BARNET	WOOD GREEN	1.86	STAPLES CORNER	4.62
NEWPORT	NEWPORT CTY CENTRE	2.33	NEWPORT SPITTY ROAD	0.00
COLLIERS WOOD	SUTTON	3.51	CROYDON	4.20
CROYDON	SUTTON	4.12	CROYDON	0.03
BRENT CROSS	WOOD GREEN	4.93	STAPLES CORNER	0.55
BOURNEMOUTH	POOLE	3.54	BOURNEMOUTH RETAIL	0.00
BENTLY BRIDGE	WOLVERHAMPTON	1.68	WOLVES RETAIL PARK	1.45
HARRINGEY	WOOD GREEN	1.38	STAPLES CORNER	5.66
STOKE NEWINGTON	WALTHAMSTOW	2.65	STAPLES CORNER	6.69
PUTNEY	EALING	4.99	SHEPHERDS BUSH	2.85
CRAYFORD	CLOSED	4.50	WEST THURROCK	4.75
CROYDON VALLEY	SUTTON	3.09	CROYDON	1.14
HUDDERSFIELD RP	HUDDERSFIELD K-GATE	0.34	HUDDERSFIELD RETAIL	0.00
BASILDON MAYFLOW	BASILDON SOUTHERNHAY	1.54	CHELMSFORD	9.85
STOKE LONGTON	NEWCASTLE UNDER LYME	4.04	HANLEY	3.16
KINGSTON U/THAMES SW	ISLEWORTH	3.66	SHEPHERDS BUSH	7.34
FELTHAM	ISLEWORTH	3.56	STAINES	4.40
HAYES	UXBRIDGE	3.94	HAYES	0.00
LEYTON	WALTHAMSTOW	1.82	ENFIELD SDS (S.D)	7.46
HOUNSLOW	ISLEWORTH	1.36	HAYES	3.81
CWMBRAN	NEWPORT CTY CENTRE	4.73	CWMBRAN (S.D)	0.12
NEWPORT COMMER ST GS	NEWPORT CTY CENTRE	0.12	NEWPORT SPITTY ROAD	2.24
BARNSLEY ST	BARNSLEY CHEAPSIDE	0.09	WAKEFIELD RETAIL PRK	8.94
HUDDERSFIELD ST	HUDDERSFIELD K-GATE	0.20	HUDDERSFIELD RETAIL	0.51
STOKE	NEWCASTLE UNDER LYME	4.49	HANLEY THE OCTAGON	4.43

Source: Sports Direct; JJB; CC calculations.

13. Since we were interested in the effect of the transfers at the time they occurred, we used the number of Sports Direct stores that were open throughout the transfer period (364 stores) as the measure of Sports Direct's total store portfolio.

Critical loss calculation

14. We calculated the proportion of Sports Direct's overall store portfolio that was within 5 miles of a transferred JJB store for at least one period before the transfer occurred.

This calculation allowed us to measure the importance of the acquisitions to Sports Direct's overall store portfolio, and adjust the diversion ratio accordingly.

15. Using Shapiro's 1996 model,[4] we simulated the profitable post-transfer price change assuming a [✂] per cent margin. As there are many assumptions underlying this model, we interpreted the results as an indication of the pricing pressure that could result from the acquisitions rather than as a prediction of the actual price increase which was likely to occur. We used this model because it is not sensitive to how the product market is defined and generates the same results, given the same estimated inputs, irrespective of which retailers are included or excluded from the relevant competitor set. We favoured this approach because we recognized that simulations relying on binary market definitions (where firms are either inside or outside a market and those outside exercise no constraint at all on those inside) can be misleading in differentiated goods markets. Another attractive feature of the model is that its data requirements are relatively light, as it only requires estimates of diversion ratios and gross margins.

16. We recognized that this model was static, and so did not take into account likely reactions by rivals and potential rivals, including JJB. Sports Direct submitted that the model would, for this reason, necessarily lead to overestimates of the possible price increase. However, we did not agree as, while it is true that potential rivals might be attracted to enter the market to defeat a resulting price increase, we judged that we could consider this issue separately (as we do in our discussion of entry and expansion in Section 7 of the main report). Also, we recognized that, if entry did not occur, an increase in Sports Direct's national prices would soften the competitive constraint on JJB and might encourage JJB to increase its own prices, which could change Sports Directs incentives, and again change JJB's incentives, and so forth, resulting in an equilibrium price increase above that estimated by the model.

17. Overall, we found that entry and expansion in response to small price increases was unlikely in the near future (see Section 7 of the main report). Nevertheless, we recognized that there were reasons which could cause our estimates to be biased upwards or downwards and, for these reasons, we used the results of the model only as an indication of possible pricing pressure.

18. We repeated our simulation for a range of different diversion ratios between Sports Direct and JJB. The simulations included estimates of diversion obtained from our survey, and also included a range of higher and lower diversion ratios as a sensitivity test.

19. The model used two different models of consumer demand, linear and iso-elastic, as explained below:

    (a) Iso-elastic demand models imply that customer sensitivity to a price increase is the same, regardless of the initial price level.

    (b) Linear demand allows customer sensitivity to price increases to increase with the price level. Linear demand models are typically favoured for this calculation unless there is strong evidence in favour of an iso-elastic model as the linear demand models produce more conservative estimates.

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[4]Shapiro (1996) 'Mergers with Differentiated Products', *Antitrust*, Spring. Given symmetric margins of m% and diversion between the merging parties A and B of d%, Shapiro's model calculates the price increase under iso-elastic demand as md/(1-m-d) and the linear demand price increase as md/2(1-d). See also the Oxera note *Diversion ratios: why does it matter where customers go when a shop is closed?* (Agenda, February 2009).

20. We performed the calculations first using a 5-mile geographic market and then with a narrower market of 2 miles, reflecting our uncertainty around the precise boundaries of the individual local markets concerned. Using a narrower geographic market had two opposing effects on the direction of the estimated price increase. Firstly, it meant that fewer Sports Direct stores were classified as overlapping with a transferred JJB store, which reduced the national diversion that Sports Direct could internalize post transfer, which tended to reduce the estimated price effect; but, second, diversion between Sports Direct and JJB is higher when the two stores are located more closely to one another, which tended to increase the estimated price effect.

21. Table 2 presents the results for 5-mile overlaps and Table 3 presents the results for 2-mile overlaps.

TABLE 2 **Simulated post-acquisition price changes, for 5-mile Sports Direct/acquired-JJB overlaps**

per cent

Margin	[✂]										
Percentage of Sports Direct stores within 5 miles of an acquired JJB store that would have remained open under our counterfactual	9.34%										
Diversion ratio (overlap areas)	5.00	10.00	14.00	**19.72**	25.00	30.00	35.00	40.00	45.00	50.00	55.00
Diversion ratio (adjusted)	0.47%	0.93%	1.31%	**1.84%**	2.34%	2.80%	3.27%	3.74%	4.20%	4.67%	5.14%
Price rise (isolastic)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Price rise (linear)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CC analysis of Sports Direct financial data and store location data.

TABLE 3 **Simulated post-acquisition price changes, for 2-mile Sports Direct/acquired-JJB overlaps**

per cent

Margin	[✂]										
Percentage of Sports Direct stores within 5 miles of an acquired JJB store that would have remained open under our counterfactual	3.85%										
Diversion ratio (overlap areas)	5.00	10.00	14.00	25.00	***30.00***	35.00	40.00	45.00	50.00	55.00	60.00
Diversion ratio (adjusted)	0.19%	0.38%	0.54%	0.96%	***1.15%***	1.35%	1.54%	1.73%	1.92%	2.12%	2.31%
Price rise (isolastic)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Price rise (linear)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CC analysis of Sports Direct financial data and store location data.

22. Table 2 shows that 9.3 per cent (34 out of 364) of Sports Direct stores were within 5 miles of a transferred JJB store at the date the transfer occurred. Using this percentage allowed us to isolate the impact of the store transfers on exposure to JJB from other changes that were occurring in the market at the same time (notably JJB store closures). For example, a diversion ratio between Sports Direct and JJB of 25 per cent in such overlap areas implies that the overall diversion ratio internalized as a result of the acquisitions is 2.3 per cent (25 per cent x 9.3 per cent).

23. Table 2 shows that for iso-elastic demand and 5-mile overlaps, an average diversion ratio of 20 per cent makes a post-transfer price increase of [0–3] per cent profitable. This price increase falls to [0–1] per cent if we assume linear demand. Table 3 shows that if we adopt a 2-mile geographic market instead, the estimated price increase under linear demand falls to [0–1] per cent.

Local margin concentration analysis

1. This appendix describes our analysis of whether Sports Direct is able to vary any aspects of its competitive offering on a local basis and, if so, whether these variations can be linked to the presence of a nearby JJB store. If Sports Direct's offering is found to be more attractive when there is a JJB store nearby, it could indicate that Sports Direct responds to the presence of a nearby JJB store by changing its local offering.

2. We analysed the available evidence on Sports Direct's local competitive offer prior to the store transfers, measured by price, quality, range and service (PQRS). As Sports Direct sets the same price for each SKU across all stores nationally, we looked at other aspects of the competitive offer that might vary on a local basis, such as store staffing levels, stock deliveries, store opening hours, store maintenance and refurbishment, and stock shortages.

3. We looked first at whether these factors could be seen to vary at a local level by plotting performance against [✂]. We then looked at whether we could link this variation to differences in local competitive conditions. We compared these factors in areas where Sports Direct overlaps with JJB against areas where there is no overlap. We looked at differences in performance across all stores first, and then within a particular grade of Sports Direct store. Restricting attention to a particular grade of store controlled for some local factors that could affect performance as Sports Direct allocates store grades (at least initially) according to [✂].

4. For comparison, we also looked at areas where Sports Direct overlaps with JD but not JJB. Again, this check controlled for variations in local conditions which might affect performance but which were not related to competition.

5. We conducted a margin concentration analysis to test more systematically the variation in local margins according to local competition. A higher margin at a Sports Direct store facing limited local competition from JJB could indicate that Sports Direct can worsen its local competitive offer, for example through not improving or maintaining the store, as a result of weaker competitive constraints.

6. Finally, we compared the effect of local JJB competition with that from other retailers in order to investigate the strength of constraints from other retailers.

Local variation in competitive offering

7. Sports Direct provided us with data on various factors relevant to each of its stores' local competitive offer. These factors vary across Sports Direct's store portfolio and, as such, could be changed according to local competitive conditions. This data contained:

   (a) a snapshot of the number of live SKUs at each store;

   (b) a snapshot of weekly deliveries at each store;

   (c) a snapshot of store opening hours;

   (d) a snapshot of the incidence of stock shortages at each store;

(e) monthly data on maintenance spend on each store since May 2007;

(f) monthly data on staff hours since May 2007; and

(g) monthly data on store refurbishment since May 2005.

8. More active SKUs (ie a wider range), more deliveries, longer opening hours, more staff, fewer stock shortages, better maintenance or refurbishment and higher advertising expenditure would all improve the competitive offer of an individual Sports Direct store.

The possibility of flexing local variables

9. We looked first to see whether these variables could be flexed at a local level in response to competitive conditions. Sports Direct told us that many of these locally varying variables were determined by the grading of the store, where stores were graded from [✂] primarily on the basis of [✂]. We plotted each local variable in turn against [✂], distinguishing between different grades of stores. We restricted our attention to those stores that belonged to the same grade for both [✂], because looking at stores belonging to two different grades would complicate the analysis.

10. The resulting graphs revealed a significant amount of variation within each grade of store, suggesting that these variables can be and are flexed at a local level.

FIGURE 1

Number of active SKUs by [✂] and grade

[✂]

Source: CC analysis of Sports Direct data.

FIGURE 2

Delivery frequency by [✂] and grade

[✂]

Source: CC analysis of Sports Direct data.

FIGURE 3

Average number of salaried staff days per month by [✂] and grade

[✂]

Source: CC analysis of *Sports* Direct data.

FIGURE 4

Average non-salaried staff hours per month by [✂] and grade

[✂]

Source: CC analysis of *Sports* Direct data.

FIGURE 5

Average percentage of stock outage by [✂] and grade

[✂]

Source: CC analysis of Sports Direct data.

FIGURE 6

Average number of hours open per week by [✂] and grade

[✂]

Source: CC analysis of *Sports* Direct data.

FIGURE 7

Average monthly refurbishment expenditure by [✂] and grade

[✂]

Source: CC analysis of Sports Direct data.

FIGURE 8

Average monthly maintenance expenditure by [✂] and grade

[✂]

Source: CC analysis of Sports Direct data.

FIGURE 9

Average monthly advertising expenditure by [✂] and grade

[✂]

Source: CC analysis of Sports *Direct* data.

Actual flexing of local variables

11. Having established that Sports Direct can flex a number of factors at the local level, we then looked at whether there was any evidence that Sports Direct stores flexed these factors in response to competition from a nearby JJB store.

12. Summary statistics on each of these locally adjustable factors can be found in Annex 1 of this appendix. We looked first at average performance across all stores in overlap areas and compared this data with average performance in non-overlap areas, using different measures of overlap: 2 miles and 5 miles. Results in Annex 1 relate to 2-mile overlaps only but the results for 5-mile overlaps were very similar. We found that deliveries are more frequent, stores open for longer periods and staff work more hours in Sports Direct stores that face competition from a JJB within 2 miles.

Causes of variation

13. We recognized that these results did not establish any causality, ie whether it was competition from a JJB store which caused the variation in these local factors. We recognized that overlap areas could share other characteristics which caused the variations observed, for example overlap areas might be those areas with greater demand for sports goods, and this greater demand may lead to more deliveries, more staff and longer opening hours.

14. As a first step, we compared performance in each variable for stores of the same grade in overlap and non-overlap areas. Because grade is determined by [✂], this comparison was likely to control for some of the local factors unrelated to competition which might drive performance. We found there was no variable in which Sports Direct stores of the same grade performed better in overlap than non-overlap areas for all grades, although there were a number of variables where this was true for all but the [✂] stores.

15. We then compared performance in JJB overlap areas with performance in areas where a JD store but no JJB store was present ('JD overlap areas'). These areas were included as a control for local demand factors, because areas where both a Sports Direct and a JD store are present are likely to have more demand for sports goods and sports fashion items than areas where only a Sports Direct is present.[1] Again, we looked at results by store grade to control further for local variations which might drive performance.

16. Although we found significant variations in performance, we did not see any pattern to these results. In some cases, performance in JJB overlap areas was significantly better than in JD overlap areas, but in others the reverse was true.

17. Overall, we concluded that this analysis of local performance provided strong support for the existence of variables which can be and are flexed by Sports Direct at the local level. However, it was not possible to link this variation to changes in local competitive conditions. We noted that the results were consistent with Sports Direct not reacting to changes in competition through the flexing of local variables.

18. Our analysis suggested that there is some reason other than store grading and [✂] which drives variation in some factors of performance at a local level. In respect to opening hours, the variation could be driven by the location of a store, for example, a Sports Direct store located within a shopping centre can only open for the hours which the shopping centre is open. However, in respect to the number of SKUs, the cause of the variation was harder to explain, particularly as the variation in range could be significant, ie some stores can carry up to [✂] per cent more SKUs than other [✂] in the same grade. Data received from our monitoring trustee also suggested that product range shows a great deal of variation over time.

19. Sports Direct explained that the variation in product range exists for the following reasons:

    [✂]

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[1] In doing so, we recognized that JD is outside of the relevant market defined in Section 6 of the main report. Nonetheless, we believed that comparing JJB overlap results with JD overlap results was a useful way of approximately controlling for local demand conditions. This is because having a larger number of shops in a particular area is suggestive of higher levels of consumer demand, regardless of the relevant markets to which these shops belong. Furthermore, our customer survey suggested that JD was the third choice alternative for Sports Direct (after JJB and supermarkets), suggesting that JD is considered a substitute for Sports Direct by some of Sports Direct's customers. Therefore, areas where both Sports Direct and JD are present are likely to have a higher number of Sports Direct customers and thus, all else equal, higher demand.

20. Sports Direct submitted two examples of stores which held very different ranges despite being in the same grade, and Sports Direct accounted for nearly all the variation in product range through the factors outlined above.

Changing a store's grading in response to local competition

21. We looked at whether there was any evidence to suggest that Sports Direct would improve a store's grading in response to entry by a new JJB store. We asked Sports Direct to provide us with information about historical grading for five stores where JJB entry had resulted in a significant decline in revenues on the previous month, even after accounting for revenue trends experienced by other Sports Direct stores. Sports Direct was only able to provide us with information for the relevant period for one of these stores.[2] We found that this store, [✂], remained in the same grading despite facing a [✂] per cent reduction in revenues following the entry of a nearby JJB store. This evidence was consistent with Sports Direct's claim that it does not flex grading in response to changes in local competition, although we noted that this evidence did relate only to one store.

Incentives to flex local variables in response to local competition

22. We considered whether Sports Direct had an incentive to flex any of its local variables in response to competition. We noted that a reduction in competition from JJB would create an incentive for Sports Direct to worsen its local variables (if there are cost savings to be realized) because fewer customers will switch away from Sports Direct in response to the worse offer than would have done previously.

23. We judged that, for most variables, some cost could be avoided through offering a poorer service. Even for product range, carrying fewer product lines would be likely to require fewer deliveries and could require fewer staff. However, we were unable to quantify any of these cost savings.

24. The main costs we identified in moving to a system that flexed local non-price variables in response to local competition were the costs of designing [✂] for allocating stores to particular grades and, more generally, the cost of implementing a different business model. Whilst we were unable to quantify these costs, we recognized that, because Sports Direct did not flex these variables pre-transfer, despite having a relatively large number of stores in 'monopoly' areas, the costs were likely to have outweighed the potential benefits, at least prior to the transfers. We considered how the transfers have affected the proportion of monopoly areas, and the incentive to flex local variables in response to competition, in our assessment of competitive effects (see Section 8 of the main report).

25. Overall, we concluded from this analysis that Sports Direct had the potential to flex various aspects of its offering on a local basis, but we found no evidence to suggest that it did so in response to the extent of local competition.

Margin concentration

26. We looked at whether Sports Direct achieved higher margins in areas where it faced less competition, which, if so, could indicate that Sports Direct varied local aspects of its offering in response to competition.

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[2]Sports Direct was unable to provide information on more stores as it does not systematically retain information on store gradings [✂].

27. We performed a regression analysis of Sports Direct's local margins on the numbers of local competitors. This analysis aimed to test whether Sports Direct's local offer was better in areas where it faced greater local competition, as a better offer would usually result in higher costs and a lower margin. We aimed to capture any variables that could be flexed at the local level but for which we did not have data.

28. This analysis was similar to the fixed-effects regression analysis discussed in Appendix D, in that it used the same dataset on the numbers of different fascia at different distances from each Sports Direct store. However, this analysis used a cross-section of data rather than the change in variables used in Appendix D. We recognized that there are disadvantages to this approach, as compared with the fixed-effects regression, in particular the inability to control for unobserved factors that can lead to biased estimates (see paragraph 13).

29. The analysis considered the overall average margin at Sports Direct stores facing different levels of local competition. Since Sports Direct prices its products nationally, the mark-up over wholesale cost (which is also national) will not vary between Sports Direct stores. Instead, we used two measures of local margins that factor in other costs besides wholesale costs. The first measure was price net of spend on staff, maintenance, refurbishment and marketing spend, as well as wholesale costs. The second margin figure was derived from financial data on the profitability of each individual store.

30. The model regressed the average local margin on:

(a) the number of JJB stores within different distance bands; and

(b) the number of other competing retailers within different distance bands.

31. Table 1 shows the results from a regression of our first measure of local margins on the number of JJB competitors within 2 miles, and the total number of other competitors within 2 miles (JD, Footlocker, Argos, Matalan and Tesco).

TABLE 1 **Effect of JJB's and other retailers' competition on Sports Direct margins**

	Coeff	*Se*	*t*	*p*	*ci95*
jjb_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
comp_nonjjb_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
_cons	[✂]	[✂]	[✂]	[✂]	[✂]

Source: Sports Direct sales data and JJB, JD, Footlocker, Argos, Tesco and Matalan store location information.

32. We found that the coefficient on the presence of JJB within 2 miles was positive and significant, suggesting that margins are higher when there is a JJB within 2 miles. The effect of competition from other retailers was not significant. We replicated this analysis for overlaps of up to 5 miles and found similar results.

33. The positive coefficient on the presence of JJB within 2 miles could be due to unobserved local characteristics of these overlap areas. For example, if a local area is characterized by high demand (in particular, for sports goods), and higher margins, Sports Direct and JJB might both have chosen to be present. Alternatively, we noted that high demand areas can be associated with higher rents, as well as more competitors, resulting in lower margins. We concluded that there is no theoretical reason to believe the coefficient would be biased in either direction: estimates could either under- or overstate the effect of competition on margins. (In Appendix D, we used a fixed-effects regression to control for such local area characteristics.)

34. Table 2 presents results for a regression of our second margin measure, financial store profitability, on the same measures of local competition as used in Table 1. In Table 2, none of the coefficients is significant, and so this model was not able to find a relationship between local competition and store level profitability. Again, we noted that these results could be subject to bias of indeterminate direction.

TABLE 2 **Effect of JJB's and other retailers' competition on Sports Direct store profitability**

	b	*se*	*t*	*P*	*ci95*
comp_nonjjb_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
jjb_0_2	[✂]	[✂]	[✂]	[✂]	[✂]
_cons	[✂]	[✂]	[✂]	[✂]	[✂]

Source: Sports Direct sales data and JJB, JD, Footlocker, Argos, Tesco and Matalan store location information.

35. We replicated the analysis regressing prices on the same measures of local competition. However, these regressions did not give any significant results (a result which was unsurprising given the lack of variation in local prices due to Sports Direct's policy of national pricing).

Non-price measures of Sports Direct's local offering

This annex presents summary statistics on various measures of Sports Direct's local competitive offer, broken down by whether a JJB or a JD store was present nearby. Results for each local variable are also broken down by grade of Sports Direct store, where stores are graded [✂] depending on [✂].

TABLE 1 **Range (number of live SKUs)—by store grade and overlap type**

Grade	*No JJB*	*JJB*	*Difference between JJB overlap and non-overlap areas %*	*No JD or JJB*	*JD only*	*Difference between JD overlap and non-overlap areas %*	*Difference between JJB and JD overlap areas %*
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]			[✂]			

Source: CC analysis.

TABLE 2 **Delivery frequency—by overlap type only**

	Average number of deliveries per week	*Number of areas*
No overlap with JJB (2 miles)	[✂]	[✂]
Overlap with JJB (2 miles)	[✂]	[✂]
No overlap with JD (2 miles)	[✂]	[✂]
Overlap with JD (2 miles)	[✂]	[✂]

Source: CC analysis.

TABLE 3 **Delivery frequency—by store grade and overlap type**

Grade	*No JJB*	*JJB*	*Difference between JJB overlap and non-overlap areas %*	*No JD or JJB*	*JD only*	*Difference between JD overlap and non-overlap areas %*	*Difference between JJB and JD overlap areas %*
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CC analysis.

TABLE 4 **Store opening hours—by overlap type only**

	Average number of hours store is open per week	*Number of areas*
No overlap with JJB (2 miles)	[✂]	[✂]
Overlap with JJB (2 miles)	[✂]	[✂]
No overlap with JD (2 miles)	[✂]	[✂]
Overlap with JD (2 miles)	[✂]	[✂]

Source: CC analysis.

TABLE 5 **Store opening hours—by store grade and overlap type**

Grade	*No JJB*	*JJB*	*Difference between JJB overlap and non-overlap areas %*	*No JD or JJB*	*JD only*	*Difference between JD overlap and non-overlap areas %*	*Difference between JJB and JD overlap areas %*
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CC analysis.

TABLE 6 **Stock shortages—by overlap type only**

	Average proportion of stock that experienced a shortage %	*Number of areas*
No overlap with JJB (2 miles)	[✂]	[✂]
Overlap with JJB (2 miles)	[✂]	[✂]
No overlap with JD (2 miles)	[✂]	[✂]
Overlap with JD (2 miles)	[✂]	[✂]

Source: CC analysis.

TABLE 7 **Stock shortages—by store grade and overlap type**

per cent

Grade	*No JJB*	*JJB*	*Difference between JJB overlap and non-overlap areas*	*No JD or JJB*	*JD only*	*Difference between JD overlap and non-overlap areas*	*Difference between JJB and JD overlap areas*
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CC analysis.

TABLE 8 **Staff hours—by overlap type only**

	Average number of salaried days worked per month	*Average number of non-salaried hours worked per month*	*Number of area/month combinations*
No overlap with JJB (2 miles)	[✂]	[✂]	[✂]
Overlap with JJB (2 miles)	[✂]	[✂]	[✂]
No overlap with JD (2 miles)	[✂]	[✂]	[✂]
Overlap with JD (2 miles)	[✂]	[✂]	[✂]

Source: CC analysis.

TABLE 9 **Salaried days worked per month—by store grade and overlap type**

Grade	*No JJB*	*JJB*	*Difference between JJB overlap and non-overlap areas %*	*No JD or JJB*	*JD only*	*Difference between JD overlap and non-overlap areas %*	*Difference between JJB and JD overlap areas %*
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CC analysis.

TABLE 10 **Non-salaried hours worked per month—by store grade and overlap type**

Grade	*No JJB*	*JJB*	*Difference between JJB overlap and non-overlap areas %*	*No JD or JJB*	*JD only*	*Difference between JD overlap and non-overlap areas %*	*Difference between JJB and JD overlap areas %*
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CC analysis.

TABLE 11 **Maintenance expenditure—by overlap type only**

	Average monthly maintenance expenditure, £	*Number of area/month combinations*
No overlap with JJB (2 miles)	[✂]	[✂]
Overlap with JJB (2 miles)	[✂]	[✂]
No overlap with JJB (5 miles)	[✂]	[✂]
Overlap with JJB (5 miles)	[✂]	[✂]
No overlap with JD (2 miles)	[✂]	[✂]
Overlap with JD (2 miles)	[✂]	[✂]
No overlap with JD (2 miles)	[✂]	[✂]
Overlap with JD (2 miles)	[✂]	[✂]

Source: CC analysis.

TABLE 12 **Maintenance expenditure—by store grade and overlap type**

Grade	*No JJB*	*JJB*	*Difference between JJB overlap and non-overlap areas %*	*No JD or JJB*	*JD only*	*Difference between JD overlap and non-overlap areas %*	*Difference between JJB and JD overlap areas %*
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]		[✂]			

Source: CC analysis.

TABLE 13 **Refurbishment expenditure—by overlap type only**

	Average monthly refurbishment expenditure £	*Number of area/month combinations*
No overlap with JJB (2 miles)	[✂]	[✂]
Overlap with JJB (2 miles)	[✂]	[✂]
No overlap with JJB (5 miles)	[✂]	[✂]
Overlap with JJB (5 miles)	[✂]	[✂]
No overlap with JD (2 miles)	[✂]	[✂]
Overlap with JD (2 miles)	[✂]	[✂]
No overlap with JD (2 miles)	[✂]	[✂]
Overlap with JD (2 miles)	[✂]	[✂]

Source: CC analysis.

TABLE 14 **Refurbishment expenditure—by store grade and overlap type**

Grade	*No JJB*	*JJB*	*Difference between JJB overlap and non-overlap areas %*	*No JD or JJB*	*JD only*	*Difference between JD overlap and non-overlap areas %*	*Difference between JJB and JD overlap areas %*
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CC analysis.

TABLE 15 **Advertising expenditure—by store grade and overlap type**

Grade	*No JJB*	*JJB*	*Difference between JJB overlap and non-overlap areas %*	*No JD or JJB*	*JD only*	*Difference between JD overlap and non-overlap areas %*	*Difference between JJB and JD overlap areas %*
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
[✂]	[✂]	[✂]		[✂]			

Source: CC analysis.

National analysis

Introduction

1. This appendix sets out our analysis of whether the store transfers have led to a worsening of Sports Direct's national offering, or created an incentive for Sports Direct to worsen its national offering, by weakening the overall competitive constraint on Sports Direct through a reduction in competition in a number of local areas.

Data description

2. We received branch-level weekly sales data from Sports Direct[1] and JJB, as well as branch-level monthly sales data from JD. The Sports Direct data contained information on value, volume and cost of sales by category from April 2004 to July 2009. Because this data was provided by category only, it was not possible to calculate individual price series. The JJB data also contained information on value, volume and cost of sales but at the individual product level, which allowed us to calculate individual price series and average price series. We did not receive data on volume of sales from JD until after the conclusion of our market definition exercise. As our market definition did not include JD in the relevant competitor set, we did not use the JD data to calculate an average price series.

3. We used the above data to compile national time series for each of Sports Direct, JJB and JD, containing information on volume, value and cost of sales, margin and weighted average price. We aggregated the Sports Direct and JJB data into monthly time series because it is difficult to see patterns in weekly data due to short-term seasonal effects.

4. We obtained data from ONS on RPIY,[2] GDP,[3] and retail expenditure on clothing and footwear. The RPIY index was used to deflate all value and cost of sales data. We also obtained data from the Bank of England on base rate, Euro-Sterling, and Dollar-Sterling exchange rates. All of this data was monthly except GDP, which was quarterly.

5. We also received information from Sports Direct, JJB and JD on all of their stores, including their location and opening/closing dates since 2005. We used the location data to calculate the distance between all possible pairings of stores, and counted the numbers of particular types of retailers within 2 miles, 5 miles and 10 miles of every Sports Direct store in every period.

Sports Direct national performance

6. Table 1 shows two measures of Sports Direct's national performance: its average price (excluding VAT), and its average gross margin (defined here as value of sales

[1]There were some observations in the Sports Direct sales data, including negative costs and instances where the mark-up over cost appeared to be in excess of 4,000 per cent, which required clarification from Sports Direct. Sports Direct's response suggested that these were probably the result of the way in which the data was recorded in Sports Direct's system (aggregated by category) and till checks (where an item is scanned to check that the till works but no corresponding payment is recorded). To deal with these observations, we dropped all instances where costs or sales were negative; where the value or the cost of sales was positive but the quantity sold was zero; and where the quantity sold was positive but the cost of sales was zero. These observations were a very small proportion of the total.
[2]Retail price index, excluding mortgage costs and indirect taxation.
[3]Gross Domestic Product.

excluding VAT less cost of sales, expressed as a percentage of sales value excluding VAT). We excluded VAT to control for the impact recent changes in VAT may have had on the value of sales. The table shows that volume-weighted average price [✂] by [✂] per cent in the period subsequent to the store transfers and gross margin [✂] by [✂].

7. We recognized that this comparison was sensitive to the time period used to define the pre-transfer period. However, we judged that it was reasonable to use the full span of data available as it is generally better to use more information rather than less, and the period was not so long as to be likely to include significant structural changes.

8. We also recognized that weighted average prices and margins may change in response to changes in Sports Direct's product range, and to changes in consumer preferences for those products. These changes could lead us to detect a price or margin change when there was none, or not to detect a price or margin change which did occur but which caused customers to switch to lower value or lower margin products. However, we were unable to control for changes in the composition of the average basket because Sports Direct does not retain historical data on sales volumes at an individual product level for longer than two years (ie available data did not cover the pre-transfer period). We therefore interpreted the results of our analysis with caution.

TABLE 1 **Measures of Sports Direct's national performance in different time periods**

	Pre-transfer	*After all transfers completed*
Weighted average price (excl VAT) (£)	[✂]	[✂]
% gross margin (excl VAT)	[✂]	[✂]

Source: Sports Direct sales data; ONS data on RPIY.

9. Figures 1 and 2 present different aspects of Sports Direct's national performance from 2005 to 2009. For both variables presented, they show a 12-month moving average in order to smooth out seasonal fluctuations. The period of the store transfers is shown by vertical red lines on the relevant dates. The 31 transfers were staggered throughout this period.

FIGURE 1

Sports Direct margin

[✂]

Source: Sports Direct sales data.

FIGURE 2

Sports Direct weighted average price

[✂]

Source: Sports Direct sales data.

10. Figure 1 shows that Sports Direct's gross margins were slightly [✂] average for the acquisition period, although the difference was small. However, the [✂] in its

margins began before the transfers and they [✂] for most of the transfer period. In January 2009, Sports Direct's margins [✂] to [✂] pre-transfer levels.

11. Figure 2 shows that the weighted average price [✂] until one year before the transfers began, and then showed a fairly steady [✂] throughout the rest of the period (although remaining approximately [✂] than at the beginning of the period).

12. We found that these graphs were consistent with the theory that there had been a worsening in the national offering of Sports Direct since the store transfers. However, it was not clear whether this effect had persisted or whether there were alternative explanations for the movements. Therefore, we looked at the performance of JJB and JD during the same period for any industry-wide trends that might provide alternative explanations for Sports Direct's observed performance.[4]

Other sports retailers' national performance

13. Figures 3 and 4 repeat the analysis using JJB's sales data.

FIGURE 3

JJB margins

[✂]

Source: JJB sales data.

FIGURE 4

JJB average sales price

[✂]

Source: JJB sales data.

14. The graphs show that JJB's margins were [✂] throughout the period, but [✂] in 2009. However, JJB's average sales price [✂] throughout the period.

15. Figure 5 compares the margins of Sports Direct, JJB and JD with an index of expenditure on clothing and footwear.

FIGURE 5

Comparison of sports multiples' margins

[✂]

Source: Sports Direct, JD, JJB, ONS.
Note: Gross margins here all include VAT for purposes of comparability.

16. The graph shows that JJB's and Sports Direct's gross margins were [✂] than JD's [✂], although at the beginning of the period Sports Direct's margins were closer to those of [✂]. Around the time of the acquisitions, Sports Direct's margins [✂] JJB's for [✂] and [✂] for most of the acquisition period. The margins of [✂] from 2008

[4]This analysis was conducted before the conclusion of our market definition exercise.

onwards, although Sports Direct's and JJB's margins showed [✂] those of JD. In particular, JJB's margins [✂] by [✂] percentage points and Sports Direct's margins fluctuated within a band of [✂] percentage points. Sports Direct [✂] show a significant [✂] during the period.

17. Given the divergence in performance between the three retailers in this period, we could not ascribe the [✂] in Sports Direct's margins in 2007 to industry-wide growth.

18. Overall, we found that there had been an observable worsening in Sports Direct's national performance since the store transfers began but only to a limited extent. We were not able to distinguish between the effects of the transfers and other potential explanations.

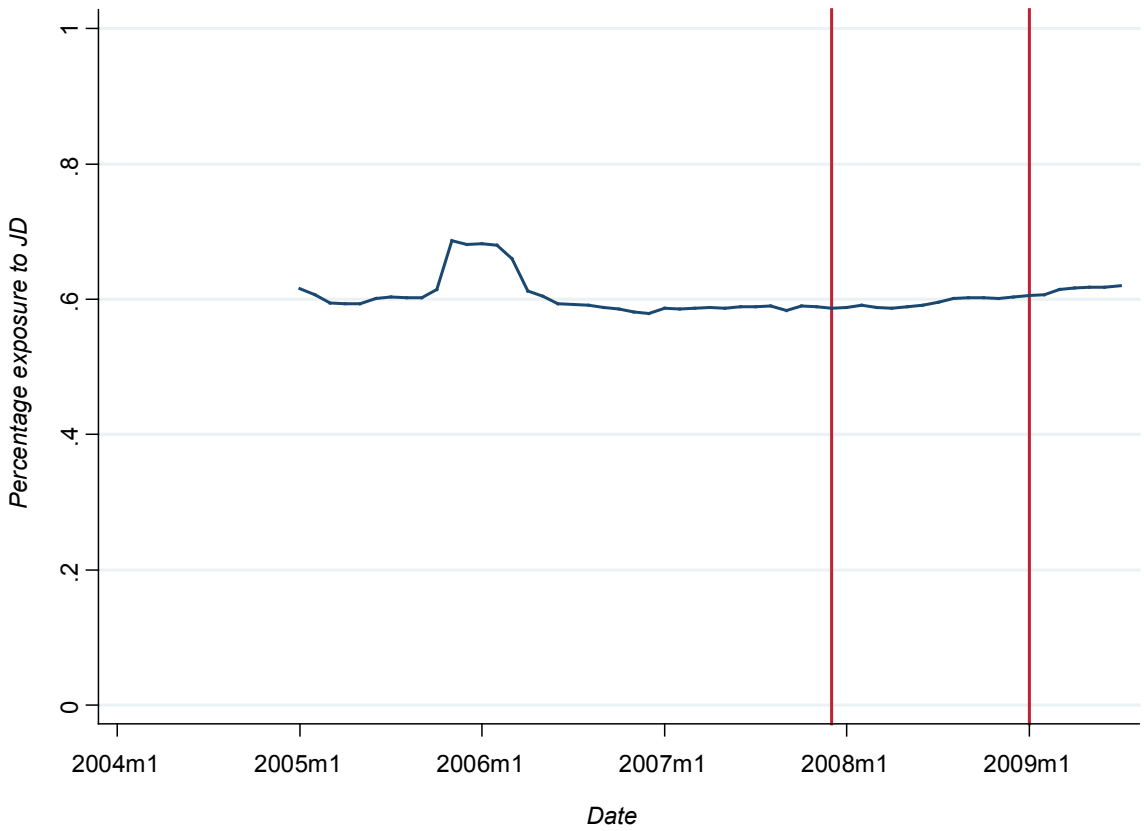
Exposure of Sports Direct stores to competitors

19. We looked to see if there was a pattern between Sports Direct's performance and the degree of local competition faced from each competitor.

20. Figures 6 and 7 show the percentage of Sports Direct's stores which were located within 2 miles of a JJB or JD store between 2005 and 2009.

FIGURE 6

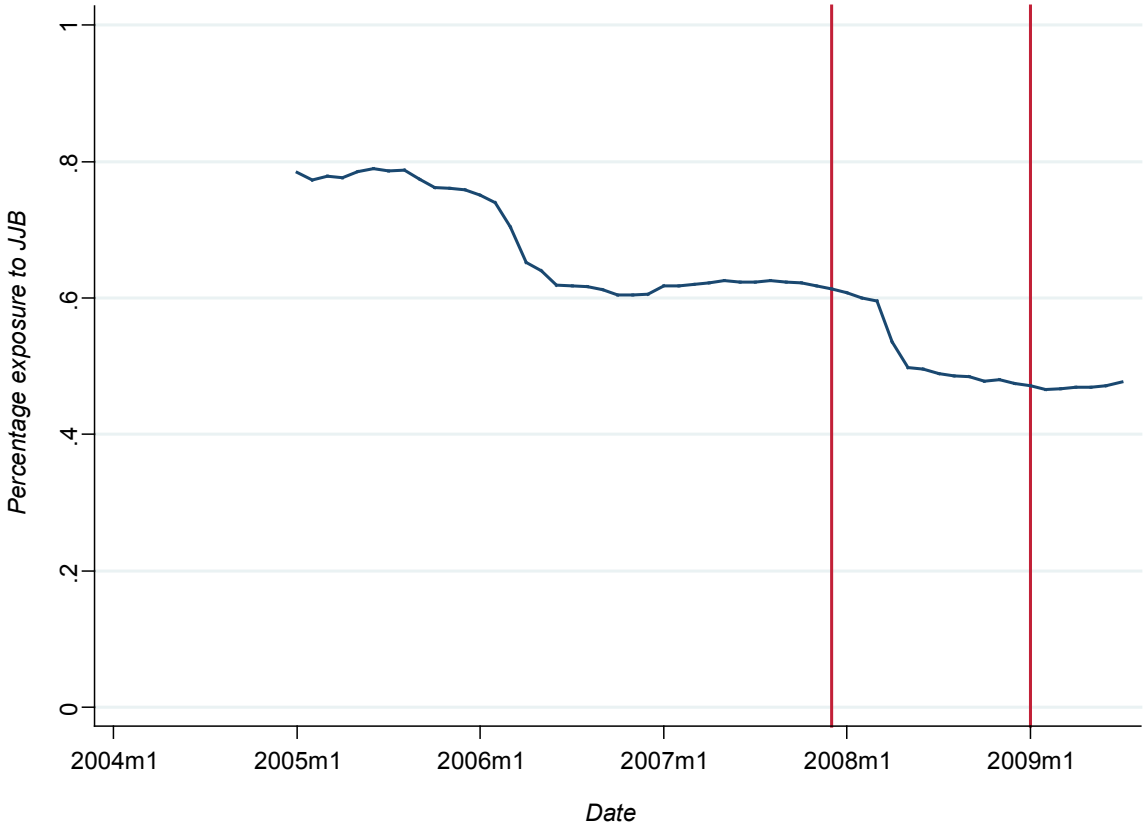
Sports Direct exposure to JD



Source: Sports Direct, JD.

FIGURE 7

Sports Direct exposure to JJB



Source: Sports Direct, JJB.

21. Figure 6 shows that Sports Direct's exposure to JD increased in 2006 but returned quite quickly to previous levels, around 60 per cent. Sports Direct's exposure to JD then increased continually, though only slightly, from this point onwards for the rest of the period.

22. Figure 7 shows that Sports Direct's exposure to JJB fell throughout the entire period from nearly 80 per cent to nearly 50 per cent and, in particular, by approximately ten percentage points during the period of the store transfers.

23. We could not identify any direct link between the movements in these graphs and Sports Direct's performance. Therefore, we attempted to identify a statistical relationship between these series using regression techniques.

Regression results

24. We looked at the relationship between Sports Direct's mark-up over cost/average prices and its exposure to different competitors.

25. Table 2 presents the results of a regression of Sports Direct's percentage mark-up on:

    (a) mark-up in the previous two months;

    (b) natural log of a retail clothing and footwear expenditure index;

(c) natural log of GDP;

(d) percentage exposure of Sports Direct stores to JJB stores, DW stores and JD stores; and

(e) month dummies taking values of one in February and December and zero in all other months (reflecting observed seasonal patterns in the data).

TABLE 2 **Results from Sports Direct national mark-up regression**

Explanatory variable	*Coefficient*
Mark-up last month	[✂]
Mark-up two months ago	[✂]
Ln(clothing expenditure index)	[✂]
Ln(gdp)	[✂]
% exposure to JJB within 2 miles	[✂]
% exposure to DW within 2 miles	[✂]
% exposure to JD within 2 miles	[✂]
February	[✂]
December	[✂]
Constant	[✂]
Number of observations	[✂]
R-sq	[✂]
F(10,44)	[✂]
P>F	[✂]
LM test for autocorrelation (P>chi2)	[✂]
B-P/C-W test for heteroskedasticity (P>chi2)	[✂]

Source: CC analysis.

Notes: *p<0.10, **p<0.05, ***p<0.01.

26. All the results in this model were statistically significant, although we noted that the coefficients on exposure to JJB did not have an intuitive interpretation (they showed that a one percentage point increase in the exposure of Sports Direct stores to JJB stores (eg from 60 to 61 per cent) is associated with a [✂] percentage point increase in mark-up (eg from [✂] to [✂] per cent)).[5] The results found that an increase in exposure to JD stores was associated with a [✂] percentage point reduction in mark-up.

27. We judged that we could not interpret these results as evidence that the acquired JJB stores would not have imposed a constraint absent their transfer to Sports Direct. Rather, we considered these results to suggest that we had not adequately controlled for factors determining the retailers' mark-ups. For example, it could be that the exposure to JJB variables picked up time trends which we had not adequately captured with other controls. It could also be that prices and mark-ups do respond to changes in competitive conditions but only with a lag of unknown length.

28. We recognized that, in general, it is very difficult to model aggregate time series data, and this difficulty is particularly true for the last two years when there have been significant changes in factors likely to affect prices. We noted that this difficulty is in contrast to the panel data models presented separately in Appendix D, which can exploit information at stores not facing any change in competition to control for many other factors (such as customer preferences and costs).

29. We also attempted to model average prices at a national level as a function of average cost per unit, previous price levels and the control variables. We used these

[5]There is no reason to expect an increase in exposure to a particular competitor to have a positive impact on mark-up over cost. If such a retailer were not a genuine constraint, we would expect to see no significant impact.

models to test for an increase in average prices in all periods since the store transfers began (see Table 3). We tested for this increase by creating a dummy variable for all dates subsequent to the first acquisition in November 2007 (ACQ in Table 3).

TABLE 3 **Price effect of acquisitions**

	(1) Average price (excluding VAT)
Price last month	[✂]
	[✂]
Per unit cost	[✂]
	[✂]
ACQ	[✂]
	[✂]
_cons	[✂]
	[✂]
Observations	[✂]
R-sq	[✂]
F(3,59)	[✂]
P>F	[✂]
LM test for autocorrelation (P>chi2)	[✂]
B-G/C-P test for heteroskedasticity (P>chi2)	[✂]

Source: CC analysis.

t statistics in parentheses.
p* < 0.10, ** *p* < 0.05, * *p* < 0.01.

30. The results, shown in Table 3, suggested that, after accounting for other significant determinants of price, the average price at Sports Direct (excluding VAT) was [✂]p higher after the store transfers began than in the period before. As the average Sports Direct price in the pre-transfer period was £[✂], Sports Direct prices were, on average, approximately 2 per cent higher after the store transfers. This estimated increase was lower than the simple difference presented in Table 1 because it controlled for changes in average unit costs and other factors in the price-setting process.

31. Sports Direct submitted that there was no price effect but, even if there was, this estimated price increase captured other events which occurred during the same period as the transactions, including JJB's other store disposals. Sports Direct submitted that, as a result, only a small proportion of the estimated price effect could be attributed to the store transfers.

32. We accepted that our analysis could not exclude the possibility of other events affecting the results. Nevertheless, we looked to see what proportion of the estimated price effect might be due to the store transfers rather than JJB's other store disposals. We found that 267 Sports Direct stores were within 5 miles of a JJB store in November 2007 and this figure had fallen to 208 by December 2008, representing a reduction of competition in 59 local areas. We found that 34 Sports Direct stores were within 5 miles of an acquired JJB store (considering only stores which would have remained open in the absence of the transfers). Therefore, if all of the 2 per cent price increase related to a loss of competition between Sports Direct and JJB,

approximately 58 per cent of this price increase (ie 1.2 per cent) could be attributed to the store transfers.[6]

33. We considered the impact of a narrower geographic market, and found that 218 Sports Direct stores were within 2 miles of a JJB store at the beginning of the transfer period and 155 Sports Direct stores were within 2 miles of a JJB store at the end, representing a reduction of 63 stores. As only 14 Sports Direct stores were within 2 miles of an acquired JJB store, adopting this narrower geographic market would result in only 22 per cent of the identified price increase (ie a 0.4 per cent increase), being linked to the transfers.

34. We noted that there were a number of limitations to this analysis.

(a) No other control variables except one lagged value of price and the average per-unit cost were statistically significant, and so we were unable to control for many factors that may have influenced prices at the same time.

(b) The coefficient on the acquisition date itself was significant at the 6 per cent level but not 5 per cent.[7] It was also not robust to changing the date at which acquisitions could be expected to have affected prices, as including the lagged value of the acquisition dummy led to a fall in the estimated effect.

(c) We were unable to control for changes in consumer preference driving product mix and, if a general price increase led to customers substituting to lower-priced products, we would not have detected the price increase. Similarly, the price increase we did find could have been the result of a changing product mix driven by customer preferences or changes to Sports Direct's product range. For example, we were aware that Sports Direct had recently begun selling bicycles, which might have caused the average price to increase.

(d) Finally, we tested for autocorrelation (correlation between error terms in adjacent periods) and found that the error terms in our model were serially correlated. Including additional lags of weighted average price did not remove this problem and, furthermore, these lags were insignificant. The presence of autocorrelation does not imply that our results were biased but could indicate general problems of misspecification. In this case, the problems were likely to have arisen due to the omission of other explanatory variables affecting the price-setting process (which are themselves correlated over time).

35. Due to these problems and limitations, we judged that this analysis provided only weak evidence of a price increase associated with the store transfers and we interpreted the results with caution.

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[6]We recognized that JJB was reducing its portfolio significantly during this time, but the other store closures identified in JJB's annual reports were not within 5 miles of an existing Sports Direct store.

[7]Adopting a significance level of 6 per cent means that there is no more than a 6 per cent chance we were wrong in inferring that the acquisitions had a non-zero effect on price. This is a slightly less stringent test than requiring the chance of being wrong to be 5 per cent or lower. Common significance levels to adopt are 1 per cent, 5 per cent and 10 per cent (in decreasing order of stringency). Ultimately, the choice of significance level is arbitrary and depends on the cost associated with incorrect inference.

Glossary

The Act	Enterprise Act 2002.
CAT	Competition Appeal Tribunal.
CC	Competition Commission.
CVA	Company voluntary arrangement.
DfT	Department for Transport.
EBIT	Earnings before interest and tax.
Gross margin	**Gross profit** divided by revenue.
Gross profit	Revenue less cost of goods sold.
Monitoring trustee	Smith & Williamson appointed by Sports Direct with the agreement of the **CC**.
OFT	Office of Fair Trading.
PQRS	Price, quality, range and service. Factors by which retailers compete with each other.
Premium brands	Third-party sports brands Nike, Adidas, Umbro, Reebok and Puma.
SKU	Stock-keeping unit—each individual type of item for sale is one SKU. For example, a blue size 9 Adidas boot is one SKU, a blue size 8 Adidas boot would be another.
SLC	Substantial lessening of competition.