

**A report on the completed acquisition of Linpac Containers Ltd  
by DS Smith Plc**

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Glossary

## Summary

1. On 20 May 2004 the Office of Fair Trading (OFT) referred the completed acquisition by DS Smith Plc (DS Smith) of LINPAC Containers Ltd (Linpac) to the Competition Commission (CC) for investigation and report. The reference was made under section 22(1) of the Enterprise Act 2002 (the Act). We are required to publish our final report by 3 November 2004. Our provisional findings were published on 8 September 2004.
2. Shareholder approval for DS Smith's acquisition of Linpac was obtained on 22 March 2004, allowing the transaction to be completed on the same day. After adjustments, the net purchase consideration was £167 million.
3. As a result of the transaction, DS Smith and Linpac ceased to be distinct. The UK turnover of Linpac exceeded £70 million, so the turnover test set out in section 23(1)(b) of the Act was satisfied. We therefore concluded that a relevant merger situation had been created.
4. Linpac was primarily involved in the production of corrugated sheet (sheet) and corrugated cases (cases). It was not involved in the manufacture of corrugated case material (CCM), used in the production of sheet. With the exception of Linpac, the major producers in the industry were integrated down the supply chain, at least from the production of CCM to the production of cases. There were also many smaller producers, particularly operators of sheet plants, manufacturing cases.
5. We concluded that the markets primarily affected by the proposed merger were the manufacture and supply of sheet used for making cases in Great Britain, and the manufacture and supply of cases in Great Britain. In relation to the upstream market for CCM, we concluded that this was wider than the UK and was probably EEA-wide.
6. In 1999 the combined market share in Great Britain of the top six sheet suppliers was around 65 per cent. By 2003 this had increased to around 75 per cent. As a result of the merger, the major sheet producers reduced from six to five, and the market became fairly concentrated. DS Smith's market share as a result of the merger approximately doubled to around 25 per cent, and it became the largest sheet producer in Great Britain.
7. The cases market is more fragmented than the sheet market. After the merger, the five major producers of sheet had a share of around 60 per cent of the total supply of cases in Great Britain. DS Smith doubled its market share to around 20 per cent as a result of the merger to become the largest case producer in Great Britain.
8. We concluded that, in the absence of the merger, it was likely that Linpac would have remained as a competitor in the market in the short to medium term.
9. We considered whether DS Smith's increased share of the sheet market might have adverse effects in the upstream CCM market. Given our CCM market definition, we did not believe that Linpac's purchases were large enough for any foreclosure to result in substantial adverse effects in this market. We therefore did not examine this aspect any further.
10. The merger had the effect of removing an independent competitor, Linpac, in the supply of both sheet and cases. We examined the potential for unilateral effects, which might occur if the merger enhanced the ability of the merged entity to exercise market power independently of its competitors, in both the sheet and the cases

markets. We concluded that there was no likelihood of a substantial lessening of competition (SLC) through unilateral effects in either the sheet or the cases markets.

11. The focus of our work, therefore, was to consider whether coordinated effects were a likely outcome of the merger, particularly in the sheet market. We concluded that there was little likelihood of coordinated effects in the cases market, although we recognized that some aspects of the cases market were relevant to an assessment of the likelihood of coordinated effects in the sheet market.
12. In assessing the likelihood of coordinated effects in the sheet market, we first considered the three necessary conditions for coordinated effects identified in the CC's guidelines for Merger References (awareness of competitor behaviour, incentives to conform to prevailing behaviour, and weak competitive constraints) in the light of the degree of competitive intensity in the relevant markets before the merger. We then looked at the impact of the merger on the likelihood of coordinated effects.
13. We assumed that the major suppliers who were most likely to have engaged in coordinated behaviour in the sheet market were the six largest suppliers in both sheet and cases before the merger. Smaller suppliers were not included as they would have different incentives and therefore would be likely to act as a competitive constraint on the major suppliers.
14. We found that, in relation to the sheet market, the first condition relating to the awareness of competitor behaviour was met for a number of reasons, in particular because formal headline price announcements were highly transparent, and were sometimes reinforced by information disseminated through the Sheet Plant Association (SPA). There was also an element of awareness of competitor behaviour in respect of cases. We also concluded that the second condition for coordination was broadly met in the sheet market in that it would be costly for firms to deviate from coordinated behaviour. With regard to the third condition for coordination, however, we could not reasonably conclude that the competitive constraints were sufficiently weak for this to be satisfied, given the incentives and ability of current and future competitors to jeopardize the results of any coordination.
15. High levels of concern were, however, expressed in response to our sheet customer questionnaire, particularly around the headline sheet price increases announced from time to time by sheet suppliers at similar times and for similar amounts. We therefore looked further at the degree of competitive intensity in the relevant markets before the merger, including the relationship between prices and costs, the profitability of market participants, and margin trends. Despite the customer concerns expressed, the evidence available to us did not indicate that coordinated behaviour was enabling the suppliers in question to achieve coordinated effects in the supply of sheet. However, we believe that further investigation by the OFT under the Competition Act 1998 and/or EC Treaty Articles 81 or 82 would be justified.
16. We investigated the extent to which the merger might increase the likelihood of coordinated effects. Although we thought that the merger would make the fulfilment of both the first two conditions for coordinated effects in the sheet market somewhat more likely, we did not consider that the merger would be likely to have a material effect on the third condition—competitive constraints.
17. We investigated whether Linpac was a 'maverick', that is to say that it had an influence in the market significantly beyond its market share. We believed that Linpac was a well-run and profitable company before the merger, but did not find that its market share understated its impact on the competitive process. Nor did we find that

Linpac, as an independent purchaser of CCM, had achieved a lower cost structure or that it therefore provided keener price competition.

18. We concluded that, despite customer concerns, the merger would not significantly increase the likelihood of coordinated effects in the sheet market.
19. In conclusion, we did not find that all the necessary conditions for coordinated effects were present in the sheet market before the merger. Nor did we expect that the merger would increase the likelihood of coordinated effects that were previously absent so as to give rise to a substantial lessening of competition in the sheet market. In addition, given the conclusions that we reached in relation to each of the CCM and cases markets, we did not expect that the merger would give rise to a substantial lessening of competition in any of the relevant markets that we considered.

# Findings

## 1. The reference

- 1.1 On 20 May 2004 the OFT referred the completed acquisition by DS Smith of Linpac to the CC for investigation and report. The reference was made under section 22(1) of the Act. Our terms of reference are set out in Appendix A. We are required to publish our final report by 3 November 2004.
- 1.2 This document, together with the appendices, constitutes our final report, which we are required to publish under section 38(1) of the Act. Further information, including non-sensitive versions of main party and third party written submissions, summaries of third party arguments and views, the results of our sheet customer questionnaire, and our provisional findings published on 8 September 2004, can be found on our web site.<sup>1</sup> We refer to these documents as appropriate.

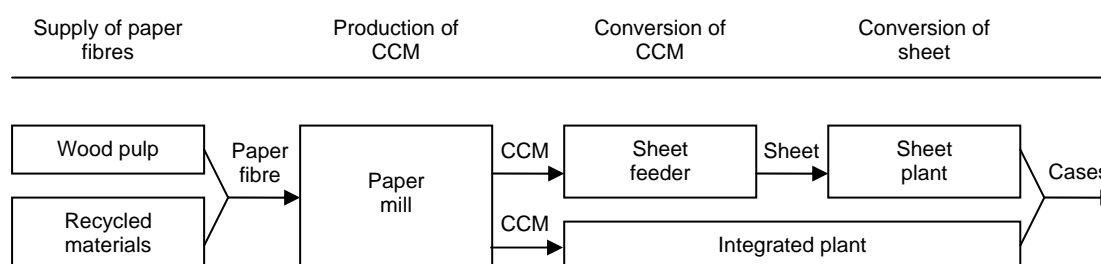
## 2. The corrugated packaging industry and the companies

### *The corrugated packaging industry*

- 2.1 Paper and board packaging,<sup>2</sup> with an estimated value of £4.2 billion in 2001, is the largest segment of the UK packaging industry. Corrugated products accounted for 62 per cent of this total, and are used primarily for transporting retail goods ranging from fresh food and produce to manufactured products. In addition, corrugated products are being used increasingly to provide shelf-ready displays for retailers. The market is mature and growth has been modest or even negative over the last few years. According to the European Federation of Corrugated Board Manufacturers, compound annual growth in the UK was 2.1 per cent a year in the late 1990s, but declined by 0.7 per cent a year between 2000 and 2002.
- 2.2 Figure 1 shows the key stages in the corrugated industry supply chain:

FIGURE 1

### The supply chain



Source: CC simplification of PIRA diagram.

Note: In some cases integrated plants produce sheet for sale as well as for their own use.

- 2.3 The key stages are:

<sup>1</sup>www.competition-commission.org.uk.

<sup>2</sup>Including corrugated products, cartons, bags, sacks and packaging paper.

- (a) the supply of paper fibres to paper mills (either virgin-based wood pulp fibres or recovered paper/fibre). The predominant raw material for the manufacture of cases in Great Britain is recycled material, particularly old corrugated cases (OCC);
- (b) the production of CCM<sup>1</sup> at a paper mill (either virgin-based, including kraftliner, or recycled, including testliner);
- (c) the conversion of CCM into sheet.<sup>2</sup> This results from creating a rippled middle layer (fluting), which is combined with liners (the flat surface layers which are glued to each side of the fluting). The conversion takes place in a corrugator; and
- (d) conversion of sheet into a case, usually by printing, slotting, folding, and gluing or stitching sheet.

Stages (c) and (d) can take place either at stand-alone plants (a sheet feeder plant is dedicated to producing sheet and a sheet plant to producing cases), or at an integrated plant (in which the corrugator produces sheet which is converted into cases at the same plant).

- 2.4 With the exception of Linpac, the major producers in the industry are integrated down the supply chain, at least from the production of CCM to the production of cases (stages (b) to (d) in paragraph 2.3). There are also many smaller producers, particularly operators of sheet plants, manufacturing cases. DS Smith is involved in all four stages of the chain; Linpac was primarily involved in the production of sheet and cases, although it also owned an interest in recycling.<sup>3</sup> Further details of the corrugated packaging industry can be found in the background paper on the CC web site.

## **DS Smith**

- 2.5 DS Smith is an international group quoted on the London Stock Exchange. It is involved in two primary activities, packaging and office products. In the year ended 30 April 2004, DS Smith had a turnover of £1,489 million. Return on average capital employed was 11.1 per cent, and profit (before tax, exceptional items and amortization of intangibles) was £88.8 million.
- 2.6 DS Smith's packaging activities comprise both plastic packaging and paper and corrugated packaging. Total turnover in the year ended 30 April 2004 for its paper and corrugated packaging division was £749 million, representing 50 per cent of Group turnover, with an operating profit (before exceptional items and amortization of intangibles) of £49.5 million.
- 2.7 The paper and corrugated packaging division is subdivided into three businesses:
- (a) DS Smith Packaging—UK corrugated packaging<sup>4</sup> ([£] million turnover<sup>5</sup> in year ended 30 April 2004);
  - (b) St Regis Paper Company Ltd (St Regis)—UK paper and recycling ([£] million turnover in year ended 30 April 2004); and

<sup>1</sup>Also known as containerboard.

<sup>2</sup>Also known as sheetboard.

<sup>3</sup>Salter Paper Group Limited: this was not included in the acquisition.

<sup>4</sup>DS Smith has no plants in Northern Ireland, so its UK manufacturing is confined to Great Britain.

<sup>5</sup>Turnover figures include internal sales.

- (c) Kaysersberg Packaging—continental European packaging ([£] million turnover in year ended 30 April 2004), with plants in France, Poland, Italy, Turkey and the Czech Republic.
- 2.8 DS Smith Packaging has seven integrated plants, two sheet feeder plants, and 14 sheet plants (see paragraphs 2.2 to 2.3 and Figure 2). Its operating profit as a percentage of average trading capital<sup>1</sup> was [%] per cent in the year ended 30 April 2004, although this varied by business segment, with the lowest returns in its conventional integrated plants and sheet feeding segments. St Regis operates six mills, mostly producing CCM, and owns Severnside Recycling.

## **Linpac**

- 2.9 The Lincolnshire Packaging Co was founded by Mr Evan Cornish in 1959 to supply corrugated cases to local vegetable growers. By 2002 Linpac, the original business, was a subsidiary of LINPAC Group Ltd, a diversified supplier of paper and plastics-based packaging, returnable packaging systems and plastic automotive components. The group had operations in 25 countries. Group revenues for 2002 (the last complete year before the management buyout) were £1.2 billion.
- 2.10 Linpac Group<sup>2</sup> remained a family business until it was the subject of a management buyout supported by Montagu Private Equity (Montagu) in August 2003. Linpac was involved primarily in the supply of corrugated paper packaging. In 2003 Linpac had a turnover of £175 million, all generated in Great Britain, and an operating profit of £13.5 million.
- 2.11 In February 2004, Linpac transferred its moulded foams business to another part of the Linpac Group and acquired the Ralegh business (a manufacturer of dies for cutting cases), as well as transferring some land and buildings. The businesses that comprised Linpac after these transactions had a turnover of £165 million in 2003.
- 2.12 Linpac's principal activity remains the supply of corrugated paper packaging in Great Britain, accounting for 93 per cent of sales. It also includes two smaller businesses: LINPAC Sacks (a supplier of paper sacks), and Ralegh.
- 2.13 Linpac owns six integrated plants (at Louth, Featherstone, Devizes, Glasgow, Rawcliffe and Erith), a sheet feeder plant in Louth, and a sheet plant in Louth<sup>3</sup> (see Figure 2). In 2003 most of its sales and operating profit came from its integrated plants. Overall its plants were more profitable than those of DS Smith (see Appendix H).

## **3. The merger**

### ***Outline of merger situation***

- 3.1 DS Smith told us that it had been interested in buying Linpac Group for some years. However, the owners of Linpac Group preferred to sell the business to a private equity buyer (see paragraph 2.10). Immediately after the management buyout

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<sup>1</sup>Excluding goodwill.

<sup>2</sup>This transaction resulted in the creation of a new holding company which, following two changes in name, is now called LINPAC Group Ltd. We refer to all the various holding companies as Linpac Group, except where stated.

<sup>3</sup>The sheet plant in Louth is operated by Shorepac Ltd (trading as Eastern Box), in which Linpac Containers Ltd acquired an 86 per cent interest in August 2002.

supported by Montagu, DS Smith's Chief Executive approached Linpac Group about acquiring Linpac.

- 3.2 Following these discussions Linpac Group decided to put the Linpac business up for auction, and an information memorandum was circulated to several interested parties in November 2003. DS Smith submitted a non-binding indicative offer of £[x] million on 9 December 2003, and was invited to participate in the next stage of the sale process. Following management presentations and further discussions, and facing a competing bid [x], DS Smith raised its offer to £[x] million on 2 January 2004. Two bidders [x] participated in due diligence, resulting in a final offer from DS Smith of £[x] million (later raised to £[x] million). On 9 February 2004, DS Smith signed an exclusivity arrangement with Linpac Group.
- 3.3 DS Smith and Linpac Group entered into a conditional Share Purchase Agreement on 2 March 2004. It provided for the sale of all issued shares of Linpac for £170 million. After adjustments for interest, acquisition costs and acquired cash, the net purchase consideration was £167 million. Shareholder approval was obtained on 22 March 2004, allowing the transaction to be completed on the same day. The merger was not conditional on the prior approval of the competition authorities.
- 3.4 As a result of the transaction, DS Smith's portfolio of plants in UK corrugated packaging has been augmented substantially. Figure 2 shows DS Smith's combined UK corrugated packaging plant portfolio following the merger.

FIGURE 2

The combined portfolio of DS Smith and Linpac plants



Source: DS Smith.

## ***The rationale for the merger***

- 3.5 DS Smith said in its circular to shareholders that the merged group would become the leading UK paper packaging company, mirroring similar market positions in recycled paper and CCM. It would have large-scale, efficient, low-cost plant, good geographic coverage (see Figure 2) and a broad product offering. The rationale for the merger was to increase sales and rationalize plant by:
- (a) broadening DS Smith's customer base, as Linpac was focused on customers in the fast-moving consumer goods (FMCG) segment;
  - (b) acquiring a well-invested manufacturing operation and benefiting from Linpac's expertise in producing corrugated packaging from lightweight CCM;
  - (c) improving DS Smith's balance between production of CCM and corrugated packaging, providing the group with a smoother earnings profile; and
  - (d) improving the merged group's competitiveness by rationalizing certain integrated plants and by eliminating duplicate head office functions.
- 3.6 Around 85 per cent of Linpac's turnover is accounted for by FMCG manufacturers. As manufacturing moves overseas from Britain, decreasing the demand for corrugated products for use in the industrial segment, the FMCG segment continues to be relatively robust. This segment has also driven the move towards lightweight packaging, where Linpac has a leading position in the UK. The acquisition of Linpac will allow DS Smith to share Linpac's expertise in lightweight packaging across the group [X].
- 3.7 DS Smith has estimated total pre-tax synergies from the acquisition to be [X] £14.5 million a year (excluding one-off integration costs). These would arise from:
- (a) cost reduction through rationalization of facilities and the elimination of duplicate head office functions amounting to at least [X] million a year;
  - (b) better capacity utilization in both corrugated packaging and paper, as Linpac will take an additional 25,000 tonnes of CCM from St Regis amounting to [X] million a year; and
  - (c) improved paper margins from a better market mix as a result of the strengthening of DS Smith's position as a major British buyer and seller of CCM amounting to [X] million a year.<sup>1</sup>
- 3.8 DS Smith told us that the price it had paid for Linpac was at the upper end of valuations, a view shared by several third parties. Nevertheless, DS Smith was confident that the price paid reflected the value of Linpac to it, particularly given the level of synergies available.
- 3.9 We return to the rationale for the sale in discussing the situation that would have arisen if the merger had not taken place (the counterfactual) in paragraphs 5.41 to 5.44.

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<sup>1</sup>DS Smith told us that this would arise as CCM currently being sold at a lower price in southern Europe could be sold at a higher price into northern Europe through reciprocal arrangements with the current suppliers of Linpac (known as 'swaps').

## **Jurisdiction**

3.10 On a reference under section 22 of the Act, the CC is required to decide whether a relevant merger situation has been created<sup>1</sup> such that:

- (a) two or more enterprises cease to be distinct; and
- (b) either the turnover test or share of supply test is satisfied.

3.11 As a result of the transaction, DS Smith and Lincac ceased to be distinct. The UK turnover of Lincac exceeded £70 million, so the turnover test set out in section 23(1)(b) of the Act was satisfied. We therefore concluded that a relevant merger situation had been created.

## **4. Market definition**

4.1 We considered market definition for three separate stages of production: CCM, sheet and cases. For each of these we examined both product and geographic market definitions, applying the methodology set out in our guidelines,<sup>2</sup> and taking account of previous European Commission merger decisions. The results of our sheet customer questionnaire, as well as evidence from DS Smith and third parties, contributed to our view of the market.

## **CCM**

4.2 Lincac was not present in the supply of CCM, so there was no horizontal overlap between DS Smith and Lincac in the supply of CCM. However, the definition of the CCM market was relevant to the consideration of any vertical effects of the merger.

4.3 DS Smith argued that there was a single product market for CCM because:

- (a) there was a continuous chain of demand-side substitution between different grades, weights and widths of liner (including both kraftliner and testliner), and between different types of fluting;
- (b) there was supply-side substitutability between fluting and liners made from virgin fibres, between fluting and liners made from recycled fibres, and between some types of liners; and
- (c) the European Commission had never found that there were separate product markets within CCM (although in a few cases the European Commission had left open the question of whether the market could be sub-divided into kraftliner and testliner).<sup>3</sup>

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<sup>1</sup>Section 35(1)(a).

<sup>2</sup>CC2 Merger References: Competition Commission Guidelines, June 2003.

<sup>3</sup>See Case COMP/M.2391 CVC/Cinven/Assidomän, paragraph 12; Case COMP/M.2243 Stora Enso/Assidomän/JV, paragraph 17; Case COMP/M.2020 Metsä-Serla/Modo, paragraph 27; Case IV/M.1442 MMP/AFP, paragraph 12; Case IV/M.1208 Jefferson Smurfit/Stone Containers, paragraphs 17–19; Case IV/M.613 Jefferson Smurfit Group PLC/Munksjo AB, paragraph 12; Case IV/M.549 Svenska Cellulosa/PWA, paragraph 19; and Case IV/M.499 Jefferson Smurfit/Saint Gobain, paragraph 10.

- 4.4 DS Smith argued that the geographic market for CCM was at least EEA-wide, citing previous European Commission merger decisions in support of this view.<sup>1</sup>
- 4.5 We considered the possibility that product and geographic market definitions might be linked such that a separate product market for testliner would also imply a separate geographic market. We looked at the levels of imports of recycled CCM into the UK.<sup>2</sup> We were told by DS Smith that around 35 per cent of total CCM requirements had been imported in 2003, and that this share had risen to 37 per cent in the first four months of 2004. Imports of recycled CCM (primarily testliner) had been at about 15 per cent, and had recently risen to 20 per cent of UK demand. This was supported by information from our competitor questionnaire, which suggested that 16 per cent of recycled CCM was imported.<sup>3</sup>
- 4.6 We examined pricing data to evaluate whether there was a link between CCM prices in the UK, France and Germany. We found that the prices of CCM in the three countries moved together, as did the prices of kraftliner and testliner, despite the differences in inputs (see Figure 1 in Appendix D).
- 4.7 We also investigated the differences between UK CCM prices and those in continental Europe. Figure 2 in Appendix D shows that on average UK Testliner 3<sup>4</sup> prices over the past seven years were 3.3 per cent higher than those in France (there is a similar average differential with Germany). The differential fluctuates around this mean and UK prices were not always higher than prices in France. We considered that, in the absence of other evidence, such a small differential did not support a national geographic market definition.
- 4.8 We therefore concluded that the market for CCM was wider than the UK and was probably EEA-wide. We did not consider whether the geographic market could be wider than this. We did not believe that there was a separate UK testliner market.

## **Sheet**

- 4.9 Sheet is produced by corrugators in either sheet feeder or integrated plants (see Figure 1 and paragraph 2.3). We had no reason to believe that the product market was wider than the manufacture and sale of sheet. In recent merger decisions the European Commission also found that the market for the supply of sheet was distinct from the market for the supply of cases.<sup>5</sup>
- 4.10 We considered whether or not there was a narrower product market. In general, corrugators can produce most types of sheet, with the exception of heavy duty and microflute grades of sheet. However, given the limited overlap between DS Smith and Linpac for these grades of sheet (Linpac produces only very small amounts of heavy duty and microflute grades), we did not consider further whether these constituted separate product markets. Another possible segmentation of the market might arise from specific service characteristics, such as a requirement for just in time (JIT) delivery. Although there may be some differences in the requirements of

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<sup>1</sup>See most recently Case COMP/M.2391 CVC/Cinven/Assidomän, paragraph 23; and Case COMP/M.2243 Stora Enso/Assidomän/JV, paragraph 21.

<sup>2</sup>It was clear that the vast majority of kraftliner was imported, so our focus was on testliner.

<sup>3</sup>Based on responses covering 57 out of the 77 plants questioned.

<sup>4</sup>We chose a waste-based product for comparison, as UK producers would not have any market power over virgin products, which they do not supply.

<sup>5</sup>See most recently Case COMP/M.2391 CVC/Cinven/Assidomän, paragraph 13 and Case COMP/M.2032 SCA Packaging/Metsä Corrugated, paragraphs 14 and 15.

different customers, resulting in separate niche segments, we did not believe that service characteristics created separate markets.

- 4.11 We also considered whether or not there was a separate market for the third party supply<sup>1</sup> of sheet—ie the sheet that was bought and sold on the open market (around 20 per cent of sheet production), rather than produced for in-house conversion into cases (around 80 per cent). The OFT concluded that merchant supply could be considered to be a separate market because, in its view, a relatively large price rise would be required to initiate supplies of sheet to third parties from plants currently producing for in-house use only.
- 4.12 DS Smith argued that the market for the supply of sheet should include both self-supply and third party supply. This was because integrated plants currently supplied almost 5 per cent of the third party supply of sheet and, DS Smith argued, other integrated plants would begin to do so if the price of sheet rose by 5 per cent.
- 4.13 Historically, integrated plants supplied sheet to third parties. Evidence from some competitors suggested that, depending on the physical layout of the integrated plant, it would be relatively easy to adapt it to produce sheet for third parties, and the capital investment required could be relatively low.<sup>2</sup> We were also told that there was a significant amount of spare capacity in the industry (see paragraphs 5.13 to 5.15), some of which could be used to produce sheet for third parties should prices rise. We considered that, all other conditions being unchanged, a 5 per cent increase in the price of sheet to third parties would give rise to a competitive response from some integrated plants within a year without the need for significant investment.<sup>3</sup>
- 4.14 In any event we believed that because sheet plants and integrated plants competed to sell cases to end users, a price rise affecting third party supply of sheet would only be sustainable if there were a corresponding rise in the price of cases from integrated plants. In the absence of market power in the downstream cases market, a hypothetical monopolist of third party supply of sheet would not be able profitably to sustain a price rise.
- 4.15 On balance, we therefore concluded that the relevant product market was the manufacture and supply of sheet used for making cases, although the competitive effects within the third party and in-house supply segments of the market might need to be considered separately.
- 4.16 With regard to the geographic market for sheet, the results of our sheet customer questionnaire showed that sheet was generally transported less than 200 miles from its point of manufacture, although transport over longer distances was not uncommon. DS Smith argued that the geographic market should be Great Britain, and cited several European Commission decisions stating that the supply of sheet may be as wide as national, if not wider, in support.<sup>4</sup> Within Great Britain, there was a succession of sheet feeder and integrated plants with overlapping areas of supply. Given the overlapping regional territories, the lack of any clear regional breaks, and the fact that the main suppliers all operated a number of plants spread across Great Britain, we concluded that it was most appropriate to consider the market to be Great Britain.

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<sup>1</sup>This was referred to as 'merchant supply' by the OFT.

<sup>2</sup>Circa £60,000 for a palletizing/strapping machine (which takes the stack of sheet and straps it on to a pallet for transporting to the customer), although the costs could be higher depending on specifics of plant.

<sup>3</sup>The hypothetical monopolist test set out in the CC's guidelines.

<sup>4</sup>In most of the decisions concerning the sheet market cited by DS Smith, the European Commission did not reach a definitive view on the geographic extent of the market. In Case IV.M/1418 SCA Packaging/Rexam, the European Commission found that the geographic market for non-heavy duty sheet was largely regional, though the market for heavy-duty sheet was broader than national.

- 4.17 We considered whether or not the market should be wider than Great Britain, since we had heard from some third parties, as well as from DS Smith, that there was an increasing supply of French sheet delivered, in particular, to sheet plants in the South-East of England. Although we recognized that suppliers from outside Great Britain (particularly the French supplier Cartonneries de Gondardennes S.A. (Gondardennes),<sup>1</sup> based in northern France), provided an alternative for some customers, we believed that at present they did not constitute an alternative source of sheet for the majority of customers, and their sales were insufficient to affect competitive conditions throughout Great Britain. This is discussed further in the section on entry (see paragraphs 5.79 to 5.81).
- 4.18 We concluded that the relevant market was the manufacture and supply of corrugated sheet for making cases in Great Britain.

## Cases

- 4.19 There is huge variety in case design. Each case configuration could in theory create a separate market on the demand side. However, DS Smith argued that both the continuum of solutions on the demand side and (with limited exceptions) the ease of substitution on the supply side, meant that cases formed part of a single product market. DS Smith also noted that previous European Commission merger decisions had not found that the economic market should be divided into smaller markets, but had left the position open in several instances.<sup>2</sup>
- 4.20 As with sheet, we considered whether the product market might be narrower than cases. Again, because there was little overlap between DS Smith and Linpac in the two areas of heavy duty and microflute cases, we did not consider this any further. We also received no evidence to suggest that separate service characteristics created niche markets (see results of large case customer questionnaire, Appendix C).
- 4.21 We also considered whether or not the market should be drawn more widely than cases by investigating whether, in the face of a 5 per cent price rise, customers would be prepared to switch to alternative types of packaging (for example, returnable plastic crates, cartonboard or wood). DS Smith and several third parties said, and we agreed, that in the short term there was little practical likelihood of significant switching to alternative packaging materials, from either a demand or a supply perspective. We noted that a decision on the type of packaging to be used for a product was influenced by a variety of factors, of which the price of corrugated packaging was only one. Once the type of packaging had been chosen, switching costs were significant. There had been some shift to returnable plastic crates over the past few years, but we were told that this was unlikely to increase significantly in the near future. We received no evidence to contradict this view. The relevant market was therefore drawn no more widely than cases.
- 4.22 With regard to the geographic market for cases, DS Smith argued that it should be Great Britain. We agreed that it was unlikely, given the level of transport costs and the service requirements of customers, that it should be wider than Great Britain. Once again, we considered whether or not there were any regional markets within Great Britain. Cases tended to be supplied over shorter distances than sheet, but, for

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<sup>1</sup>In addition to a salesperson in the South-East of England, we were told that Gondardennes had appointed an agent to cover the Midlands.

<sup>2</sup>See Case COMP/M.2243 Stora Enso/Assidomän/JV, paragraph 20; Case COMP/M.2032 SCA Packaging/Metsä Corrugated, paragraph 13 and Case IV/M.1418 SCA Packaging/Rexam, paragraphs 10 and 11.

similar reasons to those set out in paragraph 4.16, we concluded that it would be most appropriate to consider the geographic market for cases to be Great Britain.

- 4.23 We therefore concluded that the relevant market was the manufacture and supply of cases in Great Britain.

### **Conclusions on market definition**

- 4.24 We concluded that the relevant markets primarily affected by the proposed merger were the manufacture and supply of sheet used for making cases in Great Britain, and the manufacture and supply of cases in Great Britain. We did not find there to be a separate market for third party supply of sheet. We concluded that the market for CCM was wider than the UK and was probably EEA-wide.

## **5. Assessment of the competitive effects of the merger**

- 5.1 We are required under the Act to decide whether the merger has resulted, or may be expected to result, in an SLC within any market or markets in the UK for goods or services.<sup>1</sup> In this section of the report we look at the competitive effects of the merger having regard to our guidelines.<sup>2</sup> We examine in particular the relevant markets for sheet and cases, since these are the areas of horizontal overlap between DS Smith and Linpac. We first outline some key features of DS Smith's competitors, and then discuss factors affecting rivalry in the relevant markets, including capacity and utilization, market shares and concentration, and pricing. Following a discussion of the counterfactual, we examine the competitive effects of the merger, including the existence of competitive constraints. This leads to our conclusion as to whether we expect an SLC as a result of the merger.

### **DS Smith's competitors**

- 5.2 Following the merger there were five major companies in the supply of corrugated products in Great Britain: DS Smith, Mondi Packaging UK Holdings Ltd (Mondi), SCA UK Holdings Ltd (SCA), Smurfit UK Ltd (Smurfit) and Kappa Corrugated UK Ltd (Kappa). Other suppliers included Cepac Ltd (Cepac), Corpack Industries Ltd (Corpack), Encase Ltd (Encase), International Paper Containers (UK) Ltd (IPC), Rigid Group Ltd (Rigid), TRM Packaging Ltd (TRM) and Western Corrugated Ltd (Western), as well as many smaller corrugated packaging suppliers, particularly in the cases market.
- 5.3 Mondi is part of Anglo American plc, a UK quoted company and a global leader in mining and natural resources. It entered the UK corrugated packaging market in 1999 through the acquisition of Amcor, and subsequently acquired Danisco in 2001 and Hypac in 2002. It is a fully integrated producer, with two paper mills, three sheet feeder plants, four integrated plants, and 17 sheet plants. In Great Britain it is a large net purchaser of CCM and a net seller of sheet. [REDACTED]. It sold around 50 per cent of its sheet to third parties in 2003.
- 5.4 SCA is a subsidiary of Svenska Cellulosa Aktiebolaget SCA (publ) (SCA Group), a Swedish quoted company. SCA Group operates from more than 200 locations in 30

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<sup>1</sup>Section 35(1)(b).

<sup>2</sup>CC2 Merger References: Competition Commission Guidelines, June 2003.

countries. SCA is one of the leading manufacturers in Great Britain, having grown through several acquisitions, including Reedpack in 1990 and the corrugated activities of Rexam Plc in 1998. It is a fully integrated producer, with one sheet feeder, 11 integrated plants and 17 sheet plants. Although it does not sell significant amounts of CCM in Great Britain, it produces testliner and recycled fluting for its own use and imports kraftliner, primarily from SCA Group. It sells only a small amount of sheet to third parties, but provides sheet to its sheet plants from both its sheet feeder and its integrated plants.

- 5.5 Smurfit is part of the Jefferson Smurfit group, an international packaging group which has been owned by Madison Dearborn Partners, a private equity firm, since 2002. Smurfit entered the UK in 1971 when it acquired 18 per cent of WJ Noble & Son Limited, a UK print and packaging company, and has grown through acquisition. It has two sheet feeder plants, five integrated plants, and seven sheet plants in Great Britain, as well as a strong presence in Ireland.
- 5.6 Kappa Packaging BV is one of the largest European producers of corrugated products. It is vertically integrated back to paper production. The company was acquired in 1998 by CVC Capital Partners and Cinven Ltd. Its largest acquisition in the UK was the corrugated and containerboard businesses of AssiDomän AB in 2001. At December 2003 Kappa had one mill and four integrated plants in Great Britain, and is not currently active in the sale of sheet to third parties.
- 5.7 Western has been a producer of sheet since the 1980s. [REDACTED]
- 5.8 We found that there was an element of similarity in the vertical structure of the leading suppliers. With the exception of Linpac, each of the leading suppliers was present in CCM, sheet and cases. Their cost bases were similar in that a high proportion of total cost reflected commodity raw materials, and the technology used in the conversion of raw materials was the same for all companies. However, as set out in paragraph 5.12, new generation machinery may widen the gap between the most and least well-invested producers. We also noted that there was significant variation in the balance between these various activities. In particular, DS Smith told us that Kappa and DS Smith (even following the merger) were 'long' on CCM, that is to say that they produced more CCM in Great Britain than they purchased, whereas Smurfit was more balanced and Mondi and SCA were 'short' on CCM, that is to say they purchased more than they produced. Kappa was not active in the sale of sheet to third parties, and SCA sold only a limited amount of sheet to third parties.
- 5.9 We noted that there was a high level of interaction between the major competitors. At the CCM level, there were a series of 'swap' arrangements between the different companies. We were told that such arrangements came into existence because it was not considered to be economic for each company to produce the full range of CCM products, and there was a saving in transport costs. Further down the supply chain, most of the major competitors were customers of one another for sheet, while competing in the supply of sheet and cases. There had also been some strategic interactions between the major players,<sup>1</sup> and these, together with movement of key personnel between companies, increased awareness of each other's wider strategic objectives.
- 5.10 We were told that the importance of providing a pan-European offering had increased in recent years, as some of the larger multinational purchasers of cases sought to leverage their buying power across the continent. This has led smaller companies to

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<sup>1</sup>For example Mondi acquired Danisco's plants and immediately sold some on to DS Smith, [REDACTED].

enter into pan-European alliances so as to be able to tender for pan-European business. Linpac, for example, was part of the TPN alliance with Sociedad Anonima Industrias Celulosa Aragonesa (SAICA), which manufactures in Spain and France, and Thimm Verpackung GmbH (Thimm), which manufactures in Germany. DS Smith was formerly a member of a competing alliance but, following the merger, replaced Linpac in the alliance with SAICA and Thimm.

### ***Underlying factors affecting rivalry in the relevant markets***

- 5.11 In addition to the increasing importance of the FMCG segment described in paragraph 3.6, there were other trends affecting the relevant markets:
- (a) increased demand for point of sale and shelf-ready packaging;
  - (b) an increase in the use of e-auctions, particularly by large buyers of cases;
  - (c) an increase in CCM capacity across continental Europe, with emphasis on investment in the manufacture of paper suitable for lightweight packaging; and
  - (d) increased volatility in OCC prices, driven by fluctuations in worldwide demand, particularly from China.
- 5.12 DS Smith said that new investment in wider and faster corrugators on the continent (for example, by Prowell GmbH and Kappa Packaging BV) was delivering significant cost reductions. It said that the resulting cost advantage might be large enough to affect the buying patterns of sheet customers in Great Britain including, at least in part, sacrificing the requirement for JIT delivery to the sheet plants in exchange for lower prices. In addition, DS Smith told us that a major supplier of sheet might, in the longer term, choose to invest in new technology in Great Britain.

### ***Capacity and utilization***

- 5.13 We sought information from DS Smith and its competitors about levels of utilization in the industry. We were told that utilization levels averaged 70 to 80 per cent, tending to be higher in sheet feeders and lower in sheet plants. One company told us that for economic operation, sheet feeders had to be operated with three shifts for five days a week, and sheet plants with two shifts for five days a week.
- 5.14 However, we understood that declared levels of utilization were not necessarily a good guide to the level of 'useable' spare capacity in the industry. Some spare capacity was necessary to have 'capacity to serve', recognizing fluctuations in demand (through the week and the year) and the need to retain flexibility to fill particular orders. However, both DS Smith and third parties agreed that there were significant levels of spare capacity, not all of which was required for these purposes. DS Smith told us that, in the sheet market, there was 25 to 30 per cent spare capacity on current shift patterns, with a further 25 to 30 per cent increase available if producers switched to 24 hours a day, seven days a week working. Whether or not these estimates were correct, we were satisfied that there was a substantial amount of spare capacity in the industry.
- 5.15 DS Smith told us that there were several ways in which capacity could be increased:

- (a) output could be increased immediately on current shift and overtime patterns by operating at full capacity, or by increasing capacity through overtime work (albeit at some additional cost);
- (b) in the short term (a matter of months), capacity could be increased by adding a new shift; and
- (c) capacity could also be increased further by recommissioning idle or mothballed plant.

### *Market concentration*

#### *CCM*

- 5.16 DS Smith told us that the market share of the top five producers of CCM in the UK was around 70 per cent in 2003. DS Smith was the largest producer, with more than 25 per cent of the market, followed by SCA and Kappa (10 to 15 per cent), and Mondi and Smurfit (5 to 10 per cent). As explained in paragraph 4.2, Linpac did not produce CCM. Given our CCM market definition (see paragraph 4.8), we also noted DS Smith's estimate that it had a market share of less than 5 per cent of the CCM produced in the EEA. Linpac's purchases of CCM represented 10 to 15 per cent of UK purchases and around 1 per cent in the EEA.

#### *Sheet*

- 5.17 In 1999 the combined market share in Great Britain of the top six sheet suppliers was around 65 per cent. By 2003 this had increased to around 75 per cent. As a result of the merger, the major sheet producers reduced from six to five, and the market became fairly concentrated.<sup>1</sup> Using 2003 sales data, DS Smith's market share as a result of the merger approximately doubled to around 25 per cent, and it became the largest sheet producer in Great Britain. The other major sheet producers were Mondi and SCA (15 to 20 per cent), Smurfit (10 to 15 per cent), and Kappa (5 to 10 per cent). Other significant producers included Western and Cepac. No other producer had a significant share of the market.
- 5.18 As noted previously, around 80 per cent of sheet was produced for in-house consumption. The supply of the remaining 20 per cent of sheet to third parties was more concentrated, since Kappa and SCA did not sell sheet to third parties to any significant extent. Hence the five largest suppliers to third parties before the merger reduced to four (Smurfit, DS Smith including Linpac, Mondi and Western), and accounted for more than 85 per cent of third party sales in 2003. DS Smith's share of third party sales of sheet increased from 15 to 20 per cent to around 25 per cent as a result of the merger.

#### *Cases*

- 5.19 The cases market is more fragmented than the sheet market. After the merger, the five major producers of sheet (see paragraph 5.17) had a share of around 60 per cent of the total supply of cases in Great Britain. Based on 2003 market share estimates, DS Smith doubled its market share to around 20 per cent as a result of the merger to become the largest case producer in Great Britain. Other major producers were SCA and Mondi (10 to 15 per cent), Kappa (5 to 10 per cent) and Smurfit (0 to

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<sup>1</sup>The Herfindahl-Hirschmann Index (HHI) increased from between 1,000 and 1,200 to 1,449 (see Appendix B).

5 per cent). There were many smaller integrated producers, including Cepac, Encase, IPC, TRM and Rigid, as well as small sheet plant operators, which purchased sheet from suppliers of sheet to third parties.

### *Pricing*

- 5.20 In this section we look at the relationships that exist between customers and suppliers, the way that prices are set, the details of headline and actual price rises, and overall levels of pricing. Again our main focus is on the sheet and cases markets.

#### *CCM*

- 5.21 DS Smith told us that contracts for CCM were generally made on an ad hoc basis with a duration of less than one year. However, it had long-term contracts with [redacted] important UK customers: [redacted]. In each of these contracts, the customer committed to purchase either a minimum volume or a specified proportion of its CCM requirements from DS Smith in return for a commitment on pricing [redacted].
- 5.22 We were told by several parties that CCM prices were determined by supply and demand over the paper cycle. Headline price increases were typically announced in response to changes in input costs (primarily OCC, but also other inputs such as starch, energy, and insurance), some of which depended on worldwide factors. The extent to which increases in input costs could be passed on in higher prices depended on the level of demand.
- 5.23 A detailed analysis of CCM pricing was beyond the scope of this inquiry (see paragraph 5.104).

#### *Sheet*

- 5.24 DS Smith told us, and other parties confirmed, that there were few long-term contracts for sheet. Customer-specific price lists were agreed with individual sheet customers, detailing prices by product category (for example, browns, white/mottled etc) and grade, by flute (for example, B, C, BC), and by volume break. Customers then placed orders against their own price list.
- 5.25 We found from our sheet customer questionnaire that, although customers tend to have a long-term relationship with their main supplier, more than half of those who responded considered that they were able to switch suppliers without any notice period. Despite some customers suggesting that they faced disincentives to switch, including a few reports of difficulties in obtaining competitive quotes, the responses overall suggested that it was generally easy for sheet customers to switch at least some of their business between competing sheet suppliers in response to a change in price. The questionnaire responses that we received showed that 47 per cent of customers switched main supplier in the last three years, 67 per cent started using a new supplier, and 40 per cent stopped using an existing supplier. The relative ease of switching was supported by the win/loss data provided by DS Smith for the past four years which showed that, on average, between 15 and 25 per cent of its total business was newly won each year, whilst between 10 and 20 per cent was lost. In general customers had good visibility of prices on offer from competing suppliers, and sometimes shared these with their current supplier during price negotiations. On the other hand, DS Smith told us that customers were often offered discounts based on volume which provided some incentive to place a higher share of orders with one supplier.

- 5.26 DS Smith told us that sheet prices were closely linked to CCM prices, and that CCM made up around two-thirds of the cost. Prior to the April 2004 price increase, DS Smith's and Linpac's average sheet prices were at a similar level, in nominal terms, to five years previously, although the subsequent price rise brought prices back up to comparable levels in real terms.
- 5.27 We were told that headline increases in sheet prices followed closely after headline increases in the price of CCM. Headline sheet price rises were announced in April 2004, July 2002, and at least twice in 2000, driven, we were told, by increases in CCM costs. There was also an announcement of a headline price increase in November 2003 by some producers, led by DS Smith which, we were told, had been in anticipation of a CCM price increase. When the CCM price rise did not materialize, the sheet price rise was withdrawn.
- 5.28 We looked in particular at the last two headline price rises (2004 and 2002), and at the failed price rise in November 2003. In July 2002, Mondi appeared to have been the first company to write to its customers. The other major suppliers followed, all announcing very similar, or identical, price rises on similar timescales. In November 2003 and April 2004, DS Smith was the first to write proposing a price rise. In April 2004 its major competitors followed closely behind, with similar or identical levels of announced price rises (see Tables 1 and 2 in Appendix D).
- 5.29 We discussed with DS Smith how these price rises came about. It explained to us that the largest component of a headline price increase (around two-thirds in the case of the April 2004 increase) was an arithmetic calculation reflecting the headline price increase in CCM. The remainder (around one-third), enabled DS Smith to recover some of the ongoing cost pressures such as increases in the prices of energy, starch and transport that it had not been able to pass on to customers since the last price increase, as well as providing, where necessary, some scope to negotiate lower prices than those implied by the price increase letter.
- 5.30 DS Smith argued that, once a price rise had been announced by one supplier in the market, a rational competitor might choose to announce an identical or very similar headline price increase in order not to limit the increase it might achieve, to allow maximum scope for negotiation, and to avoid revealing any market growth strategy. We noted that, despite the element of judgement involved in coming to an overall headline price increase announcement, all major suppliers appeared to arrive at very similar price rises.
- 5.31 DS Smith told us that announcements of headline price increases were a good way to get a general message on pricing and costs to the market. However, in its view, headline price increases provided only limited information about actual price movements, which were negotiated on a bilateral basis and varied considerably from customer to customer (see paragraph 5.57). Prices could be adjusted rapidly to an individual customer simply by issuing a new price list to that customer, and this took place on a regular basis.
- 5.32 We investigated the efforts that were made to help sustain headline price rises in general, and the April 2004 price rise in particular. We observed that, following the 2004 sheet price increase, a trade association, the SPA, provided a briefing note giving a justification for the price increase to its converter members (see Appendix E). The purpose of the note was to assist these members in arguing for higher case prices from their customers. We understand that the briefing note was put together with help from the sheet supplier members (in particular [X]). A similar briefing note was produced in 1999. DS Smith told us that the SPA did not play a role in enabling

headline sheet price rises to 'stick', and that this depended primarily on the level of CCM price rises.

- 5.33 In addition, within DS Smith, the Chief Executive of DS Smith Packaging wrote to the heads of the individual DS Smith plants, setting out the rationale for the sheet and case price increases, and asking that tender activity be minimized during the price increase to try to ensure that price increases 'stuck' as far as possible.
- 5.34 We looked in detail at the sheet prices achieved by DS Smith's and Linpac's sheet feeder plants over the past five years (see Figure 3 in Appendix D). We observed that prices tended to increase sharply when headline price increases were announced, followed by a declining trend over the following period. DS Smith told us that price erosion occurred as customers pushed back against the increase, either by negotiating more advantageous rates with their supplier or by switching some or all of their business to a cheaper supplier. The responses to our sheet customer questionnaire confirmed that customers had behaved in such a way in response to the April 2004 price rise.
- 5.35 We noted also that there were sometimes small increases, against the overall trend of declining prices, between headline price increase announcements. We were told that there were ongoing bilateral negotiations between suppliers and customers, for both existing and new business. It appeared to us, therefore, that some changes in price (reflective of increased input costs) might not be dependent only on headline price increases such as occurred in April 2004.
- 5.36 We also looked at the relative levels of DS Smith's and Linpac's prices for comparable products between June 2002 and May 2004. This showed that the two companies' prices tended to move closely together, although DS Smith's average prices for comparable products were lower throughout 2003, before converging with Linpac's prices in 2004. We also compared prices with one other major supplier, and again found that prices moved in parallel, but were unable to draw any inferences about relative price levels due to data limitations (see Figures 4 and 5 in Appendix D).

#### *Cases*

- 5.37 Longer-term pricing arrangements were more common in the cases market, although not necessarily in the shape of formal contracts. DS Smith told us that around half of its sales were based on agreements averaging two years in duration. These agreements were subject to fixed price periods (seldom more than six months), and/or mechanisms linking price variations to changes in published raw material indices.<sup>1</sup>
- 5.38 We were told by some third parties that switching costs were rather higher in the cases market. For larger customers in particular, with many different case designs and complicated requirements relating, for example, to hygiene and quality control, it could take as long as six months to deal with all the operational implications of a switch of suppliers. Evidence provided by DS Smith of wins and losses suggested that new business and lost business together averaged less than 10 per cent a year of its total business, compared with the higher figures for sheet shown in paragraph 5.25.

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<sup>1</sup>Generally Pulp & Paper International (PPI) or Europaischer Wirtschaftsdienst GmbH (EUWID).

- 5.39 As with the CCM and sheet markets, headline price increases took place in the cases market. The material supplied to us by the SPA concerning the April 2004 price increase showed that suppliers regarded 'back-to-back' increases in case prices as necessary to achieve a sheet price rise. Again we observed a similar pattern of increases in average realized price following a headline price rise announcement, followed by a flat or declining trend. However, the lower proportion of case costs accounted for by CCM, together with the fact that case contracts often contain price adjustment mechanisms, meant that the impact of headline increases on average prices was less marked than for sheet.
- 5.40 For both sheet and cases, price is only one factor in the choice of supplier. Our sheet customer questionnaire provided evidence of the importance of quality and service, as well as price. For many case customers, particularly in the FMCG sector, JIT delivery was critical to the smooth running of their plant operations.

### ***Counterfactual***

- 5.41 We next assessed what would be likely to have happened in the absence of the merger (the counterfactual).
- 5.42 Both Linpac Group and DS Smith told us that the decision to sell Linpac was at least to some degree precipitated by DS Smith's approach. Linpac was a profitable business (see paragraph 2.10) and we saw no reason to doubt that these profits were sustainable, at least for the next 12 to 18 months. In the longer term, we believed that Linpac would have been sold, given Linpac Group's scale in plastics rather than corrugated packaging.
- 5.43 We were not in a position to come to a definitive view as to other possible outcomes to the sales process referred to in paragraph 3.2, or other possible sales. We noted, however, that in that auction the unsuccessful bidder at the final stage was an established corrugated packaging company with no presence, other than sales of CCM, in any of the markets that we were considering.
- 5.44 We concluded, therefore, that in the absence of the merger, it was likely that Linpac would have remained as a competitor in the market in the short to medium term.

### ***Effects of the merger***

- 5.45 The next section of the report assesses the effects of the merger compared with the counterfactual, taking into account the existing competitive situation and the underlying factors set out in paragraphs 5.2 to 5.40.

#### ***Effects in the CCM market***

- 5.46 We considered whether DS Smith's increased share of the sheet market might have adverse effects in the upstream CCM market.
- 5.47 The merger might be viewed as giving DS Smith the opportunity to limit access by its rivals to a significant buyer of CCM, Linpac. However, given our conclusion that the CCM market was wider than the UK, and was probably EEA-wide, we did not believe that Linpac's purchases were large enough for such a foreclosure to result in substantial adverse effects in this market. We therefore did not examine this aspect any further.

## *Effects in the sheet and cases markets*

- 5.48 The merger had the effect of removing an independent competitor, Linpac, in the supply of both sheet and cases.
- 5.49 We examined the potential for unilateral effects in both the sheet and cases markets. However, the relatively low market share of the merged entity (around 25 per cent or less) suggested that it would be difficult for DS Smith to act independently to exploit any potential market power in Great Britain. In addition, the geographic spread of DS Smith's plants (see Figure 2) and the existence of local competition made it unlikely that there would be unilateral effects at the local level. We therefore concluded that there was no likelihood of an SLC through unilateral effects in either the sheet or the cases markets.
- 5.50 The focus of our work, therefore, was to consider whether coordinated effects were a likely outcome of the merger. In this report we refer to the likelihood of, or necessary conditions for, coordinated effects to cover coordinated effects occurring and being sustainable through time. This might occur either if the merger made existing coordination more sustainable or more effective, or if the merger increased the likelihood of coordinated effects that did not previously exist, in both instances so as to give rise to an SLC.
- 5.51 In assessing the likelihood of coordinated effects as a result of the merger, we addressed the following questions:
- (a) whether coordinated effects existed before the merger;<sup>1</sup>
  - (b) where such effects were found to have existed before the merger, whether the merger was likely to make coordination more sustainable or more effective so as to give rise to an SLC; or
  - (c) where such effects were found not to have existed before the merger, whether the merger would increase the likelihood of coordinated effects so as to give rise to an SLC.

We first considered the three necessary conditions for coordinated effects identified in the CC's guidelines in the light of the degree of competitive intensity in the relevant markets before the merger. We then looked at the impact of the merger on the likelihood of coordinated effects.

- 5.52 We concluded that there was little likelihood of coordinated effects in the cases market. This was because of the level of market concentration (lower than in the sheet market), the varying scale and structures of case producers, and the lower costs of entry into the cases market.<sup>2</sup> We therefore focused on the sheet market, which had been put forward as the key area of concern by the OFT. We recognized, however, that, since most sheet was produced for in-house conversion into cases, any successful exercise of market power in the supply of sheet would affect prices and market shares for cases. Some aspects of the cases market were therefore relevant to an assessment of the likelihood of coordinated effects in the sheet market. However, we did not accept DS Smith's argument that it would be necessary to

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<sup>1</sup>For this purpose, we use the pre-merger situation as a proxy for the counterfactual, which we identified as Linpac remaining as a competitor in the market (see paragraph 5.44).

<sup>2</sup>See also paragraph 5.62 for a discussion of competitor awareness in the cases market and 5.72 for details of the low cost of entry for sheet plants.

demonstrate coordinated effects in the supply of cases in order to find coordinated effects in the sheet market.

- 5.53 We assumed that the major suppliers which were most likely to have engaged in coordinated behaviour in the sheet market before the merger included Mondi, SCA, DS Smith, Linpac, Smurfit and Kappa. These were the six largest suppliers in both sheet and cases before the merger. Smaller suppliers were not included as they had different incentives and therefore would be likely to act as a competitive constraint on the major suppliers, particularly given the levels of spare capacity in the industry. Suppliers would be less likely to have an incentive to respond to any price cut by a smaller supplier, who would be more likely than would major suppliers to seek to expand market share rather than to maximize margins by conforming to prevailing price levels.
- 5.54 The CC's guidelines<sup>1</sup> identify three necessary conditions for coordinated effects as follows:
- (a) condition no 1 (awareness of competitor behaviour): the market must be sufficiently concentrated for firms to be aware of the behaviour of their competitors, and for any significant deviation from the prevailing behaviour by a firm to be observed by other firms in the market;
  - (b) condition no 2 (incentives to conform to the prevailing behaviour): it must be clear that it would be costly for firms to deviate from the prevailing behaviour; so costly that it will be in a firm's interests to conform to the prevailing behaviour rather than seek to deviate from it; and
  - (c) condition no 3 (weak competitive constraints): such parallelism can only be sustained in markets where there are relatively weak competitive constraints.

*Condition no 1 (awareness of competitor behaviour)*

- 5.55 We do not believe that it is necessary for all suppliers to have perfect knowledge of each other's business for the first condition (awareness of competitor behaviour) to be met. Each supplier needs to have enough information about its major competitors to be able to form a sufficiently accurate judgement of any significant deviation from the prevailing behaviour.
- 5.56 In the sheet market, prices and behaviour were most easily observed for the supply of third party sheet, which we believed to be representative of the sheet market as a whole. However, as discussed in paragraph 5.52, some aspects of the cases market were also relevant to our view of the awareness of competitor behaviour in the sheet market. We identified several factors that increased the awareness of competitor behaviour before the merger:
- (a) the sheet market was moderately concentrated (see paragraph 5.17);
  - (b) the major suppliers produced similar products, and had similar cost bases (see paragraph 5.8). All but Linpac were vertically integrated from CCM through to cases. These factors made it easier for the major suppliers to anticipate and interpret each other's behaviour;

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<sup>1</sup>CC2 Merger References: Competition Commission Guidelines, June 2003 paragraphs 3.37 to 3.40.

- (c) the main competitors were frequently customers or suppliers of one another for CCM and sheet, thus providing some information about competitors' prices and costs. In addition, there had been some strategic interactions between the major suppliers both in the UK and in other countries (see paragraph 5.9 and Appendix F);
- (d) competitors interacted frequently in seeking to retain existing business and in winning new business. This took place not only in the sheet market but also in the CCM and cases markets;
- (e) competitors sometimes received information from their customers about the prices of other suppliers in the market for both sheet and cases (see paragraph 5.25); and, most importantly
- (f) formal headline price increase announcements were highly transparent, and were sometimes reinforced by information disseminated through the SPA (see paragraphs 5.27 to 5.33 and Appendix E). Headline price increase announcements also increased the transparency of actual price increases (see paragraph 5.59).

5.57 DS Smith argued, on the other hand, that despite transparency in headline price increase announcements, actual prices were not transparent.<sup>1</sup> In particular it said that:

- (a) DS Smith's trades with competitors related to limited volumes of sheet and speciality grades, and hence the significance of major sheet producers supplying sheet to competitors (see paragraph 5.56(c)) was limited;
- (b) there were many active customers and different specifications of sheet (including product groups, fluting profiles, grades and volume breaks);
- (c) there was only limited transparency with respect to competitors' activities in the market; and
- (d) despite the relative transparency of headline price increases, actual prices were negotiated on a bilateral basis, exhibited considerable variation across customers and between grades, and were opaque.

DS Smith reiterated these points in response to our provisional findings.

5.58 We did not accept that the evidence provided by DS Smith should lead us to the conclusion that there was low awareness of competitor behaviour in the sheet market. We noted that DS Smith's and Linpac's top 30 sheet customers accounted for around three-quarters ([REDACTED] and [REDACTED] per cent respectively) of their sales of sheet to third parties in the year to April 2004. In addition, whilst there were many potential product specifications, the top four product categories<sup>2</sup> accounted for around two-thirds ([REDACTED] per cent) of DS Smith's and almost all ([REDACTED] per cent) of Linpac's revenues from sales of sheet. We therefore believed that the customer base was more concentrated than suggested by DS Smith (see paragraph 5.57(b)).

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<sup>1</sup>Lexecon Analysis *DS Smith/Linpac Containers—Price competition in the market for corrugated sheet in Great Britain, July 2004*.

<sup>2</sup>Browns B, Browns BC, Browns C and Whites B (based on CC analysis of DS Smith and Linpac pricing data).

- 5.59 DS Smith told us that prices varied across customers, and that the standard deviation of prices paid by its top 50 customers<sup>1</sup> for an identical product was significant at around [X] per cent. However, some of this variation was likely to derive from factors that were observable by competitors, such as the overall size of the customer account or the credit risk associated with the customer. DS Smith also told us that, taking account of the volume of sales of individual grades, and averaging across customers, the weighted standard deviation in prices within each of the main product areas was lower than unweighted figures would suggest (between [X] per cent). We also noted that, whilst there was variation in actual prices, headline price increases translated into an increase in actual prices at an aggregate level, and so headline price increases conveyed useful information to competitors about actual prices.
- 5.60 During the course of the inquiry, DS Smith told us that it had decided not to use headline price increase letters relating to sheet or cases in future. However, we noted that such a proposal was necessarily limited in scope. It related only to DS Smith's behaviour and not to that of the other major suppliers, and, more importantly, it did not remove the major suppliers' incentives to coordinate behaviour.
- 5.61 We recognized that effective coordination in the sheet market would involve a reasonably large number of competitors which might make the necessary mutual understanding relatively difficult to achieve. However, taken together with the factors outlined in paragraph 5.56, we believed that, overall, the competitor awareness condition was met in the pre-merger sheet market.
- 5.62 In the cases market, competitor awareness was lower than in the sheet market. There were many more product specifications, a larger number of customers and suppliers and the market was less concentrated. However, the other factors set out in paragraph 5.56 were also present, and, together with the increasing use of e-auctions, we considered there to be an element of competitor awareness in respect of cases as well as sheet, tending to reinforce our view that the competitor awareness condition was met in the pre-merger sheet market.

*Condition no 2 (incentives to conform to the prevailing behaviour)*

- 5.63 We found several factors that would allow suppliers to respond rapidly to a price cut by one supplier, so that it would be costly for that supplier to deviate from the prevailing behaviour of the other suppliers:
- (a) the ability to increase output of sheet and cases in the short to medium term without investing in new capacity (see paragraphs 5.13 to 5.15);
  - (b) low barriers to switching in the sheet market (see paragraph 5.25); and
  - (c) the ability to adjust prices rapidly in response to competitors' actions, particularly in the sheet market (see paragraph 5.31).
- 5.64 We were told that there were clear potential benefits for large suppliers from higher overall sheet prices. DS Smith told us that returns in sheet were very sensitive to variations in the prices obtained. Moreover, the similarities between the major suppliers in terms of vertical integration, cost bases and products reinforced each of the major suppliers' incentives to conform to the prevailing behaviour.

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<sup>1</sup>Excluding four outliers.

- 5.65 We noted that, in general, the incentives to deviate increased with the number of firms participating in any coordination. We also noted that whilst spare capacity made it possible to retaliate against any deviation from prevailing behaviour, it also increased the incentive to deviate. The willingness and ability of customers to switch gave a positive incentive for suppliers to grow market share as well as providing a retaliation mechanism for suppliers. DS Smith also put it to us that the major suppliers in this market had different incentives arising from their different contractual and cost structures and that it would be extremely difficult to have a targeted retaliation strategy without triggering a general price war.
- 5.66 However, on balance, the overall common incentive to achieve higher sheet prices, together with the existence of significant spare capacity and the apparent propensity of customers to switch if that capacity were to become available seemed to us to provide a powerful incentive to conform with any coordinated behaviour. We therefore concluded that the second condition for coordination was broadly met in that it would be costly for firms to deviate from coordinated behaviour.

*Condition no 3 (weak competitive constraints)*

- 5.67 Coordinated effects are only sustainable where there are relatively weak competitive constraints from outside the group of major suppliers. We therefore assessed the following competitive constraints:
- (a) new entrants (for example, a foreign manufacturer of CCM constructing an integrated plant or sheet feeder plant on a greenfield site);
  - (b) expansion through the creation of new capacity by smaller suppliers already in the market;
  - (c) increase in output by smaller suppliers using existing capacity;
  - (d) imports; and
  - (e) countervailing buyer power.
- 5.68 We considered the barriers to entry or expansion which might exist in the sheet or cases markets. We found no evidence to suggest that there were any regulatory barriers such as licences or intellectual property rights, nor did we find evidence of intrinsic barriers such as high levels of spend on advertising or research and development. We therefore focused on the investment required to create an operation at minimum efficient scale, and any need to sustain losses in early years as operational experience and customer credibility were gained.
- 5.69 In terms of building credibility, we believed that expansion by the existing smaller suppliers would be significantly easier than establishing a reputation as a completely new entrant. We therefore examined the economics of such expansion.
- 5.70 DS Smith supplied detailed cost estimates for the construction of new capacity by an existing supplier in the market, for both sheet feeder and integrated plants. We also included questions about the costs of new entry in our competitor questionnaire, as well as at third party hearings. We found that capital costs were low relative to turnover. The parties in general cited an initial investment of £5 million to £10 million to construct a sheet feeder plant, and £30 million to £35 million to construct an integrated plant using new equipment. In each case, this capital cost was not much more than a single year's expected turnover from each type of plant. Capital costs would be lower still if second-hand equipment were used, but we were not convinced that

this would represent a sufficiently robust business model to act as a competitive constraint as any savings in capital costs would be more than offset in reduced performance and quality.

- 5.71 The models provided by DS Smith sought to demonstrate that the construction of new sheet feeder or integrated capacity by an existing supplier would be profitable at prices around 5 per cent higher than current prices. We believe that overall these models presented a plausible set of scenarios for expansion by existing suppliers and to that extent supported the argument that expansion could constrain any co-ordinated behaviour by the major suppliers.
- 5.72 We did not consider entry by sheet plant operators in any detail, since such a plant would not act as a competitive constraint on the sheet market in Great Britain. However, we noted that entry costs were particularly low for sheet plants, for which small scale entry was feasible. DS Smith presented two scenarios of potential entry by a small and a larger sheet plant, both using principally second-hand machinery. Under both scenarios we estimated, based on DS Smith's figures, that capital costs would be less than half a year's expected turnover.
- 5.73 Another possible barrier to entry or expansion could be created by the need to access CCM at reasonable prices. DS Smith told us, and we agreed, that it was unlikely in the near future that there would be any difficulty finding a competitive source of CCM, even for a relatively small competitor, given the existing spare capacity in CCM production and the additional plants that were due to come on stream in Europe over the next few years.
- 5.74 We also looked at the history of entry into the sheet market, including expansion by smaller suppliers building new capacity. DS Smith provided us with a list of 13 examples of entry or expansion in the supply of sheet over the last ten years, as well as nine examples of entry or expansion in the cases market through integrated plant (see Appendix G). Although we were not convinced that all of the examples represented new entry, we nevertheless accepted that successful entry and expansion had occurred on a reasonable scale. In particular:
- (a) three new sheet feeder plants had been constructed by smaller suppliers. We noted that each had since been bought by one of the major suppliers (Mondi (Preston), DS Smith (Kettering) and Smurfit (Norwich));
  - (b) Cepac provided an example of new entry with a large, modern, integrated plant, which started operation in 2000; and
  - (c) among the other existing smaller suppliers, IPC had built a new integrated plant in 1997, and Rigid was due to complete one later this year.

In total these examples of entry amounted to around 10 per cent of the sheet market by volume (see Appendix G).

- 5.75 The existence of previous examples of entry and expansion supported our view that barriers to entry and expansion were relatively low. We noted that entry or expansion in the recent past had not occurred at the same rate because the overall market in Great Britain was contracting.
- 5.76 Finally we considered whether incumbent firms would be likely to pursue strategies designed to deter entry or expansion. There was no evidence that a price war, or targeted price cuts, had taken place in the past in response to entry (for example, as

a result of Cepac entering the market in 2000), and we had no evidence to suggest that this would occur in the future.

- 5.77 In addition to new entry and expansion by the smaller suppliers, we also considered several other competitive constraints (set out in paragraph 5.67(c) to (e)). Before reacting to any price rise by the major suppliers by creating new capacity, most of the smaller suppliers could first increase output at existing levels of capacity. This in itself could have a significant impact on the likelihood of coordinated effects. In order to assess whether smaller suppliers were able to increase their production without investing in new capacity or additional manpower, we looked at the relative levels of capacity utilization between larger and smaller suppliers. Within the limits of the accuracy of the data, we found no appreciable difference between overall levels of capacity utilization of large and small suppliers, and concluded that spare capacity was a widespread feature of the industry.
- 5.78 We received some evidence to suggest that there might be constraints on the ability of smaller suppliers to meet the specifications of all customers, in particular the larger purchasers of cases. United Biscuits said that its requirements for JIT delivery to supermarkets meant that, in order to provide the necessary assurance of supply, a supplier needed to have more than one integrated plant. We explored this issue in hearings and through a short questionnaire sent to the 15 largest customers of both DS Smith and Linpac. This demonstrated that whilst a multi-site operation offered some advantages to the largest customers, some of the smaller suppliers such as Encase, Cepac and Rigid were nevertheless considered to be credible, particularly as one supplier among several (see Appendix C).
- 5.79 We also looked at the level of imports in the sheet market. As set out in paragraph 4.17, Gondardennes had recently been making substantial sales of sheet, especially in south-east England. DS Smith told us that imports had risen considerably in the last few months from 3 to 6 per cent of third party sales of sheet to around 8 to 10 per cent (equivalent to around 1 to 2 per cent of the overall sheet market).
- 5.80 We explored the impact of imports in our sheet customer questionnaire. Although only 1 per cent of respondents to our questionnaire used a foreign supplier as their main supplier, around one in seven sourced at least some sheet from outside Great Britain.
- 5.81 However, we believed that, whilst imports offered a real alternative to some sheet customers, there were large parts of the market for which imports were not a feasible option, and whilst the competitive constraint posed by imports was increasing, we did not think that they presented a major competitive constraint. We received no evidence that imports had an impact in the cases market.
- 5.82 Finally, we looked at buyer power as a competitive constraint. Purchasers of sheet were typically small sheet plant operators, although these customers accounted for only a small proportion of sheet suppliers' turnover. Responses to our customer questionnaire showed that few sheet customers would consider setting up their own sheet feeder operation if prices were to rise, and any leverage that the sheet purchasers had was achieved through market knowledge and negotiation. We concluded that buyer power on the part of sheet customers was not a strong competitive constraint.
- 5.83 Larger case customers may have some buyer power. The larger case customer orders were of higher value than the larger orders in the sheet market, and the largest customers were national or multinational companies with sophisticated purchasing operations. There were also significant pressures on customers in the FMCG

sector from the supermarkets, although they did not have direct contractual arrangements with the case producers. Smaller customers would not have buyer power, and overall we concluded that case customers did not have significant buyer power.

- 5.84 Despite some barriers to entry and expansion, the incentives and ability of current and future competitors to jeopardize the results of any coordination appeared to us to be significant. This meant that we could not reasonably conclude that competitive constraints in the sheet market were sufficiently weak for the third condition to be satisfied.

*Concerns regarding competitive intensity*

- 5.85 High levels of concern were expressed in response to our sheet customer questionnaire. When invited to comment about the strategies of their main supplier in the sheet customer questionnaire, 38 respondents (out of a total of 234) commented about some form of coordinated behaviour, in particular related to headline price increases. Concerns about the merger were increased by the timing of the recent price rise (shortly after the merger was announced).
- 5.86 In order to investigate further the degree of competitive intensity in the relevant markets before the merger, we analysed the relationship between prices and costs, the profitability of market participants, and margin trends. We were very dependent on data provided to us by DS Smith and noted that the data on margins were particularly difficult to verify independently.
- 5.87 Figure 3 shows the average prices and material costs for DS Smith's sheet-feeder plant at Blunham (see Appendix D, Figure 7 for similar Linpac chart). It appeared to demonstrate a close correlation between prices and costs. In a further study for DS Smith, Lexecon carried out a regression analysis to show that a very high proportion of the variation of the sheet prices charged by DS Smith and Linpac ([x]) per cent and [x] per cent respectively) were explained by variations in unit costs.

FIGURE 3

**Average unit prices and material costs for DS Smith's sheet feeder plant at Blunham, May 1999 to May 2004**



Source: DS Smith's response to the market questionnaire.

Note: Prices are monthly aggregated sheet sales data; costs are monthly average material costs (in terms of CCM, less sales of waste).

- 5.88 We looked at the profitability of market participants to see whether coordination might be aimed at the margin between sheet and CCM prices, rather than the price levels themselves. We found no evidence to suggest that suppliers of sheet had been earning above-normal rates of return<sup>1</sup> (see Appendix H). The distribution of spare capacity across both large and smaller suppliers was also consistent with a competitive market (see paragraph 5.77).
- 5.89 DS Smith said that there was no clear impact of headline price increases on its margins. Figure 9 in Appendix D, based on data provided by DS Smith, shows that the immediate impact of headline price increases on net margins had been both positive and negative, and that there had been no sustained positive impact of headline price increases on margins.
- 5.90 In summary, considerable concern was expressed by sheet customers about the behaviour of suppliers of sheet before the merger. However, despite these concerns, the evidence available to us did not indicate that such behaviour was enabling the suppliers in question to achieve coordinated effects in the supply of sheet. However, we believe that further investigation by the OFT would be justified (see paragraphs 5.101 to 5.103).

*Conclusions on pre-merger coordinated effects in sheet*

- 5.91 Having considered each of the three conditions, we concluded that, whilst the first two conditions for coordinated effects were broadly met, the competitive constraints

<sup>1</sup>We noted that the companies might nevertheless have been earning more than they would otherwise have done.

operating in the sheet market before the merger meant that we could not reasonably conclude that the third condition was met.

### *Impact of the merger*

- 5.92 We investigated the extent to which the merger might increase the likelihood of coordinated effects (see paragraph 5.51(c)).
- 5.93 In terms of the necessary conditions for coordinated effects following the merger, we first considered the impact on the awareness of competitor behaviour. We believed that the degree of competitor awareness in the sheet market had increased following the merger. First, the group of major suppliers had been reduced from six to five (see paragraph 5.17), making it easier to detect deviation from prevailing behaviour. Second, there was a greater alignment of business models, with the loss of the only non-integrated supplier of cases and sheet.
- 5.94 We also believed that the merger would be likely to increase the incentives to conform to any coordinated behaviour, despite some plant rationalization. DS Smith's increased market share and capacity after the merger could increase its incentives and ability to retaliate against departures from the prevailing behaviour. More generally, as the number of major suppliers decreased, each of the remaining major suppliers had more of an incentive to retaliate against any non-compliance. Finally, an increase in competitor awareness would be likely to make any deviation from the prevailing behaviour easier to detect, increasing the likelihood of retaliation.
- 5.95 However, although we thought that the merger would make the fulfilment of both the first two conditions somewhat more likely, we did not consider that the merger would be likely to have a material effect on the third condition—competitive constraints. We saw no evidence to suggest that the most likely competitive constraint identified, of expansion or increase in supply by smaller suppliers, would be affected by the merger. The increased concentration in the market might make the major suppliers more likely to pursue strategies designed to deter entry or expansion, but we saw no evidence of this having occurred in the past and did not expect that it would occur following the merger.
- 5.96 We considered the argument which was taken into account by the OFT in referring the merger to us that Linpac was a 'maverick', that is to say that it had an influence in the market significantly beyond its market share. The responses to our sheet customer questionnaire suggested that Linpac had behaved in a similar manner to other major suppliers, and did not appear to be a more aggressive competitor on price or other factors. This was supported by Linpac's pricing behaviour which was very much in line with DS Smith's over the past two years (see Appendix D). Although Linpac was perceived by some third parties to have resisted the November 2003 price rise, we received evidence to suggest that several other companies also resisted this price rise. In addition, we believed that the resistance in practice was not a decision to avoid price increases, but a decision to see whether or not anticipated CCM price rises materialized. We believed that, regardless of Linpac's actions, the November 2003 price increase would have been undermined by the absence of a price increase in CCM.
- 5.97 We believed that Linpac was a well-run and profitable company before the merger, with a particular strength in the FMCG segment, but did not find that its market share understated its impact on the competitive process. We considered whether Linpac, as an independent purchaser of CCM, might have been in a position to achieve a

lower cost structure and therefore to provide keener price competition. However, we saw no specific evidence to suggest that, before the merger, this had been the case.

- 5.98 The results of our sheet customer questionnaire showed that almost two-thirds of respondents expected terms and conditions to worsen in the two to three years following the merger. Given the high response rate to our questionnaire (48 per cent), this represented a substantial number of customers, both with and without a strong relationship to DS Smith and/or Linpac. Although we acknowledged DS Smith's argument that these were statements of opinion rather than fact, it represented a high level of customer concern about the impact of the merger.<sup>1</sup>
- 5.99 Nevertheless, having considered the customer concerns very carefully in conjunction with the other evidence outlined in paragraphs 5.92 to 5.98, we concluded that the merger would not significantly increase the likelihood of coordinated effects in the sheet market.

### **Conclusions on SLC test**

- 5.100 In conclusion, we did not find that all the necessary conditions for coordinated effects were present in the sheet market before the merger. Nor did we expect that the merger would increase the likelihood of coordinated effects that were previously absent so as to give rise to a substantial lessening of competition in the sheet market. In addition, given the conclusions that we reached in relation to each of the CCM and cases markets, we did not expect that the merger would give rise to a substantial lessening of competition in any of the relevant markets that we considered.

### **Other matters**

- 5.101 We considered carefully the evidence put to us on explicit coordination between competitors in the sheet market (see paragraph 5.85) in order to assess:
- (a) whether it should cause us to alter our view on possible coordinated effects either before or after the merger; and
  - (b) whether it gave rise to issues that required further investigation under the Competition Act 1998 and/or EC Treaty Articles 81 or 82.
- 5.102 On the first point, we decided that the concerns expressed by sheet customers, if substantiated, would not alter our view on the achievement of coordinated effects in the supply of sheet (see paragraph 5.90). The fulfilment of the third condition (weak competitive constraints) would not be altered. The concerns that were expressed to us in response to our sheet customer questionnaire were directed primarily at the established, major suppliers. In addition, the smaller suppliers had different incentives (see paragraph 5.53). Consequently, our overall conclusion as to the effect of the merger was not altered by the possible existence of explicit coordination.
- 5.103 On the second point, however, we believed that the scale and strength of the concerns expressed, particularly those relating to price increase announcements, justified further investigation to establish whether illegal behaviour had occurred or

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<sup>1</sup>We noted the evidence of actual customer response to the April 2004 price rise in paragraph 5.34.

was continuing to occur. We recommend that this aspect be investigated further by the OFT.

- 5.104 Finally, in our analysis of possible coordination of pricing behaviour in the supply of corrugated sheet a significant factor was the impact of changes in the price of raw materials, particularly CCM. Whilst we found that the merger itself was unlikely to have any significant impact on the supply of CCM in Great Britain, we noted the similarities in timing and levels of announcements of price increases for CCM in Great Britain in both 2002 and 2004. We noted further that, after the merger, all major corrugated sheet and case suppliers in Great Britain would be members of groups that also had interests in CCM production and supply. The question of how far such groups were able to influence the price of CCM, and hence the prices of sheet and case to Great Britain customers, was beyond the scope of our inquiry into this merger, since we had found that the CCM market was probably EEA-wide. We recommend that this question should be considered in any future investigation into this industry, whether by the UK authorities or by others.