



# **Greif Inc and Blagden Packaging Group**

A report on the acquisition by Greif Inc of the steel drum and closures business of the Blagden Packaging Group

**17 August 2007**



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The Competition Commission has excluded from this published version of the report information which the inquiry group considers should be excluded having regard to the three considerations set out in section 244 of the Enterprise Act 2002 (specified information: considerations relevant to disclosure). The omissions are indicated by ✂.

# GREIF INC/BLAGDEN PACKAGING GROUP MERGER INQUIRY

## Final report

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Glossary

## Summary

1. On 20 February 2007, the Office of Fair Trading (OFT) referred to the Competition Commission (CC), for investigation and report, the completed acquisition by Greif Inc (Greif) of the new steel drum and closures businesses of Blagden Packaging Group. Our terms of reference are set out in Appendix A. We were required to publish our final report by 6 August 2007. On 17 July 2007 the period for report was extended to 1 October 2007.
2. Greif is a listed company, with headquarters in the USA. Its UK subsidiary, Greif UK Limited (Greif UK), is the largest manufacturer of new large steel drums in the UK. Prior to the merger, the acquired businesses were owned by Belgium-based Blagden Group NV (Blagden Group), a leading producer of new and reconditioned drums in Europe. Blagden Group's UK new steel drum operation (Blagden) was the second-largest producer of new large steel drums in the UK.
3. On 30 November 2006, Greif acquired the new steel drum and closure businesses of Blagden Group for approximately €210 million. As a result of the transaction, Greif and the acquired businesses ceased to be distinct enterprises. The parties' combined share of supply of new large steel drums in the UK is 85 per cent, an increment of 32 per cent.<sup>1</sup> We concluded that a relevant merger situation had been created.
4. The parties overlap in the supply of new large steel drums and closures. New large steel drums are the most widely-used form of large rigid industrial packaging. They are used in a range of industry sectors to package, transport and store a variety of substances. Other forms of large industrial packaging include reconditioned large steel drums, large plastic drums and intermediate bulk containers (IBCs).<sup>2</sup>
5. Demand for new large steel drums in the UK has been declining for many years. We estimated that total UK sales had fallen by 13 per cent in the last five years, to 3.7 million units in 2006. We heard that the decline was attributable partly to a decline in the demand for packaging overall, related to a decline in relevant UK manufacturing output, and partly to switching to other packaging, particularly plastic drums and IBCs.
6. Closure systems are the mechanism by which the content of a drum can be pumped or poured in or out, and the drum resealed. We did not expect any competition concerns to arise in relation to the supply of closures. The market for closures appears to be global and the increment from the merger is small. We found no evidence that the merger would affect UK closure customers or the viability in the UK of other closure manufacturers. For these reasons, we did not consider closures further.
7. In relation to large steel drums, we concluded that the product market was new and reconditioned large steel drums. So far as alternatives such as large plastic drums, IBCs and bulk transport were concerned, we found evidence of some past switching. We also noted that customers variously reported some willingness to switch and some switching costs, and that developments in product technology (particularly in relation to plastics technology) might affect willingness to switch in future. Different customers (and, indeed, individual customers in relation to the different uses they made of large steel drums) had different propensities to switch. We noted that

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<sup>1</sup>The share of supply test is different from the identification of market shares undertaken as part of the analysis of the competition in the relevant economic market (see paragraph 3.8).

<sup>2</sup>In this report, generally we use the term IBC to refer to composite IBCs—see Appendix B.

significant increases in the price differentials between large steel drums and alternative plastic products in the past had not resulted in a pattern of switching that we might expect of close substitutes, even when taking into account the fact that these increases might be viewed by customers as transitory. Considering all of these indicators together, we reached the view that a hypothetical monopolist of large steel drums could rely on the inertia of enough of its customers (and indeed the existence of some customers who would have no alternatives at all) to make a small, but significant, price increase profitable.

8. We concluded that the geographic market primarily affected by the merger was the supply to customers in Great Britain. We did not consider in detail how to define the market for the supply to customers in Northern Ireland, as the effects of the merger in Northern Ireland will be linked to the effects in Great Britain. We included potential imports from neighbouring countries because we found evidence that imports from at least Belgium and the Netherlands could render unprofitable a 5 per cent price rise by a hypothetical monopolist of manufacturing capacity in Great Britain.
9. We considered rivalry in the relevant market prior to the merger and found that the market was highly concentrated. We considered the merging parties' own information on their customers' switching behaviour as well as market share data. We found that, over the past five years, both Greif and Blagden lost more custom to each other than to any other competitor in the relevant market.
10. We found evidence that reconditioned drum suppliers exerted only a limited constraint on behaviour because there were shortages of used drums for reconditioning, and that these suppliers had not been able to increase their share of the market. With regard to the other, smaller manufacturers of new large steel drums in Great Britain, we found that they had spare capacity, but the evidence indicated that the merged parties generally had lower variable costs than smaller producers, in particular as a result of lower steel costs than those of their rivals. The smaller producers had little incentive to expand and did not appear to have plans to do so. We also noted that imports had been insignificant pre-merger. In the light of the evidence on rivalry in the relevant market, we considered that Blagden was the main constraint on Greif prior to the merger.
11. We assessed the competitive effects of the merger on the basis that Blagden and Greif would have continued in competition with each other in the absence of the merger. Although we accepted that, in the absence of the acquisition by Greif, Blagden might have been sold to another company, we did not think that it would have been acquired by any existing competitor in the relevant market. Having excluded that possibility, we found no evidence that indicated to us that either party would have altered its strategy over the next two or three years.
12. We also considered other possible changes in the structure of the market that could affect the counterfactual. Post-merger, we know that Schütz Group, one of the major manufacturers of industrial packaging, is building a new plant in Moerdijk (in the Netherlands), which is to include a new large steel drum production line with significant capacity. In the absence of the merger we considered that this entry would have occurred anyway, although the precise timing was unclear. We assessed the effects of the merger against the situation where Schütz Group would have entered on the same timetable as we observed post-merger.
13. We considered that the merger would result in the loss of Greif's strongest existing competitor, who had imposed the greatest constraint on Greif pre-merger. Without further developments in the market, we did not consider that the constraints imposed by alternative forms of packaging or other existing suppliers of large steel drums

would sufficiently mitigate this loss of rivalry. In order to decide whether the loss of Blagden would result in a substantial lessening of competition (SLC), we considered whether there were other possible factors that would develop in the market to constrain the merged entity's behaviour.

14. We considered the scope for and impact of entry or significant expansion by competitors to the merged business. We did not consider that entry or expansion in Great Britain production was likely, but it was clear that new capacity would be available shortly at Schütz Group's new plant in the Netherlands. Our analysis showed that imports from the new plant would act as an effective competitive constraint on the merged business in the future. This would operate in addition to any current or future constraints imposed by other existing suppliers, other imports, other forms of packaging and any countervailing buyer power.
15. For these reasons, we did not reach an expectation that the merger would result in an SLC in the market for new and reconditioned large steel drums in Great Britain.

# Findings

## 1. The reference

- 1.1 On 20 February 2007, the OFT referred the completed acquisition of the steel drum and closures business of Blagden Packaging Group, comprising various subsidiaries of Blagden Group NV,<sup>3</sup> by various subsidiaries<sup>4</sup> of Greif Inc (Greif), to the CC for investigation and report. The reference was made under section 22 of the Enterprise Act 2002 (the Act). Our terms of reference are contained in Appendix A. We were required to publish our final report by 6 August 2007.
- 1.2 The CC's investigation revealed significant new information shortly before publication of provisional findings. In addition, in its response to provisional findings, Greif corrected some evidence it had previously provided. These matters required further investigation and analysis. For these reasons, on 17 July 2007, the reference period was extended to 1 October 2007.
- 1.3 Further information, including non-confidential versions of main party and third party evidence, and details of a survey of the main parties' customers conducted by the CC (the customer survey), can be found on our website.<sup>5</sup>

## 2. The companies

### *Greif Inc*

- 2.1 Greif is incorporated in Delaware, USA, and its shares are listed on the New York Stock Exchange. Its turnover for the year to 31 October 2006 was \$2.6 billion.
- 2.2 Greif was founded in Ohio in 1877, originally as a barrel maker. During the 20<sup>th</sup> century, it expanded and diversified into various other forms of industrial packaging. It is organized into three divisions: Industrial Packaging and Services (including steel, plastic and fibre drums, closures and IBCs); Paper, Packaging and Services (containerboard, corrugated sheets and multiwall bags); and Timber Properties (ie forests). It now has manufacturing facilities in over 40 countries. In the UK it produces a range of industrial packaging products, including large, intermediate and special new steel drums, small blow-moulded plastic drums and polycarbonate water bottles.
- 2.3 Greif expanded into Europe in 2001 with the purchase of the industrial packaging business of Royal Packaging Industries Van Leer NV, which was renamed Greif International Holding BV. Greif's UK operations are managed by Greif UK Ltd (Greif UK), a subsidiary of Greif International Holding BV. Greif UK is the largest manufacturer of new large steel drums (typically 210-litre capacity) in the UK. In 2003, Greif acquired the third-largest UK producer of new large steel drums, T&D Packaging Ltd (T&D). Greif absorbed the additional volume on its existing UK manufacturing lines and closed the T&D facility. Greif UK currently operates sites at Ellesmere Port, Hull and Burton-on-Trent. In the year to 31 October 2006, Greif UK sold [redacted] new large steel drums with a sales value of £[redacted].

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<sup>3</sup>Blagden France Holdings SAS, Blagden Packaging NV, Blagden Packaging Tournai NV, Blagden Packaging Femba Ibérica SL, Blagden Packaging Singapore Pte Ltd, Bipol Sib Co Ltd and certain assets of Blagden Packaging Bederland BV.

<sup>4</sup>Greif Belgium BVBA, Greif Bros Canada Inc, Greif France Holdings SAS, Greif International Holding BV, Greif Nederland BV and Paauw Holdings BV.

<sup>5</sup>[www.competition-commission.org.uk](http://www.competition-commission.org.uk).

## **Blagden**

- 2.4 Blagden Group, a company registered in Belgium, was a leading producer of new and reconditioned steel drums in Europe. It started reconditioning drums in the 1920s and commenced new steel drum production in 1948.
- 2.5 Following restructuring in 1998, Blagden Group was sold to a management team led by the CEO, Marc Verstraete. After further restructuring in February 2004, the ownership was split between Alchemy Investment Partners (Alchemy) (75 per cent) and Blagden Group management (25 per cent).
- 2.6 Since 1998, Blagden Group has pursued a strategy of expansion by acquisition throughout Europe, acquiring reconditioning companies in Germany, France and Spain and a new drum company in Belgium. In March 2006, it purchased the containers and closures business of the Hong Leong Group, which has operations in China, Malaysia and Singapore.
- 2.7 Greif acquired the new steel drum and closure businesses of Blagden Group, which produced new steel drums and closure systems in Europe and Asia. The acquisition included the UK new large steel drum operations (Blagden) which were part of the business of a UK branch of a Belgian subsidiary, Blagden Packaging NV. Prior to the merger, Blagden was the second-largest producer of new large steel drums in the UK, operating from a site at Trafford Park, Manchester. In the 11 months ended 30 November 2006, Blagden produced [x] large steel drums with a sales value of £[x].

### **3. The merger and the relevant merger situation**

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

- 3.1 On 30 November 2006, Greif acquired shares and assets of parts of the Blagden Packaging Group. The transaction involved various subsidiaries of Greif located in Continental Europe and Canada acquiring the entire issued share capitals of five Blagden Packaging Group companies,<sup>6</sup> together with their respective subsidiaries. Greif also acquired Blagden Packaging Group's interests in two Russian joint ventures<sup>7</sup> and assets relating to certain drum operations of Blagden Packaging Nederland BV.
- 3.2 Consideration for the transaction was approximately €210 million, which was apportioned between the acquired businesses; the consideration for Blagden Packaging NV (which includes the UK branch) was €[x]. At the time of the merger, the net assets of the new steel drum business of the UK branch of Blagden Packaging NV were approximately £[x], including £[x] of goodwill.
- 3.3 The transaction described above was the second stage of a 'back-to-back' deal. An initial offer by Greif was rejected because it was for only the new steel drum and closures business and not the whole Blagden Packaging Group. The Blagden Group management later approached Alchemy with the 'back-to-back' deal (which involved a management buyout of Blagden Packaging NV followed by an immediate sale of the new steel drum and closures business to Greif), which was accepted. The

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<sup>6</sup>Blagden France Holdings SAS, Blagden Packaging NV, Blagden Packaging Tournai NV, Blagden Packaging Femba Iberica SL, and Blagden Packaging Singapore Pte.

<sup>7</sup>Bipol Co Ltd and Bipol Sib Co Ltd.

remaining reconditioning and recycling businesses are now owned by a new Netherlands-registered company, pack2pack Group NV (pack2pack).

- 3.4 The share and assets sale agreement contains a number of non-compete clauses. In addition, Greif and pack2pack have entered into a preferred partnership agreement which involves development of a joint marketing plan, cross-promotion of each other's businesses, and [X] from each other's customers.

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

- 3.5 Greif said that its rationale for the merger was to reduce costs, through efficiencies and synergies such as reducing overheads and increasing its purchasing power in the procurement of steel; and to enable it to improve steel drum technology. It said that these steps were necessary to enable steel drums to continue to compete effectively with other forms of industrial packaging, particularly plastic drums and IBCs. Greif told us that the production and supply of new steel drums in the UK was characterized by significant excess capacity, declining demand, low margins and competition from plastic drums, IBCs and potentially from imports.

### ***Interim measures***

- 3.6 On 28 December 2006, the OFT accepted interim undertakings under section 71(2) of the Act from Greif International Holding BV and Greif UK to prevent Greif from taking any action which might prejudice any investigation. Following the reference to the CC in February 2007, the CC adopted the interim undertakings. We considered requests from Greif for variation of the interim undertakings. We also considered whether other changes to the undertakings were necessary to prevent pre-emptive action (as defined by section 80(10) of the Act) by the parties. As a result, on 30 April 2007, the CC accepted revised undertakings given by Greif and its subsidiaries, Greif International Holding BV and Greif UK, in accordance with section 80(2) of the Act.

### ***Jurisdiction***

- 3.7 Under section 22 of the Act, the CC is required to decide whether a relevant merger situation has been created. A relevant merger situation is created where two or more enterprises have ceased to be distinct and either the share of supply test or the turnover test specified in the Act is satisfied.
- 3.8 The transaction described in paragraph 3.1 has resulted in Greif and the acquired businesses ceasing to be distinct, as defined in section 26 of the Act. The share of supply test in section 23(b) of the Act is satisfied as a result of the addition of Blagden's 32 per cent share to Greif's 53 per cent share of supply of new large steel drums in the UK.<sup>8</sup> We therefore concluded that there was a relevant merger situation. This was not disputed by any party during the course of our inquiry.

## **4. The industrial packaging industry**

- 4.1 Industrial packaging is used in a range of industry sectors, including chemicals, petrochemicals, pharmaceuticals, food, coatings and resins. Many purchasers of new large steel drums also use a range of other industrial packaging products, including

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<sup>8</sup>The share of supply test is different from the identification of market shares undertaken as part of the analysis of the competition in the relevant economic market (in Section 8 of this report). See *Merger References: Competition Commission Guidelines*, CC2, paragraphs 1.17 and 1.18.

reconditioned large steel drums, large plastic drums and IBCs as well as less close alternatives such as fibre drums. Bulk transport is also used. A description of various different types of industrial packaging is at Appendix B.

## The suppliers

4.2 Several companies supply industrial packaging products in the UK. Table 1 lists UK manufacturers of new large steel drums, as well as examples of other suppliers of large rigid packaging in the UK (both UK produced and imported).

TABLE 1 Selected suppliers of large rigid industrial packaging in the UK

<i>Company</i>	<i>UK manufacturer of large steel drums*</i>	<i>UK reconditioner of large steel drums*</i>	<i>UK manufacturer of large plastic drums*</i>	<i>UK manufacturer of IBCs</i>	<i>UK distributor of large rigid industrial packaging†</i>
AW Stokes and Son (Drums)	✓	x	x	x	x
Blagden	✓	x	x	x	x
Greif UK	✓	x	x	x	✓
Harcostar Drums	x	x	✓	x	x
H W Stockley & Sons	x	✓	x	x	✓
James G Carrick & Co	x	x	x	x	✓
Mauser UK	x	x	✓	✓	x
The Metal Drum Company	✓	x	x	x	x
pack2pack	x	✓	x	x	x
Ramsden and Whale	✓	✓	x	x	x
Schütz (UK)	x	x	✓§	✓	x
Sulo	x	x	x	x	✓
Tycon Containers (Services)	x	x	x	x	✓

Source: Industrial Packaging Association (IPA) website and the companies.

\*Steel or plastic drums with a typical capacity of 210 litres and a maximum capacity of 250 litres (see Appendix B).

†In this column, we show whether the company distributes products other than those produced in-house in the UK—ie by distributing products manufactured by others in the UK or importing their own or others' products from manufacturing facilities outside the UK.

4.3 In addition to Greif and Blagden, there are three other significant producers of new large steel drums in the UK, which all manufacture a range of new large steel drums: AW Stokes and Son (Drums) Ltd (AW Stokes), The Metal Drum Company Ltd (Metal Drum) and Ramsden and Whale Ltd (Ramsden and Whale). These are private companies, typically selling to smaller customers, and with no operations outside the UK.

4.4 pack2pack (see paragraph 3.3) is a privately-owned company comprising the reconditioning operations of the Blagden Group. pack2pack is the largest steel drum reconditioner in the UK. Ramsden and Whale also reconditions drums.

4.5 Plastic drums and IBCs are also manufactured in the UK. Harcostar Drums Ltd (Harcostar), a manufacturer of large plastic drums, is part of the Dutch company Bulk Packaging Group BV. Mauser UK Ltd (Mauser) is part of Mauser AG (Mauser Group), a private-equity-owned producer of industrial packaging with headquarters in Germany and operations in various countries around the world producing steel drums, IBCs and plastic drums. Mauser manufactures IBCs and large plastic drums in Great Britain. Schütz (UK) Ltd (Schütz) is part of Schütz GmbH und Co (Schütz Group), a private German company operating in various industries including industrial packaging (producing steel drums, plastic drums and IBCs). Schütz began production of large plastic drums in Great Britain in July 2007, alongside its existing production of IBCs.

- 4.6 Large steel drums manufactured outside the UK are available direct from the manufacturer or through agents or distributors. Sulo Emballagen GmbH & Co KG, a German manufacturer of new large steel drums (part of the Sulo Group), for example, has a UK agent. Various companies, such as Tycon Containers (Services) Ltd and H W Stockley & Sons Ltd, stock and distribute steel drums, plastic drums and IBCs. James G Carrick & Co Ltd, a private company that distributes drums and other packaging, told us that it had the ability to manufacture large steel drums in small quantities (up to [redacted] a year), [redacted].
- 4.7 In addition to existing sources of new large steel drums, Schütz Group is building a new facility to manufacture IBCs, plastic drums and steel drums in Moerdijk in the Netherlands, between Rotterdam and Antwerp. Schütz Group told us that the steel drum line was being installed primarily to support the filling facility that would be available at Moerdijk (which required a full range of industrial packaging options), but nonetheless it would introduce substantial new capacity for production of new large steel drums.

### ***Trends in industrial packaging***

- 4.8 We were told by the parties and by many other sources in the industry that there had been an overall fall in the demand for large rigid industrial packaging (large steel, plastic and fibre drums and IBCs), and for steel drums in particular, probably because of the decline of manufacturing in the UK.
- 4.9 The parties told us that this trend reduced the customer base in the UK and that it was likely to continue. Greif told us that the products which were most likely to be packed in a steel container tended to be hydrocarbon-based solvents or chlorinated hydrocarbons, and that demand for these types of chemicals was declining because of environmental considerations. Whilst demand was declining in some sectors, the UK chemicals industry as a whole was growing in value terms. It suggested that declining UK demand for large industrial packaging reflected a trend among chemical companies to ship product by tanker to a preferred location (eg low labour cost regions) where it would be filled into drums and distributed, rather than to fill drums at the site of manufacture. It did not quantify this trend towards increasing use of bulk transport.
- 4.10 Greif told us that the large steel drum had been in use for over 80 years and was now approaching the end of its life cycle. It said that alternative types of industrial packaging products had been developed in recent years which offered similar performance, but with advantages such as more efficient supply chain management and lower transportation costs. A report prepared in 2006 [redacted] said that there had been a shift from steel drums to plastic drums in the early 1990s, and from steel drums to IBCs over the last decade. The report suggested that most of the move away from steel drums had now occurred. At least over the short term, this view was broadly shared by the IPA, by Harcostar, the largest UK manufacturer of plastic drums, and by Mauser UK, although they each thought that, in time, developments in plastic drum technology would lead to further switching.
- 4.11 Greif provided us with its estimates of UK sales in 2001 and in 2006 of IBCs, new large steel drums, fibre drums, reconditioned large steel drums and large plastic drums.<sup>9</sup> These suggested that sales of IBCs and large plastic drums had increased; that sales of fibre drums and of new and reconditioned large steel drums had

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<sup>9</sup>Greif's estimates are presented in Appendix C, Figure 6.

declined; and that overall sales of large packaging had declined by [~~8~~] per cent between 2001 and 2006.

- 4.12 However, we had some reservations about Greif's estimates. Greif's estimates of the growth in sales of large plastic drums were considerably higher than those of Harcostar (the leading plastic drum manufacturer in the UK) and the IPA. Our concerns about the data lead us to interpret it with caution.
- 4.13 There are no authoritative industry figures for the full range of industrial packaging products. Although the IPA compiles some data on UK sales of new large steel drums, reconditioned drums, large plastic drums and IBCs, this does not always include all manufacturers, and the data on sales of large plastic drums only covers the period until the end of 2004. We obtained estimates of sales of large industrial packaging for recent years (2003 to 2006), as shown in Table 2.

TABLE 2 Annual sales of large industrial packaging, 2003 to 2006

	<i>'000 drums sold</i>			
	2003	2004	2005	2006
New large steel drums	4,084	4,176	3,749	3,680
Reconditioned steel drums	2,330	1,930	1,765	1,755
IBCs*	3,290	3,415	3,450	3,500
Large plastic drums	<u>1,680</u>	<u>1,688</u>	<u>1,700†</u>	<u>1,700†</u>
Total	11,384	11,209	10,664	10,635

Source: CC estimates, based on data provided by manufacturers and the IPA.

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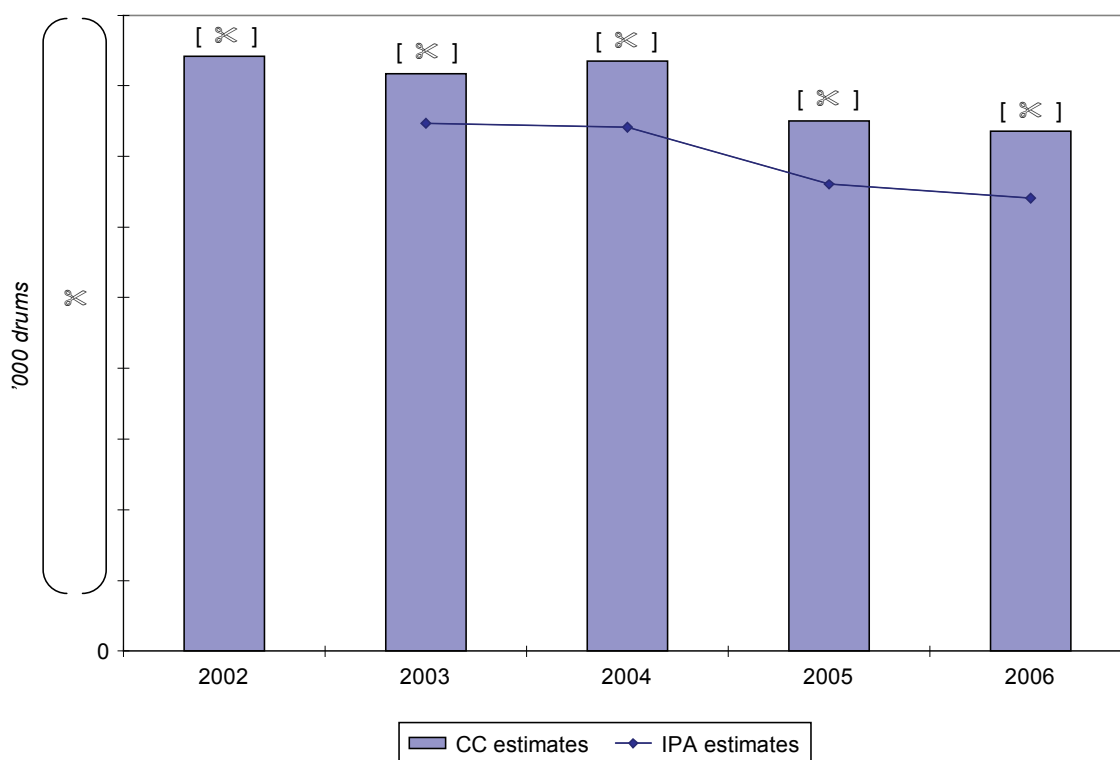
\*The unit for IBC sales is the number of IBCs sold multiplied by 5 to give the drum equivalent in terms of volume.

†We did not receive data on sales of large plastic drums in 2005 or 2006; these figures are based on what we were told by the IPA and Harcostar of a flat market and by Greif of sales of around 1.7 million in 2006.

- 4.14 These estimates showed a 7 per cent decline in total sales of rigid large industrial packaging between 2003 and 2006, attributable to a fall in sales of new and reconditioned drums, whilst sales of IBCs increased slowly and sales of plastic drums remained practically unchanged.
- 4.15 In relation to new large steel drums, figures for UK sales from the European Association of Steel Drum Manufacturers (generally referred to by the initials of its French title, SEFA) showed a significant decline over a 12-year period (1994 to 2005). This is shown in Appendix C, Figure 4. We compiled our own estimates of sales of new large steel drums in the UK for the past five years, by asking each manufacturer for its annual sales of large steel drums (see Figure 1). Our estimates showed that total UK sales of new large steel drums were 3.7 million drums in 2006. Between 2002 and 2006, total sales of new large steel drums fell by 13 per cent. Most of the decline in sales took place in 2005. As noted above, the data we obtained from the IPA did not include sales by all UK manufacturers. Its estimate of total market size was therefore lower, although it showed similar trends.

FIGURE 1

**UK sales of new large steel drums, 2002 to 2006**



Source: CC, based on data from UK manufacturers of steel drums and from the IPA.

- 4.16 Prices of steel drums have been increasing since the beginning of 2002, driven by large increases in the price of steel which is the main input to the production of steel drums. The largest increases in steel prices and in steel drum prices occurred in 2004. These price increases were followed by a decline in steel drum sales in 2005.
- 4.17 Large steel drums remain the most popular form of rigid large industrial packaging. According to the estimates provided by Greif, large steel drums (including re-conditioned drums) accounted for [ ] of total sales of large industrial packaging; IBCs accounted for about [ ] of sales (in terms of drum-equivalent volumes). Sales of large plastic and fibre drums were small compared with sales of large steel drums and IBCs: large plastic drums accounted for [ ] per cent of sales and fibre drums [ ] per cent.
- 4.18 Overall, it is clear that there has been a decline in sales of steel drums in the past ten years, partly attributable to an overall decline in the demand for rigid large industrial packaging and partly to switching to other packaging. We consider switching further in relation to product market definition in paragraphs 5.7 to 5.36, and in Appendix C.

**Closures**

- 4.19 Closure systems are the mechanism by which the contents of a drum can be pumped or poured in and out, and the drum resealed. Greif owns the Tri-Sure group of companies, which manufactures closures in Europe, Asia and South America and has a minority interest in two other companies that produce closures in India. It estimated that its pre-merger share of total worldwide production was 50 to 60 per cent. The acquired businesses included Rex, which manufactures closures in China.

Greif estimated that Rex had less than 10 per cent of the world market share. Neither party manufactures closures in the UK, although Greif supplies Tri-Sure closures in the UK.

- 4.20 The market for closures appears to be global. Transport and storage costs are low relative to the value of closures. The UK is supplied by manufacturers from around the world. The increment from the merger is small and we did not receive any evidence which suggested that UK customers would be affected by the change. We also considered whether there was a risk of foreclosure of the UK to independent closure manufacturers if Blagden switched to sourcing its closures in-house following the merger. However, the costs associated with supplying closures in the UK are not dependent on Blagden's volumes. We would not expect any action by Blagden to affect the viability of other closure manufacturers. For these reasons we did not consider closures further.

## 5. Market definition

- 5.1 For the remainder of this report, we focus on the supply of large steel drums in the UK. In defining the market, we identify the relevant product market and then the geographic market. The approach is described in the CC's guidance.<sup>10</sup>
- 5.2 Generally, a product or a group of products will constitute a market if a hypothetical monopolist could profitably raise prices by 5 per cent or more. The profitability of a price rise is related to the costs of production: the higher the variable cost of production, the higher the savings in costs for any given loss of volumes. In the case of steel drums, variable costs are relatively high. The cost of steel alone accounted for 35 to 50 per cent of the price of steel drums. Therefore, we expected that the critical level of lost sales that would render a price rise unprofitable would also be relatively high. Based on its cost structure at current production levels, Greif estimated that a 5 per cent increase in price would be unprofitable if it lost around [X] per cent of units sold. Our analysis of Greif's 2006 costs confirmed that this estimate was reasonable. We estimated that the critical loss was around [X] to [X] per cent of volumes.

### **Product market**

- 5.3 Greif submitted that the relevant product market was wider than new large steel drums, and extended to industrial packaging more generally, including at least new and reconditioned large steel drums, large plastic drums and IBCs. Greif said that other forms of industrial packaging such as fibre drums and bulk packaging, whilst not close enough substitutes to form part of the same relevant market, were a substitute for some customers and so acted as a constraint on prices of steel drums.
- 5.4 We first considered whether the relevant market was smaller than new large steel drums. The different types and specifications of steel drums are described in Appendix B. Plain tight-head drums are by far the most common type of drum, accounting for more than half of the large steel drums sold by Greif and Blagden in the UK. There did not appear to be any potential for demand-side substitution between open-head and tight-head drums, or between lacquered and plain drums, as the type of drum used was determined by the nature of the substance being packaged in the drum.

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<sup>10</sup>Merger References: Competition Commission Guidelines, CC2.

- 5.5 The product range of all UK manufacturers of large steel drums spans the four main types of steel drum, and the different types are produced on the same production lines, using the same core processes. The various UK manufacturers have rather different manufacturing and input costs which may affect their ability to compete profitably on any particular type of steel drum. Nonetheless, if any one supplier were to increase the price of one of the main types of steel drum significantly, other suppliers could switch their production capacity without incurring major one-off costs. In view of the relative ease of supply-side substitutability, we concluded that for practical purposes, when defining the product market, the four main types of steel drum could be treated as if they were part of a single market and that the product market was not narrower than new large steel drums.
- 5.6 We then considered whether the market was wider than new large steel drums, looking at the potential for demand-side substitution and for supply-side substitution.

### *Demand-side substitution*

- 5.7 In order to assess (within the hypothetical monopolist framework) the amount of business that would switch from new large steel drums in response to a price rise, we first assessed the potential for switching by considering evidence of the alternatives available to customers. We then assessed the likelihood of switching by considering the factors which might influence a decision to switch to these alternatives, and the evidence of previous switching.
- 5.8 Our assessment was based on evidence we received from the main parties, and from:
- (a) customers;
  - (b) other suppliers of drums, IBCs etc; and
  - (c) bodies that had an interest in industrial packaging and related safety and transport issues.

The evidence from these third parties was received in written submissions, or gathered through responses to the customer survey, through hearings (including conference calls), or through replies to our specific questions. The report of the customer survey (the Survey Report) and summaries of the views of individual parties, with confidential information excised, have been published on the CC website.

- 5.9 As regards switching, the main points from the customer survey and from third party submissions and hearings are set out in Appendix C, paragraph 51 onwards. The customer survey covered 106 companies of which 87 had recently purchased drums from the parties. Roughly half of the respondents used steel drums for industrial chemicals, a quarter for solvents, a quarter for petroleum products, a quarter for paints, coatings etc, and much lower proportions for pharmaceuticals, foodstuffs or other products<sup>11</sup> (see Table 3 of the Survey Report). The responses to the survey were particularly useful in identifying the issues that most concerned customers and the relative importance they attached to them. These issues were then pursued in greater detail through hearings and specific inquiries.
- 5.10 It should be noted that evidence of actual switching behaviour did not always correspond with what could be expected from the survey responses. This might be

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<sup>11</sup>Some customers used steel drums for a range of different products; hence these proportions sum to more than 100 per cent.

explained by changes in circumstances. For example, in relation to switching to plastic drums, it was said, on the one hand, that much of the switching had already taken place, and that the scope for further switching was limited; and on the other hand, that developments in technology would make switching to plastic drums more attractive. In short, conditions post-merger might be different from those pre-merger not because of the merger, but because of exogenous changes in the packaging market.

- 5.11 We also noted that the needs of customers were diverse and depended on the characteristics both of the product that was being packaged and transported, and of the end-user to whom the product was being delivered. In addition, packaging technology is steadily developing. Some customers might not have been fully aware of developments. Even where they were aware of developments, they, or their customers, might not have fully understood or trusted them. These factors need to be borne in mind when using past behaviour, or current views, to predict future trends.

#### *Alternative industrial packaging products*

- 5.12 Greif told us initially that it considered that all customers for new large steel drums could use some alternative packaging; the majority could use various types of plastic drums or IBCs, and technical advances for plastic drums meant that the percentage of customers for whom this was an option was increasing. Further, customers who required steel packaging could use reconditioned steel drums or steel IBCs.
- 5.13 Customers and suppliers suggested that the range of industrial containers that was available for packaging a particular product depended on two factors: the regulations on the transport of dangerous goods, and the compatibility of the substance to be packaged with different packaging materials. These issues are discussed further in Appendix D (compatibility issues in paragraphs 5 to 18 and regulatory issues in paragraphs 23 to 27).
- 5.14 The evidence we received indicated that there were some substances currently packed in new large steel drums for which there was no alternative packaging available. There was no easy way to quantify the extent to which this was due purely to packaging regulations, but it was clear that only a small number of customers would be entirely constrained by the rules. The more frequent determinant appeared to be compatibility.
- 5.15 We considered various analyses and estimates of the extent to which substances were tied to large steel drums. These showed a range of results. Greif told us that [X] per cent of its 40 largest customers were able to use alternative packaging for at least some of their requirements and that alternative packaging was available for [X] per cent of Greif's sales to its top 40 customers. The customer survey suggested that around one-third of users could not realistically use alternatives to new large steel drums.
- 5.16 Taken as a whole it was clear from the evidence that regulation and chemical compatibility did not, on their own, prevent the majority of customers switching to other packaging. Even where customers could not switch for certain applications, their ability to switch for other applications might constrain a supplier from raising prices of large steel drums for any application. The key issue for market definition is how much marginal custom would switch to alternative packaging products in response to a small but sustained rise in the price of steel drums. To make this assessment, we needed to consider both the factors affecting customers' decisions to switch where alternatives were available, and the evidence on past switching.

### *Factors affecting customers' choice of packaging*

- 5.17 In the customer survey, price was repeatedly mentioned by respondents as the main reason for switching. However, the majority of respondents identified some barriers to switching. The main issues that would affect their propensity to switch were product requirements and end-user specifications and requirements.
- 5.18 Even when there were practical alternatives to new large steel drums, a number of factors could affect a customer's decision whether to switch in response to a price rise. We heard from a range of customers and from others that the considerations included:
- (a) the one-off cost of adapting or changing handling and filling equipment, both for customers and for end-users; the costs of switching from steel drums to IBCs would be higher than of switching to plastic drums, but so too could be the longer-run savings; we did not hear of any one-off costs of switching in relation to reconditioned drums;
  - (b) the perception of customers that steel drums were stronger and therefore safer when stacked for storage or transport, and therefore did not involve additional ancillary expenditures on, for example, insurance premiums or special storage facilities;
  - (c) end-users' preferences, which depended in part on the end-users' handling and storage facilities, and in part on the quantity of product they wanted in each delivery;
  - (d) the importance to customers and end-users of labelling and appearance;
  - (e) the cost of holding stocks of packaging, which depended on delivery lead times and on the reliability of supply; and
  - (f) other concerns, including the reliability of supply of reconditioned drums and the safety of IBCs, due to the increased risks associated with storing larger volumes of some dangerous substances.
- 5.19 Greif also told us that bulk packaging and fibre drums could be alternatives to new large steel drums for some customers. Indeed, the customer survey showed that between 11 and 20 per cent of respondents identified bulk as an alternative to steel drums, and between 0 and 7 per cent of customers identified fibre drums as an alternative to steel drums. Greif also provided a number of examples of customers who had chosen to switch to bulk packaging where possible and if volumes allowed.
- 5.20 However, the customer survey found that only one customer had switched to bulk and one to fibre at their latest switch. The evidence we received from third parties suggested that few of them saw fibre drums or bulk as significant potential substitutes for large steel drums. Fibre drums were generally used for solids, powders, pastes and semi-liquid products rather than liquids (see Appendix B, paragraph 24), which made them unsuitable for most products which are packaged in steel drums.
- 5.21 A switch to bulk transport, where possible, and where volumes allowed it, would depend on a range of considerations, including volumes transported, costs of storage, the cost of labour at the end destination, and the location of end-users. The price of steel drums would be unlikely to be a major factor. We did not, therefore, think that a switch to bulk transport was likely to be prompted by small changes in the

prices of steel drums relative to the price of shipping in bulk and filling drums at the destination.

### *Quantifying switching*

5.22 The main question we considered was how much custom would switch in response to a price rise. The starting point for this assessment was to examine the evidence we had heard on switching costs, alongside the evidence on past switching. However, customers are heterogeneous:

- in their ranges of different products that require packaging, and consequently in their technical and marketing requirements;
- in their one-off switching costs, and in their scope for reducing their continuing costs; and
- in the importance they attach to packaging costs and their knowledge of alternatives.

It was therefore difficult to group customers into defined classes whose responses to price changes might be predicted reliably. We therefore considered the available data on the effects of switching in the aggregate.

### *Previous switching behaviour*

5.23 The analysis of how customers have reacted in response to previous price changes is presented in Appendix C, paragraphs 8 to 47. We summarize here the main results from this analysis.

5.24 Price was repeatedly mentioned as the main reason for switching. Around one-third of customers responding to the survey had switched a proportion of their orders to alternatives in the past 12 months, mainly to IBCs and reconditioned steel drums. This accounted for around 6 per cent by value of all respondents' orders. Switching to reconditioned drums may have been restricted by constraints on supply (see paragraphs 6.8 and 6.9).

5.25 The customer survey also found that around a third of customers could currently switch some of their orders to alternative packaging, accounting for some 15 per cent of annual expenditure. When asked what were the realistic alternatives to each type of new large steel drum, around two-thirds of the respondents who used tight-head drums identified alternatives, and over half of those who used open-head drums identified alternatives. These responses might indicate that customers perceived the longer-term potential for switching to be greater than was currently worthwhile or readily realizable.

5.26 The parties provided data on their customers switching to alternative packaging. The data provided by Greif showed losses to other types of packaging of between [X] and [X] per cent a year from 2003 to 2006 (Table 11, Appendix C). The data provided by Blagden showed that gains and losses of customers to other types of packaging were limited.

- 5.27 Greif submitted an economic analysis of sales<sup>12</sup> of steel drums in Europe and in the UK. As discussed in Appendix C, the analysis suggested that in the EU sales of steel drums tended to vary inversely with the price of steel relative to plastic. However, in the UK there was no clear relationship between changes in sales and changes in the relative price of steel and plastic, although large increases in raw material prices sometimes coincided with periods of steeper decline in sales of steel drums. Greif's analysis was limited by a lack of data on prices of steel and plastic drums, and on sales of plastic drums. In addition, there were limitations on the reliability of the data provided by SEFA on EU sales of steel drums.
- 5.28 We undertook our own analysis of sales of steel drums in the UK, as set out in Appendix C, paragraphs 16 to 40 and 44 to 47. This showed that there had been a decline in sales of new large steel drums in the UK as their price increased.
- 5.29 We analysed the relationship between changes in sales of new steel drums in the UK between 2002 and 2006 and changes in the relative price of new steel drums, plastic drums, reconditioned drums and IBCs. This indicated an inverse relationship between the change in the price of steel drums relative to plastic drums and changes in UK sales of steel drums, with a one-year lag. The one-year lag was consistent with the existence of switching costs for switching to alternative materials.
- 5.30 However, it was not clear to what extent customers had switched to large plastic drums or IBCs in response to price changes. The evidence we received suggested that sales of large plastic drums had remained stable and that there was moderate growth in sales of IBCs during the period when sales of new large steel drums had decreased. Part of the fall in sales of new large steel drums was likely to have been due to a fall in the overall demand for large packaging, and a migration to less direct substitutes such as bulk packaging, rather than to substitution to plastic drums and IBCs.
- 5.31 We did not find a relationship between changes in the prices of new drums relative to the prices of reconditioned drums and the change in the relative sales of new and reconditioned drums. We were told that the supply of reconditioned drums had been limited in recent years because of shortages in the availability of used steel drums suitable for reconditioning (see also paragraphs 6.8 and 6.9). This might explain why purchasers of new steel drums could not switch to reconditioned drums.
- 5.32 The decrease in sales of steel drums that was observed following relative price increases was smaller than that which would be required to make a 5 per cent price increase unprofitable (to a hypothetical monopolist). However, there were uncertainties about some of the underlying data. We did not rule out the possibility that some amount of switching could constitute some limited competitive constraint on the merging parties' ability to raise prices.
- 5.33 We also analysed the current differential between prices of steel drums and prices of plastic drums, and how this compared with the differential in 2004, when a high relative price of steel drums coincided with a sizeable decline in sales. Currently, the gap in prices between steel and plastic drums is at its lowest in four years. Prices of steel drums could increase by more than 5 per cent before reaching the differential of 2004. The reaction now of customers to small rises in prices of steel drums might therefore be less than observed in 2004. On the other hand, customers might react more to an increase in price that they perceived to be permanent (because it was

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<sup>12</sup>Here and in the text that follows we use the term 'sales' to refer to the volume, not the value, of sales whether measured in numbers of drums sold, or, in some cases, tonnage.

driven by the exercise of market power) than to an increase that they perceived to be temporary (because it was driven by fluctuations in input costs).

- 5.34 In addition, we heard from several parties that many of the customers who could most easily and cheaply switch away from steel drums had already done so. If this was correct, then many remaining customers of new large steel drums might be less sensitive to small increases in price. However, we were also told that technological developments might, in time, make plastic drums and IBCs more attractive as substitutes for steel drums for certain products, which might in turn lead to changes in switching behaviour by certain customers. How long it would take for such developments to have a significant overall impact was difficult to predict.
- 5.35 In addition, the recent investments by the Mauser Group and by Schütz Group in UK production of large plastic drums and IBCs might imply that they see potential for growth in sales, some perhaps from customers switching from new large steel drums.
- 5.36 We also considered the scope for supply-side substitution.

### *Supply-side substitution*

#### *Small steel drums and pails*

- 5.37 Greif told us that there was a high degree of similarity in the manufacturing process and the technical know-how used in the production of small steel drums and large steel drums, and noted that it produced both large and small steel drums. However, it acknowledged that a switch from the production of small drums to large drums would still require significant investment (upwards of £[~~500k~~]). We did not, therefore, consider the production of small steel drums to be a close supply-side substitute.

#### *Other packaging products*

- 5.38 There did not appear to be any potential for supply-side substitution from the production of plastic drums, IBCs or any other packaging products to steel drums, since each was produced using a quite different manufacturing process. Greif suggested that the examples of Ramsden and Whale and AW Stokes illustrated the potential for supply-side substitution from reconditioning drums to producing new steel drums. However, there were few overlaps in the production processes for producing new drums and reconditioned drums. Ramsden and Whale said that although in terms of technical know-how there was some overlap, it had had to purchase a separate production line when it started manufacturing new drums. Some parts of the production line were shared (eg painting), but most were separate. Ramsden and Whale told us that a switch from production of reconditioned drums to new drums would require significant investment. We agreed with this view and concluded that production of reconditioned drums was not a supply-side substitute.

### **Conclusion on product market**

- 5.39 We concluded that reconditioned drums were a potential substitute for a wide range of new steel drum uses. For all but a few substances, where contamination from residues might be a concern, the barriers to switching to reconditioned drums were low. There were no barriers linked to the handling of the drums.
- 5.40 Regarding other alternative packaging, we found that:

- (a) Large plastic drums and IBCs were alternatives to new steel drums for a number of customers, and developments in technology might over time increase the number of applications for which plastic drums or IBCs were an alternative to steel drums.
- (b) Fibre drums and bulk packaging were identified as alternatives to steel drums by a number of customers in our survey. However, there was little evidence of past switching from large steel drums to fibre drums or bulk (from the customer survey or the other evidence submitted by the parties or third parties).
- 5.41 Overall, we considered that this evidence taken together indicated that if prices of new and reconditioned large steel drums were to increase by 5 per cent above their current levels, some switching would occur, but that this would be below the critical level of lost sales of [X] to [X] per cent, and therefore would not be sufficient to make the price increase unprofitable.
- 5.42 Therefore, we concluded that the relevant market was the supply of new large steel drums and reconditioned large steel drums.

### ***Geographic market***

#### *Great Britain*

- 5.43 In considering the geographic dimension of the market, we first considered whether the market was narrower than supply to all customers in Great Britain. We noted that, although transport costs were high relative to the value of drums, all steel drum manufacturers served the whole of Great Britain from each of their plants. This suggested that the relevant market was not narrower than Great Britain.

#### *Northern Ireland*

- 5.44 We next considered whether the market should include Northern Ireland. The evidence we received showed that there was no production of new large steel drums in Northern Ireland and that all supplies of steel drums in Northern Ireland were imported, either from Continental Europe or from Great Britain. In light of this, the prices of steel drums in Northern Ireland (or, indeed, the Republic of Ireland, since there was no production there either) were unlikely to be a constraint on Great Britain prices. This suggested that Northern Ireland did not form part of the relevant market for supply in Great Britain.
- 5.45 The fact that Northern Ireland was served only by imports from Great Britain and other countries meant that prices in Northern Ireland might have been constrained by prices of steel drums in Great Britain. Although this implied a separate relevant market for supply to customers in Northern Ireland (from producers based elsewhere, including in Great Britain and other countries), we did not consider this market further. This was because the question of whether there could be an SLC in Northern Ireland is linked to the competitive effects of the merger in Great Britain. There would be no SLC in Northern Ireland if there were none in Great Britain. And addressing any SLC in the Great Britain market would also address competition concerns in Northern Ireland.

#### *Europe*

- 5.46 We next considered whether imports from neighbouring European countries were part of the relevant market. Greif told us that there was evidence that current Great

Britain prices were constrained by imports, and that any increase in Great Britain prices above current levels would result in significant imports into Great Britain. However, several third parties told us that it was not economic to import steel drums from Continental Europe to Great Britain.

5.47 We again used the framework of the hypothetical monopolist. A 5 per cent price increase by a hypothetical monopoly producer in Great Britain would not be profitable if customers could switch away from Great Britain producers with relative ease. The factors that we thought might determine the constraint from imports on Great Britain producers were:

- prices in Great Britain and elsewhere;
- transport costs; and
- non-price factors affecting switching.

5.48 We considered each of these factors in determining the geographic market. Our analysis is set out at Appendix E.

### *Factors affecting switching to imported drums*

5.49 Evidence from the customer survey suggested that, although there were concerns over increased lead times and security of supply of imported drums, there was a reasonably high propensity to choose imported drums over Great-Britain-produced ones even at small price differentials. The high degree of price sensitivity suggested that the effect of non-price factors on switching to imports was low (see Appendix E, paragraphs 17 to 22).

### *Prices*

5.50 The parties told us that there were generally higher operating costs in Great Britain and that this was reflected in higher sales prices. Our analysis of the evidence on price differences is set out in Appendix E. We looked in particular at the prices in four countries—Belgium, the Netherlands, France and Germany—as these are the closest countries in which there are facilities for producing large steel drums.

5.51 The merging parties submitted information on prices of steel drums in different countries. Greif's prices in neighbouring countries (Belgium, the Netherlands, France) were [redacted] per cent cheaper than Greif's Great Britain prices. Blagden's prices in Belgium and the Netherlands were [redacted] and [redacted] per cent respectively cheaper than in Great Britain, although its prices in France [redacted] Great Britain. Greif's prices in Germany were [redacted] per cent cheaper than its Great Britain prices. Another supplier estimated that prices in Continental Europe were approximately 5 per cent lower than in Great Britain.

5.52 However, the pricing data that we received from the parties was average prices for all the drums produced in each country. Differences might reflect the different proportions of each type of drum produced in each plant or country. For example, the parties told us that Blagden's plant in Belgium made mostly higher-priced, internally-coated drums, whilst its plant in France made mostly higher-priced open-head drums.

## Transport costs

5.53 We obtained invoice data and estimates of transport costs of importing steel drums from the parties, other suppliers and independent haulage companies. Our analysis of transport costs is set out in Appendix E. The range of transport costs we found is shown in Table 3.

TABLE 3 Transport costs from Continental Europe to Great Britain

From	Cost/drum £
Belgium	2.38–2.71
Netherlands	2.69–3.60
France	3.33–4.08
Germany	3.35–5.00

Source: CC, based on data supplied by the parties, other steel drum manufacturers and transport companies.

5.54 We found that transport costs increased with distance from Great Britain. Costs from Belgium and the Netherlands (between £2.38 and £3.60 per drum) were for the most part lower than from France and Germany (between £3.33 and £5 per drum). For its 2006 financial year, Greif UK's average transport cost was £[redacted] per drum.<sup>13</sup>

## Assessment

5.55 From the evidence available to us, it appeared that the main limit on imports was the high cost of transport relative to the price of drums, although this was offset to some degree by lower prices in Continental Europe.

5.56 We calculated the differential between prices in Great Britain and prices in Continental Europe that would be necessary to compensate for the additional transport costs. We compared the transport costs submitted by the main and third parties with Greif's sales price and transport costs in Great Britain (see Table 4).

TABLE 4 Price differentials required for parity between imported drums and drums produced in Great Britain

Great Britain price Including transport cost	£[redacted] £[redacted]			
	Transport cost £	Price differential (factory gate) for imports to be the same as GB factory gate price %	Actual price differential (from Table 1) %	Actual price differ- ential after a 5% GB price rise %
From Belgium	2.38–2.71	(	[redacted]	)
From Netherlands	2.69–3.60			
From France	3.33–4.08			
From Germany	3.35–5.00			

Source: CC analysis.

Note: The transport costs from Rotterdam to Glasgow have been excluded from this table.

5.57 Using the average prices provided by Greif, and a range of transport quotes from the merging parties, third parties and independent hauliers, we found that, given customers' willingness to switch, imports from Belgium would render a 5 per cent price

<sup>13</sup>Based on annual transport costs of £[redacted] million and sales of [redacted] million drums. Source: Greif management accounts.

rise by a hypothetical monopolist of production facilities in Great Britain unprofitable, as would imports from the Netherlands, if the cheapest transport cost was used. Based on Greif's average prices in those countries, it did not appear from the data that imports from France and Germany would constrain a hypothetical Great Britain monopolist. But the variation we observed in the prices for new large steel drums (see paragraphs 5.47 to 5.49) meant that we considered that switching to imports from these countries might occur at the margin.

5.58 We therefore concluded that the geographic market included imports, at least from Belgium and the Netherlands.

## 6. Features of the market

### Market concentration

6.1 The market was concentrated pre-merger. Table 5 shows shares of UK supply (by volume for calendar year 2006) for new large steel drums and reconditioned drums.

TABLE 5 Volume sales and market shares for new and reconditioned large steel drums, 2006

	Volume sales '000 drums	Share of supply %
Greif	[ ✂ ]	[ ✂ ]
Blagden		
Metal Drum		
Ramsden and Whale*		
AW Stokes		
Imports of new steel drums†		
Reconditioned drums (aggregate)‡		
Total		100.0

Source: CC, based on data from Greif, Blagden, MDC, Ramsden and Whale, Stokes and IPA.

\*Ramsden and Whale sales of new large steel drums only.

†Small quantities of new large steel drums are at present imported in the UK by foreign manufacturers (eg Sulo); these are estimated to account for less than 3 per cent of sales of new large steel drums in the UK.

‡Source: IPA.

### Pricing

6.2 All steel drum manufacturers told us that input costs, and particularly the cost of steel, were the main determinant of steel drum prices. We heard that prices varied between customers, depending on the volumes supplied and the location of the customer.

6.3 Blagden told us that it had offered cheap prices at times when it needed volumes to fill its plant. It had mounted an active campaign to improve volumes in 2003/04 and won significant business from Greif on the basis of lower prices. Ramsden and Whale told us that [✂].

6.4 We considered whether suppliers were able to identify some customers or groups of customers with a different propensity to switch in response to price increases. We noted that prices were negotiated between supplier and customer, and that there were no list prices. We found that it was difficult to classify customers into defined groups. We therefore considered whether there was scope for suppliers to assess their customers' propensity to switch on an individual basis. We found that suppliers had detailed information about customer and product requirements, including the

drum type, customer classification, the delivery address, and the breakdown of customer volumes, cost and margins.

- 6.5 In particular, Greif held detailed information about its customer base. It told us about the data collection system used by the field sales team and other staff to capture details of customer visits. Greif told us that the reports produced could contain useful intelligence and were often the way in which it could see trends among customer requirements across regions. For each large customer, Greif also developed an account plan which identified the customer's key characteristics, locations, products, the types of container purchased, financial information, and qualitative information such as an indication of the customer's purchasing style.
- 6.6 Greif told us that its account plans described customers' products only in very general terms, and that larger customers generally had a range of products which would mean that Greif would not know what proportion, if any, of each customer's order for steel drums would have no alternatives to steel. However, we considered that the information about its customers accumulated by Greif (which includes information on past behaviour in response to price increases) would enable Greif to form an assessment of the price sensitivity of its customers. In addition, although we acknowledge that the information was compiled into a report for the purposes of submitting evidence to the CC,<sup>14</sup> Greif demonstrated considerable knowledge of the products packed by its top 40 customers.

### ***Pre-merger competition in the market***

- 6.7 We set out below our assessment of competition in the market pre-merger by reference to:
- suppliers of reconditioned large steel drums;
  - imports pre-merger;
  - competition between Greif and Blagden; and
  - competition from other Great Britain suppliers of new large steel drums.

Appendix F sets out more detail on the issues pertinent to our assessment of competition pre-merger.

### ***Reconditioned large steel drums***

- 6.8 Reconditioned drums are either washed or furnaced (see Appendix B, paragraphs 10 to 17). Washed drums are the more common of the two. Several third parties told us that there were shortages in the supply of reconditioned drums in the UK. According to a report [redacted], the production of reconditioned drums in the UK declined from 2.2 million units in 2003 to 1.5 million units in 2005. Sales of reconditioned drums in the UK declined from 2.3 million in 2003 to 1.8 million in 2006 (see Table 2 in paragraph 4.13). We were told that the decline in volumes of reconditioned drums was due to the following factors:
- the decline in the sale of new large steel drums to the UK market;

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<sup>14</sup>See Appendix D, paragraph 18.

- many UK-produced steel drums were used for export, which reduced the number available for reconditioning;
- many imported steel drums were too thin a gauge to be suitable for reconditioning; and
- the high price of scrap steel and the rules influencing recycling had increased the incentives for scrapping used drums (see also Appendix B, paragraphs 15 to 17).

We were told that the current conditions were likely to persist for the foreseeable future.

- 6.9 pack2pack and Ramsden and Whale told us that they had to concentrate on delivering reliably to existing customers. This evidence suggested that reconditioned drum suppliers could exert only a limited competitive constraint in this market and that the most likely response of reconditioned drum producers to a rise in the price of new large steel drums would be to follow the price increase. Greif told us that, if new steel drum prices rose, creating higher returns for reconditioned drums, it was probable that more reconditioned drums would become available. However, we think that any such increase in volumes would be unlikely to constrain new drum prices because the prices of reconditioned drums would also have increased.

### *Imports*

- 6.10 Although we understand that there is no technical or regulatory reason why imported drums could not be used in Great Britain and the survey results indicated that customers viewed imports as a substitute, there have been few imports in the past. We estimated that imports of new large steel drums to Great Britain currently accounted for less than 3 per cent of sales in Great Britain. This appeared mainly to be due to the high cost of transporting drums relative to their price. Transport costs increase with distance, and we noted that pre-merger the bulk of the production capacity located closest to the Continental channel ports was owned by Greif and Blagden.

### *UK suppliers of new large steel drums*

- 6.11 Having determined that suppliers of reconditioned drums had not operated as a competitive constraint in the market and that imports had been insignificant, we looked at competition between suppliers of new steel drums. In particular, we assessed whether Blagden was Greif's closest competitor pre-merger. If it was, the removal of Blagden as a competitor would make it more likely that the merged entity could exploit its market power.
- 6.12 We considered relevant features, including non-price factors that would influence customers' willingness to switch to other suppliers of new steel drums; and whether those suppliers had the capacity and capability to accommodate the demands of would-be switchers at a competitive price. These are set out in Appendix F.
- 6.13 On the basis of the evidence we received, we considered that all UK suppliers of new large steel drums produced comparable products, and that switching costs were sufficiently low to enable customers to respond to price changes. We also found evidence of spare capacity in the industry. As set out in Appendix F (paragraphs 14 to 19 and 20 to 35), at current output levels, Blagden and Greif had spare capacity to take customers from one another. [X] smaller producers [X] also had spare

capacity. However, we found that the smaller producers had little incentive to expand and did not appear to have plans to do so.

- 6.14 The extent of switching between the merging parties, and to other suppliers of new large steel drums, is an indicator of the competitive constraint different suppliers exert on each other. Appendix F (paragraph 14 onwards) sets out the evidence on past switching between Greif and Blagden, and the extent to which Metal Drum, Ramsden and Whale and AW Stokes had the ability to supply, and were considered by customers as potential alternative suppliers to Greif and Blagden. In particular, we found that, over the past five years, both Greif and Blagden lost more custom to each other than to any other competitor in the relevant market. Overall, this evidence indicated that Blagden and Greif were each other's closest competitor.
- 6.15 We looked further at the factors affecting the relative competitiveness of new large steel drum manufacturers by considering different manufacturers' costs. Competitors' costs are not identical since the age and reliability of production facilities varied between companies, as did locations of manufacturing plants and hence transport costs. The differences in manufacturing processes also translated into variation in costs, and in particular in variations in variable costs. Greif and Blagden have highly automated systems. [X] We would expect this to translate into lower variable costs, and significant economies of scale, for Greif and Blagden compared with other UK manufacturers.
- 6.16 Greif told us that it had a more sophisticated business model than its smaller competitors. Its overhead costs per drum included an element of cost related to the European business and US headquarters. In addition, maintenance costs on Greif's automated production line would be more expensive than maintenance costs on a less sophisticated, less automated line.
- 6.17 Another difference between suppliers' variable costs was their input costs of steel. Greif told us that it was able to achieve economies of scale in the bulk purchase of steel. Prior to the merger, Blagden and Greif, due to the size of their global demand for steel, would have been able to secure better prices for steel than smaller suppliers.
- 6.18 From the evidence set out above, we would expect that Greif and Blagden would have higher fixed costs than smaller suppliers, but would enjoy lower variable costs (in particular, from their lower steel costs per unit). The high-level data on costs from manufacturers that we looked at was consistent with this. The data is discussed further in Appendix F, paragraphs 36 to 39.
- 6.19 In light of our assessment that Blagden and Greif were the lowest incremental cost manufacturers and that they were each other's closest competitors in terms of switching and market shares, we considered that the main constraint on Greif's pricing pre-merger came from Blagden. This was consistent with the comparison of prices charged by the different suppliers (set out in Table 5 of Appendix F), which would suggest that Greif and Blagden's tight-head plain drums (which accounted for significantly over half of their total output) tended to be cheaper than those sold by their competitors.

## **7. Counterfactual**

- 7.1 In order to assess the effect of the merger on competition in the relevant market, we need to identify what was likely to happen in the absence of the merger. We considered, first, the approach of Blagden and Greif in Great Britain in the absence of

the merger and, second, whether other developments or changes in the structure of the market may be expected in the absence of the merger.

- 7.2 Alchemy told us that there was limited interest in the businesses when they were put up for sale in the second quarter of 2006. Only a few parties requested an information memorandum and the only offer initially was from Greif for the new steel drums business, and not the whole group. This was rejected by Alchemy. Subsequently, an offer was accepted for the whole Blagden group from its management. This was dependent on the back-to-back sale of the new drums business to Greif.
- 7.3 Alchemy said that if no satisfactory offer had been received for the businesses, it would have withdrawn the offer for sale and continued to work with the management to build the business. This might have included further acquisitions, although it was unlikely that these would have been in Western Europe. Alchemy said that it would probably have attempted to sell the businesses six months to two years after the initial attempt, subject to favourable market conditions.
- 7.4 We explored with a range of third parties the question of who might have purchased the Blagden businesses in the absence of the merger with Greif. We received no evidence that suggested that the Blagden businesses would have been split up into separate national businesses. Given the size of the relevant businesses and the views expressed, we did not believe that any alternative purchaser would have been a current supplier of significant volumes of large steel drums in Great Britain. We formed the view that in the absence of the merger, there were three likely scenarios for the ownership of the Blagden businesses over the next couple of years: it would be retained by Alchemy; it would be sold to another private equity business; or it would be bought by an industry buyer not currently supplying significant volumes of large steel drums in Great Britain. We concluded that Blagden's competitiveness in Great Britain would be likely to be similar for each of these scenarios, as its position as part of a wider European group would be unaffected. It would therefore be able to obtain input materials—which were its key cost component—at least as competitively as it had done pre-merger. We therefore do not need to decide which the most likely outcome would have been.
- 7.5 In the absence of the merger, we would expect Greif to continue to pursue its stated strategy to become the lowest-cost producer of industrial packaging products.
- 7.6 We considered whether other developments that might affect competition in the market might, in turn, be affected by the merger. A key change was likely to be the introduction of a new large steel drum manufacturing line by Schütz Group at its new industrial packaging facility at Moerdijk (see paragraph 4.7). Schütz Group told us that the new steel drum line would have been installed at Moerdijk in the absence of the merger, but that the installation might have been up to 18 months later than the timing adopted in response to the merger.
- 7.7 In the counterfactual, we accepted that Schütz Group would have started new large steel drum production at its facility in Moerdijk in the foreseeable future, although the precise timing of the installation was unclear. For our analysis of the competitive effects of the merger, we assessed the situation post-merger against the most competitive likely counterfactual situation (ie the earliest likely commencement of production of new large steel drums at Moerdijk). We did not think consideration against any other likely counterfactual would alter our conclusion on whether the merger would be expected to result in an SLC.

## 8. Assessment of the competitive effects of the merger

### *Removal of Blagden*

- 8.1 The merger has brought under common control the two largest UK producers of large steel drums, with a combined market share of approximately [X] per cent (increment of [X] per cent). This has resulted in a highly concentrated market.
- 8.2 Further, on the basis of our analysis of the market pre-merger set out in Section 6, we found that the merger had removed the main competitive constraint on Greif's prices and that the remaining existing competition would be a limited constraint on the behaviour of the merged firm because:
- the constraint imposed by alternative forms of packaging would be weak;
  - suppliers of reconditioned drums would not be in a position to constrain prices because supply of used large steel drums would be limited;
  - existing manufacturers of large steel drums on the Continent would face transport and other costs that limited their ability to compete at current prices;
  - although there would be significant spare capacity for production of new steel drums among the three remaining Great Britain manufacturers, they would operate at higher variable costs than Blagden or the merged firm, and might be unwilling to take on the risks involved in a major investment, which would mean that the constraint that they would impose (particularly in relation to customers located close to Greif's plants) would be limited.
- 8.3 We therefore considered whether future developments in the market might prevent the merged entity from exploiting its market position by increasing prices to all customers or to those less likely to switch suppliers (see paragraphs 6.4 to 6.6).

### *Other competitive constraints*

#### *Entry of Schütz Group*

- 8.4 Schütz Group is currently installing a new large steel drum line at its new facility in Moerdijk, in the Netherlands. Schütz Group told us that the capacity would be 1.3 million drums annually per shift, and that it anticipated that steel drum production would begin in the fourth quarter of 2007 or the first quarter of 2008. Whether this will impose a competitive constraint on the merged business will depend on a number of factors: the costs associated with production and delivery; the available capacity; and Schütz Group's incentive to sell new large steel drums to customers in Great Britain.
- 8.5 We considered whether imports from Schütz Group's new plant could match the prices of the merged parties. Because the drums are not yet being produced, we could not obtain actual costs for production or transport. However, we inferred proxies for these costs from the data available to us.<sup>15</sup> We also considered a variety of scenarios because we recognized that the costs varied for different types of drum

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<sup>15</sup>We obtained: (a) Schütz Group's estimates of its planned Netherlands average selling price for all large steel drums and costs; (b) Greif's average prices in various European countries for all large steel drums and each of the four main types; and (c) transport costs from illustrative quotes from independent hauliers as well as estimates and actual costs from manufacturers (including the parties) in Continental Europe.

and for delivery to different locations in Great Britain. These differences could result in imports being competitive for only some types of drum or for only some customers.

- 8.6 Schütz Group told us that its planned capacity at Moerdijk would be adequate to supply large orders from UK customers. Given this spare capacity, we considered whether Schütz Group would have the incentive to supply new large steel drums to customers in Great Britain. Schütz Group told us that it had not actively approached the UK steel drum market and had no plans to market steel drums in the UK, but that, if requested, it would quote for supply to the UK in the future. We noted that Schütz Group was already established in the UK as a producer of IBCs and had recently started production of plastic drums and might therefore already have relationships with a number of UK users of large steel drums.
- 8.7 Our analysis (set out in Appendix E) suggested that Schütz Group would have an incentive to supply large steel drums to customers in Great Britain at prices that would at least cover its costs. We recognized that it would not necessarily be able to match the margin that it obtained on sales in the Netherlands, particularly for tight-head plain drums to the more distant customers in Great Britain. However, because contracts were negotiated individually, we did not think that lower margins on one contract would be likely to exert downward pressure on margins for other sales.
- 8.8 Our analysis indicated that at Greif's current prices, imports from Schütz Group's new plant could be competitive for some drums and some Great Britain customers if it maintained its planned margins for sales in the Netherlands. Further, the figures indicated that it could be competitive with Greif's current prices to customers in [REDACTED] and still more than cover its costs. Those Great Britain customers located nearer to the Greif or Blagden manufacturing sites might be able to negotiate a more competitive price with them—reflecting lower transport costs—and might therefore be less likely to switch to Schütz. Nonetheless, we estimated that Schütz would be able to offer competitive prices [REDACTED] if Greif's prices rose by [REDACTED].
- 8.9 On the basis of this assessment, we found that imports from Schütz Group's new plant would operate an effective competitive constraint—in relation to sales to all customers—on the merged business in the future.

#### *Other entry and expansion*

- 8.10 We also assessed whether there would be further new entry in response to the merger, but we did not find evidence of others having the incentive to attempt entry that would significantly affect the supply of large steel drums in the UK. See further Appendix G, paragraphs 2 to 6.
- 8.11 We considered whether expansion by an existing supplier of new large steel drums in Great Britain could alter the competitive position in the market. We looked at the possibility of both small-scale expansion, for example through adding shifts, and transformative expansion that would require significant investment. See Appendix G, paragraphs 7 to 15.
- 8.12 We concluded that significant expansion was unlikely. Although we considered that at least some competitors could expand their capacity relatively quickly and inexpensively, expansion of this nature would not reduce their variable costs. We did not consider therefore that such expansion would exert a significant extra competitive constraint. In addition, although we recognized the potential that the merger would increase the incentive for smaller suppliers to transform their businesses and become a sizeable alternative to the merged entity, we did not consider that this was likely, given the high costs and risks involved in such a strategy.

8.13 We also considered the possibility of sponsored entry or expansion, which is discussed in paragraphs 16 to 19 of Appendix G. Greif told us that several large customers were of sufficient scale to guarantee the financial viability of a new entrant, or to encourage expansion by a smaller competitor. However, we did not consider that sponsorship was likely, particularly in the face of entry by Schütz Group.

#### *Countervailing buyer power*

8.14 We also considered whether buyers would be able to act to constrain the prices of the merged entity. This is discussed in paragraphs 20 to 24 of Appendix G. However, we did not find clear evidence of customers who might be sufficiently powerful to constrain effectively the merged parties' ability to raise prices to significant numbers of customers.

#### *Technological developments*

8.15 As we noted in paragraph 5.34 and Appendix D, recent developments in multi-layer plastic extrusion and coating technologies could allow an increasing number of products to be packed in plastic containers. Although we found that the competitive constraint imposed by alternative packaging was weak currently, these developments might result in a stronger constraint in the future. We noted that suppliers of alternative packaging had invested in increased capacity in Great Britain for plastic drums and IBCs.

#### **Assessment**

8.16 Our assessment indicated that customers were price sensitive and that there were no significant differences in drums produced by different suppliers. When compared to our counterfactual, and particularly taking into account the entry of Schütz Group into manufacturing in the Netherlands, we did not consider that the post-merger situation would allow Greif to exploit its market position. The merged entity would be constrained by Schütz Group's ability to price competitively to a significant group of Greif's customers. This would operate in addition to any constraints imposed by other forms of packaging, other large steel drum suppliers in Great Britain, other imports and countervailing buyer power.

### **9. Conclusion on the SLC test**

9.1 For the reasons set out above, we did not reach an expectation that the merger would result in an SLC in the market for new and reconditioned large steel drums in Great Britain.