

Terms of reference and conduct of the inquiry

Terms of reference

1. On 23 May 2012 the OFT made the following reference to the CC:
 1. In exercise of its duty under section 33(1) of the Enterprise Act 2002 (the Act) to make a reference to the Competition Commission (CC) in relation to an anticipated merger, the Office of Fair Trading (the OFT) believes that it is or may be the case that—
 - (a) arrangements are in progress or contemplation which, if carried into effect, will result in the creation of a relevant merger situation in that:
 - (i) enterprises carried on by or under the control of Akzo Nobel N.V. will cease to be distinct from enterprises carried on by or under the control of Metlac Holding S.r.l.; and
 - (ii) as a result, the conditions specified in section 23(4) of the Act will prevail, or will prevail to a greater extent, with respect to the manufacture and supply of metal packaging coatings; and
 - (b) the creation of that situation may be expected to result in a substantial lessening of competition within any market or markets in the UK for goods or services, including the manufacture and supply of metal packaging coatings.
 2. Therefore, in exercise of its duty under section 33(1) of the Act, the OFT hereby refers to the CC, for investigation and report within a period ending on 6 November 2012, on the following questions in accordance with section 36(1) of the Act—
 - (a) whether arrangements are in progress or contemplation which, if carried into effect, will result in the creation of a relevant merger situation; and

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

**[signed] Ali
Nikpay** Senior
Director
Office of Fair Trading
23 May 2012

Interim measures

2. We took steps to ensure the separate and independent operation of AkzoNobel and Metlac Holding during the course of our inquiry.

3. Both AkzoNobel and Mr Pier Ugo Bocchio in his capacity as Managing Director of Metlac and on behalf of the owners of the Bocchio shares in Metlac Holding gave [interim undertakings](#) to the CC under [section 80](#) of the Act on 9 and 10 July 2012 respectively for the purpose of ensuring the separate management of AkzoNobel and Metlac Holding whilst proceedings were ongoing.

Conduct of the inquiry

4. On 24 May 2012, we posted on the CC website an [invitation to express views to us](#) about the merger, and, on 12 June 2012, we posted an [administrative timetable](#) for our inquiry.

5. We also invited a wide range of interested third parties to comment on the merger. We sent detailed questionnaires to 39 customers and ten competitors and we gathered oral evidence through nine hearings with selected third parties. Evidence was also obtained through further written requests. [Summaries of our hearings](#) with third parties are published on our website.

6. Members of the Inquiry Group, accompanied by staff, visited the premises of both AkzoNobel and Metlac and were given presentations on the operation of their metal packaging coatings businesses.
7. On 27 June 2012, we published an [issues statement](#) on our website, setting out the areas of concern on which the inquiry would focus. [Non-confidential versions of responses to our issues statement](#) are published on our website.
8. We received written evidence from AkzoNobel and Metlac, and [non-confidential versions of their initial submissions](#) are on our website. We also held separate hearings with AkzoNobel and Metlac on 16 August 2012.
9. In the course of our inquiry, we sent to AkzoNobel and Metlac and other parties some working papers and extracts from those papers for comment. We also sent AkzoNobel and Metlac an annotated issues statement prior to the hearings we held with each.
10. A non-confidential version of the provisional findings report has been placed on our [website](#).
11. We would like to thank all those who have assisted in our inquiry so far.

Can manufacturing process

FIGURE 1

Two-piece beverage cans

1. Aluminium or steel strip arrives at the can manufacturing plant in large coils.



2. The strip is lubricated with a thin film of liquid and then fed continuously through a cupping press, which blanks and draws thousands of shallow cups every minute.



3. Each cup is rammed through a series of tungsten carbide rings. This is the drawing and ironing process which redraws the cup to a smaller diameter and thins the walls, whilst increasing the height.



4. Trimmers remove the surplus irregular edge and cut each can to a precise specified height. The surplus material is recycled.



5. The trimmed can bodies are passed through highly efficient washers and then dried. This removes all traces of lubricant in preparation for coating internally and externally.



6. The clean cans are coated externally with a clear or pigmented base coat which forms a good surface for the printing inks.



7. The cans pass through a hot air oven to dry the lacquer.

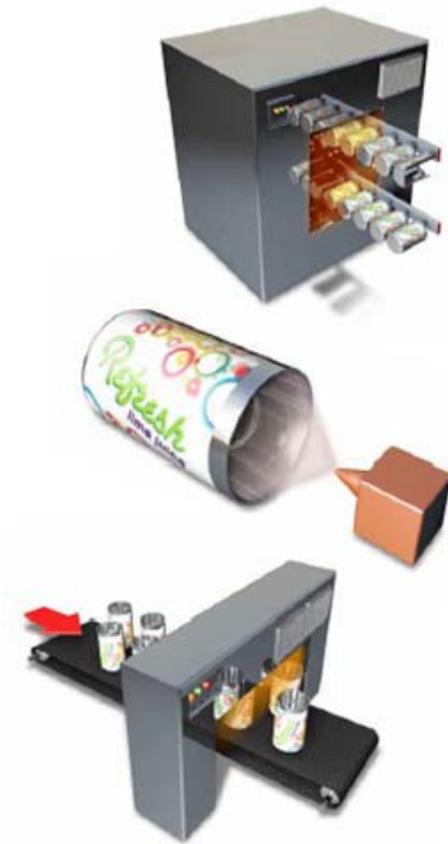


8. The next step is a highly sophisticated printer / decorator which applies the print design in up to six colours, plus a varnish.



9. A coat of varnish is also applied to the base of each can by the rim-coater.





10. The cans pass through a second oven which dries the ink and varnish.

11. The inside of each can is sprayed with lacquer. This special lacquer is to protect the can itself from corrosion and from any possibility of interaction between the contents and the metal.

12. Lacquered internal surfaces are dried in an oven.

13. The cans are passed through a necker flanger, where the diameter of the wall is reduced (necked-in). The tops of the cans are flanged outwards to accept the ends after the cans have been filled.



14. Every can is tested at each stage of manufacture. At the final stage they pass through a light tester which automatically rejects any cans with pinholes or fractures.



15. The finished can bodies are then transferred to the warehouse to be automatically palletised before despatch to the filling plant.

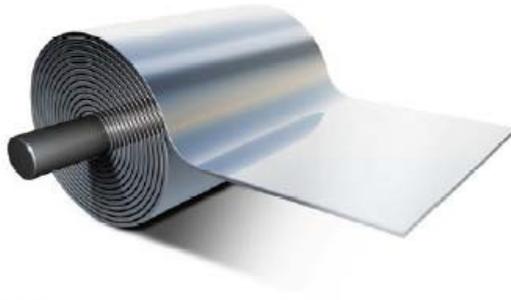


Source: Metal Packaging Manufacturers Association, 'How a two-piece drawn and wall-ironed drinks can is made'.

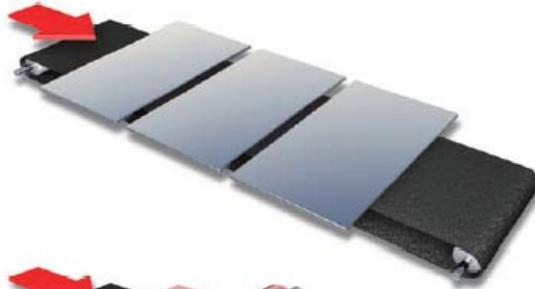
FIGURE 2

Three-piece food cans

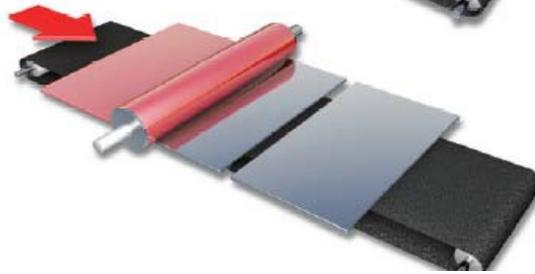
1. Steel strip arrives at the can manufacturing plant in large coils.



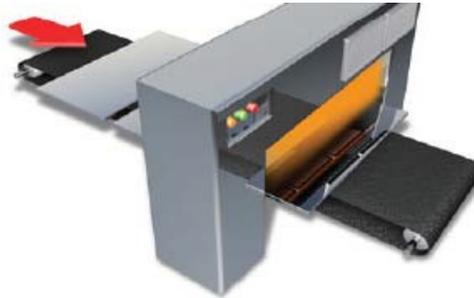
2. Steel strip is cut into large sheets



3. Lacquer is applied to the side of the sheets that will become the internal surfaces of the finished cans. This special lacquer is to protect the can itself from corrosion and from any possibility of interaction between the contents and the metal.



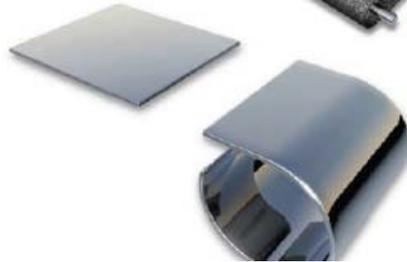
4. The lacquered sheets are dried in an oven.



5. The large sheets are slit into small sheets, one for each can body.



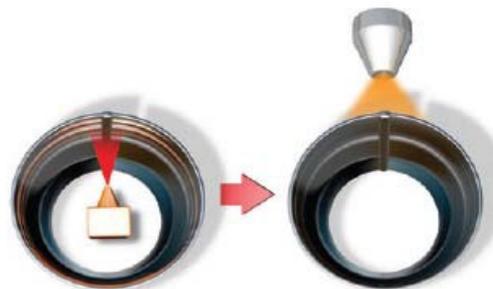
6. Each small sheet is rolled into a cylinder.



7. The cylinder edges are welded by squeezing them together whilst passing an electric current through them. This heats up the metal sufficiently for a sound joint to be made.



8. The inside surface of the weld is sprayed with lacquer and then cured by blowing heated air on to the outside of the cans.



9. The cans are passed through a flanger where the top and bottom of the can are flanged outwards to accept the ends.



10. Plain ends are seamed to the can bodies to close one end of every can.



11. The cans are passed through a beader where the walls of the cans have circumferential beads formed in them to give added strength.



12. Every can is tested at each stage of manufacture. At the final stage they pass through a pressure tester, which automatically rejects any cans with pinholes or fractures



Source: Metal Packaging Manufacturers Association, 'How a three-piece welded food can is made'.

Buyer power

1. This appendix summarizes the following information, which we analysed in our assessment of buyer power:
 - buyer size as indicated by customer purchase records by segment; and
 - customer responses to questions on buyer power and the expected impact of the proposed merger on buyer power.

Buyer size

2. Buyer size is an important determinant of countervailing buyer power. For example, a supplier may not find it worthwhile to increase its prices if it could realistically expect to lose large volumes of purchases from one or more of its large customers that could switch to other suppliers or sponsor new entry. Table 1 presents information on the purchase volumes of some buyers, including the largest buyers, in B&B and FCG market.

TABLE 1 Purchases by selected customers by sector in the EEA, 2011

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Customer	Supplier					Total	% of total
	AkzoNobel	Metlac	Valspar	PPG	Other		
B&B							
Ball	[...]	[X]	[X]	[X]	[X]	[X]	[21–30]
Can-Pack	[...]	[X]	[X]	[X]	[X]	[X]	[11–20]
Crown	[...]	[X]	[X]	[X]	[X]	[X]	[11–20]
Elval	[...]	[X]	[X]	[X]	[X]	[X]	[0–10]
Rexam	[...]	[X]	[X]	[X]	[X]	[X]	[11–20]
Others	[...]	[X]	[X]	[X]	[X]	[X]	[21–30]
Total	[...]	[...]	[X]	[X]	[X]	[X]	100.0
FCG							
Ardagh	[...]	[X]	[X]	[X]	[X]	[X]	[11–20]
Can-Pack	[...]	[X]	[X]	[X]	[X]	[X]	[0–10]
Crown	[...]	[X]	[X]	[X]	[X]	[X]	[11–20]
Mivisa	[...]	[X]	[X]	[X]	[X]	[X]	[0–10]
Pelliconi	[...]	[X]	[X]	[X]	[X]	[X]	[0–10]
Silgan	[...]	[X]	[X]	[X]	[X]	[X]	[0–10]
Tecnocap	[...]	[X]	[X]	[X]	[X]	[X]	[0–10]
Others	[...]	[X]	[X]	[X]	[X]	[X]	[51–60]
Total	[...]	[...]	[X]	[X]	[X]	[X]	100.0
Food							
Ardagh	[...]	[X]	[X]	[X]	[X]	[X]	[21–30]
Crown	[...]	[X]	[X]	[X]	[X]	[X]	[21–30]
Mivisa	[...]	[X]	[X]	[X]	[X]	[X]	[0–10]
Others	[...]	[X]	[X]	[X]	[X]	[X]	[41–50]
Total	[...]	[...]	[X]	[X]	[X]	[X]	100.0
C&C							
Can-Pack	[...]	[X]	[X]	[X]	[X]	[X]	[0–10]
Crown	[...]	[X]	[X]	[X]	[X]	[X]	[11–20]
Pelliconi	[...]	[X]	[X]	[X]	[X]	[X]	[0–10]
Tecnocap	[...]	[X]	[X]	[X]	[X]	[X]	[0–10]
Others	[...]	[X]	[X]	[X]	[X]	[X]	[71–80]
Total	[...]	[...]	[X]	[X]	[X]	[X]	100.0
GL							
Ardagh	[...]	[X]	[X]	[X]	[X]	[X]	[0–10]
Crown	[...]	[X]	[X]	[X]	[X]	[X]	[11–20]
Others	[...]	[X]	[X]	[X]	[X]	[X]	[71–80]
Total	[...]	[...]	[X]	[X]	[X]	[X]	100.0

Source: Party responses to CC questionnaire.

Notes:

1. When figures were available from customers only, we used those figures.
2. When figures were available from suppliers only (ie from the AkzoNobel or Metlac customer transaction database) we used those figures.
3. When figures were available from both customers and suppliers we used customers' reported figures for consistency reasons as we do not hold customer transaction data for all suppliers listed in this table.¹
4. Where we do not have a record of either supplier sales to a customer or customer's metal coatings purchases, this is indicated by a dash '-' in the table.
5. Others' figures for some suppliers in the Food and C&C segments are marked by a dash '-' as missing data for purchases by some customers means they cannot be accurately calculated.
6. [X]

3. Table 1 provides information on individual customers' purchases from individual suppliers in the EEA in 2011. It also provides information on individual suppliers' total sales volumes in order to assess the share a particular customer has of a supplier's

¹[CONFIDENTIAL]

total sales volume for each main product segment. Finally, it provides information on total sales in the market in order to assess the share of an individual customer from the total quantity of coating products sold in the main product segments.

4. The figures in Table 1 suggest that the four largest customers (Ball, Can-Pack, Crown and Rexam), account for about [71–80] per cent of total purchases in the B&B market [\(and all of the B2E segment\)](#). The four largest customers in FCG (Ardagh, Crown, Mivisa and Silgan) account for [41–50] per cent of total purchases. The top three customers (Ardagh, Crown and Mivisa) account for about [51–60] per cent in the Food segment,² while the customer side of the C&C and GL segments is much more fragmented.

5. In turn, individual customers purchase up to a quarter of total sales volume in the B&B market (Ball, [20–30] per cent) and the Food segment (Crown, [20–30] per cent) and for about one-tenth of supply to the C&C segment (Crown, [11–20] per cent) and the GL segment (Crown, [11–20] per cent). This suggests that large individual customers purchase a substantial proportion of both individual suppliers' volumes and the entire market's total sales volume, implying that losing the purchases of such a big customer would potentially be a substantial loss for individual suppliers. In contrast, smaller customers are individually of less importance for individual suppliers.

Customer responses to questions on buyer power and the expected impact of the proposed merger on buyer power

6. This section summarizes information on customers' responses to questions on buyer power in our questionnaire.

7. We asked 39 customers about the extent the bargaining power lies with them or the

² [REDACTED]

suppliers, how it varies by product category or sub-segment and how the merger would be likely to affect it. More generally, we asked what effects they expected the merger to have for their company.³ [By asking directly whether a customer has bargaining power, the responses received from customers are likely to be affected by the customers' own bias towards believing that they are not in a strong position. As such, the question posed by the CC is not suitable for determining buyer power in the market.]

8. Nine of 18 respondents⁴ suggest that they have bargaining power in their relationship with suppliers and seven of them think that this bargaining power varies across markets/segments (potentially higher in the B&B market). In addition, some of these respondents mentioned other factors that they thought affect their bargaining power, including qualification/price adjustment, Metlac's presence, market situation (market expansion/demand decrease), number of suppliers and the customer's yearly turnover. One customer describes that bargaining power is balanced for it and two customers claim that there is no difference in buyer power across segments. Finally, four customers claim that they do not have any bargaining power and two customers did not answer the question.

9. The majority of customers that have a business relationship with Metlac (ten of 14) express clear concerns that their bargaining power will decrease following the proposed merger. Out of the remaining four customers, one customer is not concerned about the impact of the merger, whereas the remaining three customers did not provide clear responses to this question. [As such, even where Metlac is currently supplying customers, there is no consensus on the importance of Metlac. Furthermore, some of those customers that have responded that they are concerned about the loss of Metlac must have stated in response to the

³ The last part of the question, ie the effects of the merger on the company, addresses the issue of buyer power in an indirect way.

⁴ A further eight acknowledged receipt of our questionnaire but chose not to respond to it.

previous question that they do not have bargaining power to begin with.]

10. In their responses to the question on the overall impact of the proposed merger on their company, 14 out of 18 respondents expect a negative impact for their own business, mostly in terms of reduced number of suppliers and higher prices but also as a result of less innovation, lower product quality and narrower product range. There is just one customer currently served by Metlac who does not see a concern, while the remaining three customers do not have a business relationship with Metlac.
11. In an additional question on any other information thought to be relevant for the inquiry, five customers expressed further concern in relation to the merger, emphasizing Metlac's unique role in putting competitive pressure on AkzoNobel, PPG and Valspar and how its disappearance would therefore lead to worsening competitive conditions in the market. The remaining 13 customers did not respond to this question. [Very little can be drawn from the statements of five individual customers, particularly where the vast majority of those that responded to the CC's questionnaire did not respond to this question.]

Summary

12. The evidence and information summarized in this section indicates that large individual customers account for a substantial share of total purchases in each segment. The B&B market is more concentrated on the customer side than the FCG market, but there are differences within the FCG market. In addition, some customer responses reveal that in a number of cases customers believe they have significant bargaining power but that this bargaining power is likely to vary across segments. [The arguments for buyer power are strongest in B&B, which is supported by the statements of these customers.] Finally, a small number of customers think that the proposed merger will affect negatively their bargaining power.

History of the Metlac Group¹

1. The Metlac Group was founded in 1986 as a metal packaging coatings business. The company was originally called Coates Italia S.p.A. and resulted from the acquisition of IVI's metal packaging business from PPG by three Italian families (the Bocchio, Barlotti and Maietta families). In addition Coates Brothers plc acquired a minority 40 per cent shareholding in the company, which was then increased to 44.44 per cent.
2. In 1994, Total S.A. acquired Coates Brothers plc and thereby obtained the minority shareholding in Coates Italia S.p.A. In 1996, Total S.A. sold Coates Brothers plc to Valspar Corporation and sold its minority interest in Coates Italia S.p.A. to the three Italian families mentioned above.
3. In 1997, the Bocchio, Barlotti and Maietta families sold 44.44 per cent of the shares in Coates Italia S.p.A. to Mortar Investments International Limited, a subsidiary of ICI. As part of this transaction, ICI was granted a call option for the remaining shares (the 55.56 per cent controlling stake) in Coates Italia S.p.A. This option was exercisable at
[CONFIDENTIAL]

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4. **[CONFIDENTIAL]**

¹ Metlac [initial submission](#) dated 14 June 2012, paragraphs 6–13.

² **[CONFIDENTIAL]**

[CONFIDENTIAL]

5. In 2003 Metlac acquired Sicra S.r.l., a company active in the manufacture of coatings for collapsible tubes and monobloc aerosols, which was then incorporated into Metlac S.p.A.
6. In 2007, the Barlotti and Maietta families sold their shares in Metlac S.p.A. The transaction was effected via a corporate restructuring, resulting in the creation of Metlac Holding. Following the transaction, ICI, via its subsidiary ICI Italia S.p.A. held 49 per cent of the shares in Metlac Holding and the Bocchio family held 51 per cent. The Bocchio family's shares are divided as follows: 17.87 per cent are held by Mr Bocchio and the remainder are held by his two sons, Mr Davide Bocchio and Mr Diego Bocchio, with a 16.56 per cent shareholding each. **[CONFIDENTIAL]**

New shareholding arrangements

were implemented between ICI and the Bocchio family:

- (a) Metlac Holding Formation and Quotaholders Agreement dated 30 September 2007; and
- (b) Metlac S.p.A. Shareholders Agreement dated 4 December 2007.

7. On acquisition of ICI in 2008, AkzoNobel inherited both the ICI shareholdings and also the arrangements set out between the Bocchio family and ICI in the agreements set out above. Metlac's operations are today governed by these agreements, together with the companies' by-laws and the relevant provisions of the Italian Civil Code, and any other applicable laws.

8. At present, the Metlac Holding quotaholders are ANCI with a 49 per cent interest, and the Bocchio family, with a 51 per cent controlling stake (17.87 per cent being held by Mr Bocchio, 16.56 per cent by Mr Davide Bocchio and 16.56 per cent by Mr Diego Bocchio).³ Metlac is controlled by Metlac Holding with a 55.56 per cent interest, while the remaining 44.44 per cent of its capital is held by Mortar Investments International Limited (a wholly-owned subsidiary of AkzoNobel).

³ [CONFIDENTIAL]

AkzoNobel rights over Metlac Holding and Metlac

1. This appendix sets out specific rights which AkzoNobel has over Metlac Holding and Metlac, via their governance arrangements.

Voting rights

2. AkzoNobel has 49 per cent of the voting share capital of Metlac Holding and it has approximately 44 per cent of the voting share capital of Metlac.

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Directors and Executive Officers

3. **[CONFIDENTIAL]**

4. **[CONFIDENTIAL]**

5. Mr Bocchio is appointed as Managing Director of Metlac pursuant to clause 5.7 of the SHA. **[CONFIDENTIAL]**

¹**[CONFIDENTIAL]**

[CONFIDENTIAL]

6. [CONFIDENTIAL]

² [CONFIDENTIAL]

²[CONFIDENTIAL]

7. [CONFIDENTIAL]

³[CONFIDENTIAL]

AkzoNobel has given undertakings to the CC that it will not appoint a general manager whilst the CC inquiry is in progress.

Business and strategy of the company

8. [CONFIDENTIAL]

⁴[CONFIDENTIAL]

[CONFIDENTIAL]

⁵

³ Clause 5.8.2 of the SHA provides that AkzoNobel is entitled to appoint a general manager ‘forthwith’ in the event that the Bocchio family does not serve a notice exercising its put option one month before the expiry of

⁴ th[CONFIDENTIAL]

⁵ [CONFIDENTIAL]

[CONFIDENTIAL] ⁶

9. [CONFIDENTIAL]

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10. [CONFIDENTIAL]

⁸[CONFIDENTIAL]

[CONFIDENTIAL]

11. [CONFIDENTIAL]

⁶[CONFIDENTIAL]

[CONFIDENTIAL]
⁸[CONFIDENTIAL]

12. Metlac has told us that, in practice, day-to-day management of the Metlac Group is under the control of Mr. Bocchio and the directors appointed by him to the board. AkzoNobel has told us that, **[CONFIDENTIAL]**

Confidential information

13. **[CONFIDENTIAL]**

14. **[CONFIDENTIAL]**

15. Therefore under the current SHA and FQA arrangements, it does not seem that AkzoNobel is able to control the commercial policy of the Metlac Group.

[CONFIDENTIAL]

Arrangements under the by-laws

16. [CONFIDENTIAL]

17. [CONFIDENTIAL]

⁹ [CONFIDENTIAL]

[CONFIDENTIAL]

[CONFIDENTIAL]

¹⁰ [CONFIDENTIAL]

[CONFIDENTIAL]

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18. [CONFIDENTIAL]

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⁹ Metlac S.p.A. by-laws, Article 25.

¹⁰ Metlac S.p.A. by-laws, Article 30.

¹¹ Metlac S.p.A. by-laws, Articles 18 & 20.

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19. [CONFIDENTIAL]

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[CONFIDENTIAL]

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20. [CONFIDENTIAL]

¹² Metlac S.p.A. by-laws, Article 20.

¹³ Metlac S.p.A. by-laws, Article 30(s).

[CONFIDENTIAL]

21. [CONFIDENTIAL]

Market shares in metal packaging coatings in the EEA, 2009 to 2011

Market shares by volume and value in the EEA

1. Based on information submitted to us by metal packaging coatings suppliers, we have computed value and volume market shares for each party. We received data for EEA sales from AkzoNobel, Metlac¹, Actega, Diostyl, Grace, PPG, Salchi, Schekolin and Valspar. We did not receive volume data for Diostyl and Salchi.²
2. For Tables 1 to 12 for 'others' we used AkzoNobel estimates for the others, with the following modifications. As AkzoNobel did not report information for Diostyl, Salchi and Schekolin separately, for the volume table, we subtracted the volume of Schekolin and for the value table we subtracted the values of Diostyl, Salchi and Schekolin. We note that, when Diostyl and Salchi value data are taken into account, AkzoNobel figures turn out to slightly underestimate the actual sales by value of 'Others' in some segments. A similar issue may also arise with the volume data but we are unable to check. The resulting market shares by volume might therefore be slightly higher than the actual shares.
3. Using estimates provided by Metlac for 'Others' would result in slightly higher market shares (generally 1 to 3 per cent) in most tables and only significantly different market shares in relation to GL.
4. For Tables 13 to 18 we use the estimates provided by AkzoNobel for 'Others', as Metlac does not supply to all segments of the B&B market.

¹ [REDACTED]

² Salchi did not provide a detailed apportionment of its sales in each FCG segment, but told us that its sales (in value) could be apportioned [REDACTED] per cent GL, [REDACTED] per cent C&C and [REDACTED] per cent Food, which we have done for each year.

5. A list of the tables is reported below:

- Tables 1 and 2 show market shares (by volume and value) for the total EEA supply of metal packaging coatings;
- Tables 2 and 3 show market shares (by volume and value) for the B&B market;
- Tables 5 and 6 show market shares (by volume and value) for the FCG market;
- Tables 7 and 8 show market shares (by volume and value) for Food coatings;
- Tables 9 and 10 show market shares (by volume and value) for C&C coatings;
- Tables 11 and 12 show market shares (by volume and value) for GL coatings;
- Tables 13 and 14 show market shares (by volume and value) for B2E coatings;
- Tables 15 and 16 show market shares (by volume and value) for B2I coatings;
- and
- Tables 17 and 18 show market shares (by volume and value) for BE coatings.

TABLE 1 **Market shares by volume for the total metal packaging coatings in the EEA (2009–2011) and HHI increment following the merger**

Supplier	2009		2010		2011	
	kt	%	kt	%	kt	%
AkzoNobel	[...]	[31–40]	[...]	[31–40]	[...]	[31–40]
Metlac	[...]	[11–20]	[...]	[11–20]	[...]	[11–20]
Combined	[...]	[41–50]	[...]	[41–50]	[...]	[41–50]
Valspar	[⊗]	[21–30]	[⊗]	[21–30]	[⊗]	[11–20]
PPG	[⊗]	[11–20]	[⊗]	[11–20]	[⊗]	[11–20]
Grace	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Actega	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Schekolin	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Others	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Total	[⊗]	100.0	[⊗]	100.0	[⊗]	100.0
<i>Pre-merger HHI</i>						[2,001–2,500]
<i>Post-merger HHI</i>						[3,001–3,500]
<i>HHI increment</i>						[⊗]

Source: CC estimates.

TABLE 2 Market shares by value for the total metal packaging coatings in the EEA (2009–2011) and HHI increment following the merger

Supplier	2009 €m	%	2010 €m	%	2011 €m	%
AkzoNobel	[...]	[21–30]	[...]	[21–30]	[...]	[21–30]
Metlac	[...]	[11–20]	[...]	[11–20]	[...]	[11–20]
Combined	[...]	[321–40]	[...]	[31–40]	[...]	[31–40]
Valspar	[€]	[21–30]	[€]	[21–30]	[€]	[21–30]
PPG	[€]	[21–30]	[€]	[21–30]	[€]	[21–30]
Grace	[€]	[0–10]	[€]	[0–10]	[€]	[0–10]
Actega	[€]	[0–10]	[€]	[0–10]	[€]	[0–10]
Schekolin	[€]	[0–10]	[€]	[0–10]	[€]	[0–10]
Diostyl	[€]	[0–10]	[€]	[0–10]	[€]	[0–10]
Salchi	[€]	[0–10]	[€]	[0–10]	[€]	[0–10]
Others	[€]	[0–10]	[€]	[0–10]	[€]	[0–10]
Total	[€]	100.0	[€]	100.0	[€]	100.0
Pre-merger HHI						[1,501–2,000]
Post-merger HHI						[2,501–3,000]
HHI increment						[€]

Source: CC estimates.

TABLE 3 Market shares by volume for the B&B market in the EEA (2009–2011) and HHI increment following the merger

Supplier	2009 kt	%	2010 kt	%	2011 kt	%
AkzoNobel	[...]	[31–40]	[...]	[31–40]	[...]	[41–50]
Metlac	[...]	[0–10]	[...]	[0–10]	[...]	[0–10]
Combined	[...]	[31–40]	[...]	[41–50]	[...]	[51–60]
Valspar	[€]	[31–40]	[€]	[31–40]	[€]	[21–30]
PPG	[€]	[21–30]	[€]	[21–30]	[€]	[11–20]
Grace	[€]	[0]	[€]	[0]	[€]	[0]
Actega	[€]	[0]	[€]	[0]	[€]	[0]
Schekolin	[€]	[0]	[€]	[0]	[€]	[0]
Others	[€]	[0–10]	[€]	[0–10]	[€]	[0–10]
Total	[€]	100.0	[€]	100.0	[€]	100.0
Pre-merger HHI						[3,001–3,500]
Post-merger HHI						[3,501–4,000]
HHI increment						[€]

Source: CC estimates.

TABLE 4 Market shares by value for the B&B market in the EEA (2009–2011) and HHI increment following the merger
[\[The top figures in each range for B&B shares by value in 2010 do not add up to 100 and therefore these cannot be correct.\]](#)

Supplier	2009 €m	%	2010 €m	%	2011 €m	%
AkzoNobel	[...]	[21–30]	[...]	[21–30]	[...]	[31–40]
Metlac	[...]	[0–10]	[...]	[0–10]	[...]	[0–10]
Combined	[...]	[31–40]	[...]	[0–10]	[...]	[41–50]
Valspar	[€]	[31–40]	[€]	[0–10]	[€]	[31–40]
PPG	[€]	[21–30]	[€]	[0–10]	[€]	[21–30]
Grace	[€]	[0]	[€]	[0]	[€]	[0]
Actega	[€]	[0]	[€]	[0]	[€]	[0]
Schekolin	[€]	[0]	[€]	[0]	[€]	[0]
Diostyl	[€]	[0]	[€]	[0]	[€]	[0]
Salchi	[€]	[0]	[€]	[0]	[€]	[0]
Others	[€]	[0–10]	[€]	[0–10]	[€]	[0–10]
Total	[€]	100.0	[€]	100.0	[€]	100.0
Pre-merger HHI						[2,501–3,000]
Post-merger HHI						[3,001–3,500]
HHI increment						[€]

Source: CC estimates.

TABLE 5 Market shares by volume for the FCG market in the EEA (2009–2011) and HHI increment following the merger

Supplier	2009		2010		2011	
	kt	%	kt	%	kt	%
AkzoNobel	[...]	[21–30]	[...]	[21–30]	[...]	[21–30]
Metlac	[...]	[11–20]	[...]	[11–20]	[...]	[11–20]
Combined	[...]	[41–50]	[...]	[41–50]	[...]	[41–50]
Valspar	[⊗]	[11–20]	[⊗]	[11–20]	[⊗]	[11–20]
PPG	[⊗]	[11–20]	[⊗]	[11–20]	[⊗]	[11–20]
Grace	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Actega	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Schekolin	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Others	[⊗]	[11–20]	[⊗]	[11–20]	[⊗]	[0–10]
Total	[⊗]	100.0	[⊗]	100.0%	[⊗]	100.0
Pre-merger HHI					[1,501–2,000]	
Post-merger HHI					[2,501–3,000]	
HHI increment					[⊗]	

Source: CC estimates.

TABLE 6 Market shares by value for the FCG market in the EEA (2009–2011) and HHI increment following the merger

Supplier	2009		2010		2011	
	€m	%	€m	%	€m	%
AkzoNobel	[...]	[21–30]	[...]	[21–30]	[...]	[21–30]
Metlac	[...]	[11–20]	[...]	[11–20]	[...]	[11–20]
Combined	[...]	[31–40]	[...]	[31–40]	[...]	[31–40]
Valspar	[⊗]	[11–20]	[⊗]	[11–20]	[⊗]	[11–20]
PPG	[⊗]	[11–20]	[⊗]	[11–20]	[⊗]	[11–20]
Grace	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Actega	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Schekolin	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Diostyl	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Salchi	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Others	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Total	[⊗]	100.0	[⊗]	100.0	[⊗]	100.0
Pre-merger HHI					[1,501–2,000]	
Post-merger HHI					[2,001–2,500]	
HHI increment					[⊗]	

Source: CC estimates.

TABLE 7 Market shares by volume for Food coatings in the EEA (2009–2011) and HHI increment following the merger

Supplier	2009		2010		2011	
	kt	%	kt	%	kt	%
AkzoNobel	[...]	[31–40]	[...]	[31–40]	[...]	[41–50]
Metlac	[...]	[11–20]	[...]	[11–20]	[...]	[21–30]
Combined	[...]	[51–60]	[...]	[51–60]	[...]	[51–60]
Valspar	[⊗]	[11–20]	[⊗]	[11–20]	[⊗]	[11–20]
PPG	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Grace	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Actega	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Schekolin	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Others	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Total	[⊗]	100.0	[⊗]	100.0	[⊗]	100.0
Pre-merger HHI					[2,001–2,500]	
Post-merger HHI					[3,501–4,000]	
HHI increment					[⊗]	

Source: CC estimates.

TABLE 8 Market shares by value for Food coatings in the EEA (2009–2011) and HHI increment following the merger

Supplier	2009 €m	%	2010 €m	%	2011 €m	%
AkzoNobel	[...]	[31–40]	[...]	[31–40]	[...]	[31–40]
Metlac	[...]	[11–20]	[...]	[11–20]	[...]	[11–20]
Combined	[...]	[51–60]	[...]	[41–50]	[...]	[41–50]
Valspar	[€]	[11–20]	[€]	[11–20]	[€]	[11–20]
PPG	[€]	[0–10]	[€]	[0–10]	[€]	[11–20]
Grace	[€]	[0–10]	[€]	[0–10]	[€]	[0–10]
Actega	[€]	[0–10]	[€]	[0–10]	[€]	[0–10]
Schekolin	[€]	[0–10]	[€]	[0–10]	[€]	[0–10]
Diostyl	[€]	[0–10]	[€]	[0–10]	[€]	[0–10]
Salchi	[€]	[0–10]	[€]	[0–10]	[€]	[0–10]
Others	[€]	[0–10]	[€]	[0–10]	[€]	[0–10]
Total	[€]	100.0	[€]	100.0	[€]	100.0
Pre-merger HHI						[1,501–2,000]
Post-merger HHI						[2,501–3,000]
HHI increment						[€]

Source: CC estimates.

TABLE 9 Market shares by volume for C&C coatings in the EEA (2009–2011) and HHI increment following the merger

Supplier	2009 kt	%	2010 kt	%	2011 kt	%
AkzoNobel	[...]	[11–20]	[...]	[11–20]	[...]	[11–20]
Metlac	[...]	[11–20]	[...]	[11–20]	[...]	[21–30]
Combined	[...]	[31–40]	[...]	[31–40]	[...]	[31–40]
Valspar	[€]	[11–20]	[€]	[11–20]	[€]	[21–30]
PPG	[€]	[21–30]	[€]	[21–30]	[€]	[11–20]
Grace	[€]	[0–10]	[€]	[0–10]	[€]	[0–10]
Actega	[€]	[0–10]	[€]	[0–10]	[€]	[11–20]
Schekolin	[€]	[0–10]	[€]	[0–10]	[€]	[0–10]
Others	[€]	[0–10]	[€]	[0–10]	[€]	[0–10]
Total	[€]	100.0	[€]	100.0	[€]	100.0
Pre-merger HHI						[1,501–2,000]
Post-merger HHI						[2,001–2,500]
HHI increment						[€]

Source: CC estimates.

TABLE 10 Market shares by value for C&C coatings in the EEA (2009–2011) and HHI increment following the merger

Supplier	2009 €m	%	2010 €m	%	2011 €m	%
AkzoNobel	[...]	[11–20]	[...]	[11–20]	[...]	[11–20]
Metlac	[...]	[11–20]	[...]	[11–20]	[...]	[11–20]
Combined	[...]	[31–40]	[...]	[31–40]	[...]	[321–40]
Valspar	[€]	[21–30]	[€]	[11–20]	[€]	[21–30]
PPG	[€]	[21–30]	[€]	[21–30]	[€]	[11–20]
Grace	[€]	[0–10]	[€]	[0–10]	[€]	[0–10]
Actega	[€]	[0–10]	[€]	[0–10]	[€]	[0]
Schekolin	[€]	[0–10]	[€]	[0–10]	[€]	[0–10]
Diostyl	[€]	[0]	[€]	[0]	[€]	[0]
Salchi	[€]	[0–10]	[€]	[11–20]	[€]	[11–20]
Others	[€]	[0]	[€]	[0]	[€]	[0]
Total	[€]	100.0	[€]	100.0	[€]	100.0
Pre-merger HHI						[1,501–2,000]
Post-merger HHI						[2,001–2,500]
HHI increment						[€]

Source: CC estimates.

TABLE 11 Market shares by volume for GL coatings in the EEA (2009–2011) and HHI increment following the merger

Supplier	2009 kt	%	2010 kt	%	2011 kt	%
AkzoNobel	[...]	[11–20]	[...]	[21–30]	[...]	[21–30]
Metlac	[...]	[0–10]	[...]	[0–10]	[...]	[11–20]
Combined	[...]	[21–30]	[...]	[31–40]	[...]	[31–40]
Valspar	[⊗]	[11–20]	[⊗]	[11–20]	[⊗]	[0–10]
PPG	[⊗]	[21–30]	[⊗]	[21–30]	[⊗]	[21–30]
Grace	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Actega	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Schekolin	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Others	[⊗]	[21–30]	[⊗]	[21–30]	[⊗]	[21–30]
Total	[⊗]	100.0	[⊗]	100.0	[⊗]	100.0
Pre-merger HHI						[1,501–2,000]
Post-merger HHI						[2,001–2,500]
HHI increment						[⊗]

Source: CC estimates.

TABLE 12 Market shares by value for GL coatings in the EEA (2009–2011) and HHI increment following the merger

Supplier	2009 €m	%	2010 €m	%	2011 €m	%
AkzoNobel	[...]	[11–20]	[...]	[11–20]	[...]	[11–20]
Metlac	[...]	[0–10]	[...]	[11–20]	[...]	[11–20]
Combined	[...]	[21–30]	[...]	[21–30]	[...]	[21–30]
Valspar	[⊗]	[0–10]	[⊗]	[11–20]	[⊗]	[0–10]
PPG	[⊗]	[31–40]	[⊗]	[31–40]	[⊗]	[21–30]
Grace	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Actega	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Schekolin	[⊗]	[0]	[⊗]	[0]	[⊗]	[0]
Diostyl	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Salchi	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Others	[⊗]	[11–20]	[⊗]	[11–20]	[⊗]	[11–20]
Total	[⊗]	100.0	[⊗]	100.0	[⊗]	100.0
Pre-merger HHI						[1,501–2,500]
Post-merger HHI						[2,001–2,500]
HHI increment						[⊗]

Source: CC estimates.

TABLE 13 Market shares by volume for B2E coatings in the EEA (2009–2011) and HHI increment following the merger

Supplier	2009 kt	%	2010 kt	%	2011 kt	%
AkzoNobel	[...]	[11–20]	[...]	[11–20]	[...]	[11–20]
Metlac	[...]	[21–30]	[...]	[21–30]	[...]	[21–30]
Combined	[...]	[31–40]	[...]	[31–40]	[...]	[41–50]
Valspar	[⊗]	[21–30]	[⊗]	[21–30]	[⊗]	[31–40]
PPG	[⊗]	[21–30]	[⊗]	[11–20]	[⊗]	[11–20]
Others	[⊗]	[11–20]	[⊗]	[0–10]	[⊗]	[0–10]
Total	[⊗]	100.0	[⊗]	100.0	[⊗]	100.0
Pre-merger HHI						[2,001–2,500]
Post-merger HHI						[3,001–3,500]
HHI increment						[⊗]

Source: CC estimates.

Note: For 'Others' we used AkzoNobel estimates.

TABLE 14 Market shares by value for B2E coatings in the EEA (2009–2011) and HHI increment following the merger

Supplier	2009		2010		2011	
	kt	%	kt	%	kt	%
AkzoNobel	[...]	[11–20]	[...]	[11–20]	[...]	[11–20]
Metlac	[...]	[11–20]	[...]	[11–20]	[...]	[11–20]
Combined	[...]	[31–40]	[...]	[31–40]	[...]	[31–40]
Valspar	[⊗]	[21–30]	[⊗]	[31–40]	[⊗]	[31–40]
PPG	[⊗]	[21–30]	[⊗]	[11–20]	[⊗]	[31–40]
Others	[⊗]	[11–20]	[⊗]	[11–20]	[⊗]	[0–10]
Total	[⊗]	100.0	[⊗]	100.0	[⊗]	100.0
Pre-merger HHI						[2,001–2,500]
Post-merger HHI						[3,001–3,500]
HHI increment						[⊗]

Source: CC estimates.

Note: For 'Others' we used AkzoNobel estimates.

TABLE 15 Market shares by volume for B2I coatings in the EEA (2009–2011)

Supplier	2009		2010		2011	
	kt	%	kt	%	kt	%
AkzoNobel	[...]	[41–50]	[...]	[41–50]	[...]	[61–70]
Metlac	[...]	[0]	[...]	[0]	[...]	[0]
Combined	[...]	[41–50]	[...]	[41–50]	[...]	[61–70]
Valspar	[⊗]	[41–50]	[⊗]	[31–40]	[⊗]	[21–30]
PPG	[⊗]	[11–20]	[⊗]	[11–20]	[⊗]	[0–10]
Others	[⊗]	[0]	[⊗]	[0]	[⊗]	[0]
Total	[⊗]	100.0	[⊗]	100.0	[⊗]	100.0

Source: CC estimates.

Note: For 'Others' we used AkzoNobel estimates.

TABLE 16 Market shares by value for B2I coatings in the EEA (2009–2011)

Supplier	2009		2010		2011	
	€m	%	€m	%	€m	%
AkzoNobel	[...]	[41–50]	[...]	[41–50]	[...]	[61–70]
Metlac	[...]	[0]	[...]	[0]	[...]	[0]
Combined	[...]	[41–50]	[...]	[41–50]	[...]	[61–70]
Valspar	[⊗]	[41–50]	[⊗]	[41–50]	[⊗]	[21–30]
PPG	[⊗]	[0–10]	[⊗]	[0–10]	[⊗]	[0–10]
Others	[⊗]	[0]	[⊗]	[0]	[⊗]	[0]
Total	[⊗]	100.0	[⊗]	100.0	[⊗]	100.0

Source: CC estimates.

Note: For 'Others' we used AkzoNobel estimates.

TABLE 17 Market shares by volume for BE coatings in the EEA (2009–2011)

Supplier	2009		2010		2011	
	kt	%	kt	%	kt	%
AkzoNobel	[...]	[11–20]	[...]	[11–20]	[...]	[11–20]
Metlac	[...]	[0]	[...]	[0]	[...]	[0]
Combined	[...]	[11–20]	[...]	[11–20]	[...]	[11–20]
Valspar	[⊗]	[21–30]	[⊗]	[21–30]	[⊗]	[31–40]
PPG	[⊗]	[51–60]	[⊗]	[51–60]	[⊗]	[51–60]
Others	[⊗]	[0]	[⊗]	[0]	[⊗]	[0]
Total	[⊗]	100.0	[⊗]	100.0	[⊗]	100.0

Source: CC estimates.

Note: For 'Others' we used AkzoNobel estimates.

TABLE 18 Market shares by value for BE coatings in the EEA (2009–2011)

Supplier	2009		2010		2011	
	€m	%	€m	%	€m	%
AkzoNobel	[...]	[21–30]	[...]	[21–30]	[...]	[11–20]
Metlac	[...]	[0]	[...]	[0]	[...]	[0]
Combined	[...]	[21–30]	[...]	[21–30]	[...]	[11–20]
Valspar	[<]	[21–30]	[<]	[21–30]	[<]	[31–40]
PPG	[<]	[51–60]	[<]	[51–60]	[<]	[41–50]
Others	[<]	[0]	[<]	[0]	[<]	[0]
Total	[<]	100.0	[<]	100.0	[<]	100.0

Source: Source: CC estimates.

Note: For 'Others' we used AkzoNobel estimates.

In general, the market shares for FCG understate the size of the smaller competitors. This is particularly the case for Grace in Food (where Grace's market shares are much higher than 10%) and Actega in C&C, which also accounts for significantly higher than 10% of the C&C market. The Provisional Findings at Table 10 mistakenly indicate that Actega has a 0% share of the C&C market by value, despite having an 11-20% share by volume.]

Barriers to entry and expansion

Section 1: Historic entry, expansion and exit

1. This section provides an overview of recent examples of entry, expansion and exit in the relevant metal coatings markets. It sets out which product markets entrants have chosen to contest, the scale at which they have sought to enter and then expand, the length of time entrants have been active within a market, the impact of these new entrants on competition in the market and, in the case of exit, the means by which a firm has left the market.

Frequency of entry

2. The three largest coatings manufacturers—Valspar, PPG and AkzoNobel (ICI)¹—entered the (European) coatings industry via acquisitions of established coatings manufacturing businesses, which had been operating in the EEA market for more than 20 years. They have grown both organically and via a number of acquisitions that have consolidated the market.
3. In addition to these larger manufacturers, there have been several examples of entry and expansion in the relevant markets in the last decade. The following cases have been brought to the attention of the CC:
 - (a) Rembrandtin—Austrian coatings manufacturer formed through a management buyout from Altana in 2005. Rembrandtin traditionally had a focus on industrial coatings products and entered the market for FCG coatings in 2006 using a plant

¹ Prior to its acquisition of ICI in 2008, AkzoNobel was not active in the packaging coatings market.

acquired during the buyout, which was reconfigured for the purpose.

Rembrandtin's FCG coatings business was subsequently acquired by Salchi in 2010/11.

- (b) Diostyl—Netherlands-based coatings manufacturer, founded in 2008 by a group of individuals with previous experience in the sector. Diostyl sells a range of coatings for the FCG market, with a particular focus on general line and external coatings.
 - (c) VPL—German coatings manufacturer, which entered the industry in 2011 and is currently active in both the FCG and ~~external beverage~~^{B2E} coatings markets.
 - (d) Tiger—German company, founded in the 1930s, with a particular expertise in powder coatings. We understand that Tiger entered the FCG coatings market in 2010/11 with powder coatings for aluminium monobloc cans, having previously focused on automotive and other industrial uses.
4. Expansion from one relevant market (or segment) to another within the coatings industry has also taken place in the last decade with Salchi expanding from producing coatings for ~~G~~^general ~~L~~^line products to producing food contact coatings, supported by the acquisition of a small Italian business in 2002. Whilst we have been told of various approaches made by customers to the large chemical companies (such as BASF, DuPont) asking whether they would wish to enter the coatings market, we have not received any evidence that these companies are considering entering. Henkel, which [X] said had approached it and was considering entry, told us that it did not supply metal coatings.
5. Several of the companies contacted by us indicated that they themselves or others had expanded by entering the metal coatings industry through the production of general line products and external coatings, before expanding into internal food coatings

² www.altana.com/press-news/press-news.html?newsID=566

and/or entering the B&B market with external beverage coatings. However, VPL appears to have entered directly into the ~~external beverage~~[B2E-can](#) coatings segment on its foundation in 2011.

6. To date, only the three largest operators—Valspar, AkzoNobel and PPG—are actively supplying ~~internal beverage can~~[B2I](#) coatings, [REDACTED].

Scale of entry and expansion

7. Entry into coatings manufacturing over the last ten years has generally taken place on a small scale. Both Diostyl and VPL were start-ups that entered the FCG and B&B markets (respectively) via toll-manufacturing agreements, whereby a third party manufacturer produces coatings to their specifications. [REDACTED]
8. Tiger and Rembrandtin entered the FCG market with their own production facilities, which appear to have been adapted from producing industrial coatings. The FCG coatings business of Rembrandtin was generating around €[REDACTED] million in sales at the time it was acquired by Salchi, whilst we understand that Tiger has a very small presence in one segment of the FCG market.⁴
9. Diostyl stated that its strategy was to find ‘gaps’ in the market where can manufacturers had a need for a product that the larger operators were not supplying. The company indicated that several of the smaller operators functioned on this basis, with product rationalization by the larger manufacturers creating these gaps in the FCG market. This view was supported by Valspar, which noted that several of the small operators, including Schekolin, [REDACTED] and Actega, were following this strategy. [The CC has not taken this evidence of the willingness of suppliers to expand into niche products into account when determining the likely consequences of any alleged product rationalisation by AkzoNobel. This expansion also signifies the](#)

³ Diostyl indicated that it had grown this way, as did Salchi. Valspar noted that Metlac had also followed this strategy.

'appetite for growth' of Schekolin, Actega and Diostyl.]

10. Most of the new entrants to the coatings industry over the last decade have focused on the FCG market, with expansion taking place within the various segments of that market rather than via entry into the B&B coatings market. However, ~~both Metlac and VPL have~~ entered the ~~external beverage coatings~~B2E segment, which is also served by IPC, a small coatings manufacturer.⁵ [Metlac entered the B2E segment over a decade ago. It is therefore inaccurate to refer to it in this paragraph regarding new entrants.]
11. Metlac began supplying B2E in 1998 and started supplying American National Can (which later became part of Rexam) in Italy in the same year. In 2007 it expanded its supply of B2E to Rexam outside of Italy thanks to the award of a tender.

Toll manufacturing

12. Some suppliers use large companies to toll manufacture coatings on their behalf. Toll manufacturing is an arrangement whereby a company with specialized equipment processes raw materials or semi-finished goods for another company.⁶ This may occur either as part of an entry strategy (to eliminate the need for expensive capital equipment) or by a company to fulfil existing demand requirements. In some cases, suppliers will use a toll-manufactured product when testing it with customers and only start manufacturing it themselves as they move to supply larger volumes, in order to prevent capacity reorganization before demand for the product is settled.
13. Toll manufacturers therefore create additional, flexible capacity in the market. Toll manufacturers range in size from large chemicals companies to smaller, local manufacturers. Arrangements can vary in format from supplying a batch of chemicals to meet a one-off order through to partnering with a coatings supplier to invest in

⁴ According to its website, Tiger produces powder coatings for aluminium monobloc aerosol cans: www.tigercoatings.com/index.php?id=1386&L=1&C=1%27.

⁵ [X]

manufacturing capacity and develop new formulations that are tailored to customer needs. [The CC has not taken into account the evidence of the additional benefits of toll manufacturing provided by AkzoNobel in its Response to the Barriers to Entry Working Paper (paragraph 4.3). These benefits included the significant know-how which can be gained from the toll manufacturers' experience and the economies of scale generated by collecting a number of coatings suppliers' raw material needs into one facility.]

Timelines

14. Diostyl told us that it took around six months between it setting up the business and delivering its first order to a customer but noted that it would take longer (18 months) to provide more complicated products. It emphasized that this was possible because it had previous knowledge of the industry [§], and because it chose to enter the GL segment first where the time taken to qualify a product was shorter than for food contact coatings. In addition, Diostyl noted that it had received support from customers to enter the market with a new product offering.
15. As far as the qualification process is concerned, it can vary between a few months (eg for some GL products) and several years (eg for food contact **internal** coating). Length of **approval-qualification** time will mainly depend on whether it is an internal or external coating.
16. AkzoNobel and Metlac have told us that constructing a new plant would take between **[CONFIDENTIAL]**, however, a new plant is not required for expansion and the capacity of existing plants can be readily increased much more quickly.
[CONFIDENTIAL]

⁶ www.businessdictionary.com.

17. Some new entrants, such as Diostyl, do not start with their own manufacturing plant but rely on subcontracting production to toll manufacturers, which in turn also reduces the time it takes for a business to start supplying product to customers.

Customer-sponsored entry and expansion

18. Some customers' submissions and views show that they are interested in sponsoring entry and have done so in the past. While Metlac is the strongest example of how a supplier can enter certain market segments and how it can expand in the market when being sponsored by certain large customers (eg Rexam), it is not the only example, as, for example, [REDACTED]⁷ and Ardagh has helped sponsor the expansion of various smaller suppliers in FCG coatings.
19. However, customers also report difficulties in sponsoring entry. For example, some suppliers considered by the large customers for sponsorship have been reported to face difficulty gaining access to raw materials under changing market conditions (which in turn raises reliability issues), while other large companies expressed no interest in entering new market segments. One customer noted that sponsoring entry or expansion would be a long and expensive process because the smaller suppliers had neither the technical or industrial capabilities. [This generalisation of the 'smaller suppliers' is not supported by any of the evidence collected by the CC, including [CONFIDENTIAL], which compliments a number of smaller suppliers and the statements by customers who have complimented a number of such suppliers are strongly (see, for example, paragraph 8.121 of the Provisional Findings for an example of a customer who believes that smaller suppliers will "maintain good capacity/quality/service.")] Ardagh noted similar constraints, including the legislative environment.

⁷ [REDACTED]

20. Overall, third party reports suggest that customer-sponsored entry is a viable option only under certain conditions (eg interest by the supplier, guarantees for reliability, etc). While there are examples of such sponsored entry apart from Metlac, it does not seem to be a straightforward exercise and customers expressed reservations about the ability to sponsor small/medium-sized suppliers such as Grace, Actega and Salchi. [These expansions have been successful in the recent past (e.g. Diostyl) and customers are currently sponsoring entrants (for example Ball confirmed it was developing a supplier at its hearing with the CC). As such, the CC is not justified in reaching the conclusion that such sponsorship is unlikely to succeed.]

21. The timeliness of entry is related to the length of time required to bring a new supplier into the market. The two key issues from this point of view seem to be (a) the time frame required for setting up the business and (b) the qualification process for new products.

22. To be sufficient, the sponsored entrant would have to reach a scale sufficient to act as a competitive constraint on the merged entity.

23. While sponsored entry can be feasible in some segments from the timeliness point of view, it would be substantially more difficult in some other segments. The likelihood of customer-sponsored entry occurring in the relevant markets, or segments of those markets, on a sufficient scale is analysed below.

Exit

24. Exit from the industry has generally taken place as the result of acquisitions by coatings manufacturers:

(a) Salchi acquired the FCG coatings business of Rembrandtin in 2010/11.

(b) Grace Darex strengthened its position in the coatings industry through its acquisition of Grupo Sistiaga in 2007.

- (c) Valspar acquired the coatings business of DIC (in exchange for selling DIC its inks business) in 2010.
 - (d) AkzoNobel acquired the Swedish packaging coatings and inks business Lindgens in 2010.
 - (e) In 2003 Metlac acquired Sicra S.r.l., a company active in the manufacture of coatings for collapsible tubes and monobloc aerosols.
 - (f) Polifarb sold its coatings business to SigmaKalon in 1999, which was in turn acquired by PPG in 2008.
 - (g) Retecsa, a Spanish producer of metal coatings, exited the industry, closing its production plant and selling its business to Jallut.
25. These exits demonstrate the process of consolidation that has taken place in the coatings manufacturing industry over the last couple of decades.

Section 2: Future entry and/or expansion

26. We have not received substantiated evidence of any potential new entrant into metal packaging coatings. Whilst a number of parties have expressed views on the potential ability of smaller suppliers to expand either the scale of their current product offerings or expand to enter new segments, it has not received any evidence that any supplier currently plans to do so ([REDACTED]) except Salchi. Salchi told us that it planned capacity expansion of [REDACTED] by building a new plant. This additional capacity would be used to expand into some parts of the Food and C&C segments of the market (particularly closures) where it was not yet present. It also expected that it might receive some [additional](#) demand from customers outside Italy following the AkzoNobel/Metlac merger who would like an independent supplier. It was not [currently](#) considering entry into B&B because of the 24/7 capacity [requirement](#) to assist clients in this sector.

Likelihood of entry and/or expansion

27. This section sets out the views of the parties on the potential for future entry and/or

expansion in the relevant product markets within the metal coatings industry. It assesses the likelihood, the length of time required, and the possible scale of any entry/expansion. The desire of customers to increase the number of suppliers available to them, together with their willingness to invest in supporting new entrants through investing in product development and testing, may reduce the barriers to entry and expansion in all three markets.

28. Crown told us that, in the case of an AkzoNobel-Metlac merger, it would attempt to develop the smaller suppliers in the market further in order to take some business away from a combined AkzoNobel-Metlac business. [REDACTED] [This evidence contradicts a number of findings of the CC: (i) customers are willing to sponsor new entrants in the market; (ii) smaller suppliers are capable of replacing AkzoNobel and Metlac in the supply of coatings and (iii) customers are willing and able to switch away from their current suppliers, so the costs of qualification and switching cannot be prohibitive.]
29. [REDACTED] told us that many of the smaller suppliers were reluctant to enter the ~~beverage-~~ B&B coatings market, both external and internal, as a result of the significant costs associated with developing new products and supporting customers [REDACTED].
30. As regards de novo entry, [REDACTED]. PPG supported this view, stating that BASF was looking to test some products this year (although it is not clear in which segment).
31. However, whilst customers are in general keen to sponsor entry/expansion in all the relevant product markets, they do highlight the stringent performance requirements for coatings, particularly those that come into contact with food. In order to overcome these barriers, suppliers must be prepared to invest in R&D and technical support, as well as capacity in order to bring new products to market. Several customers expressed reservations about the inclination and ability of the smaller manufacturers to

do this. **[CONFIDENTIAL]** provides confirmation that a number of smaller suppliers are considered innovative (suggesting an investment in R&D) and for their technical service (see, for example, paragraph 8.121 of the Provisional Findings).

32. Apart from Salchi, as mentioned above, we have not been provided with expansion plans by any supplier. [A number of customers (including Ball at its hearing with the CC and the redacted customer at paragraph 8.128 of the Provisional Findings) have stated that they are currently sponsoring suppliers, which suggests that supplier expansion is occurring.]
33. When asked whether they have expanded (eg by replacing a production line with a faster line and/or by adding a production line for metal packaging coatings and/or by increasing the speed of existing production lines or by changing the shift pattern, eg by going from a five-day to a seven-day week) in the past five years, Valspar, PPG, Grace and Actega did not provide any examples of expanding their production lines. Valspar and Actega told us that they had not expanded in this manner in the past five years, Valspar adding that its shift patterns had not been modified in the past five years. PPG provided us with information on capacity expansions outside the EEA and one example of capacity addition and reduction in the Netherlands to change shift patterns. It noted that it would be able to execute similar expansions via capital expenditure if necessary in all product categories except internal spray, where it could expand production [X] using its current production assets. Grace did not respond to this question.
34. The three largest coatings manufacturers in the industry, AkzoNobel, Valspar and PPG, have all stated that they have spare capacity that they could use to expand in the relevant product markets. **[CONFIDENTIAL]**

[CONFIDENTIAL]

⁸[CONFIDENTIAL]

35. [CONFIDENTIAL]

⁹[CONFIDENTIAL]***Time frame for entry and/or expansion***

36. Almost all parties agreed that de novo entry into any of these markets would take a substantial period of time. [REDACTED] estimated that entry into any of the relevant product markets would take at least five years. One customer [REDACTED] stated that it would take two to three years for a new supplier to become 'active on the market'; Ardagh estimated a period of between four and six years for a supplier to reach 'a fair level

⁸[CONFIDENTIAL]

[CONFIDENTIAL]

of activity'; whilst [REDACTED] estimated that it would take only six to 12 months for a manufacturer to establish itself in the general line sub-segment, whereas it would take around 24 months for a new entrant to establish itself in Food and C&C.

[\[AkzoNobel has submitted evidence previously that entry into a non-food contact \(sub-\)segment takes very little time at all. This is supported by the statement of Diostyl at paragraph 14 above that it took it 6 months to enter the market.\]](#)

37. Rexam emphasized that whilst it would be able to support another entrant and/or expanding firm the way it had done with Metlac, the process would take a long time and [REDACTED].
38. The pattern of growth followed by both Metlac and [REDACTED] has been one of entering one sub-segment of the market at a time, developing a range of products, building a customer base and reputation (and market share) before expanding into a new sub-segment. This process has resulted in steady expansion but has taken a number of years (Metlac was founded in 1986 and [REDACTED]). [\[Metlac has been active in B2E and FCG since 1997 and has not expanded into new product segments \(as defined by the CC in these Provisional Findings\) since then.\]](#)
39. Although we have been told of a number of larger potential entrants (chemicals companies), we note that to date, none of these has chosen to enter the metal coatings market and it is unclear to what extent they would be able to accelerate the entry/expansion process above that achieved by Metlac and Salchi, given the time required to test and qualify products with customers.

Scale of entry and/or expansion

40. Crown noted that it did not think that the current group of smaller players could grow

to the extent that Metlac had, due to issues with their technology, manufacturing capability and capacity. Crown also expressed a concern over the reliability of some of the smaller suppliers as regards their access to chemical inputs.

41. [REDACTED] told us that it would have concerns over whether the smaller coatings suppliers would have the scale to be able to supply all their needs in the ~~beverage can~~B&B markets. [The size of Metlac within the EEA is comparable to other medium-sized suppliers such as Actega and Grace. Furthermore, both VPL and IPC are able to supply Ball with B2E products via toll manufacturing.]
42. Ardagh told us that its ability to sponsor substantial expansion with the FCG market depended on the access to finance of the smaller coatings suppliers, as well as their willingness to scale up and become a strategic supplier. Ardagh noted that several of the smaller coatings businesses did not offer a full product range at the moment and might not have an interest in expanding into all segments. [Both Diostyl and Salchi have shown a strong 'appetite for growth' and Salchi is currently planning to build a new plant in order to increase its capacity and product range.]
43. [REDACTED]
44. The following three sections consider barriers to entry in relation to FCG, B2E and B2I, taking into account the information set out in Sections 1 and 2 above regarding past entry and future entry and expansion.

Section 3: Barriers to entry and expansion in the FCG market

45. This section sets out the evidence that we assessed in relation to the barriers to entry and expansion in the market for FCG coatings. The evidence is set out under the

following subheadings:

- (a) Initial capital requirements, economies of scale and toll manufacturing.
- (b) Intellectual property.
- (c) Regulation.
- (d) Qualification of new products and customer switching.

46. At the end of this section, we also assess a number of factors highlighted by the main and third parties that may lessen these potential barriers to entry, including:
- (a) customer sponsorship of entry and/or expansion; and
 - (b) technological developments (BPA-NI products).

Initial capital requirements, economies of scale and toll manufacturing

47. AkzoNobel stated that it was not necessary for a new entrant to the industry to build a plant of its own, given the option to set up a toll-manufacturing arrangement. Equally, AkzoNobel believed that the European market could be served from a manufacturing plant located outside the region, facilitating entry by an overseas competitor. **[CONFIDENTIAL]** a US-based coatings manufacturer, provides an example of this, selling ~~a small amount of~~ over €1 million worth of coatings in the EEA despite having no local manufacturing or distribution presence. **[CONFIDENTIAL]**

48. AkzoNobel described the manufacturing process as being ‘highly scalable’ in terms of both the raw materials and equipment required, with low initial capital requirements. For example, AkzoNobel noted that an entrant could start by blending coatings in small portable containers and later scale up to producing larger batches in stationary tanks. It estimated the costs of the latter to be between €20,000 and €30,000. In terms of building a factory, AkzoNobel estimated that a ‘cold blending’ plant would cost €1 million to build, whilst a site such as the AkzoNobel plant at Vilafranca would cost **[CONFIDENTIAL]**

49. According to AkzoNobel, there were notable economies of scale in production, with larger batch sizes permitting greater automation of production, and so lower labour costs, as well as a reduced quantity of cleaning and filtering products per kilo of output and greater utilization of production lines. On the other hand, AkzoNobel believed that there were certain diseconomies of scale resulting from producing a higher number of SKUs, resulting from administrative, sales and IT complexity and more thorough cleaning requirements to switch between technologies.
50. Metlac cited both the lead time and investment required for starting a packaging coating facility as forming a substantial barrier to entry into the market. Separately, it estimated that the cost of building a typical new plant would be around [CONFIDENTIAL]
- . [Metlac does not provide any information about the capacity or complexity of a 'typical' plant. As such, it is not possible to determine whether Metlac believes that it is necessary for a new entrant to spend this much in order to start producing, or whether such expenses can be spread out over a number of years as the supplier develops and grows.]**
51. Actega estimated costs of €20–€30 million to build a plant with capacity of between 15,000 and 20,000 metric tons per year, although it noted that this might fall significantly in response to a move towards non-flammable coatings, ie water-borne or radiation-cured coatings rather than solvent-borne ones. This view was echoed by Schekolin, which also provided an estimate of €20 million for a new production facility.
52. PPG told us that the typical expenditure required to enter the packaging coatings industry was low, estimating the costs of constructing a new plant at €[REDACTED] million.
53. There was broad agreement that constructing a new plant would take between 18

months and two years.

54. Crown indicated that one of the reasons some of the smaller players might not scale up was due to the costs involved in developing additional capacity. [A number of smaller suppliers have indicated to the CC that they have additional capacity and therefore would not need to expend significant sums of money to scale up (see paragraph 59 below).]
55. Diostyl indicated that it took the business around six months to enter the industry because it used a toll-manufacturing agreement, whereas if it had chosen to build its own plant, the process would have taken 'considerably longer'.
56. Valspar told us that the Food segment was characterized by a large number of niche product markets with some firms, such as Schekolin, [✂] and Actega, adopting a strategy of focusing on serving particular niches rather than expanding to offer a broad range of coatings products. Submissions from AkzoNobel and Diostyl supported this view of a fragmented product market for Food coatings, with a customer base of a large number of smaller can manufacturers.
57. In addition, Valspar told us that having a single production plant could be an advantage in terms of managing a business (better communication, speed of decision-making, flexibility) but a disadvantage in that a disruption to production would mean that all a supplier's customers were let down resulting in reputational damage. [This statement strongly supports AkzoNobel's submissions on the reasons why Metlac is not in a position to supply B2I coatings from a single plant; however, the CC does not refer to the statements of Valspar in that context.]
58. [✂]

59. A number of coatings manufacturers, including Valspar, PPG, [REDACTED], Actega and Diostyl told us that they had significant spare capacity to increase output of FCG (and ~~external-beverage~~B2E) coatings. Such expansions in output would require hiring additional staff but would not require further capital investment.
60. A number of entrants to the market, as well as existing operators, use toll manufacturing to fulfil at least some of their orders to customers. For example, we were told that Diostyl, IPC, VPL and Valspar all use toll manufacturers. [The use of toll manufacturing by these customers is in direct contrast to the statement by Metlac that toll manufacturing is not appropriate in the long term, because it is not satisfactory to customers. The CC does not take into account the use of toll manufacturing by these suppliers when determining the relevance of toll manufacturers.]
61. These manufacturing arrangements have the effect of reducing the initial capital costs (and so risks) of entering the market and/or the costs and risks of expansion into a new product area. In addition, toll manufacturers create additional, flexible capacity in the market, allow for joint economies of scale and provide know how and experience in formulations and production to new and expanding suppliers.
62. Toll manufacturers range in size from large chemicals companies, such as Dow Haltermann (a subsidiary of Dow Chemicals) and Rutgers Group, to smaller, local manufacturers. Arrangements can vary in format from supplying a batch of chemicals to meet a one-off order through to partnering with a coatings supplier to invest in manufacturing capacity and develop new formulations that are tailored to customer needs.

Intellectual property

63. A number of firms indicated that the performance of a coating is the single most important factor to the can manufacturers, followed by technical assistance/customer service and price.
64. AkzoNobel stated that the core coatings technology was well established, being several decades old, with raw material components that were well-known and easily available.¹⁰
65. Metlac cited the 'specific know-how required to compete effectively' as forming a substantial barrier to entry.
66. Valspar agreed with AkzoNobel that the basic coatings technology was well-established and available to a number of the smaller operators in the market, whilst [REDACTED] highlighted that the technology was easily available from public sources, although [REDACTED] did originally obtain some of its technology under a licence from [REDACTED].
67. PPG told us that knowledge of formulating food contact coatings was the key to entering the segment and that this was something an entrant could gain through collaboration with can manufacturers.
68. Ardagh told us that whilst the smaller players in the industry were capable of formulating new products, they had tended to focus on gaining expertise and a strong market position in particular segments of the market, rather than trying to cover all segments where, in many cases, they did not have sufficient technology to compete effectively. [\[The causal relationship between these two factors is not clear. Those suppliers which stick to a smaller number of coatings in favour of gaining reputation in that area may not be limited by a lack of technology, but rather as a](#)

result of their commercial strategy. This statement cannot, therefore, be used as to support a conclusion that coatings suppliers cannot expand due to technological barriers.]

69. Crown emphasized that the smaller coatings manufacturers were not strong in terms of R&D and that this, together with limited industrial capacity and access to raw materials, would impede their expansion.][CONFIDENTIAL] identifies both Schekolin and Actega as being strong in innovation, which is in direct conflict with Crown's assessment of the market.]

Regulation

70. [CONFIDENTIAL]

71. Metlac identified the need to comply with both the US (FDA) and the (similar) EU regulations (as well as certain member state specific regulations) for materials that come into contact with food as creating a barrier to entry for a new firm.

72. Diostyl indicated that the various regulations that governed the metal coatings industry, particularly in relation to food contact coatings, required significant resource to manage. It stated that a number of firms in the broader 'paint' industry had failed to enter the coatings market, despite potentially attractive margins, as a direct result of regulation. [It is not clear why those firms did not enter the non-food contact market, where the market consensus indicates that the regulation requirements are not as high.]

¹⁰ AkzoNobel initial submission.

73. Crown told us that the smaller players in the industry might not scale up across the product range for several reasons, one of which was the cost of the regulatory obligations that they would have to fulfil in order to comply with the requirements of the FDA and EFSA, particularly for BPA-NI products. [Ardagh, in its hearing with the CC, credited Salchi as having “the same opportunities for BPANI as all other suppliers” and Caldicot, in its CC hearing, named Grace as a current supplier of commercial BPANI products. As such, a number of smaller suppliers are already developing BPANI coatings, with no indication that the regulatory requirements are acting as a barrier.]

Qualification of new products and customer switching

74. Customer ‘certification’ or the ‘qualification’ of new products is a process by which a ~~new~~ product is tested by the can manufacturer and the brand owner to verify that it performs as required. This process involves coating a can with the ~~new~~ formulation, filling it with its intended contents and then checking after a given period of time that the can has not corroded and that the contents are of the quality expected. In many cases, cans are also subjected to heat, pressure and being dropped/knocked during this testing phase.¹¹ This process is distinct from regulatory approval of a product.

75. **[CONFIDENTIAL]**

:[CONFIDENTIAL]

However, AkzoNobel emphasized that the barrier of customer certification was lower in relation to General Line products, which

¹¹ These additional tests are used to simulate a longer period of time in the can and so to accelerate the testing phase. For some canned products, shelf lives of several years are required such that, without adding heat and pressure, pack test would need to last years to test the performance of new products.

would be an entry point to the FCG market, from where a business could expand into external coatings for ~~caps and closures~~ C&C prior to entering the market for ~~internal~~ food contact coatings ~~for food cans~~.

76. AkzoNobel estimated that it qualified 'at least 100 coatings every year', with the process for external coatings taking six months or less and that for internal food coatings taking up to 24 months. Similarly, Metlac has qualified 586 products with its customer base in the last five years, which equates to almost ten new product qualifications per month.
77. Metlac stated that 'the most important constraint to the expansion of production [by smaller suppliers] is represented by the complex approval procedures established by the main customers'. The company emphasized that the burden of approval lay with both the customers and the suppliers, with the former reluctant to initiate the testing of new products, which created a barrier to expansion for smaller producers. [Metlac's assertion is in direct contradiction to the evidence it provided in paragraph 77. If customers are "reluctant" to initiate testing new products then Metlac should also not be able to qualify coatings. The significant number of coatings Metlac, AkzoNobel and PPG (as well as other suppliers) are qualifying shows that customers are willing to participate in the qualification process.]
78. PPG stated that it had qualified 'more than [X] products' in the EMEA region over the last five years. Some of these products were entirely new, whilst others were modifications of existing products. PPG indicated that the time taken to qualify new products was between six months and two years.
79. The references in paragraphs 76 to 78 above ~~referring~~ to qualification mean receiving all relevant approvals from the customer and end-customer, such that the product can

be supplied on an industrial scale.

80. Ardagh told us that it took between 12 and 18 months to qualify an external coating for food cans, whilst the process of qualifying an internal coating could take significantly longer. It gave the example of qualifying an internal lacquer with Metlac, which took 48 months. [AkzoNobel notes that Metlac's apparent inability to qualify an internal food coating is not necessarily a sign that all such internal coatings for food will take approximately four years.]

81. Crown told us that it could take 12 to 15 months to qualify a new product, and three to six months longer for internal coatings.

82. Valspar highlighted that the process of certification for a General Line product could take around six months, whilst that for a food contact product would be at least 18 months, if not more.

83. [X] noted that the development of a new product could take 'a few months', followed by 12 to 18 months to get the coatings qualified with customers, although this time frame could be shortened if the customer sought to 'push' the process. [This ability to 'push' the process is supported by its previous evidence of [CONFIDENTIAL]

. As such, the length of time for qualification is not set in stone and, in most cases, can be shortened if necessary (see also Salchi's comments to this effect at its hearing with the CC). The Provisional Findings fail to acknowledge this ability when considering the timing of qualification.]

84. Diostyl told us that customers could be reluctant to switch products due to the uncertainty over whether new formulations would meet customer requirements in all circumstances. This view was supported by Ardagh, which noted that it was possible to spend over a year testing a new product and then discover that it did not function as required. Ardagh indicated that companies had a greater incentive to incur the costs and potential risks of switching where they were buying large volumes of a homogeneous product.

[\[AkzoNobel notes that the CC does not replicate the comments made by Ball at its hearing, where it provides evidence of a much shorter qualification time for B2E than the other B&B customers, with a *maximum* qualification time of 6 months for a new product.\]](#)

85. AkzoNobel told us that in the FCG market, only Can-Pack entered into contractual arrangements (lasting up to one year), with other customers buying on a less formal basis than in the B&B sector as a result of the smaller batch sizes and volumes together with the more bespoke formulations that characterized the market.

86. [X] Similarly, Valspar noted that many can manufacturers sought out the best terms every few months, refusing to enter into long-term agreements. [\[This argument is contrary to the CC's assessment that customers are reluctant to switch. There would be no incentive on customers to seek out the best price for coatings unless \(i\) it was able to exert buyer power to put pressure on its current supplier to match the lower bid; or \(ii\) it is able to switch to that lower supplier. The CC does not take either of these considerations into account in its conclusions regarding on barriers to switching or the levels of buyer power in the market.\]](#)

Customer sponsorship of entry and/or expansion

87. Customer sponsorship of entry and/or expansion tends to involve a customer choosing to invest in testing and developing coatings formulations with one of its suppliers with the aim of qualifying new products and thereby expanding its supplier base. In the coatings industry, we understand that this phase of testing can be both costly and time-consuming but that once a coatings manufacturer has qualified its products with one customer, this encourages other customers to seek to qualify their products in the same way, ie qualification with one customer helps an entrant to build its reputation in the industry, which is important to enable further expansion.
88. Customer sponsorship of entry and/or expansion in the market appears to be common, with both Crown and Ardagh indicating that they have sought to encourage and support entry and expansion in the FCG coatings market. For example, Ardagh noted that it had also helped sponsor the expansion of Metlac and Salchi. Diostyl told us that it had been encouraged into the market following the consolidation of the coatings market and concerns from the can manufacturers regarding their dependency on a few large coatings suppliers.¹² However, we also note that customers pointed to a number of difficulties in sponsoring entry, including access to raw materials, technical and industrial capabilities, length of the process, legislative environment, etc, and this suggests that customer-sponsored entry is a viable option only under certain conditions.

Impact of technological developments on barriers to entry/expansion

89. In relation to FCG coatings, AkzoNobel proposed that innovation in the industry, particularly the development of BPA-NI products, might reduce barriers to entry and expansion in the market as the requirement to switch to new products would open up the market to smaller and/or new entrants with customers seeking to qualify a number

of new products simultaneously. Without this impetus, some customers may have seen switching as a high-risk process.

90. Ardagh told us that it was seeking to qualify ‘any [BPA-NI] potential solution offered by our supplier base, so anybody who can come up with a solution can get the opportunity to get it trialled in our lab’. Similarly, Valspar indicated that the introduction of BPA-NI legislation could result in the use of ‘new technologies, new chemistries, new suppliers, new process[es]’.
91. We understand that the challenge of BPA-NI products for existing competitors and new entrants alike is to develop products that are both sufficiently resistant as internal coatings and can be produced at a reasonable cost. At the current time, BPA-NI products are, in general, significantly more expensive than epoxy-based alternatives because raw materials are more expensive and less available and, due to the difficulties in creating a technical performance equal to that of current coatings, [require](#) different formulations, higher film weights or thicker layers of coatings.
92. Evidence on this point is therefore mixed and we do not have sufficient evidence to show that the move to BPA-NI coatings would lower entry barriers and [have](#) some evidence that the move to BPA-NI coatings might increase entry barriers.

Provisional conclusion

93. On the basis of the evidence provided, it seems possible that some sub-segments of the FCG coatings market would experience both new entry and/or expansion in response to an AkzoNobel-Metlac combination. However, in the internal Food segment, the longer time periods required for product qualification (of up to two years)

¹²The can makers were concerned both about the availability of niche products, given the moves by the large suppliers towards rationalizing their portfolios, and about the prices they were being offered which had risen following the consolidation of the market.

together with the large number of coatings types, makes it unlikely that entry/expansion would be timely. Therefore, given past entry and expansion patterns, we do not consider entry/expansion would be both timely and sufficient across the FCG market to constrain the merged entity. [There are seven alternative suppliers to AkzoNobel and Metlac operating in the FCG sector. Much like AkzoNobel and Metlac, these suppliers offer a range of high quality products. Customers do not need to start the qualification process from scratch and the barriers to de novo entry are not the same as for established FCG suppliers such as these.]

Section 4: Barriers to entry and expansion in B2E

94. This section sets out the evidence that we assessed in relation to the barriers to entry and expansion in the segment for external coatings for beverage cans. Given the similarities between this segment and the market for FCG coatings, many of the statements made in the previous section are also relevant in this case, hence in this section key differences will be highlighted. The evidence is set out under the following subheadings:

- (a) Initial capital requirements, economies of scale and toll manufacturing.
- (b) Intellectual property and regulation.
- (c) Qualification of new products and customer switching.

95. At the end of this section, we also assess the impact that customer sponsorship of new entrants and/or smaller operators may have on the level of barriers to entry and/or expansion in the ~~external beverage can~~B2E coatings segment. As regards the impact of technological developments on barriers to entry, these are the same as for FCG coatings set out in paragraphs 89 to 92 above and are not further considered here. [AkzoNobel notes that the concerns regarding BPANI are focused on food contact coatings. As such, it is not a relevant consideration in relation to B2E

coatings.]

96. Due to similar production facilities for B2E and BE, barriers to entry or expansion for BE are likely to be similar to those present for B2E coatings, and our conclusions in relation to BE would therefore be the same.

Initial capital requirements, economies of scale and toll manufacturing

97. As detailed above, AkzoNobel estimates that the cost of building a plant ~~such of the~~ same size and scale as its plant in Vilafranca is around €[...]million.

98. Valspar submitted an estimated cost of between \$20 million and \$40 million to build a typical production facility (although the upper end of this estimate may include a reactor for ~~internal beverage~~B2I spray). Valspar noted that such a plant would take around two years to build.

99. [X]. '[X] Grace considers the [B&B] sector relatively unattractive [X].'

100. The average monthly volume demanded by customers for B&B products is several times higher than that for FCG products (see Table 2 in the provisional findings). Based on the volume supplied by AkzoNobel in 2011 we note that the average monthly volume for B2E is over [...] times as large as the average monthly volume for external food (over [...] times larger than GL volume and over [...] times larger than C&C volume). This has likely implications for the amount of capacity required for external beverage coatings compared with the external FCG products.

101. **[CONFIDENTIAL]**

[CONFIDENTIAL]

102. [REDACTED] Similarly, Ball noted that both VPL and IPC produced ~~external coatings for beverage cans~~ B2E coatings via a toll-manufacturing arrangement. [REDACTED]
103. Whilst it is likely that the larger volumes of certain products required by can manufacturers may result in economies from in-house and larger-scale manufacturing, we considered that the use of toll manufacturing for ~~external B&B~~ B2E coatings by two of the parties provided support for the view that this was a profitable means of operating within the market, at least at a small scale. ~~AkzoNobel and Metlac both~~ indicated in hearings with the CC that toll manufacturing was unlikely to be acceptable to all customers for significant volumes of coatings on a long-term basis. [AkzoNobel made no such statement at the hearing with the CC (following AkzoNobel's feedback, this correction was made in the main text of the Provisional Findings prior to its publication, but appears not to have been made here). Furthermore, AkzoNobel described at the hearing with the CC the reasons why toll manufacturing did not create a concern to customers, since the quality control requirements are set by the coatings supplier on the same basis as quality control in the suppliers' own plants. Since Ball has apparently been satisfied with the B2E coatings supplied by VPL and IPC and no other customers appear to have made negative comments about toll manufacturing, the statements by Metlac are not supported by the third party information.]
104. [REDACTED]
105. In terms of capacity in the sector, PPG stated that switching between types of production, ie between FCG and external B&B coatings, was unproblematic and could be done within [REDACTED] period.

Intellectual property and regulation

106. The issues with intellectual property are similar to those for FCG coatings, although [X] noted that coatings manufacturers were increasingly seeking to protect their innovations in the external beverage can coatings market through patents given the important competitive advantages conferred by developing differentiated product offerings. [X] stated that, historically, the industry had seen a lot of ‘copy-cutting’, where innovation by one coatings manufacturer was copied by another. [AkzoNobel challenged the comment that B&B coatings are particularly protected by patents in its Initial Response paper to the CC’s working paper on Barriers to Entry. AkzoNobel has seen no evidence that patents are used any more frequently in B2E than any other segment.]
107. [X] highlighted that the production of some external coatings [X] for beverage cans was not straightforward due to the need to apply the coating to the cans at high speed. [The difference between a B2E coating and an external coating for food is a very minor change in formulation. There are no significant technological or know-how requirements between the two types of coating.]
108. **[CONFIDENTIAL]**

¹³ We understand that entry has been more frequent in the FCG market than in the B&B market, possibly for a number of reasons: higher margins in FCG and lower volumes required meaning a company can enter profitably on a small scale; rationalization of product range by the main suppliers over the past decade; and the fact that B&B products are more difficult to qualify for supply due to the need to be applied at speed on a very large scale. [Without any supporting evidence to justify these theories for the split in the market, the CC’s conclusion cannot be

sustainable. More specifically, qualification of B2E coatings is less difficult than internal food contact coatings within the FCG market.]

109. The regulatory burden for ~~external B&B~~B2E coatings is naturally lower than for food contact coatings, with the focus being on their mechanical properties (resistance to abrasion) and appearance, rather than on the need for coatings to be resistant to a range of food substances.

Qualification of new products and customer switching

110. AkzoNobel indicated that qualification process for ~~external B&B~~B2E coatings generally took 'six months or less'. [The Provisional Findings do not refer to the supporting evidence of Ball when considering qualification (see comment at paragraph 84). Ball's statements at its hearing with the CC confirmed that the qualification time for new B2E coatings was between three and six months.]

111. [REDACTED]

112. Rexam stated that it took between [REDACTED] to switch to a different supplier of ~~external beverage can~~B2E coatings, including the time required to qualify the new product.

113. Valspar stated that the qualification of a new product could take between one and five years, with external coatings sitting at the lower end of that range.

114. Crown estimated that entry into the ~~external beverage coatings~~B2E segment by a coatings manufacturer that was already active in another segment would

¹³[CONFIDENTIAL]

take between 12 and 24 months.

115. A number of parties told us that formal tendering processes and contracts were more common in the beverage can market, for both external and internal coatings. AkzoNobel indicated that [REDACTED] tendered for contracts of [REDACTED], and Can-Pack for one year, whilst in the ~~beverage ends~~BE segment Alcoa agreed multi-year contracts, and Novelis and Hydro offered one-year contracts.¹⁴

Customer sponsorship of entry and/or expansion

116. Customers have a history of sponsoring suppliers in the ~~external beverage can~~B2E coating segment. At least three suppliers have been sponsored to enter this segment. [REDACTED]
117. Metlac entered the ~~external beverage coatings~~B2E segment in approximately 1998 (when it started to supply ~~external B&B coatings~~B2E to two Italian plants of American National Can, which later became part of Rexam). However, Rexam supported the development of Metlac's business outside Italy, over a number of years, both because Metlac offered more innovative products and because it offered more competitive prices and contract terms as compared with the larger coatings suppliers. Rexam also emphasized that it had sought to do the same with a number of other coatings manufacturers, including [REDACTED].¹⁵ [Rexam has provided no evidence of its assertions regarding innovation (since Metlac's products were based on ICI legacy products, the CC's acceptance of this statement is unsustainable without further proof) or price levels, nor has the CC been able to conduct any analysis to determine whether it is correct.]

[CONFIDENTIAL]

Hydro noted that whilst one-year contracts are typical, it did offer longer contracts as well.

¹⁵ [REDACTED]

Provisional conclusion

118. Whilst the smaller B&B suppliers could potentially expand with the assistance of large customers, the existence of specific technical challenges associated with developing certain types of ~~external coatings~~B2E coatings and the time frame of up to two years for qualification of new products gives us reason to believe that these suppliers are unlikely to grow sufficiently in a timely manner to replace the constraint Metlac currently imposes on AkzoNobel. [There are no references in the CC's analysis above to 'certain types of external coatings' as being specifically difficult to develop. Most of the B2E technology is decades old and available to a number of suppliers. The CC has found no example where AkzoNobel and Metlac are the only qualified suppliers, so the CC has not provided sufficient evidence to justify its assumption that the merger would require additional qualification by customers.] Also, it seems unlikely that there would be new entry into the ~~external beverage~~B2E segment following a merger of AkzoNobel and Metlac. [AkzoNobel notes that the a number of B&B customers have stated that they would be willing to sponsor a new entrant into the B&B market, (or are doing so currently). Furthermore, a number of suppliers have proven that they are willing to expand where customer demand indicates that it would be commercially beneficial to do so. Therefore, the conclusion that new entry into B2E is unlikely is not supported by the information available.]

Section 5: Barriers to entry and expansion in B2I

119. This section sets out the evidence that we assessed in relation to the barriers to entry and expansion in the ~~B&B~~ market for B2I~~internal~~ coatings. Many of the statements made in the previous sections regarding barriers to entry and expansion for FCG and ~~external beverage~~B2E coatings are also relevant in this case, hence in this section key differences will be highlighted. The evidence is set out under the following sub-

headings:

- (a) Initial capital requirements and economies of scale.
- (b) Intellectual property and regulation.
- (c) Qualification of new products and customer switching.

120. At the end of this section, we also assess a number of factors highlighted by the main and third parties that may lessen these potential barriers to entry, including customer sponsorship of entry and/or expansion; and technological developments.

Initial capital requirements and economies of scale

121. All the parties consulted by the CC stated that entry into the [internal B&B B2I](#) coatings segment required significant scale in order to be cost effective.

122. [✂]

123. AkzoNobel estimated that adding an additional resin reactor to a plant, **[CONFIDENTIAL]**, would cost between €**[CONFIDENTIAL]** million, provided that there was already sufficient space on the site. If a site already had a reactor facility, an additional reactor would cost between €5 million and €10 million. It also indicated that a plant would take between 18 months and two years to construct.

124. Crown commented on the fact that Metlac would need to ‘spend a lot of money to install the necessary equipment to start making internal spray in quantities that would matter’, whilst [✂] indicated that to re-enter the internal B&B coatings segment would require significant investment in a resin reactor that a firm of its size found ‘scary’ in light of the low prices and concentrated structure of the industry.

125. [✂]

126. When asked how difficult is it for a metal packaging coatings company to start supplying ~~inside spray for B&B~~B2I coating cans if it has not supplied this previously, Actega told us that the resin technology requirement meant that 'a new market participant must therefore not only develop and qualify their coating system but also need to have access to appropriate resins'. Schekolin told us that such supply was rather difficult as in this market prices were very low so a sophisticated, fully automated production had to be set up in order to get good margins. Technology was also a hurdle as lacquers had to be developed and these products were not simple, as they had to be cheap and fulfil all regulatory requirements. Finally, to build a customer base took time due to the qualification process.

127. Valspar told us that the production of ~~internal sprays~~B2I sprays required large reactors, which were 'much more expensive' than the plant required for other coatings products. It estimated that it would cost 'a few million euro to build a significant plant with a lot of capacity'.

128. Both Metlac and Diostyl noted that capacity in the ~~inside spray~~B2I segment was currently somewhat constrained, limiting the extent to which any individual operator could increase output in the short term. This was contradicted, however, by PPG which indicated that it would be able to increase its production of ~~internal spray~~B2I by [REDACTED] using its current production assets and without significant capital expenditure.

[CONFIDENTIAL]

129. Diostyl told us that epoxy technology (required for internal sprays) would be more difficult to toll manufacture as most plants would not have the reactors needed to

produce the resin:

Epoxy technology is typically manufactured by an upgrade process which requires the maintenance of certain levels of temperature and pressure in the reaction vessels and you are then suddenly into an area where this is not something that the vast majority of paint plants could do. Very specialist plants could do it.

It also noted that to start supplying ~~inside-spray~~[B2I](#) involved substantial requirements, notably in terms of production reliability and capacity, product qualifications and adequate insurance.

Intellectual property and regulation

130. Metlac told us that barriers to entry were particularly high in the manufacturing of ~~internal-B&B~~[B2I](#) coatings due to technology that was partly protected by patents.

~~[REDACTED]~~ [\[Please see the comments at paragraph 106 and 118 to the effect that the vast majority of coatings technology is not protected by patents and has been in the market for a significant number of years. As such, the technological barriers are not the reason that no suppliers have recently entered the B2I market. The reasons for a lack of entry are set out in paragraph 131.\]](#)

131. AkzoNobel also indicated that barriers to entry were highest in the ~~internal-B&B~~[B2I](#) coatings segment 'due to the different production process, the levels of food contact regulation and the significant buying power of the Global Customers which dominate the market'.¹⁶

¹⁶ In its hearing with the CC, AkzoNobel identified further barriers to Metlac's entry in that customers might be reluctant to source B2I from a company with a single site and no catastrophe planning available. We are unsure what is meant by this in relation to catastrophe planning. [\[AkzoNobel notes that catastrophe planning in this context requires a coatings supplier to have an alternative source of supply if its main production facility is destroyed or otherwise incapacitated. \[CONFIDENTIAL\]](#)

132. [X] supported these viewpoints, highlighting that ~~inside-spray~~B2I 'is a very difficult product to develop', although it also noted that the products that the industry used now had been around for decades.
133. [X] also told us that there was significant technical expertise involved in developing ~~inside-sprays~~B2I coatings because they needed to:
- (a) protect cans against a range of different products, with varying levels of corrosiveness. This is because many customers, including [X], do not want to stop production lines in order to change the spray used when the end use of the cans changes;¹⁷ and
 - (b) be applied to the cans via a high-speed spraying process, which creates challenges in terms of achieving an even covering of the correct thickness.
134. [X] emphasized that innovation within the segment for ~~internal-sprays~~B2I tended to focus on reducing costs rather than enhancing performance, since all sprays must meet the technical requirements and beyond such requirements, brand owners did not see significant value in innovations in the same way that they did with external coatings. [There are ways in which B2I coatings can be innovative (such as its blue lining for Coors beer cans).]
135. [X] emphasized that the main barrier to entry in the ~~inside-spray~~B2I segment related to the capital outlay rather than the technology required to develop the products.

Qualification of new products and customer switching

136. AkzoNobel told us that the qualification process for an ~~internal-beverage~~B2I spray

[CONFIDENTIAL] Second, AkzoNobel stated that if a production run failed due to inadequate coating the cost could be very large [CONFIDENTIAL], which could cost the coating supplier a large amount. It is unclear to us why this would apply differently to B2I than to B2E, which Metlac already produces. [AkzoNobel has responded to this query in relation to the main Provisional Findings text.]

'can last between 6-12 months'.

137. This view was not supported by the can manufacturers. [REDACTED] noted that switching to a non-approved spray would take a minimum of three years due to pack tests and customer approvals. [REDACTED] told us that qualifying new products in the internal spray segment was both costly and time-consuming. It cited the example of [REDACTED], which had spent the last [REDACTED] trying to qualify its inside spray with [REDACTED] without success.¹⁸

138. Valspar stated that the qualification procedure for ~~an internal beverage can~~[B2I](#) coating could take between one and three years.

139. Customer switching appears to be further complicated by difficulties in scaling up (to industrial level) the use of qualified products to use on production lines. [REDACTED]

140. [REDACTED]

Customer sponsorship of entry and/or expansion

141. [REDACTED] told us that it had been active in seeking to encourage entry into the segment for internal sprays. As noted previously, it has spent [REDACTED] working with [REDACTED] in order to qualify the latter's spray with [REDACTED] customers. Similarly, [REDACTED].

142. [REDACTED] told us that, following its tender process, it had proactively sought to encourage the entry of new suppliers into the B&B market in order to enlarge the pool of suppliers for future tenders.

143. [REDACTED]¹⁹ [\[The level of redaction in this section makes it impossible for AkzoNobel to respond to any of the evidence or the conclusions of the CC on this point.\]](#)

¹⁷ [REDACTED]

¹⁸ [REDACTED]

¹⁹ [REDACTED]

Impact of technological developments on barriers to entry/expansion

144. We understand that BPA-NI technology would not remove the requirement of having resin as an input. [REDACTED] expressed the belief that BPA-NI products would still be resin-based and hence still required the reactor plant to produce, even if they were no longer epoxy resins.²⁰

145. [REDACTED] AkzoNobel also provided estimates of the capital required to convert its resin plants to produce BPA-NI products, which were between **[CONFIDENTIAL]** (for both plants).

Provisional conclusion

146. This is the most concentrated segment of the metal packaging coatings sector, with AkzoNobel and Valspar providing [81 to 90] per cent of ~~inside spray~~[B2I](#) and PPG the remainder. It seems unlikely on the basis of the evidence provided that any supplier other than Metlac would be interested in entering this segment. Given the need to recover the high fixed-cost base through economies of scale, and the lengthy and costly process to qualify and scale up for industrial use, entry and/or expansion in this segment does not appear to be likely, timely or sufficient. [These reasons will apply equally to Metlac as to any other potential entrant and, therefore, the CC is not justified in reaching any alternative conclusion on Metlac's entrance into the B2I segment.]

²⁰ One company indicated that BPA-NI technology would remove the need for expensive resin manufacturing equipment, but this was not borne out by other evidence from market participants.

Growth

1. In recent years, Metlac has grown from a small company to a medium-sized firm with a growing presence outside its home market, Italy. Metlac submitted that between 2003 and 2011 it almost doubled its output (from ^[15 - 20]kt to ^[25 - 35]kt). Metlac expects to further expand its production to ^[X]kt in 2012. Metlac increased its sales outside Italy from ^[21 - 30] per cent of sales in 2003 to around ^[51 - 60] per cent in 2011, with a forecasted growth to ^[X] per cent by the end of 2012.¹
2. Metlac has won business from AkzoNobel, PPG and Valspar and now serves some of the largest customers in the market (**[CONFIDENTIAL]**) outside Italy. These customers have told us that they chose Metlac because of its flexibility, innovativeness and **[CONFIDENTIAL]** . Metlac also supplies smaller customers outside Italy and provided us with a list of such customers. These customers were based in 11 countries in the EEA, with a large number being in Greece, Bulgaria and Spain.
3. Metlac's past growth is explored in comparison with market growth and growth of other suppliers below.

Past growth

4. The market for metal packaging coatings has grown by 11 per cent (+18.56kt in volume) in the period 2009 to 2011. The B&B market has experienced growth of 12 per cent while FCG sales have increased by 9 per cent.
5. AkzoNobel and Metlac's² growth have been the strongest, with increases of ^[31 - 40] and

¹ [Metlac initial submission](#), paragraph 52

² ^[X]

^[21 30] per cent respectively. PPG's sales have [0–10] per cent over the three years while Valspar has lost [~~10~~]kt ([0–10] per cent). Of the smaller players, Actega has increased at a rate similar to that of the market ([11–20] per cent), Grace by [11–20] per cent, Schekolin by [0–10] per cent, and the remaining suppliers altogether have lost [11–20] per cent. It seems therefore that some of the market expansion in this three-year period may have been captured by AkzoNobel and Metlac which have increased their volumes by [...] kt and [~~10~~]kt respectively. Table 1 shows the sales variation (expressed in volume and percentage) of the major suppliers over the period 2009 to 2011.

TABLE 1 Sales growth in the EEA (2009–2011)

	Volume kt	%
AkzoNobel	[...]	[31 - 40]
Metlac	[...]	[21 - 30]
Combined	[10]	[21–30]
Valspar	[10]	[0 – -10]
PPG	[10]	[0 – -10]
Grace	[10]	[11–20]
Actega	[10]	[11–20]
Schekolin	[10]	[0–10]
Others	[10]	[-10 – -20]
Total	18.56	11

Source: Suppliers' data and CC calculations.

6. However, it is not possible to draw strong conclusions from this three-year data given the lumpy nature of large contracts, particularly in the B&B market, which means that if we were to look across a longer period (eg a decade), we may see very different fluctuations.
7. Table 2 shows that in the B&B market both AkzoNobel and Metlac's sales have grown by ^[41 50] and ^[11 - 20] per cent respectively in the past three years, whereas Valspar's sales have shrunk by [11–20] per cent in the past three years and PPG's level of sales have [0–10] per cent.
8. Table 2 also shows that in the FCG market, AkzoNobel's sales have grown by ^[0 - 10] per

cent, Metlac's by ^[21-30] per cent, Valspar's by [11–20] per cent and PPG's sales have [0–10] per cent. Of the smaller players, Actega has increased by [11–20] per cent, Grace by [11–20] per cent, Schekolin by [0–10] per cent and the remaining suppliers altogether have lost [11–20] per cent.

TABLE 2 Sales growth by market in the EEA (2009–2011)

	B&B		FCG	
	Volume kt	%	Volume kt	%
AkzoNobel	[...]	[41 - 50]	[...]	[0 - 10]
Metlac	[...]	[11 - 20]	[...]	[21 - 30]
Combined	[⊗]	[41 - 50]	[⊗]	[11 - 20]
Valspar	[⊗]	[-10 - -20]	[⊗]	[11 - 20]
PPG	[⊗]	[0]	[⊗]	[0 - -10]
Grace	[⊗]	[-]	[⊗]	[11 - 20]
Actega	[⊗]	[-]	[⊗]	[11 - 20]
Schekolin	[⊗]	[-]	[⊗]	[0 - 10]
Others	[⊗]	[-31 - -40]	[⊗]	[-11 - -20]
Total	9.89	12	8.67	9

Source: Suppliers' data and CC calculations.

9. This is reflected in the evolution of the market shares.
10. Between 2009 and 2011, in FCG Metlac has gained ^[0 - 10] percentage points (from [...] to [...] per cent) whereas AkzoNobel's share **[CONFIDENTIAL]** (from [...] to [...] per cent). A [21–30] per cent increase in sales by volume only brings a market share growth by [0–10] per cent because Metlac is expanding sales from a small base.
11. In B&B Metlac's share **[CONFIDENTIAL]**, while AkzoNobel's share has moved from [31–40] per cent in 2009 to [41–50] per cent in 2011. The increase in sales of [11–20] per cent only translates to a small growth in market share because Metlac is expanding sales from a small base. The significant increment in AkzoNobel's share is mainly driven by its growth in the B2I segment, where its share has risen by almost [⊗] percentage points (from [⊗] per cent in 2009 to [⊗] per cent in 2011).

12. Table 3 shows suppliers' growth in B2E and Food segments. In B2E AkzoNobel, Metlac and Valspar have all grown significantly [This evidence of Valspar's significant growth in B2E is in direct conflict with the CC's (unsubstantiated) conclusions in the Provisional Finding that Valspar is not competitive. The CC's conclusion that Valspar is not competitive in the markets is therefore unjustifiable on the basis of the facts set out here.] (by ^[51 - 60], ^[11 - 20] and [21–30] per cent respectively), while PPG has lost [§]kt ([11–20] per cent). In the Food segment, Metlac, together with Valspar, PPG, Grace and Schekolin, have grown at rate higher than the segment average which was ^[0 - 10] per cent. [Since Valspar and PPG are each growing at a rate ahead of the market average in Food, this also shows that they are competing heavily in the market. Furthermore, the growth of Schekolin and PPG is strong evidence that they have an 'appetite for growth'. As such, Metlac is not in a unique or dynamic position within the market. Rather, Metlac is one of a number of competitors gaining volume.] AkzoNobel's growth is [CONFIDENTIAL] ^[0 - 10] per cent), while Actega and other smaller suppliers have lost sales.^{3 4}

³ We did not receive volume data by Salchi and Diostyl (see Appendix F). In terms of value, Salchi has grown by [§] per cent, with an increase of €[§] from 2009 to 2011 (approximately €[§] in Food, and €[§] in C&C and GL). Diostyl has grown by €[§] ([§] per cent), of which €[§] in Food and €[§] in GL.

⁴ On behalf of AkzoNobel, RBB Economics submitted an analysis that compares suppliers' growth whereby it concluded that Metlac's growth was unexceptional, and Metlac grew approximately in line with market. We note that RBB Economics analysis is based on AkzoNobel's estimates on the past sales of its major competitors, and that these estimates largely differ from the actual sales. In FCG, AkzoNobel estimates that Metlac grew by [·]kt between 2009 and 2011 ([·] per cent), while Metlac's sales actually increased by [·]kt ([§] per cent). In B2E, AkzoNobel's estimates indicate that Metlac increased its sales by [·]kt between 2009 and 2011 ([·] per cent). However, Metlac's own figures show that its sales actually increased by [·]kt.

TABLE 3 Sales growth in B2E and food coatings in the EEA (2009–2011)

	B2E		Food	
	Volume Kt	%	Volume kt	%
AkzoNobel	[...]	[51 - 60]	[...]	[0 - 10]
Metlac	[...]	[11 - 20]	[...]	[11 - 20]
Combined	[X]	[31 - 40]	[X]	[11 - 20]
Valspar	[X]	[21 - 30]	[X]	[41 - 50]
PPG	[X]	[-11 - -20]	[X]	[11 - 20]
Grace	[X]	[-]	[X]	[21 - 30]
Actega	[X]	[-]	[X]	[0 - -10]
Schekolin	[X]	[-]	[X]	[11 - 20]
Others	[X]	[-31 - -40]	[X]	[-51 - -60]
Total	1.50	9	5.04	10

Source: Supplier's data and CC calculations.

13. Table 3 reflects the limitations in reviewing sales growth for a three-year period only as some customers in the B&B market carry out multi-year tenders. As shown in the switching information in Appendix K, significant switches in [...] will not be reflected in Table 3. In comparison, there were significant switches in 2009 in [...], which are reflected in the B&B growth information above.

14. It is worth noting:

- If we do not consider [the](#) B2I segment, where Metlac is not currently active, AkzoNobel's overall growth would be substantially lower^[11 - 20] per cent, **[CONFIDENTIAL]** . Metlac's growth is systematically higher than the market in all segments in which it currently operates. Table 4 compares Metlac's growth with the market/segment average growth.

TABLE 4 Sales growth—comparison between Metlac and the market average by markets and segments in the EEA (2009–2011)

	<i>per cent</i>	
	<i>Metlac</i>	<i>Total</i>
B&B	[11–20]	12
B2E	[11–20]	9
FCG	[21–30]	9
Food	[11–20]	10
C&C	[21–30]	4
GL	[21–50]	11
Total	[21–30]	11

Source: Suppliers' data and CC calculations.

15. As shown in Table 5, Metlac's growth in this period has mainly occurred within the EEA but outside Italy. Of [...]kt increase in sales from 2007 to 2011, [...]kt comes from sales in EEA countries other than Italy, where the sales have been stable over the entire period. The vast majority of Metlac's growth can be attributed to [CONFIDENTIAL] Furthermore, [CONFIDENTIAL]

TABLE 5 Metlac sales by region (2007–2011)

	<i>kt</i>				
	2007	2008	2009	2010	2011
EEA	[...]	[...]	[...]	[...]	[...]
EEA (excluding Italy)	[...]	[...]	[...]	[...]	[...]
Italy	[...]	[...]	[...]	[...]	[...]
non-EEA	[...]	[...]	[...]	[...]	[...]
Total	[...]	[...]	[...]	[...]	[...]

Source: Metlac

Segment level sales data

16. This section compares segment level sales of the parties over the past five years.

17. The starting point of the analysis is that the relevant geographic market is the EEA. It should be noted that [CONFIDENTIAL]

[CONFIDENTIAL]

) [CONFIDENTIAL] . The

non-compete agreement is due to expire on 4 December 2012.⁵ The analysis also takes into account the fact that Metlac is not active in the B2I or the BE segment of the B&B market.

⁵ [CONFIDENTIAL]

18. AkzoNobel has been active in Europe for a number of years in most segments of the metal coatings market.⁶ Table 6 shows its metal coatings sales for the last five years across segments in the EEA.

TABLE 6 EEA sales volumes by AkzoNobel

Year							<i>kt</i>
	B2I	B2E	BE	C&C	Food	GL	Total
2007	[...]	[...]	[...]	[...]	[...]	[...]	[...]
2008	[...]	[...]	[...]	[...]	[...]	[...]	[...]
2009	[...]	[...]	[...]	[...]	[...]	[...]	[...]
2010	[...]	[...]	[...]	[...]	[...]	[...]	[...]
2011	[...]	[...]	[...]	[...]	[...]	[...]	[...]

Source: AkzoNobel

Note: [CONFIDENTIAL]

19. It can be seen from Table 6 that AkzoNobel sales volumes in the EEA [CONFIDENTIAL]. For example, AkzoNobel's sales in the B2I segment [CONFIDENTIAL]. In some other segments (Food, GL, C&C), AkzoNobel's supply volumes have [CONFIDENTIAL]. It should be noted that the figures do not vary materially when Italy is excluded from the data.

20. Metlac differs from AkzoNobel in its scope and organization. From its strong Italian sales base it started to expand in Europe a few number of years ago. Table 7 shows its sales of various metal coatings in the EEA.

⁶ [X]

TABLE 7 EEA sales by Metlac

kt

Year	B2E	C&C	Food	GL	Total
<i>(a) EEA (incl Italy) sales by Metlac</i>					
2007	[...]	[...]	[...]	[...]	[...]
2008	[...]	[...]	[...]	[...]	[...]
2009	[...]	[...]	[...]	[...]	[...]
2010	[...]	[...]	[...]	[...]	[...]
2011	[...]	[...]	[...]	[...]	[...]
<i>(b) EEA (excl Italy) sales by Metlac</i>					
2007	[...]	[...]	[...]	[...]	[...]
2008	[...]	[...]	[...]	[...]	[...]
2009	[...]	[...]	[...]	[...]	[...]
2010	[...]	[...]	[...]	[...]	[...]
2011	[...]	[...]	[...]	[...]	[...]

Source: Metlac.

21. Metlac is not active in the B2I or BE segments, so the B&B sales set out in Table 7 exclusively refer to B2E products. It can also be seen from Table 7 that Metlac's sales volumes in the EEA have **[CONFIDENTIAL]**

22. To date, competition in the FCG segment between AkzoNobel and Metlac has been confined to countries other than Italy, **[CONFIDENTIAL]**

. In comparing the two firms' performance in recent years, we have therefore looked at the relative growth of Metlac's sales outside Italy (Table 7(b)), as well as its growth across the EEA (Table 7(a)) and on AkzoNobel's total EEA production (Table 6). We note that virtually all of the increase in sales achieved by Metlac over this period has been in sales outside Italy where volumes have increased at an annual rate of ^[21 - 30] per cent. Metlac's sales outside Italy increased in all FCG segments. Similarly, Metlac has increased its sales of B2E throughout the EEA with [...]kt out of [...]kt of B2E in 2011 coming from outside Italy. By contrast, apart from the B2I segment, in which Metlac does not currently compete, AkzoNobel's sales volumes have shown small **[CONFIDENTIAL]**

23. Figure 1 illustrates this difference in growth for the two companies in the main categories of the metal packaging coatings markets.

FIGURE 1

EEA sales by segment (kt)

Source: Suppliers' data and CC calculations.

24. The strong growth of AkzoNobel in the B&B market can be partly attributed to strong growth in the B2I segment where Metlac is not active. Figure 2 compares the growth of AkzoNobel and Metlac in the B2E segment, the only B&B segment where Metlac is active.

FIGURE 2

EEA sales in the B2E segment (kt)

Source: Suppliers' data and CC calculations.

25. Overall, the evidence showed strong growth by Metlac in various categories of the metal coatings markets, suggesting that Metlac is a significant competitor in the relevant markets. [\[AkzoNobel does not consider that the growth shown by Metlac in these markets are unique. As set out in more detail in Annex 1 to this Response, Metlac is growing at a rate similar to Valspar \(who the CC has deemed to be severely non-competitive\). This growth data does not show any 'novel' business or pricing strategy, nor does it prove that Metlac is](#)

Future growth

26. The analysis above indicates that Metlac has grown significantly in the last few years across all main segments and is able to win sales from AkzoNobel, Valspar and PPG

to supply large customers. This indicates that Metlac provides a significant constraint on AkzoNobel, Valspar and PPG. [\[Please see the statements set out in paragraph 25 in relation to this conclusion.\]](#) It is unclear whether Metlac would be able to maintain the lower prices it currently offers customers (see Appendix L) should it stop growing at its current rate. It is therefore important to establish whether Metlac would continue to grow in the medium to longer term.

27. Metlac submitted that [REDACTED].
28. Metlac has told us that it intended to continue a strategy of aggressive growth and expected its productive output to [REDACTED] **[CONFIDENTIAL]**
29. Metlac has told us that [REDACTED].
30. AkzoNobel **[CONFIDENTIAL]**
31. **[CONFIDENTIAL]**

[CONFIDENTIAL]

32. [CONFIDENTIAL]

. Metlac has indicated that it

[CONFIDENTIAL] [. \[The way in which Metlac has calculated its spare capacity \(as set out in section 8\) means that this is not a reliable method of determining the free capacity in Bosco Marengo. Furthermore, the CC has not considered AkzoNobel's previous submissions on the capacity constraints on the Bosco Marengo plant due to its Seveso Directive Requirements and its identification as a site of significant risk of accident \(these are described in more detail at paragraph 6.7 of the main Provisional Findings\).\]](#)⁷ Depending on the volumes moved by AkzoNobel to the Metlac plant post-merger, this may impact on the ability to grow the Metlac business.

[CONFIDENTIAL]

33. Some third parties have indicated that they are willing to grow their spend with Metlac, with [REDACTED]; [REDACTED] [CONFIDENTIAL]

⁷ Metlac submits to operate at approx [REDACTED]kt a year with a total nominal capacity of [REDACTED]kt a year and necessary authorizations to produce up to [REDACTED]kt. These statements of spare capacity should be qualified for the reasons explained in Section 8 of our provisional findings report.

[CONFIDENTIAL]

; and a large number of [the](#) companies [that responded](#) indicated that they were testing BPA-NI products with Metlac along with other [companies](#)[suppliers](#). Generally third parties have indicated that Metlac has growth potential.

Detailed analysis of Metlac’s growth forecasts

- 34. Metlac has submitted growth forecasts to 2016. [X]
- 35. We also compare Metlac’s past growth with AkzoNobel’s growth projections. This shows that [CONFIDENTIAL]
- 36. Table 8 reports the forecasts for worldwide sales, in percentage terms, provided by Metlac [X]. Metlac did not provide growth forecasts disaggregated by region but our understanding from Metlac is that much of this growth is expecting to come from countries outside of the EEA.

TABLE 8 Metlac growth forecast in value for worldwide sales of metal packaging coatings over the period 2012–2016

Year	Total	Revenue forecasts		FCG	per cent
		B&B			
2011/12	[X]	[X]		[X]	[X]
2012/13	[X]	[X]		[X]	
2013/14	[X]	[X]		[X]	
2014/15	[X]	[X]		[X]	
2015/16	[X]	[X]		[X]	
Average annual growth	[X]	[X]		[X]	

Source: Metlac

- 37. [X]
- 38. Metlac is expecting an annual average growth of [X] per cent, mostly driven by [X].
- 39. Figure 3 compares Metlac’s growth forecasts (in value) with AkzoNobel’s growth projections for Metlac [CONFIDENTIAL]

FIGURE 3

Metlac's growth estimates in value with AkzoNobel's growth projections for Metlac over the period 2012 to 2016

[✂]

Source: Suppliers' data and CC calculations.

40. If we consider Metlac's forecasts [✂].

41. **[CONFIDENTIAL]** . Table 9 shows the total revenues of Metlac in the period 2007 to 2011 and the annual growth rate.

TABLE 9 Metlac's worldwide sales in value over the period 2007–2011

Year	Total	B&B	<i>per cent</i> FCG
2008/07	[...]	[...]	[...]
2009/08	[...]	[...]	[...]
2010/09	[...]	[...]	[...]
2011/10	[...]	[...]	[...]

Source: [Metlac initial submission](#), Table 3.

42. This corresponds to an average annual growth rate of 10.8 per cent on the entire sector **[CONFIDENTIAL]**

Margins in metal packaging coatings

1. This appendix reports the profit margin figures submitted by AkzoNobel, Metlac, Actega, Grace, Valspar and PPG. It provides a preliminary indication of suppliers' margins in B&B, Food, C&C and GL. We do not draw any comparison between suppliers as we recognize that there may be differences in the way profit margins have been calculated.

[CONFIDENTIAL]

Metlac's role as an innovator

1. This appendix considers whether Metlac is a particularly innovative firm and what impact the merger is likely to have on innovation. We also consider whether the level of innovation Metlac brings to the market would be lost post-merger or if AkzoNobel were to absorb Metlac's R&D.

A. Innovation

2. AkzoNobel submitted that Metlac was not considered to be a particularly innovative manufacturer.¹ AkzoNobel noted that the technology and formulations in relation to external coatings for both two-piece and three-piece cans were long-established and the production of coatings in these segments was quite a basic process. It submitted that innovation was of greater relevance in relation to BPA-NI products and internal coatings. More generally, it said that Metlac was not particularly innovative and Metlac's R&D investment was much smaller than its own, with Metlac having [...] full-time staff whilst AkzoNobel had [...] full-time staff (working only on BPA-NI coatings).
[\[AkzoNobel has previously submitted that it is not aware of a single commercial product not based on pre-existing technology brought to market by Metlac. Furthermore, when AkzoNobel compares the number of patents held by the suppliers, Metlac is seen to have \[...\] patents in total \(\[...\] of which relate to metal packaging coating\), compared to the metal packaging coating patents of PPG \[...\], Valspar \[...\], and AkzoNobel \[...\]. The CC has not been able to provide any evidence of commercial coatings in order to establish Metlac's level of innovation and instead rely on unsubstantiated comments from a small number of customers.\]](#)
3. Metlac, on the other hand, submitted that the merger would remove innovation competition between 'the two leading innovators'. Metlac told us that its level of

¹ It referred to the [CONFIDENTIAL] and the BKartA in its Phase II investigation relating to this proposed merger in support of this submission.

innovation was the reason why large customers, such as [CONFIDENTIAL], had switched significant portions of their business to Metlac. Metlac submitted that its innovation related to its R&D spend, investment in product range, production processes (ie automated manufacturing of coatings) and client service. [None of these factors relate to the development of new or improved products. However, even on the basis of the factors identified by Metlac as a measure for its innovativeness, Metlac falls short of the other suppliers in the market. In terms of R&D spend, AkzoNobel's is significantly higher than Metlac (the figures were provided to the CC in AkzoNobel's Initial Submission). In relation to product range, AkzoNobel has over [CONFIDENTIAL] as many products as Metlac (and sees Valspar and PPG having a similar size portfolio to AkzoNobel). Production processes are not evidence of innovation within the industry (and the most extensive piece of automation at Metlac is its warehouse which does not assist with the technological process of creating coatings). Similarly, while client service is an important factor in the market for coatings, it is not a measure of innovation.]

4. In relation to BPA-NI products, Metlac stated that it had 'the technological edge' and had developed 'a complete range of BPA-NI products for all packaging coating segments', which other players had not. It was also developing coatings [X]. Metlac stated that it was able to offer customers a wider product range than other suppliers, as the larger suppliers had more standardized product offerings and smaller suppliers had focused on particular products for limited applications. Metlac stated that the width of its product portfolio came from its willingness to customize products more than other suppliers. It was of the view that by innovating to offer a wide product variation it effectively gained share from larger competitors. Metlac submitted that its mostly automated manufacturing and storage system resulted in 'best in class' production processes which minimized human effort and lowered Metlac's variable cost base (by requiring fewer employees).

5. Whilst R&D spend and quality of production process are relevant to innovation, they are not decisive factors in a consideration of whether or not Metlac's level of innovativeness is a significant factor in the competitive dynamics of supply of metal packaging coatings.² The number of R&D employees and level of R&D spend is not always reflective of the innovativeness of a company as smaller companies may have more nimble customer response and development processes. The factors we have analysed are general statements [These statements were taken from the twenty customers who responded to the CC's questionnaire (17 of which AkzoNobel believes to be Metlac customers). This is not an appropriate sample for determining the level of innovation of Metlac within the wider coatings market.] on Metlac's level of innovation, Metlac's product range and BPA-NI product development. In relation to innovation relating to removal of potentially harmful chemicals other than BPA, both AkzoNobel and Metlac have submitted that they are working on this.

6. When considering the extent to which suppliers are developing BPA-NI products it is important to take into account the fact that a large proportion of coatings do not contain BPA in any event. As such, figures on sales of BPA-NI coatings may be misleading as they may include both products which have been newly developed to address issues with BPA in food and beverage coatings and also coatings which never included BPA. We understand that the only significant BPA-NI coatings volumes being supplied in industrial quantities are BPA-NI coatings for baby food metal packaging.

B. Internal documents

7. This section examines internal documents from both Metlac and AkzoNobel regarding

² We have not carried out a detailed comparison of either the R&D spend of the parties or the quality or efficiency of their production processes. A number of companies have stated that Metlac's operations may be more efficient than others in the market and **[CONFIDENTIAL]**

. This information is taken into account as relevant when reviewing Metlac's ability to offer low prices.

innovation and in particular whether AkzoNobel would maintain the level of innovation that Metlac has.

8. AkzoNobel has provided its **[CONFIDENTIAL]**. This report found that AkzoNobel had weaknesses compared with key competitors (PPG and Valspar) and other competitors (~~Metlac, Grace, DIC, Altana and Schekolin~~[these competitors are not named in the responses to the \[...\]](#) and therefore the level of [innovation cannot be attributed to any single supplier](#)) in relation to some areas.

9. In particular it had weakness in relation to pricing and product innovation at the time of the report. It stated: **[CONFIDENTIAL]**

³ [\[The CC fails to take into account the fact that AkzoNobel has been widely praised for its quality and product performance when determining the effects of the merger on the market.\]](#) **[CONFIDENTIAL]**

. The **[CONFIDENTIAL]** described Metlac as a 'strong regional supplier' and noted that 'Metlac was not mentioned for their innovativeness by interviewees'. Metlac is also described as 'not having any specific "stand-out" technologies', although it was described as having a very broad product line and by one 'well-regarded industry watcher' as 'the finest, cleanest, most well- organized, well-managed and best performing coatings manufacturer in Europe'.^{4 5}

³ AkzoNobel submitted that this statement related to the development of BPA-NI products, which at that time had not been made available for testing with customers. AkzoNobel's progress in developing BPA-NI coatings has since been made more visible. However, the report does not refer to BPA-NI.

⁴ **[CONFIDENTIAL]**

AkzoNobel noted that this comment appeared in a section on the competitive dynamics of the metal packaging coatings market, where the principal suppliers were identified as Valspar (the largest), PPG and AkzoNobel. Metlac is listed among a group of other suppliers, including Darex (Grace), Actega and Schekolin, while further regional companies such as Rembrandtin (acquired by Salchi), Salchi, Tikkurila and Foreco are also listed. Schekolin is singled out for its high levels of innovation, with the **[CONFIDENTIAL]** noting that its UV rim coating for B&B was 'considerably ahead' and that 'Schekolin is often mentioned as being particularly gifted at forecasting new areas of technology interest, and beginning work before others'. [Actega is also noted for having](#) **[CONFIDENTIAL]**

10. AkzoNobel has provided information showing the five stages of testing a new product must go through with a customer (preliminary tests, plant trial, validation, scale up and final approval) and indicates how developed its BPA-NI trials for particular products are with various customers. This information indicated that it is testing

[CONFIDENTIAL]

11. Metlac has provided a similar summary of its BPA-NI coatings development in a presentation prepared for its customer, [REDACTED]. Of approximately [REDACTED] coatings for Food, GL and C&C it gave [REDACTED] examples of where other customers (other can makers) are with Metlac in the same approval process. Where it had information on its competitors it seems to be at a broadly similar place in the approval stages. [REDACTED]

12. The internal documents provided by the main parties show that AkzoNobel's own documents identify product innovation as one of its weaknesses **[CONFIDENTIAL]**

but both parties have developed BPA-NI portfolios, with Metlac's being wider in product scope.

13. **[CONFIDENTIAL]**

C. Third party evidence regarding Metlac's innovativeness

14. Innovation ~~is a characteristic that is often~~ was mentioned by three out of the 18 customers that responded in relation to Metlac (i.e. 16.7 per cent). [Since majority of the responding customers were supplied by Metlac, this means that a significant majority of customers who use Metlac do not find innovation to be one of its strengths. The customer survey therefore does not support any conclusion by the CC that Metlac is innovative.] In particular, innovation is important to these customers on two fronts.

(a) First, innovation on ~~outside~~ external coatings leads to final products that look and feel better.

(b) Second, recent and some expected future events in relation to BPA-NI products mean that innovation is required to develop BPA-NI coatings for the Food and ~~beverage~~ B&B segments. This ~~includes~~ is particularly relevant for both internal coating, but will also apply to a certain extent for ~~and~~ external coatings. Despite the fact the external coatings do not come into significant contact with food, BPA-NI coatings would be required to prevent cross-contamination of the BPA-NI internal coatings during the manufacturing process.

15. Customer submissions and hearings suggested that Metlac is a recognized innovator on both these fronts. This section briefly overviews the evidence submitted to us on this issue.

16. [REDACTED] expressed similarly high appreciation of Metlac's innovation potential [REDACTED].

17. Customers also provided a very positive view of Metlac's innovative position. For example, one customer ([REDACTED]) told us that: 'I would say that in 2010 we gave an award during one supplier meeting to Metlac for the best innovation and dynamic, so we currently do rate Metlac's laboratory output.' One customer [REDACTED]. In turn, Rexam sees Metlac 'as being very innovative in this marketplace' and mentioned that post-merger 'this price driver, this innovation driver, [REDACTED] is no longer going to be there'.

[\[The CC has not referred to the 15 out of 18 customers who did not credit Metlac with being innovative in response to Question 27. The presentation of this information in the format above gives the inaccurate perception that Metlac was cited as being innovative by the vast majority of customers.\]](#)

18. In their responses to our question on whether Metlac products have any advantages over products of other suppliers, ~~four~~ three out of 18 respondents explicitly mentioned innovation in relation to Metlac's products and two additional customers highlighted superior product.⁶ [\[Since the vast majority of the customers that](#)

[responded to the CC were customers who have been supplied by Metlac, the fact that only 16.7 per cent of respondents mentioned innovation is evidence that Metlac is not considered innovative in the wider market.\]](#)

BPA-NI innovation

19. In relation to BPA-NI-related innovation, when asked whether it would rate Metlac

equally well vis-à-vis the competitors, [REDACTED] responded: ‘Yes. Today, to be fair, we have all the suppliers coming in with solutions. For each end use we can count two to three suppliers that could probably supply the product, in which we can count Metlac.’ [This statement does not indicate that Metlac is any more innovative that all the other suppliers who are “coming in with solutions”. It is not clear from the quotation whether Metlac can be counted as one of the two to three suppliers for each end use or merely for some end uses.]

20. Another customer ([REDACTED]) shared a similarly favourable view on Metlac’s innovation progress in the BPA-NI segment. In particular, it rated Metlac as ‘number one, top of the heap’. More generally, it also claimed: ‘[We] have a fantastic amount of respect for their technological capacity’. It told us that only Metlac and [REDACTED] were currently able to provide a full BPA-NI [REDACTED]. It expected the merger to result in ‘Less competition on the BPA-NI field with a potential impact for the final customers’. [REDACTED].

TABLE 1 [REDACTED] ranking of coatings suppliers by BPA-NI

<i>Beverage Food</i>	<i>Food</i>	<i>Closures</i>	<i>Speciality packaging</i>	<i>Aerosols</i>
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	
	[REDACTED]		[REDACTED]	
	[REDACTED]		[REDACTED]	

Source: [REDACTED].

[AkzoNobel is not able to respond to this table, because there is no statement of the conclusions the CC has drawn from the table, nor is the source visible or AkzoNobel’s position within this ranking.]

21. Ardagh noted that it was looking for BPA-NI solutions from all suppliers and all suppliers we spoke to or received information from have told us that they are developing BPA-NI solutions. Schekolin said that it had developed BPA-NI-free coatings for two- and three-piece cans, for internals and side seams. Actega has

⁶ As our question referred to advantages of Metlac’s products in general, not just innovation, the other customers

been developing and supplying BPA-free alternatives to epoxy coatings for several years. Grace believed it had commercially acceptable solutions for use in the Food, C&C and GL categories. PPG had been working on BPA-NI coatings for many years and was in a position to supply them if customers demanded them. [X] told us that Metlac offered new possibilities with BPA-NI coatings for food.

22. However, another customer was of the view that only AkzoNobel, Valspar and PPG were likely to be supplying BPA-NI products. [\[Ardagh credits Metlac with being a market leader in BPANI “up until a few years ago” \(i.e. it is no longer the market leader\). Furthermore, Ardagh cites Salchi as a company that has the “same opportunities for BPANI as all other suppliers”. It is clear that Ardagh does not consider that Metlac, or the three large suppliers, are the only participants in the BPANI development process.\]](#)

[Caldicot cites AkzoNobel, Valspar and Grace as being the companies which could create BPANI products and states that “Metlac was a small player and so \[Caldicot\] did not believe it had the facilities or the resources to do the level of research on BPA-free products” that those named companies could.\]](#)

23. In relation to our question on how the proposed merger would have an impact on technological, regulatory or other developments in the market, five out of 18 customers expressed concerns in relation to the slowing down of BPA-NI-related innovation. [\[This is a minority of the respondents which, considering the disproportionate level of Metlac customers represented in the responding group, indicates that the market is not concerned about BPANI innovation slowing down as a result of the proposed merger.\]](#)

24. The information from customers provides a picture of Metlac and Valspar leading the development of BPA-NI products, with AkzoNobel and PPG lagging. [\[Please refer to](#)

the comments at paragraph 22, which indicate that a number of competitors cite AkzoNobel and/or other suppliers (and not Metlac) as the leading BPANI producers. It is not accurate to attribute the CC's previous statement to the metal packaging market as a whole, particularly since it is not an accurate reflection even of the attitude of Metlac's own customers.] Some of the smaller suppliers are developing products for the particular niche coatings segments in which they have strengths.

Product range

25. PPG told us that it saw itself as having a wider product range than both Metlac and AkzoNobel. Valspar did not see Metlac as more innovative than AkzoNobel, Schekolin, Actega or itself. [AkzoNobel has previously submitted a written response to the CC and discussed this point with the CC at its hearing. AkzoNobel has [...] individual SKUs in the EEA, while Metlac states in its own Initial Submission that it has [...]. As such, it is proven that AkzoNobel has a wider product range than Metlac. AkzoNobel considers that its product range is approximately the same size as Valspar and PPG, while Metlac will be nearer to Grace, Actega, Salchi and Schekolin in size. This additional size is also not a reflection of the additional two segments in which AkzoNobel operates, since there are very few individual products within the B2I and BE segments.]

26. [✂]

27. In one customer's ([✂]) view, both AkzoNobel and Metlac offered a much wider range of products than other suppliers, including [✂]. [The CC does not mention AkzoNobel's explanation (provided at the hearing) of why a customer will not be best placed to judge the product range of a supplier, because they are not aware of the smaller differences between

one SKU and the next, nor the number of variations of coatings each supplier has for the relevant end use.]

TABLE 2 [REDACTED]: Active coating products per suppliers, 2011

Supplier	Total
[REDACTED]	[REDACTED]
Total	[REDACTED]

Source: [REDACTED].

28. Ardagh noted that the smaller suppliers focused on particular products (Grace on food external end coatings, Actega on external coatings) and that Salchi currently did not have products for all the segments and developing such products could take significant amounts of time. [Ardagh stated at its hearing that Salchi has the “same opportunities for BPANI as all other suppliers”. This indicates that it is not focused on particular products any more than the other suppliers.]

29. The general impression was that Metlac had a product range similar to the three large suppliers with perhaps a greater willingness to develop niche products for customers should they request them. [In light of actual and direct comparable evidence of the size of the two companies’ portfolios, the CC is not justified to rely on the uninformed and limited responses of 18 customers.]

30. When we asked what effects the merger could be expected to have on competition in the various segments of the metal coatings market, Ardagh told us that ‘the merger is likely to reduce the product offer as product lines will be stream lined, it will also drastically reduce innovation’.

- One customer ([REDACTED]) noted that it expected ‘product range rationalisation in the

non beverage category (all segments) amongst the two companies’.

- [X]
- One customer ([X]) told us that it expected the merger to result in reduced incentives to innovate, as well as less effective technical support and lower quality of packaging coatings. A counterfactual scenario is offered by the US market, where quality is generally lower in all likelihood because no US supplier has been able to challenge the main players’ position, as Metlac has successfully done in Europe.
- Silgan noted that ‘should AkzoNobel standardize its product portfolio (changing or cancelling Metlac products) we see high cost for the requalification procedures’; and [X] also expected the merger to affect R&D.

31. Overall, evidence from a small number of customers reveals that they regard Metlac highly in terms of product innovation. [For the reasons set out above, the CC’s conclusion is not supported by the evidence available to it. The aggregation of a small number of customers’ comments into an apparent market-wide consensus is not supported by the responses the CC received.]

Analysis of procurement examples and switching

1. We have analysed the following:
 - Evidence provided by AkzoNobel summarizing [...] procurement instances which occurred between 2008 and 2011. AkzoNobel told us that for the FCG market the information only covered about [...] per cent of the total EEA sales value, and possibly significantly less, based on a rough approximation.¹ In the B&B market, the coverage was higher as formal tenders are used more often. Based on a rough estimate, the coverage of the sales value was approximately [...] per cent.²
 - Information provided by AkzoNobel regarding tenders which occurred in the B&B market.
 - Information provided by Metlac regarding wins and losses in recent years.
 - Information submitted to us and to the BKartA by customers regarding switching which has occurred in recent years.

2. The evidence available indicates that AkzoNobel and Metlac do compete across both the FCG market and for B2E products on the B&B market.

Tender and procurement data submitted by AkzoNobel

3. Competition between suppliers can be investigated through the analysis of individual procurement processes. In particular, one can gain insights into Metlac's

¹ AkzoNobel stated that this was calculated as follows: the value of all contracts of FCG customers in the EEA was summed and added to half of the value of the sum of the [...] contracts ([...] manufactures in both the FCG and B&B segments); when only the volume was listed, an average price computed from the other contracts was used. This was then set in proportion to the total FCG segment size of €[...] million. AkzoNobel told us that some customers were active outside the EEA, and some of the contracts would have run for less than the four-year period covered by the [...] procurement instances. AkzoNobel said that the proportion of the market covered by the database would be overstated by this simplified calculation and in reality be significantly less than [...] per cent. We have not been able to replicate these calculations.

² AkzoNobel told us that this calculation was based on the same logic as above and that the proportion was likely to be overstated due to products included in the list being shipped outside the EEA. AkzoNobel has stated that it cannot readily separately identify intra-EEA sales from this data, although in principle it considers the amount of extra-EEA sales to be relatively small and would not materially impact the overall analysis.

ability to win business from its competitors and exert competitive pressure on them. We have been provided with information regarding the small number of tenders that have occurred in the industry in recent years, all of which were in the B&B market. Formal tendering is not the norm in the FCG market and we have therefore analysed data on particular instances when customers procured a particular product. These instances only form a very small proportion of the total number of occasions where customers were purchasing products.

Data on [...] procurement instances between 2008 and 2011

4. AkzoNobel³ provided evidence of [...] procurement processes. AkzoNobel submitted that this data only covered about [...] per cent of total EEA sales in the FCG market and [...] per cent of total EEA sales in the B&B market. We have not been able to replicate these calculations. [AkzoNobel has previously submitted that these procurement events are not a comprehensive source of competitive interaction between the relevant suppliers, particularly in the FCG market. Furthermore, AkzoNobel notes that this information is not switching data \(ie it cannot be used to calculate diversion ratios\).](#)

³ AkzoNobel submitted to the OFT a document 'Metal packaging coatings business won and lost by AkzoNobel (and Metlac, where known) during the period 2008-2011'. This data was not compiled by AkzoNobel to analyse competition in the markets, but was compiled in the context of review of the Metlac transaction by the BKartA and OFT, explained as follows:

The win-loss data which were initially provided to the OFT on 29 February 2012 were compiled from a number of sources, including data provided by AkzoNobel to the BKartA and input from sales representatives at AkzoNobel. Following the case review meeting with the OFT on 19 April, this was then supplemented by further information from AkzoNobel sales representatives on other business that

[CONFIDENTIAL]

Therefore, the list provided was based on the subjective memory of what was or was not relevant to AkzoNobel. This means that in particular in FCG, the information provided only covers a very small, and therefore most likely non-representative, proportion of the market as most of the business is conducted in a way that would not allow AkzoNobel to know who it is competing against; in some cases, it would not even know that it was losing a part of the business it was supplying to a competitor. If sales representatives were to spend more time looking through more files and correspondence to find additional contracts won or lost where they believe the customer was also considering offers from other identified suppliers, we believe that this would only be likely to result in a small increment in the number of contracts, and would not materially increase the proportion of the market covered.

Nevertheless, the CC places significant reliance on this evidence in drawing its conclusions on switching and procurement. These conclusions, due to the inadequacy of the information, are therefore unsubstantiated.]

5. [...] of the [...] procurement processes ([...] in the FCG market and [...] in the B&B market) were clearly for delivery to outside of the EEA and have therefore been excluded. With respect to the B&B market, some procurement by large customers covers delivery to countries within and outside of the EEA. We are unable to determine the proportion of these contracts that was delivered outside of the EEA and have therefore not excluded these contracts from the analysis. The analysis below focuses on the [...] procurement processes (with a value of € [...] million⁴), which AkzoNobel has provided as an example of where it participated in procurement processes.⁵

6. AkzoNobel submitted that the information provided on procurement would not give a clear indication of overlaps, since suppliers may not be capable of bidding for all coatings which form part of the procurement process (eg Metlac was unable to bid for the supply of B2I spray as part of the [...] tender). In other words, Metlac and AkzoNobel may have both participated in the same overall procurement process, but for different products—and this is not reflected in the information.

7. We accept that if a procurement event involved multiple product types then Metlac and AkzoNobel may not have directly competed against one another in the overall procurement event. However, in many cases the information provided by AkzoNobel appears to refer to a single product type, especially with regard to FCG procurement. In the B&B market, where a significant number (and significant proportion of value) of procurement events may have involved multiple product

⁴ This figure takes account of the fact that the [...] tender in this list of [...] procurements refers to annualized values rather than total values. [✕]

types, we have taken into account the more disaggregated information submitted on formal B&B tenders as discussed below.

8. Reviewing the procurement data provided, Metlac participated in [...] ([...] per cent) of all [...] procurement events and, of the large suppliers, was a successful bidder⁶ **[CONFIDENTIAL]** . In [...] out of [...] instances where Metlac competed against AkzoNobel, Metlac also competed against other suppliers (such as Valspar, PPG and smaller suppliers). In the other [...] cases where Metlac won, AkzoNobel was the only known competitor listed.
9. The total value of instances in which Metlac and AkzoNobel participated, for those procurement events where information on value was supplied, is around € [...] million. We have estimated that Metlac's wins were of a magnitude of around € [...] million over four years.⁷ Metlac's EEA sales for 2008 to 2011 totalled € [...] million. On this basis we estimate that the business Metlac won when competing in the same overall procurement event with AkzoNobel makes up [...] per cent of Metlac's yearly turnover.

B&B

10. Of the [...] procurements⁸ [...] were in B&B.⁹ Of these, Metlac participated in [...],¹⁰ **[CONFIDENTIAL]** it was successful in (although these procurement events sometimes

⁵ It should be noted that some of the procurement events involved multiple products and not all bidders bid for each and every product for every event. A successful bidder is therefore a bidder that wins some business in the procurement event.

⁶ See the footnote to paragraph 5.

⁷ We acknowledge that this is a very rough estimate which is particularly sensitive to whether the total or annualized value of multiyear contracts are used. [§] Other assumptions made in this calculation include: (a) if there were multiple successful bidders but information on the value won by each was not available, then it was assumed that Metlac won the share of value as it did volume (b) if information on volume won by each bidder was not available then it was assumed that it was split evenly.

⁸ In order to carry out the following analysis on FCB and B&B procurement we have attempted to categorize each procurement event as being either FCG or B&B.

⁹ AkzoNobel participated in [...] out of the [...] B&B procurement events on the list

¹⁰ AkzoNobel also participated in each of these [...] procurement events. Metlac only bid for B2E, as it does not supply B2I and

involved multiple products and Metlac may not have bid for each product or indeed won business for each product that it bid for within a contract).¹¹ Of the[...] procurement events in B&B, [...] were exclusively for BE or B2I coatings which Metlac does not produce. Additional tender evidence on B&B formal tenders was provided and is described below.

11. In terms of volume Metlac won a similar share of business as PPG in the B&B market indicating that Metlac is a strong competitive constraint on the other suppliers where it competes.

FCG

12. [...] of the[...] procurement events in which AkzoNobel participated were in FCG.¹² As shown in Table 1, in FCG, Metlac participated alongside AkzoNobel in[...] events ([...]per cent of events) and was a successful bidder¹³ in **[CONFIDENTIAL]** which was more than any other supplier (for instance AkzoNobel won some business in [...]per cent of all FCG events).¹⁴ Several suppliers won relatively small volumes/ value, but overall at least one smaller player participated in [...]per cent of all FCG events and at least one smaller player was successful in winning some business in [...]per cent of all FCG events. However, none of the smaller suppliers won business in more than [...] per cent of events.

BE.

¹¹ For example, Table 2 shows that for **[CONFIDENTIAL]**

AkzoNobel participated in [...] out of the [...] events in the FCG segment.

¹³ See the second footnote to paragraph 5.

¹⁴ AkzoNobel participated in [...] where Metlac participated.

TABLE 1 Percentage of FCG procurement events suppliers participated and won business in, 2008 to 2011

	<i>Procurement events participated in</i>	<i>per cent Number successful</i>
Metlac	[...]	[...]
AkzoNobel	[...]	[...]
Valspar	[...]	[...]
Actega	[...]	[...]
Salchi	[...]	[...]
PPG	[...]	[...]
Grace	[...]	[...]
Jallut	[...]	[...]
Proa	[...]	[...]
Retecsa	[...]	[...]
Rembrantin	[...]	[...]
Hockback	[...]	[...]
Janecke & Scheeman	[...]	[...]
Zeller	[...]	[...]
Schekolin	[...]	[...]
Sistiaga	[...]	[...]
Aret	[...]	[...]

Source: AkzoNobel information and CC estimates.

Note: Sample size: [...] procurement events.

13. Specifically with regard to the FCG procurement events in which Metlac participated, it encountered a range of competitors as shown in Table 1 including: AkzoNobel, PPG and Valspar. Metlac successfully won business in **[CONFIDENTIAL]**

and Valspar was also successful in these events. Furthermore, data provided by AkzoNobel shows that in at least some cases Metlac won business ahead of **[CONFIDENTIAL]**

14. The procurement data submitted by AkzoNobel provides evidence of AkzoNobel and Metlac competing in both the B&B and FCG markets. Due to the proportion of [...] per cent of demand that the FCG information is said to represent, we are unable to draw strong conclusions on the level of competition between the parties from this information alone.

Switching analysis

15. The switching examples provided in this section are only examples and we have not been provided with evidence which would enable us to build an accurate picture of all switching behaviour carried out in the markets in the past three to five years, particularly in the FCG market. However, as described in Section 8, high switching

costs mean that customers do not switch suppliers regularly. While the evidence presented below on FCG may only account for a relatively small proportion of supply, it will account for a larger proportion of the total volumes switched. The weight given to the evidence we have gathered must therefore be seen in this context.

Additional tender evidence in relation to B&B

16. AkzoNobel submitted information on all [...] of the formal tenders issued by B&B customers for the supply of metal packaging coatings into the EEA between 2008 and 2012.¹⁵ [...] of these [...] tenders covered more than one product ([CONFIDENTIAL]). The tender information is set out in Table 2 below.^{16 17}

TABLE 2 Formal tenders in metal packaging coatings, B&B market, EEA, 2008 to 2012

Table 2: Formal tenders in metal packaging coatings, B&B segment, EEA, 2008-2012						
Customer, time frame & location	Product group	Annualised Value (€ m)	Annualised Volume (t)	Incumbent supplier	Competing suppliers	Successful bidder(s)

[CONFIDENTIAL]

¹⁵ As stated in paragraph 7 of this appendix, these tenders cover delivery to countries within and outside of the EEA. We are unable to determine the proportion of these contracts that was delivered outside of the EEA and have therefore not excluded these contracts from the analysis.

¹⁶ Apart from [...] products of one of the tenders [...], all these tenders could be identified in the list of [...] procurement instances discussed earlier in this appendix.

¹⁷ [CONFIDENTIAL]

Source: AkzoNobel

*ANWF indicates AkzoNobel Wood Finishes [CONFIDENTIAL]

17. AkzoNobel submitted that Table 2 showed that whilst ANPG and Metlac did some- times both bid independently for the same contracts, they were never the only two bidders: in all cases where AkzoNobel and Metlac both took part in a formal tender, there were other competitors taking part as well. These competitors included PPG and Valspar, which were strong players in the B&B market outside of Europe. AkzoNobel also noted that Metlac only competed for the supply of B2E coatings; it was not active in B2I or BE coatings.

18. The presence of other competitors in a tender process does not detract from the fact that Metlac and AkzoNobel were competing for the same contract, at least in relation to B2E coatings types. For unilateral effects to occur in a merger situation, the parties will need to be close competitors—however, they do not need to be the closest competitors and other competitors may also be present.

19. Metlac participated in [...] out of these [...] tenders, [CONFIDENTIAL], and won business in [CONFIDENTIAL]. For [CONFIDENTIAL] in which Metlac participated, AkzoNobel was a competitor as well as PPG and Valspar. AkzoNobel stated in its Acquisition Request that it has [CONFIDENTIAL] to Metlac. This information suggests that Metlac is able to compete effectively for business vis- à-vis AkzoNobel, Valspar and PPG in the B&B market.

20. A more detailed examination of the [CONFIDENTIAL] tender data shows:

(a) [CONFIDENTIAL]

(b) [CONFIDENTIAL]

¹⁸ [CONFIDENTIAL]

¹⁸ [CONFIDENTIAL]

21. [CONFIDENTIAL]

19

22. [CONFIDENTIAL]

[REDACTED] has provided us with further information which shows that Metlac recorded annual sales of [REDACTED].²⁰ We do not hold information about whether the increase or reductions in business comes from switching or from industry growth.

23. The evidence discussed in this section suggests that Metlac is able to win business from AkzoNobel, Valspar and PPG suppliers, exerting competitive pressure on them.

Information on wins and losses provided by Metlac

24. Metlac provided us with information on sales won from competitors in 2009 to 2011, set out in Table 3.

TABLE 3 Examples of sales won by Metlac from competitors in 2009 to 2011 (unless otherwise indicated)

<i>Customer</i>	<i>Volume (t)</i>	<i>Previous supplier</i>	<i>Segment</i>	<i>Customer average total purchased annual volume</i>
Crown	[...]	[...]	FCG	[REDACTED]
	[...]	[...]	FCG	[REDACTED]
	[...]	[...]	GL	[REDACTED]
Ardagh (incl Fipar)	[...]	[...]	Food	[REDACTED]
	[...]	[...]	Food	[REDACTED]
Silgan (incl V&N)	[...]	[...]	Food	[REDACTED]
	[...]	[...]	C&C, Food	[REDACTED]
Litalisa	[...]	[...]	Food	[REDACTED]
Metaprint	[...]	[...]	GL	[REDACTED]
Can-Pack	[...]	[...]	C&C	[REDACTED]
Total FCG	[...]			
Rexam	[...]	[...]	B&B (ext)	[REDACTED]
Ball (incl Aerocan)	[...] [†]	[...]	B&B (ext)	[REDACTED]
Total B&B	[...]			

Source: Supplier information and CC estimates

[CONFIDENTIAL]

†[REDACTED]

Note: [REDACTED]

¹⁹ The [...] tenders are discussed in more detail in Appendix L, which addresses pricing.

25. The figures in Table 3 cover approximately [...] and [...] per cent of Metlac's total sales volumes for the period 2009-2011 in the FCG and B&B markets respectively.²¹ These figures suggest that Metlac has been successful in winning sales from each of AkzoNobel, Valspar and PPG over the past few years.
26. The figures also indicate that of Metlac's total wins of [€]t in the B&B market, [...] t or [...] per cent were from AkzoNobel. [...] t out of the [€]t out of total wins were from AkzoNobel, indicating that around [...] per cent of Metlac's wins came from AkzoNobel in the period 2009 to 2011.²² This represents a larger amount of switching to AkzoNobel than would be expected given AkzoNobel's market shares. This indicates that AkzoNobel and Metlac currently compete in relation to [€] customers in the B2E segment. However, given the small sample size and the fact that this is only a selection of switching data provided by Metlac, it is difficult to draw any conclusions from this.
27. Metlac has also told us that **[CONFIDENTIAL]**

28. At our request, Metlac also provided information on volumes lost to competitors, set out in Table 4.

TABLE 4 Examples of sales lost by Metlac to competitors in 2009 to 2011

Customer	Volume (t)	New supplier	Segment
[€]	[€]	[€]	C&C
[€]	[€]	[€]	C&C
[€]	[€]	[€]	Food
[€]	[€]	[€]	GL

Source: [€].

²⁰ Sales figures were computed using information from the Metlac customer transactions and cost database.

²¹ These figures can be derived by dividing the total business figures in the table to Metlac's total annual sales volumes calculated from its customer transaction database.

²² [...] per cent ([...] t out of [€]t) of total wins in the FCG segment came from AkzoNobel.

29. The figures in Table 4 suggest that lost sales volumes of [redacted]t (all in the FCG market) corresponds to [redacted] per cent of Metlac's total sales volumes over 2009 to 2011 in the FCG market. Metlac has not lost sales in B2E to any competitor [redacted] and the sales that it has lost in FCG are to smaller customers accounting for a small proportion of its overall turnover.
30. Table 5 contains further evidence on sales won by Metlac from AkzoNobel in various metal coatings segments, in 2011 and 2012.

TABLE 5 Sales won by Metlac from AkzoNobel

Year	Customer	Quantity (t)	Segment
2011	[redacted]	[redacted]	Food
2011	[redacted]	[redacted]	C&C
2011	[redacted]	[redacted]	GL
2011	[redacted]	[redacted]	Food
2011	[redacted]	[redacted]	Food
2011	[redacted]	[redacted]	GL
2011	[redacted]	[redacted]	Food
2011	[redacted]	[redacted]	C&C
Total 2011		[redacted]	
2012	[redacted]	[redacted]	Food
2012	[redacted]	[redacted]	GL
2012	[redacted]	[redacted]	Food
2012	[redacted]	[redacted]	GL
2012	[redacted]	[redacted]	Food
2012	[redacted]	[redacted]	C&C
Total 2012 (full-year forecast)		[redacted]	

Source: [Metlac's initial submission](#).

31. The figures in Tables 3 and 5 suggest that Metlac has been winning business from AkzoNobel in all the relevant segments except for B2I and BE, where Metlac is not present. In addition, the value of business won seems to be increasing, providing support to the idea that Metlac has the potential to impose a significant and increasing competitive constraint on AkzoNobel, Valspar and PPG in the segments where it is active.

BKartA evidence on switching

32. We also reviewed a small sample of switching data provided to the BKartA. Of the 11 customers' responses to the BKartA which we have access to, only five companies provided information ([REDACTED]). In addition, [REDACTED] provided information to us in a similar format.

33. [REDACTED] provided switching data for both the B&B and FCG markets. As shown in paragraphs 16 to 23 above, we have received evidence of switching between the four suppliers in the B&B market. This additional evidence from [REDACTED] reiterates that switching occurs in this market.

34. Customers provided data on switching for 2007 to 2012. Not all customers provided data for all of the years. Therefore Tables 6 and 7 summarize customer switching in the FCG market over 2008 to 2010, and in 2009 to 2010 for a different set of customers.

35. The table below summarizes customer switching for [REDACTED] in the FCG market for years 2009 to 2011.

TABLE 6 Switches in FCG [REDACTED] for 2009 to 2011

	AkzoNobel	Metlac	PPG	Valspar	Other	tonnes
<i>From 2009 to 2010</i>						
AkzoNobel						
Metlac						
PPG						
Valspar						
Other			[REDACTED]			
Total						
<i>From 2010 to 2011</i>						
AkzoNobel						
Metlac						
PPG			[REDACTED]			
Valspar						
Other						
Total						

Source: Response by customers to the BKartA Market Questionnaire and CC calculations.

36. The figures from Table 6 show that Metlac won about [REDACTED]kt out of the [REDACTED]kt [...]

[...]per cent) which were switched by these [...] customers in the FCG market for the years 2009/10 and 2010/11. [...] these switches were to Metlac from Valspar (approximately [...]kt out of [...]kt [CONFIDENTIAL]). Only approximately [...]kt of [...]kt [CONFIDENTIAL] won were switched to Metlac from AkzoNobel, [...] [CONFIDENTIAL] from PPG and [...]kt [CONFIDENTIAL] from other smaller suppliers. The rest of the switched volume in FCG ([...]kt) went to, respectively, AkzoNobel with [...]kt (13 per cent), PPG with [...]kt (4 per cent), Valspar with [...]kt (4 per cent) and other suppliers with [...]kt ([40-50 per cent]).

37. Table 7 summarizes customer switching for [...] in the FCG market for years 2008 to 2010. It does not include information for [...] as they did not provide information for the 2008/09 period.

TABLE 7 Switches in FCG [...] for 2008 to 2010

	AkzoNobel	Metlac	PPG	Valspar	Other	tonnes
<i>From 2009 to 2010</i>						
AkzoNobel						
Metlac						
PPG						
Valspar						
Other			[...]			
Total						
<i>From 2010 to 2011</i>						
AkzoNobel						
Metlac						
PPG			[...]			
Valspar						
Other						
Total						

Source: Response by customers to the BKartA Market Questionnaire and CC calculations.

38. The figures from this table show that Metlac won about [...]kt out of the [...]kt ([...] per cent) which were switched by these [...] customers in the FCG market for the years 2008/09 and 2009/10. Approximately [...]kt out of [...]kt of these switches were to Metlac from AkzoNobel, [...]kt were from PPG and [...]kt from suppliers other than the big three players. The remaining [...]kt of FCG switches went to PPG ([...]kt), Valspar ([...]kt) and other suppliers ([...]kt).

39. This information shows that Metlac is a strong competitive constraint on the three

large players in the FCG market in relation to these particular customers. We are unable to draw strong conclusions from this analysis as it is a very small switching sample, both in terms of the proportions of the markets it represents (as the customers were not asked to provide information on all volumes they had switched, but only 'changes of at least 10 per cent compared with the previous year OR changes of at least 20 per cent over the entire period').

40. We also note the statements by the BKartA on switching in its decision: From the supplier switch analysis it would appear that with respect to the turnover of the manufacturers seen in pairs in the years 2009 -2011 only 1 per cent was incurred by customers switching from AkzoNobel to Metlac. The changes between Valspar and Metlac on the other hand are higher and are between 0-6.2 per cent. The highest switching quota was for 2010 in which the quota of customers switching from Valspar to Metlac was 6.2 per cent. [Despite referring to the BKartA's opinion (which was made on the basis of the same geographic market and much of the same information), the CC fails to acknowledge that its assessment of Metlac's competitive strength is in direct contrast to the BKartA's findings, despite these similarities. The CC does not provide any justification for the difference between the BKartA's finding and the Provisional Finding of the CC.]
41. The procurement and switching evidence we have been provided with shows that AkzoNobel and Metlac compete for contracts in the B&B and FCG markets.

Additional switching information from [REDACTED]

42. [REDACTED] provided a chart showing the market share evolution in the FCG market from 2007 to 2011. **[CONFIDENTIAL]**

[CONFIDENTIAL]

FIGURE 1
[CONFIDENTIAL]

[✂]

Source: [✂]

Metlac as a pricing constraint on AkzoNobel

1. Information provided by the customers' responses suggests that Metlac's alleged low pricing strategy played a key role in its recent success. This appendix explores this evidence. [The CC's customer questionnaire did not include a request for customers to comment directly on Metlac's costs. As such, the evidence relied upon is inherently unreliable. Furthermore, it is not possible for customers to determine whether a supplier is 'low cost', since it has no sight of the production costs of that supplier.]
2. AkzoNobel submitted that Metlac's market strategy was not distinct from its competitors' as undercutting competitors on price was no more noticeable as a strategy from Metlac or AkzoNobel than from PPG, Valspar or any other coatings manufacturer.
3. Metlac submitted that its automated system of production ensured the perfect dosage of the mixture and minimized possible errors. Combined with the fact that it required fewer employees, it submitted that it had a lower variable cost base than its competitors. Metlac said these factors allowed it to offer highly competitive terms and have a wider margin to manoeuvre on pricing than its competitors. [REDACTED]. [CONFIDENTIAL]
4. We have analysed the following information:
 - Evidence from oral hearings and responses to our market questionnaires regarding whether Metlac's prices are lower than those of other suppliers.
 - Evidence on how often customers used Metlac as a 'stick' to reduce the price of

their incumbent supplier.

- BKartA data on the prices of the five most important (in terms of purchased volumes) packaging coatings purchased by customers.

5. All three pieces of evidence pointed to Metlac being a low-priced supplier. Whilst price is clearly an important factor for customers it is not the only factor customers take into account when making their supply decisions. Product reliability—in particular a supplier’s ability to supply the requisite volumes to the correct quality standard—may in some cases be more important to the customer than price. Other important factors included the quality of the product, technical support to a plant, capacity of the supplier, access of the supplier of metal packaging to raw materials, specifications of the buyer of the metal packaging coatings produced by the supplier, supplier R&D expenditure/innovation potential and avoidance of dependency on one supplier. [While the CC acknowledges that these non-price factors are important, the CC does not complete any substantive analysis of the affect of the merger on the rest of these factors, nor the relative importance of each factor to customers. As such, the CC’s analysis on competitive effects is incomplete and therefore its conclusions are unreliable.]

6. As such, whilst Metlac’s prices were found to be likely to provide a level of constraint on the pricing of AkzoNobel, PPG and Valspar, this is only one of the factors in the competitive mix. This may partially explain why despite being the lowest-cost supplier, Metlac had not managed to gain more market share. Another possibility is that Metlac has not sought to expand too rapidly at the expense of reliability. [It is not appropriate for the CC to accept an assertion by Metlac which the CC acknowledges is without any supporting evidence. No third party referred to the risk of a supplier expanding too quickly and harming customer relationships. Furthermore, this conclusion is in direct conflict with the

numerous statements within the Provisional Findings to the effect that Metlac has experienced unique and dynamic growth, setting it apart from other suppliers.] A further possible explanation could be that, given the costs involved in qualifying new products, customers may be reluctant to switch unless there appear to be significant price advantages. [This assertion by Metlac has also not been supported by any evidence. Furthermore, Metlac has previously informed the CC that it qualified approximately 10 coatings every month. Customers are therefore evidently not reluctant to complete the qualification process.]

Finally, there is evidence (see below) that Metlac's low prices have been used by some customers as a means to negotiate reductions in the prices offered by incumbent suppliers; such reductions may have enabled incumbents to retain the business. Where Metlac sought to compete for customers, it was often successful, as shown by the switching and procurement information set out in Appendix K.

A. Evidence from the CC's oral hearings with parties and responses to the CC's market questionnaires regarding whether Metlac's prices are lower than other suppliers

7. This section summarizes the information from customer's responses to questionnaires and oral hearings with customers as to whether Metlac is a low-priced supplier.
8. Metlac was often mentioned as the lowest-priced supplier by customers that purchase a substantial share of their demand from it. Customers also mentioned that Metlac was sometimes used to extract better terms even when the customer did not switch purchases to them; Metlac was perceived as a high-quality and innovative provider as well as a low-priced supplier; and Metlac currently has an edge over AkzoNobel for (possibly next generation) BPA-NI products.
9. Customers made the following specific points:
 - [X] which purchased external beverage coatings from Metlac, told us that Metlac was often the lowest-priced competitor. It was perceived as offering very fair

commercial terms relative to other suppliers. [REDACTED]

- [CONFIDENTIAL]
- [CONFIDENTIAL]

- [REDACTED], on the other hand, only purchased [REDACTED] from Metlac and did not believe that [REDACTED], whilst [REDACTED] said that it had no experience with Metlac.

10. [REDACTED] Of the 14 customers that were supplied by Metlac, only one customer, [REDACTED], stated that it did not see Metlac as a low-priced supplier. Responses from four customers were unclear.

11. [REDACTED][CONFIDENTIAL]

Figure 1 illustrates

[CONFIDENTIAL]

FIGURE 1
[CONFIDENTIAL]

[REDACTED]

Source: [REDACTED]

Note: [REDACTED]

12. Figure 1 indicates [CONFIDENTIAL]

B. How often customers used Metlac as a 'stick' to reduce the price of their incumbent supplier

13. AkzoNobel submitted that each of the main coatings suppliers, particularly in the B&B sector, was highly responsive to price due to the market strength of the four main customers in that sector. It said that its largest customers, in particular, were able to quickly and easily switch large contracts between suppliers¹ to obtain the best prices and that, as part of their procurement process, these customers would often issue pricing guidance to prospective suppliers and expect those suppliers to offer or match the lowest price.

14. While AkzoNobel submitted that the relative buyer power of Rexam, Ball, Crown and Can-Pack meant that each of the participants in the metal packaging coatings market undercut the prices of their competitors, evidence provided to us suggested that customers used Metlac in particular to constrain the prices of AkzoNobel, Valspar and PPG. Certain customers submitted that they used Metlac's low prices or quotes of low prices to obtain lower prices from the other suppliers in the course of multi-round negotiations. We followed this up by requesting information in relation to this issue. This is particularly important given that formal tenders are not common in metal packaging coatings (although there is some tendering in the B&B market).

15. We sent a questionnaire to 39 customers asking them to provide details of any instances in the past five years where Metlac's lower pricing has been a factor used in pricing discussions with other metal packaging coatings suppliers, in order to successfully drive a lower price from those other suppliers. We also asked customers to estimate the proportion of pricing discussions with metal packaging coatings suppliers where Metlac's lower pricing is referenced (and the proportion of

their total volume of metal coatings purchases that is affected by these discussions).
[The wording of the question presented to the customers was extremely biased towards a particular finding and therefore the conclusions drawn from these responses are unsustainable.] Alternatively, if Metlac's pricing was not used as a negotiating factor with other suppliers any more frequently than any other metal packaging coatings supplier's prices are used to negotiate a lower price, customers were asked to indicate this.

16. Of the 20 respondents:² ten customers claimed to have been using Metlac's low prices or quotes of low prices to lower the prices of the other suppliers; one customer stated that it had not used Metlac's pricing as a negotiating factor with other suppliers any more frequently than others to negotiate lower price; three customers stated that they had not used Metlac's prices to drive down the prices of competing suppliers; and three customers submitted that Metlac is not one of their suppliers and therefore they had not used its prices to drive down prices for other suppliers. Three customers did not provide a useful answer to the question.³ [Of the 20 respondents to this question, 17 were customers of Metlac. As such, 7 out of 10 (i.e. 42 per cent) of Metlac's customers informed the CC that they have not used Metlac to lower the prices of other suppliers once in the last five years.]
17. More specifically, nine customers ~~all~~ claimed to have used Metlac's low prices or quotes of low prices to lower the prices of the other suppliers.⁴ One customer did not answer the question directly but stated that 'over all Metlac's lower pricing acts as a barrier against unilateral price increases by the industry'.

¹ Customers may qualify more than one supplier for coatings, allowing them to switch between suppliers. Nevertheless, switching is not a quick process (see Appendix G for details of the likely time to qualify various coatings).

² Twelve respondents only purchase FCG products, two respondents only purchase B&B products and the remaining six purchase both B&B and FCG coatings.

³ A further eight customers acknowledged receipt of our questionnaire but chose not to respond to it.

⁴ [X] told us that it had also been using and was planning to reference other smaller suppliers (ie apart from Metlac) in its negotiations with the large suppliers. It is not clear whether [X] meant that it uses smaller suppliers' prices in negotiations with the large suppliers in the same way in which it uses Metlac's prices.

18. The extent to which Metlac's prices or price quotes were used in negotiations with other suppliers varies. In some cases, Metlac's low prices were only used to inform customers about possible target levels of price in negotiations with suppliers. In other cases, Metlac's low price quotes were used more explicitly in pricing negotiations.

19. [REDACTED] provided examples of how Metlac's low prices have been used to decrease prices [REDACTED]. In particular, [REDACTED] submitted that [REDACTED], Metlac's prices were used to:

- (a) bring down prices of [REDACTED];
- (b) bring down prices of [REDACTED]; and
- (c) bring down prices of [REDACTED].

20. In each of these cases, competitors were not able to match Metlac's prices [REDACTED].

21. **[CONFIDENTIAL]**

- [REDACTED].^{5 6 7 8}

22. [REDACTED] provided examples of using information on Metlac's prices to reduce prices on [REDACTED] (ranging from 2.5 to 10 per cent of [REDACTED] volume) and [REDACTED] (5 per cent of [REDACTED] volume in the specific sub-segments).

23. The evidence in this section indicates that a number of the largest purchasers of coatings as well as several smaller firms claim to use Metlac as a 'stick' to reduce the price offered by their other suppliers. The constraint that Metlac placed on the market

⁵ [REDACTED]
⁶ [REDACTED]
⁷ [REDACTED]
⁸ [REDACTED]

appears to be equally strong across different competitors and different sub-segments. The examples set out in paragraphs 19 to 22 above indicated that the volumes involved are not insignificant. [Without any economic evidence in support of any assertions of low pricing, it is not appropriate for the CC to draw conclusions from the statements of a small number of customers, particularly when the vast majority of those responding customers are supplied by Metlac.]

C. Evidence from the BKartA regarding Metlac as the lowest-price supplier

24. This section examined evidence on Metlac's pricing that was submitted by several customers as part of their response to the BKartA questionnaire.⁹ Customers were asked to describe how the prices of the five most important packaging coatings purchased by their company have developed in recent years and to provide average prices (€/kg) for each year.¹⁰ The BKartA decision summarized the information from customers as follows:

...the analysis of the individual prices reveals that the prices of Metlac are not always the best compared with AkzoNobel, PPG and Valspar. Nine of the undertakings involved in the survey purchased a certain product from Metlac and at the same time also from another undertaking. Four of the undertakings named prices of which the Metlac prices were best, for three undertakings the Metlac prices were higher than the offers of the competitors, whereas in the case of two of the undertakings the Metlac prices were in some cases more expensive and in some cases cheaper. Thus the information regarding individual prices does not confirm that Metlac is always the cheapest supplier.¹¹

⁹ The exception is [§] whose source is its response to the CC's Market Questionnaire.

¹⁰ In its market questionnaire to customers, the BKartA asked the following specific question:

Please describe how the prices of the five most important packaging coatings purchased by your company have developed in recent years. Please indicate the average purchase price (net/€/kg) of the respective supplier for the respective year. If you have purchased the same product from several suppliers, please indicate their prices separately. Please give a rough estimation of the average proportion (in percentage) this product accounts for in your EEA-wide purchase volume of metal packaging coatings.

¹¹ BKartA Decision, paragraph 104

25. We do not have access to the full set of customer responses from the BKartA. We do have copies of the BKartA responses containing evidence from ten customers.¹² _

[The CC provides no justification or explanation for its selection of the BKartA customers it has considered. Nor does it acknowledge the fact that the BKartA came to the opposite conclusion on the importance of Metlac's pricing.] Metlac was one of the suppliers of the five most important

packaging coatings for six of these customers. Their responses, as well as information submitted separately by [REDACTED] in its response to our questionnaire, are summarized in Tables 1 to 3 below. We distinguished between broad categories of products—ie B&B (which is only B2E as Metlac does not supply B2I and BE), Food and C&C. The remaining four customers for which the CC has evidence from the BKartA did not use Metlac as a supplier for their five most important packaging coatings and their information cannot therefore be used to compare Metlac's prices with others.

[In order to respond to the information in Table 2 and Table 3 below, AkzoNobel requires the following information (which it has requested from the CC) – (i) the level at which these price comparisons are made (i.e. by segment, or products for specific end use); (ii) how many data points underpin each calculation; (iii) whether the volumes are comparable or, if not, the level of the discrepancy; and (iv) whether the comparisons are made at the same time period.]

¹² These customers are [REDACTED]. Note, while we have [REDACTED] response to the BKartA questionnaire, we do not have its answer to this specific question and instead we used [REDACTED] response to the CC's Market Questionnaire.

TABLE 1 Metlac's position in terms of price of B&B (B2E) products supplied to customers

Customer	Product	% of total purchases	Other suppliers	Comment	Price difference between Metlac and 2 nd lowest (%)*						
					2007	2008	2009	2010	2011	2012	

Source: [CONFIDENTIAL]

*[REDACTED]
 Note: 'N/A' has been inserted where full data was not available to make the calculation.

TABLE 2 Metlac's position in terms of price of FCG (Food) products supplied to customers

Customer	Product	% of total purchases	Other suppliers	Comment	Price difference between Metlac and 2 nd lowest (%)*						
					2007	2008	2009	2010	2011	2012	

Source: [CONFIDENTIAL]

*[REDACTED]
 [REDACTED]
 Note: 'N/A' has been inserted where full data was not available to make the calculation.

TABLE 3 Metlac's position in terms of price of FCG (C&C) products supplied to customers

Customer	Product	% of total purchases	Other suppliers	Comment	Price difference between Metlac and 2 nd lowest (%)*						
					2007	2008	2009	2010	2011	2012	

Source: [CONFIDENTIAL]

*[REDACTED]
 Note: 'N/A' has been inserted where full data was not available to make the calculation.

26. Table 1 shows the position of Metlac in terms of prices for the [REDACTED] B&B customers for which we have information ([REDACTED]) for seven specific products. For six of the seven products which Metlac supplied, AkzoNobel was also a supplier to the same customer at some point in time. We calculated the percentage price advantage (in relation to the second lowest-priced provider) that Metlac had when it was the lowest- priced supplier. It shows that out of [REDACTED] instances (ie year-customer pairs) for which we could run this comparison:
- (a) Metlac was the lowest-priced provider in **[CONFIDENTIAL]** instances with a price advantage ranging between 1 and 25 per cent (in nine instances the price advantage was larger than 10 per cent);
 - (b) on **[CONFIDENTIAL]** it was the lowest-priced provider alongside PPG; and
 - (c) in [...] per cent of the instances it was not the lowest-priced provider (in **[CONFIDENTIAL]** instances AkzoNobel was the lowest-priced supplier).
27. It is also informative to assess the position of Metlac for the most recent year for each product for which we have this information. For B&B (B2E) Metlac was the lowest-priced provider for all products in the most recent year (in **[CONFIDENTIAL]** Metlac's price advantage was over 10 per cent).
28. Table 2 shows the position of Metlac in terms of prices for the [REDACTED] FCG (Food) customers for which we have information ([REDACTED]) for [REDACTED] types of products. For **[CONFIDENTIAL]** products which Metlac supplied, AkzoNobel was also a supplier to the same customer at some point in time. Out of [REDACTED] instances for which we could run this comparison Metlac was the lowest-priced supplier in **[CONFIDENTIAL]** instances. Metlac's price advantage ranged between 1 and 23 per cent (in **[CONFIDENTIAL]** instances the price advantage was over 12 per cent). For **[CONFIDENTIAL]** Metlac competed with [REDACTED] for five years and had prices higher than [REDACTED] by about 35 to 50 per cent each year.

29. For the most recent year for which we have data, Metlac was the lowest-priced supplier for **[CONFIDENTIAL]** products examined (in **[CONFIDENTIAL]** instances Metlac's price advantage was over 12 per cent).
30. Table 3 shows the position of Metlac in terms of prices for the **[REDACTED]** FCG (C&C) customers for which we have information (**[REDACTED]**) for **[REDACTED]** types of products. For **[CONFIDENTIAL]** products which Metlac supplied, AkzoNobel was also a supplier to the same customer at some point in time. Out of **[REDACTED]** instances for which we could run this comparison Metlac was the lowest-priced supplier in **[CONFIDENTIAL]** instances. Metlac's price advantage ranged between 1 and 24 per cent (in **[CONFIDENTIAL]** instances the price advantage was over 10 per cent).
31. For the most recent year for which we have data Metlac was the lowest-priced supplier for **[CONFIDENTIAL]** products examined (in **[CONFIDENTIAL]** instances Metlac's price advantage was over 12 per cent).
32. Overall, the evidence presented above shows that while Metlac was not always able to offer the lowest prices across the entire period to the customers it supplied, in the large majority of instances for which we have data it was the lowest-priced supplier. In particular, the data and analysis suggest that Metlac had a price advantage especially for B&B and FCG (C&C). For FCG (Food) Metlac showed a strong price advantage overall but less so for the most recent year for which we have data.

Glossary

Act	Enterprise Act 2002.
AkzoNobel	Akzo Nobel N.V.
ANCI	Akzo Nobel Coatings International B.V.
ANPG	Akzo Nobel Packaging Coatings.
B2E	Exterior coatings for beverage two-piece cans .
B2I	Interior coatings for beverage two-piece cans .
B&B	Metal packaging coatings for beer and beverage cans. Beer and beverage cans are largely two-piece cans with pull tab openings, containing a range of drinks including beer, cider, carbonated drinks, energy drinks, fruit juices and water. Three-piece beverage cans are still used, mostly in parts of Asia.
Basecoat	Basecoats are the first layer applied to a metal sheet/can, followed by inks and finally varnish, which may be overvarnish and/or rim varnish. Steel cans all require a basecoat followed by a layer of ink but do not require overvarnish . In the case of aluminium cans, a basecoat is not always used but overvarnish is required. Basecoats are used to provide a clear or white surface on to which to apply the inks, which are used to decorate the can according to the brand owner's design.
BE	Metal packaging coatings for beverage can ends.
BKartA	Bundeskartellamt.
Bocchio family	Mr Pier Ugo Bocchio and his two sons, Davide and Diego.
BPA	Bisphenol-A. BPA is a chemical agent which is present in epoxy resin used in many metallized coatings. BPA is produced by condensing two parts phenol with one part acetone. BPA is a weak hormone (oestrogen) and environmental endocrine disruptor.
BPA free	A substance in which no BPA is detectable.
BPA-NI	Bisphenol-A non-intent. A term used to describe coatings where no BPA has intentionally been included in the ingredients used to make the coating. BPA-NI rather than BPA free is the term generally used in the industry as other substances come into contact with the coating which could contaminate it, making it impossible for coatings manufacturers to guarantee that the coating is BPA free .
C&C	Metal packaging coatings for caps and closures. Caps and closures are lids for glass jars, which include crown caps for bottles, twist-off caps and Roll-on caps and roll-on pilfer-proof bottle caps.
CC	Competition Commission.

DRD	Draw and redraw. A method of shaping cans whereby the can is drawn through a die to form a small cup, then redrawn through additional dies to produce the desired dimensions.
DWI	Drawn and wall ironing. A method of shaping cans whereby the can is redrawn through smaller diameter rings in order to thin the walls while increasing the height.
EBITDA	Earnings before interest, taxation, depreciation and amortization.
Epoxy resin	<p>A family of thermosetting resins known for their excellent mechanical and electrical properties, dimensional stability, resistance to high temperatures and numerous chemicals, and for their strong adhesion to glass, metal, fibres, and numerous other materials. The most common epoxy resins are made by reacting epichlorohydrin with a polyhydroxy compound, such as BPA, in the presence of a catalyst.</p> <p>Usually the major makers of resins and other chemicals for epoxy systems do not supply the finished compounds. The compounding is done by specialized firms and by some large epoxy users. The epoxy resins per se are not finished products, but are reactive chemicals to be combined with other chemicals to yield systems capable of conversion to a predetermined thermoset structure.</p> <p>Source: Van Nostrand's Scientific Encyclopedia, 8^h Edition, Douglas Considine, 1995.</p>
FCG	Metal packaging coatings for Food , C&C and GL .
FDA	US Food and Drug Administration.
FE	Metal packaging coatings for food can ends.
Food	Metal packaging coatings for food cans. Food cans are largely three-piece steel cans for foods such as soups, vegetables and pet food. Two-piece cans are predominantly used for fish and increasingly for pet food.
FQA	Metlac Holding 2007 Formation and Quotaholders Agreement.
GL	Metal packaging coatings for general line. General line is cans and tubes for a broad range of products such as aerosols, cosmetics, chemicals, paints and dry-food products (eg biscuits).
ICI	Imperial Chemical Industries plc.
Monobloc	A process for forming two-piece aluminium containers such as aerosol and bottle cans that starts with an aluminium ingot and forms the metal package through stamping and drawing. The coating is applied after drawing the body, but before shaping the bottle neck and the flange on the top.
Metlac	Metlac S.p.A.

Metlac Holding	Metlac Holding S.r.l.
NPV	Net present value.
OFT	Office of Fair Trading.
Overvarnish	Outer layer of external can coating, usually applied over base coating and ink. Steel cans all require a basecoat followed by a layer of ink but do not require an overvarnish. In the case of aluminium cans, a basecoat is not always used but an overvarnish is required.
Pack test	First step in the can coating qualification process. The new coating is applied to a small number of cans, which are then filled with their intended contents and stored for a period of time before being opened and examined for migration of the coating into the food and for corrosion of the can. The length of time for which the cans are stored depends on the shelf life required of the product by the brand owner. Beverage cans generally only need a shelf life of six months or less, whilst cans of corrosive food, eg tuna or sauerkraut, may need a shelf life of several years. External coatings and those that will not come into contact with food may require shorter and/or less rigorous pack testing.
Quotaholder	The FQA refers to 'quotaholders' which is the title given to the owners of an S.r.l. company but does not differ in any material respect from 'shareholders'.
R&D	Research and development.
Rim varnish	Rim varnish prevents the cans from rubbing together and scratching the design.
Scaling up	Second step in the metal packaging coatings qualification process. It involves the metal packaging coatings manufacturer testing that the coating performs as expected when used in all its plants. This is a particular issue for internal coatings that are applied using a spray technology.
SHA	Metlac 2007 Shareholders Agreement.
SLC	Substantial lessening of competition.
Substrate	The base material used to make metal packaging.
Three-piece can	The majority of food cans are manufactured as three separate pieces, a cylinder, a bottom and a top. The body of the can is welded together, while the ends are seamed into the cans using a sealant compound which ensures the integrity of the can. Three-piece cans are made out of steel as aluminium is not suitable for the welding process used to form the can.
Toll manufacturing	Toll manufacturing is an arrangement whereby a company with specialised equipment processes raw materials or semi-finished goods for another company (www.businessdictionary.com).

Two-piece can

Two-piece cans are manufactured from aluminium or tinplated steel using a **DWI** or **DRD** process. These cans are manufactured as a single cup with a separate lid that is used to seal the can once it has been filled.