COMPETITION COMMISSION

Imerys Minerals Limited and Goonvean Limited

A report on the completed acquisition by Imerys Minerals Limited of the kaolin business of Goonvean Limited

10 October 2013

Website: www.competition-commission.org.uk

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The Competition Commission has excluded from this published version of the report information which the inquiry group considers should be excluded having regard to the three considerations set out in section 244 of the Enterprise Act 2002 (specified information: considerations relevant to disclosure). The omissions are indicated by [✂]. Some numbers have been replaced by a range. These are shown in square brackets. Non-sensitive wording is also indicated in square brackets.

Contents

Page

Table of contents

Page

Summary

1. On 3 April 2013, the Office of Fair Trading (OFT) referred the completed acquisition by Imerys Minerals Limited (Imerys) of Goonvean Limited (Goonvean) to the Competition Commission (CC) for investigation and report. We are required to take our final decision by 12 November 2013.

2. Imerys acquired Goonvean on 31 October 2012. Both parties were engaged in the extraction and supply of kaolin from sites near St Austell in Cornwall. As by-products of the kaolin extraction process, both parties generated material such as sand and rock (aggregate feedstock). Goonvean also operated in the downstream market for the processing and selling of secondary aggregates. Imerys did not acquire the aggregates part of the Goonvean business.

3. Kaolin is a naturally occurring mineral, commonly known as china clay. It is used in the manufacture of a range of products such as paper, for example as filler or for paper coatings; ceramics, for example sanitaryware and tableware; performance-mineral applications, for example paints and adhesives; and life-science applications, for example pharmaceuticals. Before it is supplied for use in these products, kaolin deposits are processed, for example by centrifuging to separate different particle sizes, grinding to produce finer grade kaolin, using magnets to remove other minerals, such as iron, and bleaching to increase whiteness. Kaolin deposits may also be blended with other minerals or other kaolin deposits. The purpose of processing and blending kaolin deposits is to manufacture products which have particular characteristics suitable for the manufacturing processes for which they are being supplied.

4. We concluded that the share of supply test was met and that a relevant merger situation had been created.

5. We concluded that the appropriate relevant kaolin markets were the supply of kaolin for use in paper-filler; paper-coating; sanitaryware; tableware; performance-mineral; life-science; boiler additives; reinforced fibreglass; and refractory applications in the UK.

6. We considered a separate market for secondary aggregates feedstock where the parties overlapped and assessed the relationship between the upstream market for feedstock and the downstream market for processed secondary aggregates in our competitive assessment. We did not consider it necessary to reach a definitive conclusion on the relevant geographic market for aggregates for the purpose of this inquiry.

7. We considered the situation that would have prevailed absent the merger (the counterfactual). We concluded that, in the absence of the merger with Imerys, Goonvean would most likely have remained as an independent kaolin producer and would not have been sold to another purchaser.

8. We also concluded that, in relation to kaolin, Goonvean would have pursued a strategy of increased life-science sales and reduced tableware sales which were dependent on a particular kaolin deposit. We considered it most likely that, for the foreseeable future, Goonvean would not have been seeking new tableware customers in order to preserve its limited deposits. We further concluded that it would have quickly become a less effective competitor in tableware over the period of the counterfactual as, in the very near future, it would have had to have given notice to its UK tableware customers that it would be ceasing supply.

9. We further concluded that, absent the merger, Goonvean would have continued to produce secondary aggregates and supply under its pre-existing long-term agreement. Our view was also that Imerys would not have started to produce secondary aggregates and would have continued to supply aggregates feedstock.

10. We assessed the effect of any loss of potential competition from the kaolin markets in which the parties did not overlap significantly pre-merger: paper-coating, boiler additives, reinforced fibreglass, refractory and life-science applications. In relation to paper-coating and refractory applications, we found that pre-merger Goonvean did not have the necessary processing equipment to produce highly-processed kaolin grades for paper coating or the calcined kaolin which accounted for nearly all sales of kaolin for use in refractory applications. We saw no evidence to suggest that any investments were being planned which would have resulted in Goonvean buying new processing equipment that would have enabled it to supply kaolin to these markets. We further found that Goonvean did not have, nor was likely to acquire, the technology or knowledge required to supply kaolin for use in boiler additives or reinforced fibreglass.

11. We found that the characteristics of Goonvean's kaolin which made it suitable for life-science grades could not be replicated by Imerys because they were based on naturally-occurring features which were not present in Imerys's kaolin. We saw no evidence to suggest that Imerys could extract equivalent quality kaolin or had plans to enter the life-science market.

12. We therefore concluded that the merger had not resulted, and might not be expected to result, in a substantial lessening of competition (SLC) in the markets for the supply of kaolin for paper-coating, life-science, reinforced fibreglass, boiler additive or refractory applications in the UK.

13. We also considered whether the merger would be likely to lead to an SLC in the supply of secondary aggregates feedstock, or in the supply of processed secondary aggregates. Our view was that the merged entity was not likely to enter the market for secondary aggregates nor, were it to do so, that it would have the incentive to foreclose third parties from processing its feedstock. Therefore we concluded that the merger had not resulted, and might not be expected to result, in an SLC in any secondary aggregates market.

14. We assessed the pre-merger competitive situation and the effect on competition of the loss of Goonvean from each of the relevant kaolin markets in which the parties overlapped significantly. We then considered the extent of the competitive constraints which would remain after the merger and therefore the extent of any resulting loss of competition in each of these markets.

Paper filler

15. We found that around 53 per cent of the kaolin produced in the UK was sold for use in the manufacture of paper. Less than 5 per cent of this was sold to UK customers. Each of the three UK producers, Imerys, Goonvean and Sibelco, produced paper-filler kaolin in the UK but the merger parties were the only current suppliers to UK customers.

16. We concluded that there was limited actual competition pre-merger between Imerys and Goonvean to supply kaolin for paper-filler applications to UK customers. We also found that although customers did not generally see the other UK kaolin producer, Sibelco, as an alternative pre-merger and Sibelco was capacity constrained, it had a relatively strong presence in the export market for paper-filler kaolin and was pro-

ducing and selling paper-filler grades which were substitutable with those of the merger parties. There was evidence to support the view that at least two of the largest customers would be able to exercise some buyer power in their future negotiations with the merger parties though we noted that, in a market with negotiated prices, this would not protect other customers. Our view was that the pre-merger constraint from imports in this market was weak.

17. We considered all the evidence and concluded that there may be some limited loss of competition in the supply of kaolin for UK customers for paper filler as a result of the merger. However, taking the evidence in the round, and noting in particular the absence of significant pre-merger competition between the parties, we concluded, on balance, that the merger had not resulted, and might not be expected to result, in an SLC in the market for the supply of kaolin for paper-filler applications in the UK.

Sanitaryware

18. We found that around 25 per cent of UK-produced kaolin was supplied for use in sanitaryware, such as toilets and washbasins. Most of the UK-produced kaolin was exported with less than 5 per cent sold to customers in the UK. Each of the three UK producers supplied to UK customers.

19. Our view was that pre-merger the parties competed with each other to supply kaolin for sanitaryware applications and competed with Sibelco. We found little evidence to suggest that non-UK suppliers were competing with the three UK suppliers pre-merger. We noted the existence of some customer buyer power.

20. We concluded that the merger would result in some loss of competition in the supply of kaolin for manufacturers of UK sanitaryware applications. However, our view was that sufficient constraints would remain in the market post-merger. We concluded, on balance, that the merger had not resulted, and might not be expected to result, in an SLC in the supply of kaolin for sanitaryware applications in the UK.

Tableware

21. Around 8 per cent of UK-produced kaolin was supplied for use in tableware applications and around 90 per cent of this was exported. We found that the merger parties supplied the vast majority of kaolin to UK tableware customers with a small amount of particular grades imported. Sibelco was not active in the UK market.

22. Our view was that switching costs were particularly high in tableware applications and that this limited the ability of customers to switch between suppliers. However, we found that the parties' products were considered by most customers to be the closest alternatives. We found that Sibelco was not a credible alternative, as it did not have the processing equipment to supply the high-quality grades required by UK customers, and that imports were not generally an economically viable option across the full range of products. Therefore, pre-merger, the parties appeared to be closest competitors. We did not find evidence of widespread buyer power among tableware manufacturers.

23. However, we found that there was not significant price competition between the parties pre-merger. Also, based on our analysis of the counterfactual, we concluded that Goonvean was not likely to be in a position to be competing for new customers because of its concerns over the remaining level of its G1 kaolin deposits used in most of its tableware grades sold in the UK. Furthermore, we found that in the very

near future Goonvean would have started to inform its UK tableware customers that its continued supply of G1-dependent tableware grades was likely to end.

24. We concluded that, at the point at which Goonvean started to inform its customers of its depleting G1 reserves, any residual constraint Goonvean would have placed on Imerys would have started to reduce quickly. Tableware manufacturers would not have been able to use the presence of Goonvean in the market as leverage in negotiations as it would have ceased to have been a credible alternative option to Imerys for these customers.

25. On balance, we therefore concluded that the merger had not resulted, or might not be expected to result, in an SLC in the supply of kaolin for tableware applications in the UK.

Performance-mineral applications

26. We found that performance-mineral kaolin was the largest UK market supplied by the parties. These applications accounted for about 13 per cent of UK kaolin production and between 60 and 70 per cent of kaolin supplied for these applications was exported. We found that the merger parties supplied over 90 per cent of the volumes supplied to UK customers with the remainder coming from Sibelco and imports.

27. We found that there was competition between the main parties for performance-mineral customers. However, we found that Goonvean did not appear able to compete against Imerys's highly processed grades supplied to this market. Other than these grades, the parties were each other's closest competitors. We found that Sibelco supplied less than 5 per cent of UK-produced kaolin for performance-mineral applications in either the UK or abroad. Imports to the UK were limited to small quantities of premium grades. We did not find evidence that most customers had sufficiently strong bargaining power that they would be able to resist attempts by the parties to increase prices post-merger.

28. Our view was that the merger reduced the number of significant competitors from two to one in the UK market. We noted that Sibelco supplied very small volumes of kaolin to non-UK customers for performance-mineral applications. We concluded that expansion by Sibelco in the UK market for the supply of kaolin for performance-mineral applications would not be timely, likely or sufficient to prevent an SLC.

29. We concluded that, as a result of the merger, the merged entity would have the incentive and ability to increase prices significantly, or otherwise worsen the offering, to UK customers of kaolin for use in performance-mineral applications. We noted that this incentive and ability would not apply to Imerys's highly-processed kaolin grades for which Goonvean could not provide an alternative pre-merger.[1]

30. Our view was that the efficiencies claimed by the parties to have arisen from the merger were not rivalry-enhancing and therefore were not likely to prevent an SLC. We also concluded that entry into the market by a new UK supplier of kaolin was not timely, likely or sufficient to prevent an SLC.

[1] Imerys's premium Supreme grade and its equivalent highly-processed grades: Aquaflat Supreme, P10, P20, Infilm1735, Infilm 813, HEAVYK, SPS, STO.

SLC decision on performance-mineral applications

31. We therefore concluded that the merger had resulted, or might be expected to result, in an SLC in the market for the supply of kaolin for performance-mineral applications in the UK.

Remedies

32. We published our Notice of Possible Remedies (the Remedies Notice) on 24 July 2013 and sought comments on a number of potential remedies to address the SLC we had found and its adverse effects. These included: full divestiture of Goonvean's kaolin business and assets; partial divestiture of Goonvean's performance-mineral business and assets; and behavioural remedies to control prices and ensure ongoing supply of kaolin products.

33. We invited views from interested parties both on these remedies and on whether there were other remedies which we should consider. Imerys provided details of two potential remedies that it considered would be effective: a partial divestiture remedy under which Goonvean's UK performance-mineral customer details and associated assets would be divested to a third party kaolin supplier with provision for a transitional supply arrangement for the relevant grades while the purchaser developed its own supply; and a price control for Goonvean's and Imerys's existing performance-mineral customers. We also consulted interested parties on these proposed remedies.

34. We concluded that the partial divestiture options were not likely to be effective. We found that there would be a substantial composition risk associated with identifying and separating assets involved in producing kaolin grades for performance-mineral customers from those used to produce other kaolin grades. This was because the use of these assets was shared to produce kaolin grades supplying a number of different markets.

35. We considered that the proposal for divestiture of customer details and related assets with a transitional supply agreement would not be effective because there was significant uncertainty that a potential purchaser could bring its own production on stream within a reasonable time. Furthermore, the transitional supply agreement would create a close commercial relationship between Imerys and the purchaser. Imerys would have continued visibility of customers' volumes and prices and the purchaser would be dependent on Imerys for supply of the product during the transition period.

36. We concluded that there were two effective potential remedies: a full divestiture of Goonvean's kaolin business and assets; and a five-year price control for existing customers, comprising a price cap at existing ex-works prices until 2015 followed by a Retail Price Index (RPI) minus 0.5 per cent price cap for the period 2016 to 2018 inclusive for Goonvean and Imerys performance-mineral customers. We identified a number of divestiture risks associated with full divestiture and noted that the scope was substantially wider than the product market in which an SLC had been identified. We also identified a number of risks associated with a price control. For example, a price control could have distortion effects although we noted that these risks were significantly limited by a five-year duration to the remedial action.

37. We assessed the proportionality of the effective remedies which we had identified. We noted that full divestiture would result in Imerys forgoing any efficiencies that could be expected to arise from the merger and that the scope of the SLC we had identified was small relative to the range of markets that Goonvean served. We found

that even a small loss of the efficiency benefits that could have flowed to customers across all markets as a result of the merger would be likely to outweigh the benefits of a divestiture in the market where we had identified an SLC.

38. We considered that the price control remedy should not lead to significant costs. We sought to minimize distortion costs by limiting the duration of the price control to five years and noted that monitoring and enforcement costs should be modest due to the simplicity of the remedy and its transparency to customers. The price control remedy was also more closely aligned with the SLC that we found compared with a full divestiture.

39. We therefore concluded that the most effective and proportionate remedy was a price control remedy for five years for kaolin supplied for use in performance-mineral applications to existing Goonvean and Imerys customers.

Findings

1. The reference

1.1 On 3 April 2013, the OFT referred the completed acquisition by Imerys of the kaolin business of Goonvean to the CC for investigation and report under the Act (the reference).

1.2 The CC must decide under section 35 of the Enterprise Act 2002 (the Act):

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

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

1.3 Our terms of reference are in Appendix A, together with an explanation of how we conducted our inquiry and the steps we took to ensure the separate and independent operation of Imerys and Goonvean during the course of our inquiry. We were required to take our final decision by 12 November 2013.

2. The companies and the relevant merger situation

2.1 Imerys and Goonvean were both involved in the extraction and supply of kaolin and other minerals. They operated from plants in Cornwall including from adjacent quarries near St Austell.

Imerys

2.2 Imerys[2] was a subsidiary of Imerys SA, a large multinational listed on the French stock exchange. In 2012, the Imerys Group had a turnover of €3.9 billion. Imerys SA was the world's largest producer of kaolin with major operations worldwide including the USA and the Amazon basin. Imerys had a turnover of around £158 million in 2012.

Goonvean

2.3 Prior to the transaction, Goonvean[3] was a subsidiary of Goonvean Holdings Limited (GHL). Goonvean was a privately-owned business and the largest independently-owned kaolin producer in Europe.

2.4 Goonvean's turnover was £21.2 million in the financial year to 30 September 2011. £[✂] million of this was attributed to the sale of kaolin with the remainder earned through sales of secondary aggregates. The secondary aggregates business was not acquired by Imerys and remained under private ownership as a subsidiary of GHL and became known as Goonvean Aggregates Limited (GAL).

The relevant merger situation

2.5 A relevant merger situation has been created if:[4]

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[2] Further information about Imerys's activities is set out in paragraph 3.13.
[3] For further information about Goonvean's activities, see paragraph 3.14.
[4] Sections 23 and 24 of the Act.

(a) two or more enterprises have ceased to be distinct enterprises not more than four months before the reference is made; and

(b) either:

(i) the value of the turnover in the UK of the enterprise being acquired exceeds £70 million; or

(ii) the enterprises which cease to be distinct have a combined share of supply of goods or services of any description in the UK, or a substantial part of the UK, of at least one-quarter.

2.6 On 31 October 2012,[5] Imerys acquired the entire issued share capital of Goonvean and in doing so acquired full legal control of Goonvean's kaolin business (the transaction).[6] The total consideration paid was £[✂] million.[7] The parties completed the transaction on 1 November 2012 and informed the OFT on 5 November 2012 when it was also made public. The OFT extended the statutory period for making a reference to 8 April 2013[8] and made its reference decision on 3 April 2013.

2.7 The parties submitted that the transaction qualified for investigation as the parties together supplied more than 25 per cent of kaolin for various applications in the UK.[9] On the basis of the information in paragraphs 2.2 to 2.7, we considered that Imerys and Goonvean were enterprises within the meaning of the Act and had ceased to be distinct as a result of the transaction. As the parties' combined share of supply of kaolin for the various applications that we considered during our inquiry exceeded 25 per cent[10] in the UK, with an increment attributable to Goonvean, our view was that the share of supply test was met.

2.8 We therefore concluded that a relevant merger situation had been created.

3. Kaolin production and uses

3.1 Imerys and Goonvean overlapped in the production and supply of kaolin. This section briefly describes kaolin; how it is extracted and processed; current and historic levels of kaolin production in the UK; and the main suppliers in the UK. It also describes the products for which kaolin is primarily used. Further background information on the industry is provided in Appendix C.

Kaolin extraction and processing

3.2 Kaolin is a naturally occurring mineral, commonly known as china clay, and predominantly mined in open pits. It has traditionally been extracted by blasting the rock face with strong water jets in a process known as hydraulic mining. This separates the kaolin from the rock and washes it out.

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[5] Further details of the companies and the transaction are described in Appendix B.
[6] The transaction did not include Goonvean's secondary aggregates business. On the same day as the acquisition, Imerys and Goonvean entered into a long-term supply agreement with what is now GAL. Under this agreement, Imerys supplies GAL with kaolin waste material for use in its secondary aggregates business. The agreement does not preclude Imerys from providing kaolin waste material to other aggregate manufacturers under its current arrangements with Aggregate Industries Limited and Brookland Sand & Aggregate Limited or to alternative third party aggregate producers.
[7] [✂]
[8] Pursuant to section 25(1) and (2) of the Act respectively.
[9] Goonvean generated turnover in the UK for the financial year ending 2012 of approximately £1.9 million. Consequently, the turnover test, as set out in section 23(1)(b), is not met.
[10] On the basis of volume in tonnes as supplied by the parties.

3.3 Kaolin is a soft, earthy, white mineral which remains chemically inert over a wide pH range and is valued for its whiteness and strength. The characteristics and exact chemical composition of the extracted kaolin, and therefore its quality, vary between quarries and deposits within the same quarry. Suppliers adopted internal classifications of these deposits. For example, Goonvean referred to its high-quality G1 deposits; Imerys described its higher-quality deposits as '[✂]'.

3.4 We were told that the extraction process generated large amounts of waste material. It was estimated that for every 1,000 tonnes of kaolin extracted, around 9,000 tonnes of waste was generated.[11] If waste material was not used as secondary aggregates,[12] and not all waste material was suitable, it had to be disposed of in a tip.

3.5 Before the extracted kaolin was supplied to customers, the deposits might be processed in various ways to improve desirable attributes or eliminate impurities or undesirable attributes. Processing could involve grinding to produce finer-grade kaolin; centrifuging to extract kaolin from coarser material; magnetic separation to remove other minerals such as iron; drying to remove water and colour-beneficiating techniques, such as ozone bleaching to increase whiteness. This processing produced hydrous kaolin.

3.6 Different kaolin deposits might also be blended and other minerals might be added, such as bentonite, to improve certain attributes.[13] The results of the blending and processing were kaolin products, known as grades, and sold for various uses. The aim of the processing, blending and introduction of additives was to create grades which had specific characteristics to enable their use in the manufacture of particular end-products (applications).

3.7 Kaolin might be processed further to produce calcined kaolin. We were told that calcined kaolin was produced by heating natural kaolin to very high temperatures in a kiln. The calcination process increased brightness of the kaolin by burning off organic matter, and increased the strength of the kaolin, improved refractory properties, and altered the size and shape of the particles. We were told that Imerys was the only producer of calcined kaolin in the UK. For the remainder of this report, all references to kaolin are to hydrous kaolin unless otherwise specified.

3.8 Kaolin grades were generally sold under trade names. For example, Goonvean sold grades such as Diamond Star and Diamond Porcelain for use in tableware; Imerys sold grades such as Standard Porcelain and Regal for use in the same application. Although kaolin grades from different producers might be supplied for the same applications, each producer's kaolin grades were unique due to the combinations of kaolin deposits used and the level of processing involved. Customers might also mix kaolin grades from different suppliers in the manufacture of their final products.

3.9 Therefore, the particular markets, and the individual customers within each market to which kaolin producers could supply, depended on a combination of factors: the raw kaolin available; the extent of the processing applied to the kaolin; and how the various available sources of kaolin and other additives are blended. The characteristics of different kaolin grades and the production processes are described in more detail in Appendix D. The ability of UK producers to supply kaolin for particular appli-

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[11] British Geological Survey, Natural Environment Research Council, Mineral Planning Factsheet: www.bgs.ac.uk/mineralsuk/planning/mineralPlanningFactsheets.html.

[12] Aggregates are the granular base materials, usually crushed rock or sand, used in a variety of construction purposes. Secondary aggregates are aggregates where the material used to make the aggregate is a by-product of another process (in this case kaolin mining).

[13] The blending process may involve mixing kaolin from different quarries and, on occasion, different suppliers.

cations, or their potential to do so, is discussed in our assessment of the competitive effects of the merger.

UK kaolin production

3.10 Kaolin has been mined in the UK since the mid-18th century. At the time of the merger, kaolin production was principally confined to the area surrounding St Austell in Cornwall with the remainder coming from an area around the edge of Dartmoor in Devon.

3.11 The British Geological Society (BGS) considered the UK to be the world's third largest producer and exporter of kaolin after the USA and Brazil. Approximately 88 per cent of the kaolin produced in the UK was exported and Europe was the largest export destination. The total annual value of UK kaolin sales was around £155 million.

3.12 Parties told us that there had been a significant decline in the production of kaolin in the UK in recent years for a range of reasons. There had been a marked decline in the number of UK-based ceramic (tableware and sanitaryware) manufacturers and an increase in ceramic production abroad. The parties said that this had led to overseas businesses sourcing kaolin locally thus avoiding transportation costs. In addition to this, there had been a decline in UK paper production which had reduced the kaolin volumes supplied to the paper industry. In more recent years, the main parties told us that the paper industry had also adopted alternatives to kaolin, such as calcium carbonate, in its manufacturing processes. In 2008, Imerys moved production of its paper-coating kaolin from the UK to Brazil, which also contributed to the fall in the UK production of kaolin.

3.13 Imerys was the largest kaolin producer in the UK and accounted for over two-thirds of the UK's total output. It operated six quarries in the UK around St Austell in Cornwall, from which it produced around [✂] tonnes of kaolin in 2012. Approximately [80–90] per cent of this UK production was exported. Imerys's total sales, including exports and kaolin imported by Imerys, from its UK facilities were £[✂] million in 2012.

3.14 In 2012, Goonvean produced around [✂] tonnes of kaolin from five quarries in the area surrounding St Austell. Approximately [80–90] per cent of this UK production was exported. Goonvean's total sales of UK kaolin in 2012 were £[✂] million, including exports.

3.15 In addition to the main parties, the other UK supplier of kaolin was Sibelco. Sibelco was owned by a Belgium parent company, SCR Sibelco, which was a large multinational operating 228 sites across 41 countries for kaolin and other minerals. Sibelco's operations had been producing kaolin in Devon for 100 years. It told us that it had four quarrying areas at its Cornwood site in Devon: Lee Moor, Shaugh, Headon and Hemerdon. Sibelco leases Lee Moor and Hemerdon from Imerys under a long-term lease. Sibelco produced around [✂] tonnes of kaolin in 2012, of which around [✂] tonnes were sold to UK manufacturers of sanitaryware and performance-mineral applications and a further [✂] tonnes were sold to [✂].

Use of kaolin

3.16 We were told that kaolin was used in a wide range of products across a number of sectors. There were broadly four main applications within which a large number of different products using different mixes of kaolin grades were produced: paper, sanitaryware, tableware and speciality applications, including paints, adhesives and

life-science products. In addition to these four main applications, we were told that kaolin was also used for reinforced fibreglass; boiler additives; and refractory applications.

3.17 As we set out in paragraph 3.16, kaolin grades were produced with different characteristics which were important in the manufacturing of particular end-products. These characteristics included: brightness; colour; particle size; pH level; plasticity; viscosity; casting concentration; casting rate; fired properties; and chemical elements, such as iron content. Depending on the product being manufactured, these characteristics were important for different applications. For example, in the production of ceramics, kaolin was fired and cast; the fired properties and casting rate were therefore more important for these products than, for example, paper where the kaolin would not be subject to the same processes.

3.18 Individual grades, and blends of grades, might be supplied for use in more than one application. For example, some grades were used in both [✂]. The properties of different grades of kaolin and how they might be blended to supply different applications is discussed in more detail in Appendix D. These properties varied substantially even across kaolin grades sold for use in the same application. For example, Goonvean's five main tableware grades sold in the UK varied in terms of their particle size and plasticity.

3.19 A common feature of each application was that manufacturers would buy and mix different grades of kaolin and combine kaolin with other minerals and raw materials to manufacture their final product. Customers within each application told us that how the various raw materials were combined was crucial and variations in this mix affected performance. Therefore, changing the mix of minerals, or a particular kaolin blend within this mix, generally required testing and potentially a reformulation of the product 'recipe'.

3.20 We describe briefly below each of the main applications, how kaolin was used in the manufacture of these products, and the particular characteristics of the kaolin, and therefore grades, which were important to customers.

Paper

3.21 Around 50 per cent of the kaolin produced in the UK was sold for use in the manufacture of paper and the vast majority of this kaolin was exported.[14] Kaolin was used as paper filler or in paper coating.

3.22 We were told that kaolin was used in paper filler to alter the properties of wood fibres primarily to increase the opacity and brightness of the end-product. Manufacturers of paper filler therefore bought kaolin grades which provided these characteristics. Kaolin was also around three to four times cheaper than wood pulp or recycled pulp. Paper filler did not generally require high-quality kaolin grades.

3.23 When used in paper manufacture, higher-grade kaolin was predominantly used for paper coating. A paper manufacturer told us that small amounts of kaolin were used as an ingredient in its paper-coating mix to provide a gloss finish. At the time of our inquiry, no paper-coating kaolin was being produced in the UK; Imerys imported and sold paper-coating kaolin in the UK from Brazil.

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[14] Around [✂] per cent of the parties' kaolin for paper is exported. See paragraph 7.8.

Sanitaryware

3.24 We found that around 24 per cent of UK-produced kaolin was supplied for use in sanitaryware, such as toilets, washbasins and tiles. These sanitaryware kaolin grades were mainly exported.[15] Kaolin contributed to the casting and firing in the production of these products. High-grade kaolin was not generally widely used for sanitaryware production as kaolin was not used to provide brightness and gloss in these products and plasticity was less important.

Tableware

3.25 Around 10 per cent of UK-produced kaolin was supplied for use in tableware applications, including glazes, and around 91 per cent of this was exported. Kaolin added whiteness and contributed to the brightness and finish of tableware. Its plasticity and fired properties were also important in tableware production. Kaolin grades for use in tableware tended to have higher plasticity and finer particle sizes than sanitaryware grades. Some of the lower-end tableware grades had similar characteristics to the higher-end sanitaryware grades and such grades might be used in the production of both sanitaryware and tableware products.

Performance-mineral applications

3.26 Kaolin was also used in a wide range of other products, generally categorized as performance-mineral applications, and included paints, rubbers, explosives, tape, plasterboard and adhesives. For many of these applications, it was the brightness and particle size of kaolin that were important. Kaolin also provided texture for certain rubber products. We found that these applications accounted for about 13 per cent of UK kaolin production and around 66 per cent was exported.

3.27 As the kaolin was not fired in the manufacture of these products, the chemical make-up of the kaolin was less important than the physical properties relating to brightness and particle size. We found, though, that there was a significant variation in the properties of kaolin grades used in specialty applications, ranging from relatively low-brightness, coarse particle grades to relatively high-brightness and fine particle size grades.

3.28 There was a range of products within this category and for some products within this range a more highly processed kaolin grade was required. For example, the parties told us that performance-mineral grades were used in gloss, semi-gloss and matt paints. However, most performance-mineral kaolin grades could not be used in gloss paints as the particle sizes were too large. The parties classified these grades into two broad categories: commodity performance minerals and premium performance minerals, though these terms were not widely used by customers so we do not adopt them in this report.[16] We took into account differences in the extent to which grades are processed, or relied on particular raw materials, in our assessment of the relevant market and competitive assessment.

[15] Around [✂] per cent of UK produced kaolin for sanitaryware is exported.
[16] In Appendix I we describe the different types of performance-mineral grades and, where appropriate, analyse these premium and commodity grades separately. See Appendix I, paragraphs 4–6.

Life-science applications

3.29 We were told that kaolin products were also used in life-science applications such as pharmaceuticals, veterinary products and crop protection, though supply to some of these markets required accreditation. For example, pharmaceutical-grade kaolin could only be supplied if it conformed to the British, European or US pharmacopoeia standards.[17] Similarly, kaolin used in animal feeds had to be accredited by FEMAS (the Feed Materials Assurance Scheme). Kaolin supplied for these products might require a particular chemical make-up, such as an absence of arsenic. Around [✂] per cent of kaolin produced in the UK was supplied to life-science applications, and Goonvean was the only UK producer of kaolin for these applications.

Other applications

Fibreglass

3.30 Around [✂] per cent of UK-produced kaolin was supplied for use in fibreglass applications. Kaolin grades were used to ensure the finished fibreglass product's resistance to chemical and physical attacks. Imerys produced two specialist kaolin grades which were supplied for use in reinforced fibreglass and was the only UK supplier of kaolin for this use. Imerys was the only UK supplier of kaolin for this purpose.

Boiler additives

3.31 Imerys also supplied a specialist kaolin grade for use in boiler additives. Volumes supplied for this purpose accounted for a negligible amount, less than 100 tonnes in 2012, of UK-produced kaolin. Imerys was the only UK supplier of kaolin for this purpose.

Refractory applications

3.32 Kaolin was also supplied for use in refractory applications where the ability of the product to retain its strength at high temperatures was important, such as in insulation bricks and mortars used in metal melting and foundry industries. Most kaolin supplied for customers in the UK refractory applications was calcined though some hydrous kaolin was also supplied. Less than 1 per cent of UK-produced hydrous kaolin was supplied for use in these applications.

4. The relevant market

4.1 In this section, we set out our findings on the relevant market. The purpose of market definition in merger analysis is to provide a framework for the analysis of competitive effects.[18] However, in analysing the competitive effects of the acquisition, market boundaries do not determine the outcome of our analysis in any mechanistic way. Regardless of our chosen market definition, we take into account broader competitive constraints as appropriate. Accordingly, in assessing whether the acquisition may give rise to an SLC, we may take into account constraints outside the market,

[17] See, for example, www.pharmacopoeia.gov.uk/.
[18] *Merger Assessment Guidelines, CC2 (Revised)*, September 2010 (the Guidelines), section 5.2.

segmentation within the relevant market, or other ways in which some constraints are more important than others.[19]

4.2 There are normally two dimensions to the relevant market: a product dimension and a geographic dimension. We consider these separately below in relation to kaolin products. We then consider the product and geographic markets for aggregates.

Kaolin

Product markets

4.3 It is usual to define markets using the hypothetical monopolist test. This test delineates a set of substitutable products over which a hypothetical monopolist would find it profitable to impose a small but significant non-transitory increase in price (SSNIP).[20] There were limitations to applying this test when considering the extraction and supply of kaolin because prices were not posted but were negotiated on a customer by customer basis.[21]

4.4 Furthermore, as we set out in Section 3 and Appendix D, we found that kaolin was not a homogeneous product. Deposits varied in composition and could be processed in different ways. Therefore, to an extent, each supplier's kaolin grades were differentiated from each other and from those of other suppliers. This also had implications for how we defined the product market.

4.5 Since each customer had an individualized price and might purchase a bespoke product, each customer could have different preferences for substitutes to other customers, and could be considered as a separate market. In this case, for tractability, we considered together customers who purchased kaolin for similar end-applications.

4.6 Our starting point was therefore to take the individual grades produced by the parties for use in a certain customer application as the narrowest group of products which could form a relevant market. We then assessed whether the market should be widened by considering demand-side and supply-side substitution. In doing so, we took into account the views of the main and third parties and the applications for which kaolin was used, as summarized in Section 3.

4.7 We have identified nine candidate product markets by application. These were:

(a) kaolin grades used as *paper filler*;

(b) kaolin grades used in *paper coatings*;

(c) kaolin grades used in *sanitaryware* products;

(d) kaolin grades used in *tableware* products;

(e) kaolin grades known as *performance minerals*, primarily used in paints, sealants, rubbers and adhesives;

(f) *life-science kaolin*, such as kaolin grades supplied to pharmaceuticals, cosmetics, veterinary and crop protection, some of which has to be accredited for use;

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[19] The Guidelines, paragraphs 5.2.20 & 5.2.2.
[20] See the Guidelines, paragraphs 5.2.1–5.2.2.
[21] We note that in other cases with negotiated prices we have considered that the hypothetical monopolist test would be met if the hypothetical monopolist was able to negotiate profitable prices to customers that were on average higher by a SSNIP.

(g) kaolin grades used in *boiler additives;*

(h) kaolin grades used in *reinforced fibreglass*; and

(i) kaolin grades used in *refractories.*

4.8 The relevant product market is identified primarily by considering the degree of demand-side substitution for the individual grades supplied by the parties into each of these applications; that is, the likely response of customers to an increase in price and the extent to which, in this case, they could substitute the kaolin grades they purchased for other kaolin grades or other minerals which might perform the same or similar functions in the production process. We also considered supply-side substitution: the extent to which firms had the ability and incentive to shift capacity quickly between the production of different grades depending on the demand for each.

Main party views

4.9 The main parties told us that they considered it appropriate to assess markets by reference to customer application since the extent and source of potential substitution varied by application. However, they also argued that there was some substitution between kaolin for different applications, since a number of grades were sold for use in more than one application. For example, they told us that they supplied a number of grades which were used in both [✂].[22]

4.10 Furthermore, the parties said that there were alternative minerals which could, at least in part, be substituted for kaolin, such as calcium carbonates in paper-filler and performance-mineral applications, talc in performance-mineral applications, and ball clay in ceramic applications.

4.11 In respect of supply-side substitution, Imerys submitted that there were a number of options available to switch processing technology to modify the grades of kaolin produced and their end-use. It had switched its processing technology on a number of occasions in order to improve efficiency, profitability and the sustainability of existing products. Imerys's view was that, subject to capacity constraints, kaolin could be processed or blended as required in order to produce different kaolin grades, with the exception of performance-mineral grades, which it argued were dependent on the availability of suitable deposits.

4.12 Goonvean noted that kaolin was processed to produce different kaolin grades. For example, a supplier with the processing equipment to supply paper filler could also supply most other grades. Goonvean also said that there were limitations: for example, higher-value tableware grades and certain performance-mineral grades required centrifuges which were not available to all suppliers. The parties also noted that the supply of kaolin for certain life-science products required particular deposits; that is, those free from heavy metal contamination and dioxins, rather than processed kaolin.

4.13 Both parties said that there were particular specialized grades of kaolin for use in certain applications which required a high level of expertise and specialized production capabilities. Specifically, Goonvean told us that it did not have the technology or knowledge to produce the more advanced kaolin grades used in reinforced fibreglass and boiler applications.

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[22] The parties also identified a number of its grades which were used in both [✂] (see Appendix D).

Third party views

4.14 Customers consistently told us that they had specific preferences for kaolin with particular properties. For example:

(a) Paper-filler and performance-mineral customers attached more importance to the particle size of the kaolin grades.

(b) Paper-coating customers used kaolin to provide a gloss finish.

(c) Tableware customers required kaolin grades that provided whiteness and plasticity, were low in iron content and had good fired contraction and casting properties.

(d) Sanitaryware customers purchased kaolin grades that had good casting properties.

(e) A manufacturer (Norbord Europe Limited) used kaolin as a boiler additive to improve the operating performance and efficiency of its heat energy plant.[23]

4.15 We noted customers' views on their ability to substitute between different kaolin grades according to the different kaolin properties desirable for each application:

(a) Kaolin grades purchased for paper-coating purposes were of higher quality and could not be substituted with the lower-quality paper-filler grades.

(b) Tableware manufacturers could not use sanitaryware grades for high-quality tableware because they did not provide the necessary whiteness. Sanitaryware grades could be used for lower-quality earthenware.

(c) Sanitaryware manufacturers did not require as high-end kaolin as tableware manufacturers.

(d) Performance-mineral customers purchased kaolin for use in products such as paints and sealants. Within performance minerals, Imerys had a premium grade (Supreme) that was of higher quality than the other performance-mineral grades, and there might be limited substitutability from the high-quality to the lower-quality performance-mineral grades.

(e) Boiler additives and reinforced fibreglass required highly specialized kaolin grades and could not be substituted with other kaolin grades supplied for other uses.

4.16 Customer views were consistent on the extent to which kaolin could be substituted for other products. Customers told us that kaolin could not be substituted away completely for technical reasons, or that to do so would not be economical. For example, third parties involved in paper manufacture suggested that they had substituted from kaolin to calcium carbonates as much as possible given their production processes and further substitution would be difficult.[24] Similarly, a customer using kaolin for performance-mineral applications suggested that it used more of other minerals and

[23] See Appendix D.
[24] See Appendix F.

less kaolin in some of its products produced outside the UK but that the end-product characteristics differed as a result.[25]

4.17 Evidence from customers also suggested that trialling and switching kaolin grades or suppliers was costly, time-consuming, and involved a risk, although this varied by customer and by application, with customers in tableware in particular facing more significant barriers to switching. Although it could be managed within a time frame of around one year, most suggested that this would generally not be seriously considered unless price rises were substantial.

4.18 Other suppliers' views were broadly consistent with the parties on the scope for supply-side substitution. For example, Sibelco indicated that there was some potential for supply-side substitutability between kaolin grades but there were limitations. For example, switching supply to some higher-end markets, such as kaolin for high-end tableware, through increased processing facilities and/or using additives was not necessarily economically viable.[26]

Our assessment

4.19 Based on main party and third party evidence, we found that the physical and chemical properties of kaolin were very important in a customer's decision to purchase a particular kaolin grade. As the grade influenced the properties and performance of the finished product, the degree to which a customer could substitute one kaolin grade for another was influenced by the characteristics of a kaolin grade.

4.20 We compared the key properties of Imerys's and Goonvean's main kaolin grades in the UK. In general, we observed quite a significant variation in the key characteristics across the different grades and between the parties. This suggested that the ability for demand-side substitution might be limited. In effect, this could mean that customers would not switch to an alternative kaolin grade in response to a SSNIP because a product with the same or similar characteristics was not available and the characteristics of the product were more important to the customer than the price. In this context, we also observed from our pricing analysis a significant dispersion of prices within and between kaolin grades.[27]

4.21 We observed that there is potential for substitutability between kaolin grades supplied to different applications, [✂]. This was because the key characteristics were similar for some grades and our analysis of sales data showed that some kaolin grades were used in more than one application. This potential substitutability across some applications was consistent with the arguments of the main parties.

4.22 We found that the ease with which customers could switch between grades might also depend on the volumes they purchased and the capacity and logistics arrangements of alternative suppliers. The ease of switching differed by application and, sometimes by customer.

4.23 Although the main parties submitted that customers were sophisticated and it was relatively straightforward for them to switch, evidence from some customers suggested that the cost of switching could be relatively high.[28] This was due to the fact that the new kaolin grades had to be suitable for customers' product recipes. To assess whether switching was possible, there was a trialling period of 6 to 18 months

[25] See Appendix I.
[26] These issues are discussed in further detail in paragraphs 6.8–6.34.
[27] See pricing analysis in appendices F to I.
[28] Customers' views on switching are summarized in Appendices F–I on the relevant application.

which might or might not at the end result in adopting a new suitable grade. If an exact match was not found, customers might need to reformulate substantially their recipes and re-engineer elements of their processes. This might entail incurring significant costs and risks associated with the quality and properties of customers' end-products.

4.24 We saw little evidence of customers switching from kaolin to other non-kaolin products in response to small increases in price of kaolin in all applications, although customers might alter the proportions of kaolin and other ingredients used in their formulations when they reformulate. In paper filler, historically there had been substitution of kaolin with calcium carbonate, but UK paper customers told us that further substitution was unlikely in response to small price increases for kaolin.

4.25 There was some evidence to support the view that suppliers could switch the production of different grades, though the extent to which they could do this was limited by the inherent characteristics of their raw material and their processing facilities. We observed a large degree of similarity between the processing steps adopted by Imerys and Goonvean, though there were differences. Imerys had greater processing capacity and certain processing abilities that Goonvean did not, such as high-powered magnets and a centrifuge. In the case of Sibelco, its processing facilities were organized to produce a limited range of kaolin grades from its available deposits (see paragraphs 6.22 to 6.26).

Conclusion on product market definition

4.26 We considered whether there was potential for demand-side substitution by customers between different grades of kaolin for different applications, or to other minerals, such as calcium carbonates. The evidence showed that there was little scope for substitution between kaolin and other minerals and limited demand-side substitution between different kaolin grades. This was because of the differentiation of grades by their characteristics and price. Also the cost of switching for some customers could be high, limiting the extent to which they would switch in response to small price increases.

4.27 We also considered whether there was potential for supply-side substitution by kaolin producers. Despite the fact that kaolin suppliers produced a range of grades, we found limited substitutability on the supply side in response to small changes in price across applications, as suppliers were constrained by factors such as the availability of suitable deposits, their processing capabilities, capacity constraints and the economic incentives to switch production.

4.28 The limited evidence of switching and potential switching that we identified was between different suppliers' grades for the same application.[29] The alternatives available to customers within particular applications were likely therefore to be similar. This suggested that defining separate markets for different kaolin applications would provide a useful framework for considering the competitive effects of the merger. We noted that a similar approach had been adopted by the European Commission in the consideration of previous mergers involving kaolin suppliers.[30]

4.29 In doing so, we recognized that, from a commercial perspective, quarries were mined in order to produce kaolin for various different uses rather than a single application.

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[29] We consider recent switching events and threats to switch in our assessment of pre-merger competition in relation to each application (see appendices F to I).
[30] See, for example, Case No. *M.1381 Imetal/English China Clays,* a decision by the European Commission dated 26 April 1999.

We also noted that the alternative options available to customers within individual applications might differ between customers and we took this into account in our assessment of the competitive effects of the merger.

4.30 We concluded that there were nine distinct product markets for kaolin sold for use in the following applications: paper filler; paper coating; sanitaryware; tableware; performance minerals; life sciences; boiler additives; reinforced fibreglass; and refractories.

4.31 We defined separate markets by the end-product, or range of products, for which similar kaolin grades providing similar characteristics were used. In doing so, we recognized that in some cases the end-products, and the kaolin grades used to manufacture them, were differentiated. For example, in defining our performance-mineral market we included applications which used grades supplied to add brightness and colour, such as paints and adhesives. However, some of the grades supplied to this market were highly processed and were used primarily in specific product ranges, such as gloss paint, for their particularly high brightness and fine particle size. These highly-processed grades included grades such as Imerys's Supreme and its calcined kaolins.[31]

4.32 We took into account in our competitive assessment the extent to which there is substitution between these highly-processed grades and other performance-mineral grades and, therefore, the extent to which the merger parties competed. In doing so, where appropriate, we considered particular grades as segments within our market for performance minerals and assessed the competitive constraint on these grades separately.

Geographic markets

4.33 As with our definition of the product market, we assessed the extent of the geographic market using the hypothetical monopolist test which delineates a market as a set of geographic areas over which a hypothetical monopolist would find it profitable to impose a SSNIP.[32]

4.34 Our starting point was the narrowest geographic area that could form a relevant market. The main parties and Sibelco were located in Cornwall and Devon but we did not find it useful to delineate local markets since competitive conditions were the same throughout the UK (ie these were the only three domestic suppliers to all customers in the UK). Our candidate market for applying the SSNIP framework was therefore the UK, since competition took place at least on a UK-wide basis.

4.35 We assessed whether the boundaries of each of the relevant product markets should be widened by considering whether there was substitutability on the demand side between kaolin produced in the UK and kaolin produced elsewhere in Europe or the rest of the world. We also considered whether customers negotiated prices on a UK-wide, on a pan-European basis, or wider.

Main party views

4.36 The main parties submitted that the relevant geographic markets for kaolin were at least as wide as the EEA and for some applications worldwide and that there were no barriers to international trade and specifically to imports into the UK. They pointed to

[31] See paragraph 3.7.
[32] The Guidelines, paragraph 5.2.21.

significant cross-border trade both between the UK and the EEA/rest of the world, within the EEA, and between the EEA and the rest of the world. The main parties highlighted that both of them had found it profitable to make a large number of export sales at delivered prices which were highly competitive or lower than delivered prices in the UK. These exports included from the UK to France and Germany where significant local producers were present, suggesting that the presence of local producers was not a barrier to imports in these countries.

4.37 The main parties also argued that Cornish kaolin was not unique. They said that many kaolin deposits in quarries in Continental Europe, the USA, South America and Asia had similar properties to Imerys's and Goonvean's kaolin deposits in Cornwall.

4.38 The main parties told us that neither transport costs nor other logistics issues were barriers to non-UK suppliers importing into the UK.[33] Based on their analysis of transport costs, they argued that the incremental cost of importing would be no higher than [✂] per cent of delivered price, depending on the grade and application and the assumed supply chain. They also pointed out the ability of marine freight to accommodate different load sizes, forms/packaging, and product mixes, such as different kaolin grades or kaolin and other minerals. Therefore, they argued, there were no logistical barriers to importing into the UK.[34]

4.39 The main parties also argued that the geographic level at which some prices were negotiated, and the similarities between Cornish kaolin and that produced elsewhere in the world, both pointed to a wider geographic market. Specifically, they noted that negotiations with some customers, such as [✂] and [✂], were on a pan-European basis. They also submitted that non-UK producers had kaolin grades that could be substituted for kaolin grades of the main parties, and they had incentives to supply to UK customers.[35]

Third party views

4.40 We received differing views from third parties, but the vast majority suggested that the relevant geographic market was no wider than the UK. While Sibelco and some distributors noted that they were exporting to many different countries, or that they could offer non-UK produced kaolin to UK customers, they told us that transport costs were likely to be a barrier to imports into the UK. Relevant factors were the relative cost of transportation, particularly for lower-value kaolin grades, and the load sizes required to import economically. This was seen as the main difference between imports and exports: the 2,000 to 3,500 tonne vessels used as a minimum for exports were considered too large relative to the size of the UK customer base and thus acted as a barrier to imports.

4.41 For the vast majority of customers, and across all applications, importing kaolin was not an option they had seriously considered given that there were suitable UK suppliers. Customers generally considered that importing would not be economical because of the transport costs and they would only consider imports in response to substantial price increases for UK kaolin. However, there were some customers, for example in tableware and performance-mineral applications, who told us that they had considered or had switched to imports. The evidence from these customers together with evidence from other kaolin suppliers or distributors suggested that

[33] Further details of the main parties' submission on imports are set out in Appendix J.
[34] See Appendix J for a detailed summary of the parties' analysis of transport costs and the potential for imports.
[35] See Appendix J.

these importing decisions may have been driven mainly by the kaolin characteristics and properties rather than the price of the imported kaolin.[36]

Our assessment

4.42 Our analysis of the parties' sales data and customers' kaolin purchases, set out in appendices F to I, showed that the vast majority of kaolin produced in the UK was sold abroad. However, since we were considering the relevant geographic market from the perspective of UK customers, export patterns were only informative to the extent that they told us about the ease and cost of imports.

4.43 We found that there was a large difference between the level of kaolin exports from the UK and the level of imports into the UK. While exports of kaolin from the UK were substantial, at around 91 per cent of UK production sold to the applications described above, we observed relatively low levels of imports to UK customers. The highest share that imports accounted for in any product market was 6 per cent, in tableware.[37]

4.44 We considered the reasons for this difference by analysing the availability of substitutable grades from non-UK suppliers and likely barriers to imports.[38] Evidence from other kaolin suppliers and some customers suggested that there were alternative grades from non-UK suppliers available across all applications. We noted that customers looking to substitute imported kaolin for kaolin produced in the UK faced similar switching costs in terms of time and testing of the relevant kaolin grades as between UK kaolin suppliers. We found that the main barrier to imports was the cost of transportation from Europe.

4.45 We took into account the parties' analysis of transport costs and their assessment of the competitiveness of imported kaolin. We noted that some third parties cited costs associated with imports in excess of those assumed by the parties and identified logistics arrangements, such as storage, and exchange rate and oil price fluctuations as further barriers. We considered these issues in our analysis of the competitive effects of the merger. We noted, though, for the purposes of our market definition that there was a broad consensus from customers that they did not see imports as competitive. There were differences in the extent to which customers had assessed the cost of imports and some noted that they did not need to do so in light of the availability of UK alternatives. We therefore considered it important that we examined in detail the relative costs associated with importing in our competitive assessment.

4.46 The evidence from our analysis of the costs of imports, supported by the views of third parties, showed that an important factor explaining the difference between the amounts of imported kaolin compared with exports was the relative size of the customer bases. The volume of kaolin required by UK customers within each of the applications, with a few exceptions, was very small compared with those required by customers abroad. Domestic demand could be fully satisfied by domestic supply. However, in other countries in Europe, domestic demand often exceeded domestic supply; in some countries there was no kaolin production at all.

4.47 Larger-volume exports to Europe meant that transport costs could be reduced significantly through bulk shipping. However, because the size of the UK market was small, customers did not purchase sufficient volumes to obtain large reductions in transpor-

[36] See, for example, views of Dudson, Appendix H, paragraph 75.
[37] This does not include imports of kaolin by the main parties for their own use.
[38] See Appendix J.

tation costs. There was some evidence, though, that for higher grades of kaolin the transport costs relative to the cost of the materials was lower, suggesting that imports of these products might be more cost-effective.

4.48 We also considered customers' views in the context of the parties' argument that, for some, negotiations took place on a Europe-wide basis, suggesting that competitive constraints across mainland Europe would affect prices in the UK. There was some support for this argument, though it varied by application, and we noted that Goonvean had only two international customers with which it negotiated on this basis. The two applications in which the majority of UK sales involved Europe-wide negotiations were sanitaryware and performance minerals.[39]

Conclusion on geographic definition

4.49 We recognized that the vast majority of UK-produced kaolin was exported and that in respect of these sales the parties were competing with kaolin suppliers in export markets across Europe and in some cases worldwide. These considerations were likely to have informed wider geographic market definitions in previous investigations by the European Commission cited by the parties.[40]

4.50 Nevertheless, our focus was on UK customers and the effect of the merger on them. Therefore, the very small amount of imported kaolin bought by UK manufacturers, and the evidence on the transport and associated costs of imports, suggested that the relevant geographic scope of the nine product markets was no wider than the UK. We recognized that imports might provide some competitive constraint and we considered the extent of this constraint in relation to each market, and in some cases particular customers, in our assessment of the competitive effects of the merger.

4.51 On balance, we concluded that the geographic scope of each of the nine defined product markets was the UK.

Conclusions on the relevant kaolin market and our framework for assessing the effects of the merger

4.52 We concluded that the relevant markets were UK markets for the supply of kaolin for use in paper-filler, paper-coating, sanitaryware, tableware, performance-mineral applications, life sciences, boiler additives, reinforced fibreglass and refractories.

4.53 The UK customer base within each of these relevant markets was very small and this had implications for how we assessed the likely effect of the merger. In particular, when considering our definition of the relevant market, we noted that the alternatives available to individual customers within these defined markets, and therefore the most important competitive constraints, might differ. By assessing the options available to individual customers, we took these differences into account in our assessment of the competitive effects of the merger. In Appendices F to I, we set out our analysis of the alternatives available to the main customers in each application where the merger parties overlap and considered the likely competitive constraints on the parties post-merger in relation to these customers. This analysis is summarized by application in Section 6.

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[39] A major paper-filler customer also negotiates on a Europe-wide basis.
[40] See, for example, Case No. *M.1381 Imetal/English China Clays,* op cit.

Aggregates

4.54 We found that both parties generated material such as sand and rock as by-products of the kaolin extraction process. These materials might be processed and sold as aggregates. Aggregates were used in the production of precast products, ready-mix concrete, asphalt, concrete blocks and in general building and civil engineering projects. Aggregates produced from the by-products of processes such as extraction were known as secondary aggregates.[41] The materials processed to produce aggregates were referred to as secondary aggregates feedstock.

4.55 Imerys and Goonvean overlapped in the production of secondary aggregates feedstock from kaolin waste and Goonvean also operated in the downstream market for the processing and selling of secondary aggregates.

4.56 We analysed evidence from the main and third parties on the relevant market for secondary aggregate feedstock. We set out this evidence in more detail in Appendix M. We considered first the products which the parties both produced, secondary aggregates feedstock from kaolin waste, and assessed whether it was appropriate to consider wider markets around these overlap products. We found that there might be scope for substitution by processors between feedstock from kaolin waste and feedstock from other mineral waste (eg tungsten and ball clay), although we did not need to conclude on the extent of substitution as it did not affect our competitive assessment. Our view therefore was that, for the purposes of our assessment of this merger, we should consider a separate market for secondary aggregates feedstock.

4.57 Goonvean was also active downstream, in processed secondary aggregates. We reviewed past CC cases where substitution between primary, secondary and recycled aggregates was assessed. In Anglo American/Lafarge, secondary aggregates were considered to impose some constraint on primary aggregates used for construction purposes. In the Aggregates, Cement and Ready-Mix Concrete investigation, a single market for construction aggregates was found. Both inquiries focused on the constraint of secondary and recycled aggregates on primary aggregates rather than the other way round. Both the main and third parties indicated that there was some scope for substitution, although the price difference was highlighted as a potential difficulty in switching from secondary to primary aggregates. However, it was not necessary for us to conclude on this issue for the purpose of this inquiry as it did not affect our competitive assessment.

4.58 We considered the relationship between the upstream market for feedstock and the downstream market for processed secondary aggregates in our competitive assessment.

4.59 The evidence suggested that aggregates markets were relatively local, for example Cornwall. This was consistent with the CC finding local markets for aggregates in past cases. However, we did not reach conclusions on this for the purposes of this inquiry because we did not find it necessary to consider the extent of the constraint from other geographic areas in our competitive assessment.

5. Counterfactual

5.1 In considering whether the relevant merger situation we have identified is likely to lead to an SLC, we compare the prospects for competition after the merger with the

[41] Secondary aggregates can be produced as a by-product of other mining and industrial activities, such as ball clay mining and steel production.

competitive situation without the merger (the 'counterfactual'). As part of this analysis, we identify the most likely counterfactual situation based on the evidence on what would have happened in the absence of the merger.

5.2 In order to do so, we may examine several possible scenarios, one of which may be the continuation of the pre-merger situation, but ultimately only the most likely scenario will be selected as the counterfactual. We will typically incorporate into the counterfactual only those aspects of scenarios that appear likely on the basis of the facts available and the extent of our ability to foresee future developments; we seek to avoid importing into our assessment any spurious claims to accurate prediction or foresight.[42]

5.3 In this case, we considered three issues which may have affected the competitive situation absent the merger: the likelihood that Goonvean would have stopped supplying kaolin to one or more of the kaolin markets we identified because of its financial position, its need for capital investment and the depletion of its G1 reserves; the options that Goonvean and Imerys could have pursued absent the merger in relation to the supply of aggregates feedstock, secondary aggregates, and the extraction and supply of kaolin; and the likelihood that Goonvean would have been purchased by another party had it not been bought by Imerys. We considered the evidence and views from the parties and the views of GHL, the previous owner of Goonvean. We also analysed Goonvean's financial data to inform our assessment of its financial position and its strategic options absent the merger in the light of this assessment.

The parties' views

5.4 The parties made a number of submissions on issues relevant to the counterfactual and drew on evidence in reports they commissioned on Goonvean's financial position and the remaining kaolin deposits in Goonvean pit, from where its G1 reserves are mined. This evidence is summarized in more detail in Appendix E. We set out below the parties' main arguments and briefly describe the evidence used to support them.

5.5 The parties argued that Goonvean had struggled in recent years and had incurred losses.[43] They argued that Goonvean was already suffering from increased costs and downward pressure on prices which could affect its ability to generate the necessary revenues to cover its high fixed costs. They submitted that consequently it was highly unlikely that Goonvean could continue to operate on its existing basis. Once its economically-accessible reserves of G1 deposits had been exhausted, there would have been a real prospect of Goonvean ceasing kaolin operations entirely and its revenues from sales to other, lower-value, applications would not have been sufficient to cover its high fixed costs.

5.6 The parties argued therefore that the counterfactual to the transaction would not be the maintenance of the competitive status quo. They said that the appropriate counterfactual to the transaction was one where any pre-merger competition between the parties would have been progressively attenuated and eliminated within the short term. They considered that Goonvean's kaolin business was subscale, inefficient, and loss-making. Therefore, Goonvean's kaolin business and its assets would have exited the market within a very short time frame as it was not viable and could not have been restructured successfully financially or operationally.

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[42] The Guidelines, paragraph 4.3.6.
[43] The parties subsequently argued that Goonvean was no longer viable and would have exited the market in the foreseeable future. The parties' arguments and the evidence submitted in support of these arguments are summarized in more detail in Appendix E.

5.7 In support of these arguments, the parties referred to a report they commissioned during the inquiry analysing Goonvean's financial position. This noted that Goonvean had been incurring significant operating losses in each of the last five years. Furthermore, its kaolin sales volumes were forecast to reduce and its production costs had risen in recent years with prices relatively flat. This analysis also noted that Goonvean had a defined-benefit pension scheme with significant liabilities and its Greensplat plant required a large amount of capital expenditure within the next two years as a result of previous underinvestment. The parties commissioned a further report on the condition of Greensplat which argued that capital expenditure was required immediately (see paragraph 5.11).

5.8 The report on Goonvean's financial position also drew on a separately-commissioned analysis of the economic viability of the G1 reserves in Goonvean pit. These high-quality deposits are used in [✂] grades sold for life-science products and [✂] grades sold for tableware.[44] The parties argued that the analysis showed that the extraction of these reserves would cease to be economic in around two years under current rates of extraction, a revision on the parties' original submission which had suggested 3.5 years. As a result of this, and the other financial considerations set out in paragraph 5.7, the report concluded that Goonvean's kaolin business was not viable on a stand-alone basis.

5.9 The parties told us that, in the absence of the transaction, Goonvean would have changed its strategy in relation to the use of its G1 deposits. This would have involved prioritizing the use of these deposits for life sciences, where relatively high margins could be achieved, rather than for tableware which required higher amounts of G1 and was less profitable. They argued that it was not sustainable to continue to use high-quality G1 deposits in tableware and Goonvean would not have been able to make the level of investment required in processing equipment to enable it to use alternative deposits for tableware.[45] This strategy would therefore have resulted in Goonvean not competing for new tableware customers and steadily refusing to supply existing tableware customers.

5.10 In support of this likely change of strategy absent the merger, they pointed to evidence from 2006 which they said showed that Goonvean was considering how to respond to depleting deposits of G1, and had considered, but ruled out, using alternatives to using G1 in tableware, such as blending other deposits with kaolin from other suppliers and investing in processing equipment.[46] They also highlighted a business plan dated August 2012 which [✂]. Since the merger, Goonvean had withdrawn from supplying some tableware customers in Europe in line with this strategy and told UK customers that its reserves of G1 were running out.

5.11 The parties also said that the condition of Goonvean's Greensplat processing plant and equipment required significant capital investment immediately to ensure it was safe to operate and that the quality of the kaolin produced was not compromised. They pointed to a report by an independent consultant commissioned by the parties post-merger. The authors of the report said that the processing plant and equipment needed immediate investment of around £[✂] million to repair Greensplat to a level

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[44] Sales of these grades represented [✂] per cent of Goonvean's total sales (ie UK and export) by volume and [✂] per cent by value; sales of these grades in the UK represented [✂] per cent of Goonvean's UK kaolin sales by volume and [✂] per cent by value. The parties said that [✂] was occasionally used in a [✂] tableware grade.

[45] The G1 deposit is naturally very low in iron, which makes it viable for life-science products which do not use processed kaolin. Other suppliers to the tableware industry, such as Imerys, use deposits which have a higher iron content but process it, mainly with high-powered magnets, to ensure that the grades sold have similar characteristics to grades produced using Goonvean's G1 deposits.

[46] Goonvean considered that it had reached the limits of other [✂] kaolin that it could use in its tableware grades and had considered that the costs involved in investing in more processing equipment were too high.

that would enable it to continue to be used safely for more than a year. Goonvean estimated the total cost of the required repairs outlined in the report to be around £[✂] million.

5.12 The parties argued that the condition of the Greensplat processing plant and equipment meant that Goonvean's pre-merger strategy of allowing equipment to fail before replacement was becoming unsustainable. They argued that the plant needed a level of capital investment that Goonvean would have been unlikely to have made. This assessment was based on the level of capital investment in the years leading up to the merger, the other challenges faced by the business, such as the pension fund deficit, and the likely return on the investment. The parties further noted that, as it was used in the production of around [✂] per cent[47] of Goonvean's performance-mineral-grade kaolin, the state of the Greensplat plant, and the options likely to have been considered in response, would have meant that Goonvean would have ceased being an effective competitor for the supply of performance-mineral kaolin.

5.13 The parties told us that the Goonvean board considered the option of seeking an alternative purchaser to Imerys but that an investment purchaser was considered unlikely. Imerys's offer was likely to be the only reasonable opportunity and potentially the most attractive from a financial standpoint in light of the synergies available.

5.14 In relation to secondary aggregates, the parties told us that they each had a different approach to handling waste products generated by kaolin extraction, and these would have continued absent the merger. Prior to the merger, Goonvean processed its own feedstock into secondary aggregates and had a long-term supply agreement for these secondary aggregates with Denis May and Sons, a manufacturer of concrete products. Goonvean said that it had not supplied feedstock to a third party secondary aggregates processor for at least the last 15 years and had had no plans to do so prior to the merger. Imerys told us that it had never been involved in, and had no intention of becoming involved in, secondary aggregates processing and it would have continued to supply aggregates feedstock. It also told us that in addition to supplying GHL with secondary aggregates, it was putting out to tender its supply of aggregate feedstock from the plants.

Third party views

Views of GHL

5.15 On Goonvean's financial position, GHL said that the shareholders within the family firm had supported the business through previous periods of losses and had historically taken a long-term view of the business. GHL also noted that the business had only been loss making in two of the last five years and that it had continued to generate significant cash. It said that the company was a fully integrated kaolin and aggregates operation and that it was inconceivable that the kaolin business would have operated in isolation.

5.16 GHL said that there was a recognition that its strategy would have had to change. It had historically sought to maximize sales volumes to cover the fixed cost base of the business, even if this was at negative margins, with the higher-value products contributing to profit. GHL was aware of the shortcomings in this strategy. It had therefore started to seek out new markets, particularly higher-value small-volume markets, such as life sciences. However, it noted that a shift towards these more specialized

[47] The [✂] per cent figure excluded Crystal Sheen. If all performance-mineral sales were included, Greensplat performance-mineral grades represented [✂] per cent by volume and [✂] per cent by revenue.

products would have taken time and it was unlikely that a significant shift would have occurred within one or two years.

5.17 GHL also told us that, absent the merger, Goonvean would, at some point, have faced some difficult decisions as a result of the condition of the Greensplat plant. The options would have been an expensive rebuild of the plant; or keeping the pit open but closing the Greensplat refining and drying plant and increasing capacity at the Trelavour plant. GHL said that the latter option was the most likely scenario but this would have been a difficult decision as it would have involved a reduction in overall capacity of around 20 per cent which would have made it more difficult for the company to cover its fixed costs. GHL told us that it considered that this was a problem that Goonvean would have had to have faced in the future but not in the next five to seven years.

5.18 While GHL said that it had cash reserves in excess of the presently identified deficit in the pension scheme, it told us that it was likely that the scheme would be closed to future service.

5.19 GHL told us that Imerys had approached Goonvean with an offer. Goonvean had not marketed the business for sale as it was not actively seeking to sell. GHL said that it was difficult to conceive of any prospective purchaser other than Imerys being in a position to offer an attractive price, as Goonvean was unlikely to be attractive to an investor and the synergies were significant for Imerys due to the physical proximity of the businesses, compared with other potential purchasers. Confidentiality concerns about protecting the reputation of the business meant that the board would have been reluctant to approach other potential buyers.

Other third party views

5.20 Tableware customers did not express specific concerns that Goonvean's tableware grades were being depleted. Furlong Mills (Furlong) told us that it had been informed that [✂] but had interpreted this as an indication that its [✂] supplies would be protected [✂]. Dudson told us that Goonvean had increased its estimate of UK reserves above ten years.[48]

5.21 Other parties were not in a position to comment on the specific situation in relation to Goonvean's reserves but we did receive evidence on other suppliers' approaches to reserves in general. For example, Sibelco told us that, when pricing its minerals, it did not take into account the extent of its reserves. Its pricing was driven by the need to sell its products at a price customers would buy them and the need to cover its production costs and any increases in them. It was usually possible to find more sources of kaolin or other minerals from other suppliers and therefore alienating a customer by asking for a large price increase because a particular site would be exhausted in a few years seemed to it to be counterproductive.

Our analysis

5.22 We analysed Goonvean's financial position pre-merger and its recent history. We also considered the analysis submitted by the parties. In doing so, we considered the prospects for the combined kaolin and aggregates business as it existed pre-merger; we saw no evidence that the two parts of the business would have been separated

[48] Dudson purchases [✂] (see Appendix E, paragraph 25, and Appendix H, Table 5. The parties told us that, since the reference, Goonvean had subsequently told Dudson that it planned to withdraw tableware products within two years.

absent the merger and therefore did not consider the prospects for the kaolin business alone to be relevant for the counterfactual.

5.23 Our detailed analysis is set out in more detail in Appendix E. In summary, we found that Goonvean had been a profitable business[49] in recent years and had generated positive cash flows. It also held cash reserves which would have stood it in good stead in the future for meeting costs arising. There was evidence, though, that the business was facing significant challenges because of its declining deposits and a need for capital investment, particularly at the Greensplat plant (see paragraphs 5.31 to 5.33). In addition, we noted the parties' arguments regarding future profitability of the business and we took these into account in our considerations. However, we considered that forecast profitability was likely to be affected by events that occurred as a result of the acquisition (for example, the loss of certain Goonvean key staff) and so we treated this evidence with caution. Overall, we found that, although Goonvean was not actively investing in its future and was operating a 'replace when fail' approach to capital expenditure, the evidence from GHL did not suggest that the shareholders would have withdrawn support for the business. We also found that there was no contemporaneous pre-merger evidence, nor did it seem likely, that absent the merger Goonvean would have withdrawn from kaolin extraction in the foreseeable future.

5.24 We considered the parties' evidence on Goonvean's G1 reserves. We noted that definitive conclusions about the economic life of deposits rely on assumptions about their use including, in this case, the cost of mining the G1, the expected yield of G1 refined product from G1 matrix, the expected future volumes of G1 in tableware and life-science applications and the expected future price that can be realized for products containing G1. Conclusions on the economic life of the deposits are sensitive to changes to these assumptions. For example, a reduction in the volume of G1 mined each year, or an increase in the expected price per tonne of a G1 product, would, all other things being equal, increase the optimal mining life of G1. Changes in the sales mix of life-science and tableware products would therefore affect the economic life of G1 reserves.[50]

5.25 We took into account the information that would have been available to the owners of Goonvean absent the merger and its pre-merger strategy and actions in relation to these deposits. We noted that the analysis of the optimal mining life of G1 was conducted for Imerys following the acquisition and that Goonvean had not undertaken as detailed a drilling exercise even in the month prior to the acquisition when it had forecast that there would be 3.53 years of G1 remaining to produce tableware and life-science products at current rates of production.

5.26 Goonvean's pre-merger approach to assessing the level of G1 reserves and their optimal use appeared to us to be different from that of Imerys post-merger. Goonvean's internal documents indicated some concern about the use of G1 deposits in tableware and the relative profitability of these sales compared with sales to life-science applications. Goonvean had recognized that a shift towards life sciences and away from tableware would be more profitable. It was considering a business plan that proposed 'switching priority, wherever financially possible, from paper and ceramic sectors to life-science'. We noted that in October 2012, just prior to the acquisition, Goonvean had approved capital expenditure for removing equipment from a pit to allow it to dig deeper for G1. We also noted that pre-merger UK tableware customers had received reassurances about continuation of supply (see

[49] At the EBITDA level (earnings before interest, taxation, depreciation and amortization).
[50] See Appendix E.

paragraph 5.20) and that estimates of the likely remaining economic life of deposits were not seen as an exact science.

5.27 We noted the limited reserves of G1 deposits but our analysis suggested that it was not possible to predict with any degree of confidence the point at which a change of strategy in response to this situation would result in a complete withdrawal from any UK market. The evidence available from the pre-merger period suggested that Goonvean was planning to supply tableware customers for at least the next three years (from the date of acquisition in October 2012). We noted that a complete withdrawal from the tableware market that was executed too quickly would have an adverse effect on sales revenues in the short term.

5.28 Nevertheless, it seemed likely that, absent the merger, Goonvean would have pursued a strategy that would have resulted in it not seeking new tableware customers and not developing new tableware grades using G1. The contemporaneous evidence showed that the business had identified that some tableware grades using G1 were not as profitable to pursue as life-science grades, and we also took into account decisions to withdraw the supply from tableware manufacturers in export markets where sales were not profitable.

5.29 We also took into account the need to give customers sufficient notice of a decision to withdraw from the tableware market. We found that there was typically a 12- to 18-month process for switching products and Goonvean would have sought to give customers sufficient notice to find alternative supplies. Given Goonvean's knowledge of the dwindling reserves of G1 and its intention to expand into life sciences, we therefore considered that Goonvean would have started to notify customers of its decision to withdraw from tableware in the very near future. Supplies may have continued for some time after that both in order to manage Goonvean's own cash flow and to give customers time to switch but we found that Goonvean would have quickly become a less effective competitor in tableware over the period of the counterfactual.

5.30 We also considered whether Goonvean could extend its product offering in performance minerals, particularly at the higher end of the spectrum of grades. We did not see any evidence that Goonvean would have been likely to expand its range of performance-mineral grades to compete with Imerys's highly-processed grades in the foreseeable future. Any such expansion would have required significant investment in new processing capabilities and there was no evidence that Goonvean was focusing on high-end performance minerals.

5.31 We noted that, although some of Goonvean's plant was ageing, pre-merger the shareholders had resisted major capital expenditure and relied on temporary repairs such that actual capital expenditure was less than the depreciation profile. There was a policy of 'replace when fail' but we noted that significant capital expenditure had been incurred in the recent past (for example, £[✂] million in FY08 and £[✂] million in FY10).

5.32 We were provided with evidence from a surveyor's report that the Greensplat equipment and building required urgent attention to address corrosion. Capital expenditure to refurbish fully the Greensplat plant would have been expensive, at around £[✂] million, and we were told that it would cost £[✂] million to repair Greensplat to a level that would enable it to continue to be used safely for more than a year.

5.33 Based on our assessment of Goonvean's approach to historic capital investment, we considered that the pre-merger policy of only replacing old equipment when absolutely necessary would have continued in the short term. This would have included any short-term expenditure necessary to keep the Greensplat plant running. In the

medium to longer term, the Greensplat plant would have required significant investment and it was likely that the Goonvean board would have decided at this point whether to close the plant or redevelop it. Given its financial performance and the approach of its owners to capital expenditure, we did not consider that Goonvean would have invested in a complete redevelopment of the plant at this point in time. The alternative option likely to have been considered—closing the Greensplat processing plant and equipment (and potentially expanding capacity at Trelavour)—would have had a significant effect on Goonvean's capability to compete in the performance-mineral market in particular. However, it was not clear when this decision would have been taken; the evidence from GHL and contemporaneous internal documents did not suggest that a significant contraction of production was being actively considered in the foreseeable future.

5.34 The evidence of the merger parties and GHL was consistent with the view that it was unlikely that Goonvean would have been offered to an alternative purchaser: Imerys approached Goonvean and the divestiture was not marketed more widely.

5.35 We also considered whether another potential purchaser might have approached Goonvean. While we found that others might have been interested in the business had it been offered to them, any alternative purchaser would not have been able to achieve many of the synergies that Imerys could achieve due its geographical proximity to the Goonvean pits[51] and therefore any offered price would have been unlikely to have been sufficiently attractive to Goonvean. We also noted that the kaolin industry is a mature one in long-term decline, having seen UK production fall by around a half between 1988 and 2008. We considered that this would have meant that purchase of a kaolin producer was unlikely to have been attractive to a financial investor.

5.36 We did not see evidence that, absent the merger, either Goonvean or Imerys would have pursued a different strategy in relation to its aggregates feedstock. That is, Goonvean would have continued to process its feedstock for sale to secondary aggregates customers; Imerys would have continued to sell its feedstock to third parties for processing.

Conclusions on the counterfactual

5.37 We found that, in the absence of the transaction, Goonvean would most likely have remained as an independent kaolin producer: it was not a failing firm and was unlikely to have been sold to another purchaser. We found that the business was facing challenges because of its declining deposits and a need for capital investment, particularly at the Greensplat plant.

5.38 We concluded that Goonvean would have pursued a strategy of increased sales to life-science applications and reduced G1-dependent sales to tableware applications. We considered it most likely that, for the foreseeable future that we took into account for our counterfactual assessment, Goonvean would not have been seeking new tableware customers in order to preserve its limited deposits. We further concluded that it would have quickly become a less effective competitor in tableware over the period of the counterfactual as, in the very near future, it would have had to have given notice to its UK tableware customers that it would be ceasing supply.

5.39 Our view was that, in relation to the supply of kaolin by the parties for all other applications, the pre-existing conditions of competition would have continued. On balance,

[51] We note that the parties' pits and processing operations are located very close to each other in or about St Austell in Cornwall with their pits at Wheal Martyn and Greensplat sharing a boundary wall.

we concluded that a major refurbishment or closure of the Greensplat plant would not have occurred in the foreseeable future and instead the pre-existing strategy of patching up and avoiding significant capital expenditure would have continued. We considered it unlikely that Goonvean would have refurbished Greensplat at the point at which a decision would have been required; it was not though clear to us when this decision would have had to have been made.

5.40 We further concluded that, absent the merger, Goonvean would have continued to process internally its secondary aggregates feedstock and produce secondary aggregates for supply under its pre-existing long-term agreement. We also found that Imerys would not have started to produce secondary aggregates and would have continued to supply aggregates feedstock to third parties.

6. Entry and expansion

6.1 We assessed the potential for non-UK kaolin producers to supply the UK market or, in the case of tableware, increase the volumes supplied to the UK market, in our assessment of the competitive effects of the merger. In this section, we assess the potential for entry by a new UK producer and entry and expansion by the only other UK producer, Sibelco. We took this assessment into account in our assessment of the competitive effects of the merger on each market set out in Section 7.

6.2 First, we considered the potential for a new UK supplier to establish itself by acquiring a quarry and extracting kaolin. Second, we considered the potential for Sibelco to enter the UK markets which it did not supply or increase its volumes and range of products to markets it was supplying. Further details of the views of the parties and third parties are contained in Appendix K.

6.3 In assessing whether entry or expansion might prevent an SLC, the CC will consider whether such entry or expansion would be timely, likely and sufficient.[52]

The potential for entry from a new UK kaolin supplier

6.4 We first considered the potential for new entry. There was a consensus that kaolin mining involved high fixed costs and a relatively large capital investment. Such high fixed costs suggested that, in order for a new entrant to establish itself in the market, it would be necessary for it to develop a quarry or quarries with sufficient capacity to cover the high fixed cost base and generate a sufficient return on the capital investment. We were told that the costs associated with opening a new kaolin mine were significant and at least £10–£15 million. Were such an investment to be made, it would be in an environment in which the demand for UK kaolin was reducing.

6.5 We also noted that a new entrant was likely to needto acquire planning consents. No new kaolin quarries had opened in recent years in the UK and, as a result, parties found it difficult to estimate the likely time this would take. Imerys estimated a minimum three-year planning process from agreement with the mineral planning authority on the scope of the site to first development works. The planning phase would be likely to cost in excess of £[✂] but the actual costs and timeline would depend on the size, type and location of the development.

6.6 We noted that there were kaolin deposits available and approved for mining,[53] suggesting that reserves might be available to a potential new entrant. However, no one

[52] See the Guidelines, paragraph 5.8.3.
[53] See Appendix K, Table 1.

had entered the market for many years and we found no evidence of any planned entry into the market by third parties or that a new producer of kaolin in the UK was likely.

Conclusion on potential entry by a new UK supplier

6.7 Taking into account the costs and time involved in establishing a new quarry and the declining demand for kaolin, we concluded that it was unlikely that a new UK supplier would enter the market in the foreseeable future.

The potential for entry or expansion by Sibelco

6.8 Sibelco was the only other UK supplier of kaolin. Like the merger parties, Sibelco told us that the majority of its production was exported and it focused on overseas markets. We looked at the UK markets where the merger parties overlapped pre-merger and considered Sibelco's presence in them: where Sibelco was not supplying markets pre-merger or had very small market shares, we considered the potential for it to provide a constraint post-merger by entry or expansion; in UK markets where it had a significant presence pre-merger, we considered the likely impact of the presence of Sibelco in our assessment of the competitive effects of the merger on the relevant market.

6.9 We found that, pre-merger, Sibelco was already a significant producer of kaolin for sanitaryware applications and had the largest market share of supply to UK customers ([40–50] per cent).[54] Its share of UK production, including exports, was [20–30] per cent. We did not therefore consider the potential for further expansion by Sibelco in this market and took into account the pre-merger situation in our assessment of the effects of the merger on the market for kaolin for sanitaryware products.[55]

6.10 In the other UK markets in which the merger parties overlapped[56]—paper filler, tableware and performance minerals—Sibelco was not a significant presence and therefore we considered the potential for its entry or expansion. For example, we found that, although it supplied paper-filler kaolin to non-UK customers, Sibelco did not supply the UK market and it did not supply kaolin suitable for high-end tableware to either UK customers or for export. Similarly, it had a very small market share in the UK market for performance minerals ([0–5] per cent) and its share of UK production was negligible ([0–5] per cent), suggesting that it was also not a significant supplier to the UK or export market for performance-mineral applications.

6.11 We therefore assessed the extent to which Sibelco might supply UK customers of paper-filler kaolin, either by expanding its capacity or transferring its capacity currently supplied to export customers. We also considered whether the evidence suggested that Sibelco was likely to start producing kaolin grades which could be supplied to UK tableware customers or significantly expand its production of performance-mineral kaolin to supply UK customers. In doing so, we considered any barriers to entry or expansion by Sibelco.

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[54] See paragraph 7.32.
[55] See paragraphs 7.30–7.53.
[56] We found that the parties did not overlap in the supply of kaolin for use in boiler additives and reinforced fibreglass and Goonvean supplied negligible amounts of kaolin for use in refractories.

The parties' views

6.12 The main parties argued that as a major domestic supplier of kaolin, Sibelco was a strong actual or potential competitor across all applications. They said that it had the reserves and the capability to supply UK customers for paper-filler, tableware and performance-mineral applications. Specifically, Imerys noted that Sibelco [✂].

6.13 The parties noted that Sibelco produced and exported a significant amount of paper-filler kaolin and its grades were substitutable with the parties' own. They pointed to its storage facilities in the Midlands and potential relationships with suppliers which would enable Sibelco to supply UK customers. The parties also argued that Sibelco had sufficient quality and quantity of the relevant kaolin reserves at its Devon pits and that it had slurrying facilities for ball clay which it could use to supply those UK customers of paper-filler kaolin that required kaolin in slurry form.

6.14 The parties said that Sibelco was a potential competitor for tableware kaolin in the UK. They pointed to Sibelco's access to suitable kaolin deposits in the Lee Moor pit in Devon. Imerys told us that it had produced a number of [✂] grades from these deposits until 2008, when it leased the Lee Moor pit to Sibelco. Imerys submitted that, until 2008, it produced its [✂] grades from Lee Moor deposits.

6.15 The parties acknowledged that these deposits required a certain amount of processing equipment to produce the tableware grades used by UK tableware customers, including, centrifuges, magnets or grinding. However, they argued that, apart from its centrifuge equipment which could be upgraded, Sibelco had all the necessary equipment to produce high-end tableware grades comparable to those sold by the parties in the UK. The parties also argued that Sibelco could produce a similar grade to one of Goonvean's tableware grades, without more processing equipment, by blending its Lee Moor kaolin with [✂].

6.16 In relation to performance-mineral applications, the parties noted that Sibelco produced and supplied performance-mineral grades in the UK. They argued that it had increased its activities in this market and had developed a Puraflo range of grades which competed with the parties' grades.[57]

6.17 As with tableware-grade kaolin, Imerys told us that Sibelco had reserves of sufficient quality and quantity at its Lee Moor pit in Devon from which to produce performance-mineral kaolin and had the necessary processing equipment or could blend its raw kaolin with additives. Imerys further argued that Sibelco would have very clear incentives to use its [✂] capacity to make additional sales to UK performance-mineral customers. The parties also noted that some performance-mineral grades had the same physical properties as the [✂] grades which Sibelco exported.

6.18 The parties also pointed to other factors as evidence of potential expansion by Sibelco into the supply of performance-mineral kaolin: a recent acquisition by Sibelco of a UK mineral processing company, Viaton, and that Sibelco had a specialty business division in Europe with a technical sales team and laboratory. The parties also noted that Sibelco had in the past supplied large volumes of performance-mineral kaolin to UK and overseas customers.

[57] The parties also said that Sibelco had in the past supplied performance-mineral grades to customers in the UK and overseas (see paragraph 7.90).

Third party views

6.19 Most UK tableware manufacturers produced relatively high-end tableware and did not consider Sibelco to be an alternative supplier of kaolin because its grades were not of a sufficiently high quality.[58] We did not see evidence from these customers that they expected Sibelco to compete with the merger parties post-merger by starting to produce and supply higher-quality grades which were substitutable with those of the merger parties.

6.20 UK customers buying kaolin for paper filler told us that they did not generally consider Sibelco as an alternative supplier. However, one distributor considered that Sibelco could be a potential supplier of kaolin to UK paper manufacturers.

6.21 Performance-mineral customers did not generally see Sibelco as an alternative supplier or potential alternative supplier because either its kaolin was not of sufficient quality or it could not supply a sufficiently wide range of kaolin grades.[59] However, we noted that in response to the announcement of the merger, one customer, Crown Paints, had approached Sibelco as a potential supplier.[60] A distributor also considered that Sibelco could be a potential supplier.

Sibelco's views

6.22 Sibelco told us that it supplied what it considered to be good-quality, mid-range kaolin primarily for use in paper filler or ceramics. It considered the UK to be a declining market and had focused its activities on the export market where it considered that there was strong demand and potential for growth.

6.23 Sibelco noted that kaolin extraction was a high-fixed-cost operation and therefore, in order to be profitable, it was necessary to produce at full capacity. [✂]

6.24 Sibelco told us that it had similar paper-filler grades to the merger parties but whether it would supply UK customers would depend on it having spare capacity and the price it could achieve relative to other options.[61] Sibelco said that it was capacity constrained and therefore, to supply UK customers, it would have to divert supply away from its existing overseas customers. [✂]

6.25 Sibelco told us that its kaolin was not white enough for higher-grade uses, such as tableware, or some performance-mineral applications, such as paint. If it wanted to produce kaolin for higher-grade uses, it would need to process the material more fully, which would require processing equipment such as centrifuges, which Sibelco currently did not have.

6.26 Sibelco had assessed the costs of processing equipment to enable it to increase its range of kaolin products for performance minerals or tableware applications. It told us that to acquire a grinding plant to allow it to produce finer-grade kaolin would cost around £1 million; improvements to magnets would cost a further £1–£2 million; and a centrifuge would be at least £500,000. Supplies of bentonite would then need to be purchased which would cost around £600 to £700 a tonne.

6.27 Sibelco told us that these purchases would represent a sizeable investment in a declining market and would only represent a marginal improvement in the quality of

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[58] See paragraph 7.63 and comments from Steelite, Global Ceramic Materials, Dudson and Furlong (Appendix H).
[59] See, for example, comments from [✂] and Armstrong, Appendix I.
[60] See paragraph 6.29.
[61] We observe that Sibelco's average price for paper filler sold abroad was around [✂] than Goonvean's and [✂] Imerys.

Sibelco's product. As Sibelco could currently sell all its kaolin without the need for this level of refining, it did not consider that these investments were currently commercially attractive. Instead Sibelco was looking at improvements which would allow it to produce its current range of products more efficiently.

6.28 Sibelco provided evidence which suggested that it could already supply comparable grades for some performance-mineral applications, though its supplies into this market were currently low. It said that it had not identified performance minerals as an area of potential growth and was focusing on its existing paper and ceramics products where it remained capacity constrained. Sibelco also told us that its acquisition of Viaton was not linked in any way to its kaolin business and there were no plans to use the mineral-processing capabilities of this newly-acquired company to expand into other kaolin markets.

6.29 Sibelco told us that, as with all potential opportunities, it would review the business case for accepting orders for performance-mineral kaolin on a case-by-case basis and depending on the merits of each would make a strategic decision that it felt was appropriate. Factors it would take into account when considering such a business case would be likely to include the volumes to be purchased and the length of the customer contract. Sibelco also said that UK board approval would be needed for investment in processing equipment and, depending on the cost, potentially approval by the Sibelco Group at a European level.

6.30 As an example of the processes it would go through to consider a business case to supply kaolin for performance-mineral applications, Sibelco told us [✂].

Our assessment

6.31 We found that, although Sibelco was not supplying UK paper manufacturers, it was a significant producer of kaolin for paper filler: its share of production of paper-filler kaolin in the UK was [10–20] per cent in 2012 (compared with [60–70] per cent for Imerys and [10–20] per cent for Goonvean). We noted that Sibelco's paper-filler grades, which it supplied to the export market, were likely to be substitutable for the grades supplied to UK customers by the merger parties. This suggested that there were no technical barriers to Sibelco entering the paper-filler market in the UK.

6.32 However, we noted that Sibelco's primary focus was on its overseas customers, which would provide the demand for any planned increases in capacity. We found that Sibelco was likely to remain capacity constrained. It was therefore likely to be the case that decisions to supply UK paper-filler customers would need to be at the expense of Sibelco's existing overseas customers, requiring a change of strategy by Sibelco. We did not see evidence that such a change of strategy was likely.

6.33 The evidence suggested that Sibelco had the raw materials available to supply UK tableware customers. However, we found that it did not have the processing equipment to supply the high-quality grades required by UK customers. Taking into account Sibelco's views, the likely costs of the processing equipment of at least £2–£3 million, and the size of the market (around £2 million in 2012), our view is that it is unlikely that Sibelco would consider supplying UK tableware customers in response to increases in price. We also did not see evidence which suggested that Sibelco would have the incentive to buy kaolin from other producers to supply this small and declining market.

6.34 The evidence suggested that Sibelco had a limited range of performance-mineral grades which were substitutable for some of the parties' grades. However, we found that it did not supply significant volumes to performance-mineral customers either in

the UK or abroad as its focus was on supplying its paper and ceramics customers. Although Sibelco was looking to increase its capacity to meet demand from its existing customers, the evidence suggested that it was likely to remain capacity constrained.

6.35 In order to increase the volumes it supplied for performance minerals, or increase its range of products for these customers, Sibelco would need to change its current strategy and invest in processing equipment and/or storage facilities. While we noted that Sibelco would consider the business case for such investment, we did not see evidence that suggested that this was actively being considered and we noted that, were it to be so, it would [✂].

Conclusion on potential entry and expansion by Sibelco

6.36 In considering potential entry and expansion by Sibelco, we took account of our guidance on constraints from potential entry. This states that potential entry may be a constraint on the merged company if entry would be so quick and costless that an entrant could profitably come into the market to exploit an opportunity afforded by high prices even if the merged company quickly responded to the entry by lowering its prices.[62]

6.37 We noted that as an existing UK supplier with significant shares of UK-produced kaolin, Sibelco possibly had the ability to enter, or expand into, the markets for the supply of kaolin to UK producers of paper-filler, tableware and performance-mineral applications.

6.38 However, we found that Sibelco was capacity constrained and likely to remain so. Sibelco would have therefore needed to change its strategy to supply UK paper-filler customers and invest capital in order to supply kaolin to the UK tableware and performance-mineral markets. Furthermore, we did not find evidence that Sibelco was actively considering making the necessary changes to start to supply, or significantly increase its existing supply, to any of these markets.

6.39 We took these conclusions into account in our assessment of the competitive effects of the merger on each of the markets we identified.

7. Assessment of the competitive effects of the merger

7.1 Our starting point for assessing the competitive effects of the merger was the four main kaolin markets where the parties largely overlapped and competed pre-merger. These were kaolin supplied in the UK for: paper-filler, sanitaryware, tableware and performance-mineral applications. We considered the effect on competition of the loss of a competitor from each of these markets and whether this loss has resulted, or is expected to result, in an SLC.

7.2 In order to assess this, we first looked at the pre-merger situation to assess the competitive constraints on the parties. We summarize below the main characteristics of each of these markets and consider:

- the extent of the overlap and level of pre-merger competition between Imerys and Goonvean;

[62] The Guidelines, paragraph 5.8.14.

- the competitive constraint from the other UK supplier, Sibelco;
- the competitive constraint from imports; and
- the bargaining power of customers within each market.

7.3 Taking into account our assessment of the pre-merger constraints, we then considered the extent of the constraints which would remain after the merger and therefore the extent of any resulting loss of competition in each market.

7.4 As we noted in paragraph 4.53, we analysed the alternatives available to the main customers within each market and considered the questions above in relation each of them. The paragraphs below summarize the analysis set out in more detail in Appendices F to I. We noted that an individual customer analysis was particularly important for considering customers' bargaining power which was likely to differ from customer to customer. We considered it relevant that in markets where prices were negotiated bilaterally, and not posted, the ability of one customer to exercise some form of buyer power to achieve a lower price might not protect other customers.

7.5 We then considered the kaolin markets for which only one of the parties was producing kaolin and supplying pre-merger: paper coating, life sciences, reinforced fibreglass and boiler additives. For these markets, and for refractories where Goonvean's supply was negligible, we considered the effect of a loss of a potential competitor. We assessed the potential for the parties to produce substitutable grades and compete absent the merger and therefore the extent to which there was a lessening of potential competition as a result of the merger.

7.6 We then assessed the impact of the merger on the market for aggregates and the effect of the loss of a potential competitor. The parties overlapped in the production of waste products from kaolin extraction but did not compete pre-merger for the supply of either secondary aggregates feedstock or processed secondary aggregates. We considered the extent to which there was potential for the parties to compete absent the merger either in supplying secondary aggregates feedstock or processed secondary aggregates.

Pre-merger competition for the supply of kaolin for paper-filler applications

7.7 Imerys and Goonvean were the only current suppliers of kaolin for paper-filler applications in the UK. In 2012, Imerys's market share of sales volumes to UK customers was [90–100] per cent and Goonvean's market share was [5–10] per cent.[63] Sibelco produced paper-filler kaolin in the UK but did not sell any to customers in the UK; its share of production of paper-filler kaolin in the UK was [10–20] per cent in 2012 compared with [60–70] per cent for Imerys and [10–20] per cent for Goonvean. We saw no evidence of imports of paper-filler kaolin into the UK.

7.8 Together, the parties produced around [✂] tonnes of kaolin for paper-filler applications in 2012; around [✂] tonnes (slightly over [✂] per cent) of which were sold to UK customers and [✂] tonnes (around [✂] per cent) of which were sold to Sibelco.[64] The vast majority of sales to customers in the UK were sold to three paper manufacturers: Arjowiggins, James Cropper and Palm Paper; and a distributor,

[63] These figures did not include Imerys's and Goonvean's sales to [✂]. If these figures were included, the parties' respective market shares were [90–100] per cent Imerys and [5–10] per cent Goonvean.
[64] The parties submitted that they understood that Sibelco sold the kaolin it purchased from them to non-UK customers with little or no further processing. Imerys sales to Sibelco are subject to a long-term supply agreement between the two producers; in 2012, Imerys sold [✂] tonnes of paper-filler kaolin to Sibelco.

Rakem.[65] The total value of these sales in 2012 was around £[✂]. Sales to Sibelco represented about [✂] per cent of the total value and [✂] per cent of the volume of paper-filler kaolin produced for sale in the UK.

The parties' views

7.9 The parties told us that there was very little actual competition between the two parties for paper-filler customers pre-merger. This was because one of the main customers had a long-term contract with Imerys to [✂] and Goonvean could not supply this customer, and a number of others, because of logistics issues. These issues were primarily the lack of storage facilities near the main customers and a lack of the relevant machinery to provide kaolin in the slurry form required by most paper-filler customers.

7.10 The parties also argued that, although Sibelco did not currently supply kaolin for paper-filler applications to customers in the UK, it was a major producer of kaolin for paper filler and produced kaolin grades which were substitutable for those of the parties and therefore provided a competitive constraint.

7.11 The parties told us that non-UK kaolin producers such as ECESA, Vimianzo, Lasselberger and Amberger Kaolinwerke (AKW) produced substitutable paper-filler kaolin grades and were well placed to supply UK customers directly or via distributors. They pointed to their analysis of transport costs to suggest that, for example, ECESA could deliver to UK customers for paper-filler applications at around [✂] per cent higher than Imerys's delivered price.

7.12 The parties also considered that some customers in this market had strong negotiating power because they purchased multiple minerals or in multiple countries from Imerys, or purchased minerals from another supplier. For example, [✂].

Third party views

7.13 Most customers in this market told us that they did not consider the two parties to be credible alternatives either because of logistics issues or because Goonvean could not offer the same mix of kaolin and calcium carbonate as Imerys. One customer told us that it considered Goonvean as the only alternative to Imerys.[66] As such, the merger represented a worst-case scenario primarily because it would take the only tested source of competition away from Imerys and provide the merged entity with much stronger control over pricing. It had trialled and approved Goonvean's product but noted that Goonvean could not meet the customer's delivery requirements because it did not have a staging point local to the customer.

7.14 Customers told us that they either had never considered Sibelco as an alternative to the parties or, if they had, Sibelco could not meet their requirements. For example, Arjowiggins did not consider Sibelco as an alternative to Imerys for the same reasons it did not consider Goonvean to be an alternative: Sibelco's lack of slurrying facilities and inability to supply one of the kaolin grades which was combined with calcium carbonate.

7.15 We did not see any evidence of UK paper manufacturers importing kaolin. Customers told us that they did not consider imports as alternatives either because the grades were not substitutable, as they were not of the same quality, or because of the costs

[65] Sales to these customers represent [✂] per cent of Imerys's sales to UK customers and [✂] per cent of Goonvean's.
[66] James Cropper—see Appendix F.

involved. One considered a non-UK supplier as a potential supplier when it made its purchasing decisions but thought that importing was likely to be too expensive.[67] There was general consensus from paper manufacturers that imports were not competitive. One potential importer, which sold kaolin for paper-filler applications in mainland Europe, told us that it was keen to enter UK markets but had to date been unable to attract UK customers.[68]

7.16 Two customers acknowledged that they had some buyer power in their negotiations with Imerys.[69] This derived in general either from the volumes they bought, multi-sourcing of kaolin and other minerals, or from sourcing kaolin from Imerys for operations in other countries.

Our assessment

Evidence of switching

7.17 We found no examples of UK paper manufacturers switching between the parties in the last five years, though some customers said that they considered the other merger party as a potential alternative. For example, James Cropper had tested and approved Goonvean and Imerys kaolins for use in its products. However, it had not purchased from Goonvean as it could not meet its logistics requirements.[70]

7.18 [A distributor] told us that it had supplied paper manufacturers with Goonvean grades and had slurried them for the customer. This suggested that Goonvean's lack of slurrying facilities might not be a barrier to supplying some UK customers. However, Arjowiggins told us that it had not bought from Goonvean for its UK plants because it could not supply in slurry form. Arjowiggins also said that Goonvean could not supply one of the grades it bought from Imerys because it involved a combination with calcium carbonates which Goonvean did not offer. We noted that pre-merger Goonvean did not supply any paper-filler manufacturers directly: its total sales were to a distributor and to another supplier, Sibelco, which exported all its kaolin for paper filler. We found no examples of Sibelco supplying UK paper manufacturers nor of switching by these customers between either of the merger parties and Sibelco.[71]

Constraint from Sibelco

7.19 Although Sibelco was not supplying UK paper manufacturers, we noted that it was a significant producer of kaolin for paper filler and its share of production of paper-filler kaolin in the UK was [10–20] per cent in 2012 (compared with [60–70] per cent for Imerys and [10–20] per cent for Goonvean). We also took into account that Sibelco told us it would be able to supply Imerys and Goonvean customers as it had similar grades and that our analysis of prices suggested that Sibelco's [✂].

7.20 However, our assessment of potential entry by Sibelco found that it was capacity constrained and was likely to remain so (see paragraphs 6.8 to 6.39). Also, most paper-filler customers told us that they had not generally considered Sibelco as an alternative kaolin supplier for paper filler.[72] We therefore found little evidence to

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[67] Palm Paper.
[68] [✂]
[69] See Appendix F, Arjowiggins and [✂].
[70] James Cropper told us that Imerys supplied it by transporting the kaolin by train to Imerys's storage facilities in the Midlands and then by lorry when required by James Cropper. Goonvean offered to supply James Cropper by lorry from Cornwall. Given the distances involved—James Cropper is based in the North-West—James Cropper did not consider road transport sufficiently reliable for its supply requirements.
[71] However, there has been some ad hoc switching of main parties' kaolin to resolve breakdowns of slurrying facilities. [✂]
[72] [A distributor] said that it saw Sibelco as a potential competitor to the main parties.

suggest that Sibelco was a credible alternative for customers and therefore was not likely to be providing a strong competitive constraint pre-merger.

Analysis of imports

7.21 Although we found no evidence of current imports for paper-filler applications, we assessed the pre-merger constraint from imports taking into account the views of the main and third parties, and our own analysis of prices and transport costs. We noted the views of UK paper manufacturers that they did not generally consider imports and viewed them as uncompetitive. We undertook our own analysis comparing the ex-works (that is, pre-delivery) prices of European producers with those of the parties and took into account the costs of transportation.[73]

7.22 We found that the cost of transporting paper-filler kaolin to the UK was likely to be high relative to the ex-works prices of paper-filler kaolin grades. Our analysis suggested that transport to the UK would be 27 to 42 per cent relative to the ex-works prices of UK paper-filler kaolin grades. This did not take into account any additional costs of inland logistics arrangements, including storage, slurrying and inland delivery to the customer. This also did not take into account the fact that arrangements for logistics were relatively more demanding, with some customers requiring just-in-time deliveries. This suggested that non-UK suppliers would struggle to compete with the domestic suppliers on non-price aspects.

7.23 We compared paper-filler kaolin prices of a European supplier with those of Imerys and Goonvean. We found that the average ex-works price of this European supplier was at a similar level, or significantly higher, than prices of domestic producers, depending on the grade. This suggested that the additional transport cost element would make imports uncompetitive in terms of price and the estimated average delivered price of the imported kaolin would therefore be significantly higher than the prices of domestic producers.[74]

Analysis of buyer power

7.24 Our review of internal correspondence covering recent pricing negotiations between Imerys and one of its large paper-filler customers suggested that the customer might have been able to use the leverage of their other purchases to resist price increases for kaolin. It was not clear, though, whether this leverage was decisive in the prices achieved. We noted that two of the parties' larger customers considered that they had some buyer power in their negotiations from their purchase of other minerals or the volumes of kaolin they purchased.[75]

Conclusion on pre-merger competition for paper-filler applications

7.25 Overall, we concluded that there was very limited actual competition pre-merger between Imerys and Goonvean. We found that Goonvean could not supply Imerys's three main customers which collectively accounted for nearly all Imerys's paper-filler sales.[76] Goonvean could not supply these customers either because of logistics issues or because it could not supply the range of minerals required. Goonvean

[73] In assessing the costs of transport, we used the submission by the parties and took into account the views of third parties. Our methodology is set out in more detail in Appendix J.
[74] We note, however, that we had no information regarding individual grades of this European supplier and how they matched with those offered by Imerys and Goonvean (although the main parties had identified it as a suitable non-UK supplier).
[75] See Appendix F.
[76] See Appendix F.

supplied a distributor and another supplier but we found it was not competing strongly with Imerys to supply directly manufacturers of paper.

7.26 We found that there were some other pre-merger constraints on Imerys. For example, we noted that two of Imerys's three main customers had some buyer power derived from sources other than the existence of an alternative supplier of kaolin. Other potential constraints were relatively weak. We found that, although it exported similar grades for paper filler, customers did not generally see Sibelco as an alternative pre-merger. Our view was that the pre-merger constraint from imports in this market was weak.

The impact of the merger on competition for the supply of kaolin for paper-filler applications

7.27 The main parties told us that the merger would have little effect on competition for the supply of kaolin to UK paper manufacturers because the parties were not competing significantly pre-merger. We found evidence that was generally consistent with this view. For example, there was a lack of customer switching, or apparent potential for switching, between the parties for paper filler. Goonvean was not supplying paper-filler manufacturers directly but was able to supply through distributors, suggesting that any logistics issues it faced could be overcome for some smaller customers in this way. We noted that one paper manufacturer was concerned about the impact of the merger and saw the parties' grades as substitutable, though it was not a viable alternative because of logistics.

7.28 We took into account our assessment of potential entry by Sibelco to the UK market in paragraphs 6.31 and 6.32, noting in particular our conclusion in paragraph 6.38 that Sibelco was capacity constrained and was not actively considering starting to supply the UK market. We noted, however, that unlike some of the other markets we assessed, Sibelco had a relatively strong presence in the export market for paper-filler kaolin and was producing and selling paper-filler grades which were substitutable with those of the parties. We noted that the prospect of imports was limited based on our analysis summarized in paragraphs 7.21 and 7.23 and Appendix J. There was evidence to support the view that at least two of the largest customers would be able to exercise some buyer power in their future negotiations with the merger parties though we noted that, in a market with negotiated prices, this would not protect other customers.

Conclusion on the effects of the merger on the supply of kaolin for paper filler

7.29 We considered all the evidence and concluded that there may be some limited loss of competition in the supply of kaolin for UK customers for paper filler as a result of the merger. However, taking the evidence in the round, and noting in particular the absence of significant pre-merger competition between the parties, we concluded, on balance, that the merger had not resulted, and might not be expected to result, in an SLC in the market for the supply of kaolin for paper-filler applications in the UK.

Pre-merger competition for the supply of kaolin for sanitaryware applications

7.30 We found that the closure of UK factories producing sanitaryware in recent years had contributed to a significant decline in sales of sanitaryware grade kaolin in the UK. Around 24,000 tonnes were supplied to UK customers in 2009 compared with 7,000 tonnes in 2012. These figures represented 3 per cent of total UK production of kaolin for sanitaryware with the vast majority exported. The UK market had reduced to a

similar size, in terms of volume supplied, to the market for paper-filler applications (see paragraph 7.8).

7.31 The sanitaryware customer base in the UK had also reduced and one customer, Ideal Standard, accounted for around [✂] per cent of all UK kaolin sales for sanitaryware in 2012. Impulse Bathrooms was the second largest customer, accounting for [✂] per cent of Imerys's and [✂] per cent of Goonvean's sanitaryware kaolin grade sales in 2012 (12 per cent overall).

7.32 Imerys, Goonvean and Sibelco were supplying kaolin to UK customers for use in sanitaryware applications. Each party's share of sales volumes to these customers in 2012 were: Imerys [30–40] per cent, Goonvean [10–20] per cent, and Sibelco [40–50] per cent. There were no imports of sanitaryware kaolin into the UK. Each party's share of UK production for sanitaryware applications, that is, including exports, in 2012 were: Imerys [50–60] per cent, Goonvean [10–20] per cent and Sibelco [20–30] per cent.[77]

The parties' views

7.33 The main parties told us that they were not competing on price for Ideal Standard because their respective grades had different properties and different prices. For example, Imerys's grade was [✂] per cent more expensive, indicating that the grades were not directly substitutable. The main parties argued that, even though Impulse Bathrooms purchased from both Imerys and Goonvean, the reason was to satisfy different purposes. Thus, the main parties suggested that they were not competing on price pre-merger because their grades were not directly substitutable.

7.34 Imerys subsequently told us that [✂].

7.35 The parties told us that sanitaryware manufacturers would invariably use a blend of different grades of kaolin, ball clays and other minerals in their production processes. They told us that although no two kaolin grades had identical properties, it would always be possible for a manufacturer to reduce or remove one kaolin grade from its production process by substituting a blend of other kaolin grades. Some reformulation would be required whether switching between the main parties' grades or between the main parties and another kaolin supplier.

7.36 The main parties argued that Sibelco was a strong competitive constraint, and would continue to be so post-merger. Sibelco had comparable grades and there was evidence of customers switching from the parties to Sibelco. [✂] had switched its purchases to Sibelco and [✂].

7.37 The main parties told us that non-UK suppliers produced kaolin grades that were substitutable to the sanitaryware grades supplied by the main parties in the UK. They argued that transport costs were not a barrier for imports. The analysis of transport costs presented by the parties focuses on Imerys's largest customer, Ideal Standard, and suggested that non-UK suppliers could deliver to Ideal Standard at a delivered price of between [✂] and [✂] per cent higher than Imerys's current delivered price.

7.38 Imerys submitted that [✂].

[77] See Appendix G, Table 2 & paragraph 5.

Third party views

7.39 Both the main UK customers for kaolin for sanitaryware applications told us that they considered that the parties competed and their grades were substitutable. One had recently switched its volumes between the two and considered the merger parties to be competitive on quality and price.

7.40 Although there were mixed views on the extent to which the parties' grades could be substituted for Sibelco's products, there was a general consensus that Sibelco was an alternative to the parties for sanitaryware customers. For example, one customer told us that Cornish kaolins had particular characteristics but accepted that some of Sibelco's grades were alternatives.[78] Others saw Sibelco as a strong competitor. Sibelco explained that it actively competed with both Imerys and Goonvean for sanitaryware customers and that it would initiate contact with potential customers and try to win customers from its rivals.

7.41 Third parties did not consider that imports were competitive. Sibelco told us that, as the grades of kaolin it produced for sanitaryware could be used for a wide range of purposes, it would be difficult for importers to the UK to compete. This was because of importers' higher logistics costs, such as shipping and port costs.[79] Sibelco noted that importing kaolin might be more financially viable for products with higher selling prices. Customers similarly told us that they considered imports to be considerably more expensive than kaolin supplied from within the UK. One had tested kaolin from a non-UK supplier and found it to be no better in terms of performance and 20 to 30 per cent more expensive.[80]

7.42 We received mixed evidence on the extent to which customers had buyer power. Ideal Standard told us that sourcing multiple minerals from one supplier helped in price negotiations. It negotiated prices with Imerys and Sibelco on a European basis for multiple minerals and used this as a leverage to achieve better prices and resist price increases. Other customers did not consider that they had buyer power and had been unable to resist price increases because there were relatively few options. Sibelco told us that, in its experience, the threat of using an alternative supplier was the main point used as leverage in negotiations rather than multi-sourcing of other minerals.

Our analysis

Evidence of switching

7.43 We noted some evidence of customers switching in this market in recent years. This was between the parties, and between one of the parties and Sibelco. The main parties and customers told us that switching required reformulation of products and testing but was possible in response to increases in prices or for improved quality. We did not find any difference in the time and costs involved for customers to switch between the parties compared with switching between one of the parties and Sibelco. Customers described testing kaolin grades from Imerys, Goonvean and Sibelco and were generally consistent in their views that the parties competed with each other pre-merger.[81]

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[78] Impulse Bathrooms.
[79] A non-UK producer also told that while it could supply competing sanitaryware kaolin grades, it did not do so due to the cost of importing making it uncompetitive.
[80] Impulse Bathrooms.
[81] See Appendix G, paragraphs 20 & 21.

7.44 We noted the parties' argument that they did not compete pre-merger because of the difference in prices between the sanitaryware grades they sold. However, they also told us that it was generally possible for a manufacturer to reduce or remove one kaolin grade from its production process by substituting a blend of other kaolin grades. This latter view was consistent with the evidence we had from customers and was supported by the evidence of switching between the parties and to Sibelco.

Constraint from Sibelco

7.45 Sibelco's market share and the views of it and customers supported the parties' argument that Sibelco was a strong competitor. There was evidence from internal correspondence that Sibelco competed strongly for UK customers in this market and that prices for each of the three suppliers were negotiated down because of the presence of the others in the market.

7.46 The evidence from Sibelco was also consistent with these views. Sibelco told us that it actively competed with both parties, initiating contact with potential customers and trying to win customers from its rivals. We noted that Sibelco had identified alternative grades for most of the parties' sanitaryware grades.[82]

Analysis of imports

7.47 Our analysis of the cost of imports was not entirely consistent with the views of customers. As with paper filler, we found no evidence of imports pre-merger and there was a consensus of views from third parties that they were unlikely to be competitive with UK suppliers. Our analysis of ex-works prices of non-UK suppliers, and our estimates of transport costs, suggested that while some imports might be as much as 50 per cent higher than UK suppliers, others might not be significantly higher than the highest prices of UK suppliers.[83] We noted, though, that these latter costs did not take into account UK port handling charges and any storage costs that would need to be incurred. Storage was particularly relevant because the transport cost estimates were based on importing kaolin using large bulk tankers.

Analysis of buyer power

7.48 Our analysis of internal documents detailing negotiations between the parties and customers suggested that the threat of switching to another supplier was more important than other sources of buyer power. While there was evidence to suggest that Ideal Standard had negotiating strength from the fact that it sourced multiple materials from Imerys, the smaller customers lacked such buyer power.

Conclusion on pre-merger competition for sanitaryware applications

7.49 We found that pre-merger the parties competed to supply sanitaryware manufacturers and competed with Sibelco. The grades supplied by the three UK suppliers were a similar range of products and customers could, and did, switch between them. There was little evidence to suggest that non-UK suppliers were competing with the three UK suppliers pre-merger and any buyer power was limited to the largest UK customer.

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[82] Sibelco told us [✂].
[83] These grades represented 34 per cent of total sales to sanitaryware applications to the UK in 2012.

The impact of the merger on competition for the supply of kaolin for sanitaryware applications

7.50 The parties argued that Sibelco would continue to be a strong competitor to the parties post-merger and provide a competitive constraint on the merged entity. They further noted that there were limited barriers to imports and that the largest customer in this market would be able to resist price rises because it had buyer power related to its purchases across Europe and multi-sourcing from Imerys of other minerals.

7.51 Some customers told us that they were concerned about the effect of the merger on prices and either considered that they did not have any buyer power or that their negotiating position relied on the credible threat of switching to other options.

7.52 We found that the merger would see a reduction in customers' alternatives from three to two and a resulting reduction in their negotiating power. However, we also noted that the remaining competitor in the UK market had a strong market share and could offer most relevant grades to manufacturers. Our analysis suggested that imports might also offer some constraint on prices post-merger, though this was likely to be limited. We also considered that the main customer in the market, representing the vast majority of sales in this market, had some buyer power.

Conclusion on the effects of the merger on the supply of kaolin for sanitaryware applications

7.53 On balance, we concluded that the merger would result in some loss of competition in the supply of kaolin for manufacturers of UK sanitaryware applications. However, our view was that sufficient constraints remained in the market, in particular an alternative UK supplier competing strongly and some customer buyer power. We therefore concluded that the merger had not resulted, and might not be expected to result, in an SLC in the supply of kaolin for sanitaryware applications in the UK.

Pre-merger competition for the supply of kaolin for tableware applications

7.54 In 2012, approximately 10,000 tonnes of kaolin were supplied to the market for table-ware applications in the UK. Imerys sold [✂] tonnes and had a [60–70] per cent share of supply; Goonvean sold [✂] tonnes and had a [20–30] per cent share of supply. Sibelco was not active in the UK market.

7.55 There were some imports of kaolin for tableware applications. A distributor, Furlong, purchased [✂] tonnes of kaolin from AKW in Germany, giving AKW a [5–10] per cent share of supply.[84] Goonvean also imported [✂] tonnes of kaolin from AKW. It blended the AKW kaolin with its own deposits to produce its own kaolin grades which it subsequently sold to UK customers and the export market.[85]

7.56 We found that kaolin was a significant input into tableware, representing 20 to 40 per cent of the finished product, where a higher proportion of kaolin gave better-quality products. There had been a decline in UK production of tableware in recent years and the remaining UK tableware manufacturers had concentrated on relatively high-end tableware which relied on kaolin for brightness, whiteness and strength. They required kaolin that gave high-fired brightness which could only be obtained through

[84] Another competitor, Dudson, imported a specialist kaolin from Imerys New Zealand.
[85] Assuming that Goonvean exports 65 per cent of the AKW's kaolin as part of its tableware kaolin products and thus 35 per cent of the [✂] tonnes imported by Goonvean remain in the UK and are supplied to Goonvean's tableware customers, this gives AKW's kaolin an estimated share of supply in the UK to tableware applications of [0–10] per cent.

certain deposits, such as Goonvean's G1 reserves which were low in iron, or by centrifuging and magnetizing the raw kaolin to reduce iron content. Only Imerys had the magnetic processing equipment to do this in the UK.[86]

7.57 The customer base was concentrated.[87] The largest customers were [✂]. Furlong was jointly owned by Dudson, Churchill and Portmeirion, and it produced ceramic bodies as well as acting as a distributor for Goonvean and AKW kaolin. Together these five customers purchased [✂] per cent of tableware grade kaolin sold by the main parties in the UK.

Main parties' views

7.58 The main parties told us that there was very limited pre-merger competition between the parties for UK tableware customers. They argued that, in light of Goonvean's intention to reduce or cease to supply tableware kaolin due to exhaustion of its G1 reserves, Imerys's ability to increase prices would not have been constrained by credible threats to switch to Goonvean. The main parties also argued that evidence on lack of switching of tableware customers in the last five years, lack of direct substitutability between parties' grades, and differences between UK prices of parties' grades indicated lack of rivalry between Imerys and Goonvean pre-merger.

7.59 The parties argued that imports were a constraint. They said that the presence of AKW in the market demonstrated that there were no barriers to imports and that AKW was a strong competitor since it already supplied UK customers with substantial volumes of tableware-grade kaolin and it had spare capacity. The parties also pointed to their analysis of transport costs which suggested that non-UK suppliers could deliver at prices between [✂] and [✂] per cent higher than the parties for higher grades and between [✂] and [✂] per cent for lower grades.

7.60 The parties also claimed that tableware manufacturers had bargaining power and could readily reformulate. Imerys submitted that [✂] and could sponsor entry or expansion by rival suppliers. [✂]

Third party views

7.61 Although there was a general consensus from tableware customers that switching kaolin suppliers was a long and costly process, there were different views on the extent to which they saw the parties' tableware grades as substitutes. Most saw similarities between the various tableware grades of the two parties and said that they could switch if required. However, customers generally expressed a preference for one of the parties' grades and nearly all said that they would be reluctant to switch because of the technical difficulties and associated costs. Of the six main UK tableware customers, four bought kaolin from both Imerys and Goonvean.[88] Where customers compared the prices of the two merger parties, they suggested that Imerys's prices were generally higher.[89]

7.62 Most[90] tableware customers expressed some concerns about the effect of the merger. Dudson told us that its concerns in relation to the merger were the maintenance of the specific quality of the Goonvean clay and that one strong supplier would

[86] See paragraph 6.26 for Sibelco's estimate of the cost of improving its magnets to increase its range of kaolin products.
[87] See Appendix H for a detailed summary of customers' views.
[88] See Appendix H.
[89] See Appendix H.
[90] Endeka told us that it did not have any concerns about the merger.

be able to control pricing. Similarly, Steelite said that the merger would lead to a contraction of the range of products available to the industry and a monopoly situation. As there were no viable alternatives in the UK, GCM had concerns that Imerys could abuse its market power should the merger proceed by increasing prices significantly. Furlong also noted that after the merger there would be only one supplier controlling the supply of UK kaolin that was suitable for the high-quality tableware that the industry was producing. However, it also noted that the parties were not competing strongly because their products were not interchangeable and it thought that a potential benefit of the merger might be the security of the UK's kaolin reserves.

7.63 Third party views were broadly consistent on the extent to which Sibelco competed for tableware customers. With the exception of one customer[91] which produced tableware and some sanitaryware items, customers did not consider Sibelco to be an alternative and said that its grades did not offer the characteristics they required for tableware and were too high in iron.

7.64 Customers told us that they generally considered imports only for the specific qualities of the kaolin and most considered that they were expensive and, in some cases, not comparable. Furlong told us that it imported kaolin from AKW because of its technical performance but the cost of transporting it was significant. Further imports would be difficult because of transport and storage costs; the amount that it purchased at the moment was sufficiently small that it did not incur storage costs. Furlong also noted that the transport costs were significantly higher than if it could import in bulk tankers. This was not feasible at present given that the volumes of imported kaolin used were small relative to size of a bulk tanker. Dudson imported tableware-grade kaolin from Imerys New Zealand for technical reasons. It did not consider kaolin from AKW to be of sufficient quality.

7.65 Other tableware manufacturers had not considered imports or thought that they were expensive. For example, Steelite told us that it had not considered using kaolin from overseas. GCM said that imported kaolin was more expensive and it would use, for example, AKW clays only where it would be absolutely necessary to improve the whiteness of a product. Endeka said that it was not aware of any cost-effective non-UK suppliers.

Our assessment

Evidence of switching

7.66 We found that actual switching events between any suppliers were rare. This was consistent with what tableware manufacturers told us about switching: that reformulating their products to accommodate a change in the supply of kaolin would be time-consuming, costly, and involve an element of risk regarding the end-product.[92] We found no evidence of switching between the parties, or from either of the parties to another supplier, in the last five years. Two customers told us that around ten years ago they had either switched between Goonvean and Imerys or had started to import from AKW in response to price rises. There was also some evidence that customers

[91] Endeka.
[92] Estimates ranged from 2 to 12 months. Customers indicated that initial laboratory testing costs would not be significant, but the costs and risks escalated substantially when trialling was taken to the manufacturing stage. A tableware customer told us that it could cost around £[✂] per stock-keeping unit to trial and change kaolin grade.

considered the two parties' grades as substitutes, had been approached by the other party to try to win their business,[93] and had trialled the other's products.

7.67 Our analysis of pricing data was consistent with the views of customers. It suggested that, when comparing what customers considered similar tableware grades, Imerys's prices were on average more expensive than those of Goonvean between 2008 and 2012.[94]

Constraint from Sibelco

7.68 We found very little evidence to suggest that Sibelco was a credible alternative to the parties. With the exception of one manufacturer which produced lower-quality tableware, customers told us that they did not consider its grades of sufficient quality and Sibelco itself confirmed that it did not have the necessary processing equipment to supply the grades required by UK tableware customers.

Analysis of imports

7.69 We noted that, unlike paper and sanitaryware, there was some evidence of kaolin imports for tableware application. We analysed AKW's ex-works prices and estimates of transport costs to the UK to assess whether it is likely to be commercially viable for AKW to increase its imports. AKW matched its grades with Imerys and Goonvean grades to the extent possible, although customers told us that these would not be perfect substitutes from their perspective.

7.70 Our analysis suggested some limited potential for an increase in imports but only for certain grades. We found that the AKW price including transport costs was lower than the current average delivered UK price for the more expensive Imerys and Goonvean grades, suggesting that customers might be able to switch to imports following a price increase in these products.[95] We also found that the AKW price including transport costs was significantly higher than local prices for the parties' other tableware grades. Around half of the parties' tableware kaolin sales by volume could be contested by imports of matching AKW grades on the basis of price.

7.71 Dudson, who bought kaolin from Imerys New Zealand, told us that this was a premium kaolin particularly suitable for that customer's purposes which was not available elsewhere.

Analysis of buyer power

7.72 Furlong referred to being able to exert buyer power derived from sources other than the availability of an alternative supplier. Although it did not purchase minerals other than kaolin from Goonvean, Furlong purchased ball clays from Imerys and it told us that purchasing multiple products from a single supplier gave it a slightly better negotiating position. Endeka purchased UK-produced kaolin for its operations in the UK and Spain, and in the UK it also purchased ball clay. GCM also purchased ball clay from Imerys in the UK but did not consider that this gave it an improved negotiating position and highlighted its limited negotiating power when faced with annual price

[93] Steelite told us that Goonvean competed for Imerys's business and had approached it around five years ago, resulting in an 18-month trial of Goonvean products. Dudson told us that Imerys had approached it last year to try to win its business from Goonvean.
[94] See Appendix H, paragraph 7.
[95] This is the case for [✂] and [✂] and for [✂].

rises. Other customers did not multisource from the parties nor purchase kaolin from them overseas.

Conclusion on pre-merger competition for tableware applications

7.73 We found that switching costs were particularly high in tableware applications and that this limited the ability of customers to switch between grades in response to small price increases. However, we found that the parties' products were considered by most customers to be the closest alternatives, even where customers had a preference for one or the other supplier, or where the parties' grades were used to satisfy different needs. We found that Sibelco was not a credible alternative and that imports were not generally an economically viable option across the full range of products. Therefore, pre-merger, the parties appeared to be closest competitors. We did not find evidence of widespread buyer power among tableware manufacturers.

The impact of the merger on competition for the supply of kaolin to UK tableware manufacturers

7.74 The parties considered that the merger would not have an impact on competition because there was very limited pre-merger competition as a result of Goonvean's shift of priority away from tableware. Therefore, they argued that the merger did not remove a pricing constraint. Furthermore, they argued that strong competition remained post-merger from Sibelco, AKW and other European producers which produce, or could produce, comparable grades to the parties and therefore have the potential to supply UK customers. The parties also considered that customers had bargaining power and could readily reformulate using blends with lower kaolin content, sponsor entry or expansion and/or increase imports.

7.75 By contrast, some customers expressed concerns that the merged entity would be in a monopoly position post-merger. Customers' concerns were predominantly about a potential rationalization of grades and the threat of increased prices (see paragraph 7.62). Based on what they told us about the time and cost of switching, a rationalization of grades would lead to disruption and costs to customers from reformulating their recipes.[96]

7.76 We considered these two opposing positions carefully. We took into account our assessment of potential entry and expansion by Sibelco in paragraph 6.33 and our analysis of Sibelco's pre-merger constraint on the parties (see paragraph 7.68). We concluded that Sibelco was not a credible alternative to the parties pre-merger because it did not produce kaolin grades of the standard required by UK tableware manufacturers. We also concluded in Section 6 that Sibelco was not likely to make the required investment to supply the necessary grades and was unlikely to enter the market in response to an increase in prices.

7.77 Our analysis indicated that if there was a price increase post-merger, AKW might be able to increase its imports of some grades albeit from a low base. We noted that customers told us that they were reluctant to switch to AKW or other importers because of the transport costs associated with imports and not for quality reasons. For example, Furlong did not seem likely to increase its purchases of imports unless it could shift significantly higher volumes. We therefore concluded that, while there was some potential for importers to increase their supply to UK customers, the volumes involved were unlikely to be sufficient to constrain the merged entity.

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[96] See Appendix H, paragraphs 17–24.

Similarly, we saw little evidence to support the parties' views that customers had buyer power or would be able to sponsor entry or expansion into the market.

7.78 We found evidence to support the parties' view that there was not significant price competition between them pre-merger. Also, based on our analysis of the counter-factual, we concluded that Goonvean was not likely to be in a position where it was competing for new customers because of its concerns over the level of its G1 reserves used in most of its tableware grades sold in the UK. Furthermore, we found that in the very near future Goonvean would have started to inform its UK tableware customers that its continued supply of G1-dependent tableware grades was likely to end.

7.79 We concluded that, at the point at which Goonvean started to inform its customers of its depleting G1 reserves, any residual constraint Goonvean would have placed on Imerys would have started to reduce quickly. Tableware manufacturers would not have been able to use the presence of Goonvean in the market as leverage in negotiations and it would have ceased to have been a credible alternative option to Imerys for these customers.

7.80 Although it was not possible to predict accurately at what point Goonvean would have informed its tableware customers, our analysis of the evidence in the counter-factual suggested that this would have been likely to have occurred in the very near future. We therefore concluded that the merger would not reduce rivalry significantly over time.[97]

7.81 We noted customers' concerns about the potential rationalization of grades which might result from the merger and the time they needed to reformulate their recipes. However, Goonvean told us that it was its practice to give customers 12 to 18 months' notice of its intention to withdraw supply of grades to enable them to re-formulate. Goonvean had started to tell UK tableware manufacturers that its G1-reliant grades would not be supplied beyond the end of 2014 in line with this usual notice period, thereby giving customers time to reformulate.

Conclusions on the impact of the merger on tableware customers

7.82 On balance, we therefore concluded that the merger had not resulted or might not be expected to result in an SLC in the supply of kaolin for tableware applications in the UK.

Pre-merger competition for the supply of kaolin for performance-mineral applications

7.83 Performance-mineral kaolin was the largest UK market supplied by the parties, with [✂] tonnes sold in 2012.[98] Imerys's share of sales volumes of performance-mineral kaolin sold in the UK in 2012 was [70–80] per cent, compared with [10–20] per cent for Goonvean, [0–5] per cent for Sibelco and [0–5] per cent for imports. Of the three UK producers of kaolin, we estimated that their shares of production of kaolin sold for performance-mineral applications in the UK and abroad were: Imerys [70–80] per cent, Goonvean [20–30] per cent and Sibelco [0–5] per cent.

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[97] Paragraph 4.1.3 of the Guidelines states that a merger gives rise to an SLC when it has a significant effect on rivalry over time,

[98] Hydrous and calcined kaolin is supplied to performance-minerals applications. We include in our assessment hydrous kaolin but not calcined kaolin, as Goonvean does not produce calcined kaolin.

7.84 We found that performance-mineral products were differentiated in terms of their properties (see Appendix D). The important characteristics for customers were generally brightness and particle size. Imerys produced some kaolin grades that were highly processed and were very high quality (eg in terms of brightness and particle size), including two main grades sold in the UK, Speswhite and Supreme. Imerys described these as 'premium' grades.[99]

7.85 As we noted in paragraph 4.32, we took into account the difference in the competitive constraints on these highly-processed grades in our assessment. These highly-processed grades accounted for around [✂] of the [✂] tonnes of performance-mineral kaolin sold to UK customers in 2012.[100]

7.86 Performance-mineral customers used kaolin primarily for paints and adhesives. Generally kaolin represented a relatively small fraction of the total input cost into the end-product (typically less than 10 per cent). The higher-quality grades were used in higher-quality products, such as gloss paints and as extenders of more expensive materials used in formulations.

7.87 We found that the customer base across all performance-mineral applications was more fragmented than in other kaolin markets.[101] Crown Paints, Akzo Nobel, Armstrong and Bostik were the major customers, accounting for [✂] per cent of the parties' combined revenues in performance-mineral applications. [✂] was the largest customer [✂]. It accounted for [✂] per cent of sales revenue in kaolin sales to performance-mineral applications; within this, it accounted for [✂] per cent of sales revenue of Imerys's highly-processed Supreme grade and for [✂] per cent of sales revenue of other grades supplied to performance-minerals applications. There were some distributors, including WhitChem, RBH and Rakem, which accounted for [✂] per cent of performance-mineral revenues. There were also over 30 smaller customers.

Main parties' views

7.88 The parties told us that the extent of competition between the parties in performance-mineral applications was limited. They argued that Goonvean could not supply a number of Imerys's customers due to a lack of financial resources and long-term prospects to make investments in production, logistics and research and development. They also argued that a number of customers had specific product requirements that only one party could meet.

7.89 Furthermore, the parties argued that what Imerys described as its premium-performance minerals included grades such as Supreme and Speswhite, which should be segmented out into a separate market that Goonvean did not compete in.

7.90 The main parties told us that Sibelco had the ability to compete in the supply of kaolin to what they call 'commodity' performance-mineral applications. They submitted that Sibelco had in the past supplied large volumes of performance-mineral grades to UK and overseas customers, and that it currently supplied to customers manufacturing a wide range of end-products, including paint, rubbers, adhesives and plasterboard. The parties indicated that a customer switched from Imerys to Sibelco over five years ago.

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[99] We understand that calcined kaolin, which is not included in our assessment, is of similar quality to 'premium' grades of hydrous kaolin.
[100] We noted that excluding these highest-quality grades from the shares of supply to UK customers slightly increases Goonvean's and Sibelco's shares: Imerys [60–70] per cent, Goonvean [30–40] per cent and Sibelco [0–5] per cent.
[101] See Appendix I.

7.91 The parties claimed that there were many other non-UK suppliers of performance-mineral kaolin grades which competed with theirs, including Soka, Lasselsberger, Sedlecky, AKW , Dorfner and Kaolin AD in Europe. They said that their customers had switched to these competitors on a regular basis and that a number of UK customers, such as [✂] threatened to switch to alternative suppliers.

7.92 The parties also argued that customers had bargaining power. Many of their customers were sophisticated international customers who could switch to other kaolin producers, reformulate to use alternative minerals, and who procured on a multi-product or pan-European basis.

Third party views

7.93 Third parties' views were consistent that the main parties' grades were alternatives for each other and that the parties competed across most grades.[102] Each of the four largest customers in this market told us that Imerys and Goonvean were alternatives for each other, and had used or tested both products at some point and/or had both as approved suppliers.[103] Smaller customers had a similar view. Two distributors told us that they distributed both Imerys and Goonvean products, and that their customers switched between the two.[104]

7.94 There was limited evidence from third parties that Sibelco was a significant alternative to the merger parties. Three of the largest customers and one of the distributors said that Sibelco was not an alternative. Crown Paints told us that it had undertaken some initial testing on a kaolin grade provided by Sibelco which suggested that it might be suitable but Sibelco had informed it that the product was not currently available to supply (see paragraph 6.29). Sibelco told us that its kaolin grades were suitable for rubber and adhesives but that the colour quality of its kaolin meant that it was not suitable for use in paint[105] or other applications where colour was important.

7.95 The general view from customers was that while European producers could supply the required grades of kaolin for performance mineral, imports were not competitive on price. Only Akzo Nobel had considered importing, from either [✂] or [✂], but we understand that this is in relation to highly-processed kaolin grades.

7.96 [✂] was the only customer that considered that it had been able to influence price negotiations significantly by using buyer power. It noted that it negotiated with Imerys for all its plants in Europe. This had [✂]. Other customers did not consider that their other activities or purchases from Imerys gave them significant leverage in their negotiations.

Our analysis

Evidence of switching

7.97 We analysed the parties' data on customer switching to or from the parties in the past five years. We found [✂] examples of performance-mineral customers switching from Imerys to Goonvean (accounting for around [✂] per cent of Goonvean's total UK kaolin revenues), and [✂] instance of a performance-mineral customer switching

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[102] See Appendix I.
[103] This was the case for Imerys's Speswhite grade as well as for the other Imerys and Goonvean grades which we classify as being sold into the performance-mineral market.
[104] RBH and [✂].
[105] Sibelco said that it did supply kaolin for use in lower-grade paints such as undercoat and marine coatings.

from Goonvean to Imerys (accounting for around [✂] per cent of Goonvean's total UK kaolin revenues). This data also showed that neither of the parties had won or lost performance-mineral business to Sibelco or importers in the past five years. However, Imerys had won and lost customers to non-UK producers in the 'premium' segment of the market (it had won one customer and lost one customer).

7.98 We also saw evidence of the competitive constraint that the parties' placed on each other even when switching did not take place. Internal documents showed the parties actively trying to win business from each other.[106]

Extent of competition between the parties for performance-mineral grades

7.99 We considered carefully the parties' arguments that pre-merger they did not compete for customers of certain high-quality performance-mineral grades because Goonvean did not have the processing capacity to produce them.

7.100 We examined the information provided by the parties on the properties of their performance-mineral grades (see Appendix D, Figure 6). This showed that the grades were on a continuum in terms of the key properties valued by customers—brightness and particle size—Imerys's 'premium' grades were at the top, with Supreme followed by Speswhite; Goonvean's Opal Alpha had the highest properties of its grades.

7.101 To assess the extent to which the parties were a credible alternative to each other for particular grades, we considered the evidence on the parties' processing capabilities and examined the evidence from customers. We noted that Imerys's Supreme, and grades of similar or higher quality to that of Supreme, were highly processed. We found that Goonvean did not have the processing equipment required to produce grades of sufficient brightness and equivalent particle size and was therefore not competing with Imerys pre-merger for customers' purchases of these grades. We also found no evidence that Goonvean was able to produce competing grades by buying in kaolin from other sources or had plans to expand its grade portfolio to include similar high-end grades.

7.102 Furthermore, customers buying Imerys's Supreme grade, and the small amounts of other equivalent Imerys grades,[107] generally did not consider Goonvean as an alternative supplier. One customer had tested a Goonvean product as a replacement for Supreme but the product had failed the tests.[108]

7.103 In contrast, evidence from customers suggested that Goonvean was a constraint in relation to Imerys's Speswhite grade. Imerys's [✂] UK customer for Speswhite, Crown Paints, told us that it had a policy of having two approved suppliers and that its approved alternative for Speswhite had been Goonvean's Opal Alpha grade since 2010. Crown Paints said that the existence of this alternative gave it leverage in its negotiations with Imerys. A distributor also told us that it considered Goonvean's Opal Alpha to be an equivalent to Imerys's Speswhite.[109]

7.104 The parties argued that Goonvean's Opal Alpha was not a credible alternative to Speswhite because Goonvean itself was reliant on supplies of Imerys's Speswhite to

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[106] We summarize this evidence in more detail in Appendix I. Examples include emails from Goonvean to a customer and a Goonvean report following a visit to a customer. The first one stresses the extent to which Goonvean is keen to win the business for the first time, and the second one indicates that Imerys is keen to win business back from a customer who has switched from Imerys to Goonvean in the recent past.
[107] Aquaflat Supreme, P10, P20, Infilm1735, Infilm 813, HEAVYK, SPS, STO.
[108] [✂]
[109] Richard Baker Harrison.

make its Opal Alpha grade. They pointed to evidence from internal documents which suggested that Goonvean recognized it would be difficult to supply [✂] with the required volumes of Opal Alpha. In these documents, Goonvean said that it expected Imerys to cease supplying it with Speswhite once Imerys became aware that it was using Speswhite to produce a grade which it was supplying to [✂]. Goonvean therefore advised [✂] that it could not supply the required volumes at that time.

7.105 We considered carefully the parties' arguments about Speswhite. While we took into account that Goonvean was currently using Speswhite as an input in its alternative Opal Alpha grade, we also noted that Goonvean had previously [✂] to make Opal Alpha and had proposed to [✂] to reduce its reliance on Imerys. The internal documents suggested that [✂] might take around [✂]. Given the volumes involved with this contract, and the fact that it had a Crown Paints approved grade, we considered that Goonvean had the incentive to identify another source of supply to enable it to make Opal Alpha and thereby continue to compete with Imerys for Crown Paints' business and that of other customers of Speswhite.

7.106 Taking into account all the evidence, on balance, we considered that, pre-merger, Goonvean's Opal Alpha was providing a competitive constraint on Imerys for the supply of Speswhite and that it had clear incentives to continue to supply this grade in competition with Speswhite. Furthermore, notwithstanding its need to identify an alternative kaolin supply to enable it to continue to manufacture Opal Alpha, we saw minimal evidence to suggest that Goonvean was likely to cease producing Opal Alpha.

Analysis of prices

7.107 We noted that there was some overlap between grades supplied to different applications and that there were [✂]. We therefore compared the prices to assess the extent to which competition for supplying kaolin to these markets might affect price.

7.108 Our analysis focused on a particular Imerys grade which was supplied to [✂]. We observed that the average prices of this grade sold to [✂] were significantly higher than the average prices when sold to [✂], although this may have been because it was supplied to the former in bagged form and the latter in bulk form.[110] Therefore we examined changes in prices over time rather than price levels.[111] Our analysis found that price increases for [✂] customers were higher than those for the relevant [✂] in 2011 and 2012.

7.109 This analysis was not consistent with performance-mineral customers having comparable buyer power to the relevant customer for [✂] but we did not consider it to be conclusive. This was because price increases following a negotiation were likely to be the result of a range of factors and we were only able to observe comparable price rises over a relatively short three-year period.

Analysis of imports

7.110 As in most of the other markets we examined, we found little or no evidence of imports, and customers were generally consistent in their views that imports were not competitive. We investigated whether there would be an incentive for importers to

[110] Primarily to a single customer, [✂].
[111] We noted that the price levels could be different between the two applications because of the form that kaolin is supplied in (in bulk to [✂], in bags to [✂]) and due to the fact that significantly smaller quantities are purchased by each individual [✂] customer than by the [✂] customer (ie larger volumes are priced lower).

sell into the UK in the event of a small price increase. We analysed AKW ex-works prices for grades which matched those of Imerys and Goonvean, and added an estimated transport cost. For most grades, we found that AKW's average ex-works price exceeds the UK delivered price of Imerys and Goonvean, and that customers would have to incur transport costs of around 28 to 43 per cent of the ex-works price.

7.111 The only performance-mineral grades for which AKW imports might be substitutes, from a pricing perspective, were Supreme and bagged Speswhite. AKW told us that its [✂] grade would be the closest alternative and our analysis suggests that it could supply this into the UK below the current prices for Imerys's grades. However, AKW noted that [✂].

7.112 We saw evidence of existing imports of highly-processed kaolins. For example, Thiele, BASF and other companies supplied [5–10] per cent of UK customers' volume of purchases of highly-processed kaolin grades in 2012.[112] We understood that recently Ashapura, an Indian company, had started supplying a customer in the UK which previously purchased highly-processed grades from Imerys.

Analysis of buyer power

7.113 We noted that some of the larger customers were large pan-European or multi-national companies and that the parties had emphasized the extent to which these customers had buyer power in their negotiations over price.

7.114 In considering the parties' arguments on buyer power, we took into account that, where prices are bilaterally negotiated, any buyer power possessed by one customer will not protect other customers from any adverse effects that might arise from the merger.[113] Furthermore, while we noted that some performance-mineral customers were relatively large companies, 'it does not necessarily follow that there will be countervailing buyer power'.[114] We therefore took into account the views of customers, and documentary evidence from negotiations between customers and the parties, to assess the extent of any evidence that customers were successfully able to use, as leverage in the negotiations, factors other than the existence of a credible alternative.

7.115 Based on this evidence, we found that of the four largest customers, one customer was using its presence in other markets and other purchases from Imerys in its negotiations. This was confirmed by the customer. Internal documents covering negotiations with other customers showed little or no evidence of these customers successfully using factors, other than the presence of an alternative supplier, to secure a lower price.[115]

7.116 We also noted that distributors told us that they passed price increases directly through to customers. The distributors told us that their kaolin purchase prices were based on list prices quoted by the main parties, which suggested that prices were not negotiated with the distributors in the same way as with the direct customers.

7.117 There were many smaller customers which collectively account for 24 per cent of the parties' revenues in performance minerals. The parties claimed that some of these customers—such as [✂]—had bargaining power on the basis that they purchased multiple minerals from Imerys. From our review of internal documents, and the

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[112] This figure did not include any imported kaolin which may be supplied to small customers through distributors.
[113] The Guidelines, paragraph 5.9.6.
[114] The Guidelines, paragraph 5.9.4.
[115] See Appendix I.

evidence from the customers, we did not find that these smaller customers had buyer power.

7.118 We also analysed price data to see if there was evidence consistent with buyer power of larger customers. We found that Imerys's largest performance-mineral customers had a higher average increase in prices than its medium and smaller customers in 2012, and that the opposite held for Goonvean; Goonvean's average price increases were lower. As such, this analysis was not conclusive about the existence of buyer power and suggested that multiple factors were driving price changes.

7.119 Taking into account the views of customers, our examination of internal documents and our analysis of pricing, with the exception of one large customer, we did not see evidence suggesting significant buyer power among customers for performance-mineral applications.

Conclusion on pre-merger competition for performance-mineral applications

7.120 Pre-merger, we found that there had been active competition between the main parties for performance-mineral customers, despite differences in properties of kaolin grades supplied and possible differences in logistics or service offered. We noted, however, that Goonvean was not able to compete against Imerys's premium Supreme grade and its equivalent highly-processed grades. The parties were each other's closest competitors for the other performance-mineral sales. Sibelco's presence was less than 5 per cent and it was considered to be either a weak third option, or not an option at all, by customers.[116] Imports were confined to small quantities of premium grades and our analysis suggested that transport costs mean that they were not commercially viable other than for these premium grades (for example, Supreme) where we found that, in any case, Goonvean was not competing pre-merger. Except for a large customer, we did not find evidence that indicated that customers had material buyer power from sources other than the availability of another alternative supplier of kaolin.

The impact of the merger on competition for the supply of kaolin for performance-mineral applications

7.121 The parties argued that the merger would not have an impact on competition in performance minerals. They claimed that there was limited competition between the parties and that Sibelco was a strong competitive constraint and had strong incentives to increase its supply to this market (see paragraph 6.17).

7.122 They further argued that imports were imminent and that AKW had readily available performance-mineral products that it could start importing into the UK. All other European suppliers had ex-works prices that would make it feasible for them to export to the UK. They also suggested that customers had bargaining power and could resist price increases.

7.123 Customers' views about the merger were mixed but most were concerned about the impact of the merger on their bargaining position. Customers told us that the parties were closest alternatives to each other and some customers indicated that they had used the existence of the alternative of the other party as a lever to negotiate better prices. They noted that this option would be lost with the merger.

[116] We did not see evidence to support the parties' claim that customers had threatened to switch to Sibelco.

7.124 Taking into account our analysis of the extent of pre-merger countervailing customer buyer power (paragraphs 7.113 to 7.119), we concluded that there was not countervailing buyer power which would prevent an SLC.

7.125 Furthermore, our analysis in paragraphs 7.110 to 7.112 above suggested that imports would only be commercially viable for the premium grades such as Imerys's Supreme with which Goonvean was not competing pre-merger. As noted above, customers generally considered transport costs to be prohibitive.

Conclusion on the impact of the on competition for performance-mineral applications

7.126 We concluded that the parties were not competing for certain highly-processed grades, for which imports also appeared to be a commercially viable alternative. We therefore excluded this segment of the market from our overall conclusion.[117]

7.127 For the remainder of the market, we found that the merger reduced the number of significant competitors for UK customers from two to one. We found that Sibelco was a marginal constraint pre-merger and concluded that there was no evidence that expansion in this market by Sibelco or a new UK supplier would be timely, likely or sufficient to prevent an SLC. Our analysis showed that imports would not be commercially viable alternatives. Furthermore, we did not see evidence that most customers had sufficiently strong bargaining power derived from sources other than the existence of a credible alternative.

7.128 We found therefore, that, as a result of the merger, the merged entity would have the incentive and ability to increase prices significantly, or otherwise worsen the offering, to UK customers of kaolin for use in performance-mineral applications.[118]

7.129 We therefore concluded that the merger had resulted or might be expected to result in an SLC in the market for the supply of kaolin for performance-mineral applications in the UK.

The competitive effects of the merger on other kaolin markets

Paper coating

7.130 Pre-merger, Imerys supplied kaolin for paper coating but Goonvean did not. Imerys imported all of its paper-coating kaolin from Brazil.[119] It sold around [✂] tonnes of kaolin for paper coating to customers in the UK and this represented around [✂] per cent of its total volumes of kaolin supplied to UK customers.

7.131 The parties told us that Goonvean did not produce or sell kaolin suitable for paper-coating applications and had not done so. Although it had suitable deposits, they argued that it could not produce kaolin for paper coating as it did not have the required processing equipment.

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[117] Of Imerys's highly-processed grades Supreme was the main one, but also Aquaflat Supreme, P10, P20, Infilm 813, Infilm 1735, HEAVYK, STO), for which we found that Goonvean could not provide an alternative pre-merger. There were other performance-mineral kaolin grades that were produced in the UK, but were not being sold in the UK. These products were not included in the SLC finding.

[118] We note that this incentive and ability would not apply to Imerys's highly-processed grades, which we define as those included in its sales data as premium grades (the main one being Supreme), for which Goonvean could not provide an alternative pre-merger. For the avoidance of doubt, we do not include Imerys's Speswhite as a premium grade (see Appendix I, paragraph 46).

[119] Imerys used to produce paper-coating kaolin in the UK, but ceased the production in 2008 when it relocated its paper-coating kaolin production to Brazil.

7.132 Although there was no overlap in this market pre-merger, we considered whether there was potential for Goonvean to produce substitutable paper-coating grades and therefore the extent to which the merger would result in a lessening of potential competition.

7.133 We found that Goonvean did not have the required processing equipment to produce kaolin suitable for paper coating. We also took into account our assessment of Goonvean's financial position in the counterfactual. We concluded that while there was a need for capital investment in Goonvean's plants, we did not consider that Goonvean would have made a major capital investment in the foreseeable future. Furthermore, we saw no evidence to suggest that any investments were being planned which would have resulted in Goonvean buying new processing equipment that would have enabled it to supply kaolin for paper coating.

7.134 We therefore concluded that the merger had not resulted, and might not be expected to result, in an SLC in the market for the supply of kaolin for paper coating in the UK.

Life sciences

7.135 Pre-merger, Goonvean was the only UK producer and supplier of kaolin to life-science applications, with around [✂] kt of sales of pharmaceutical-grade kaolin in the UK, and around [✂] kt of sales to other life-science applications, such as animal feed. Imerys imported small amounts of pharmaceutical-grade kaolin into the UK and sold to a distributor, WhitChem (between [✂] and [✂] tonnes per year between 2008 to 2011).

7.136 The parties told us that Goonvean supplied kaolin for pharmaceutical, cosmetic and veterinary life-science applications entirely from its G1 reserves. They said that G1 was uniquely suitable for use in life-science applications because it was naturally low in contaminants. For example, it contained no arsenic nor did it have any traceable dioxin content. Furthermore, Goonvean's processing techniques used significantly fewer chemicals than Imerys's and the water used by Goonvean in kaolin refining was owned and maintained by Goonvean and had virtually no contamination.

7.137 As a result of these factors, Goonvean was the only European kaolin producer that was able to supply kaolin products conforming completely to British, European and US pharmacopoeia standards. In addition, Goonvean was unique in that its kaolins supplied for use in animal feed and enzyme applications were accredited by FEMAS (the Feed Materials Assurance Scheme). Imerys was not FEMAS accredited.

7.138 We found that the characteristics of Goonvean's kaolin which make it suitable for life-science grades could not be replicated by Imerys because they were based on naturally occurring features which were not present in Imerys's kaolin. We saw no evidence to suggest that Imerys could extract equivalent quality kaolin or had plans to enter the life-science market.

7.139 We therefore concluded that there was no loss of potential competition in the supply of kaolin to the life-science market and therefore the merger had not resulted, and might not be expected to result, in an SLC in this market.

Reinforced fibreglass and boiler additives

7.140 Imerys produced two specialist kaolin grades for reinforced fibreglass. [✂], the grade sold in the UK to [✂], was produced [✂]. [✂] accounted for [10–20] per cent of Imerys's UK kaolin revenue in 2012.

7.141 Imerys produced a kaolin grade called Aurora which was sold to one customer in the UK, [✂], for use in boiler additives. [✂] only purchased [less than 100] tonnes from Imerys in 2012. This was negligible relative to Imerys's total UK kaolin volumes.

7.142 Goonvean did not produce or supply any kaolin grade specialized for these two applications.

7.143 The views of the main parties and customers were consistent that the parties did not overlap in the supply of kaolin for reinforced fibreglass or boiler applications nor did they have the potential to do so absent the merger. Goonvean told us that it did not have the technology or knowledge to produce these highly-specialized kaolin grades. [✂] told us that it had approached Goonvean in the past but Goonvean could not supply it as it did not have the expertise and technology required to do so. Norbord said that it had no relationship or communication with Goonvean and did not expect there to be any effects from the merger.

7.144 On the basis of this information, we concluded that the merger had not resulted, and might not be expected to result, in an SLC in the supply of kaolin for reinforced fibre-glass or boiler additives applications.

Refractories

7.145 We found that Imerys supplied both calcined and hydrous grades for refractory applications in the UK. The majority of its kaolin sales for refractories ([90–100] per cent) related to molochite which was a calcined kaolin. Imerys also supplied a total of [less than 300] tonnes of hydrous kaolin grades to refractory applications in 2012.[120] Sales of hydrous kaolin grades for refractories applications accounted for a negligible percentage of Imerys's total sales of hydrous grades in the UK, that were used in other applications such as paper filler, sanitaryware, tableware, performance minerals and reinforced fibreglass.

7.146 Goonvean supplied [0–50] tonnes of kaolin ([✂], a performance-minerals and life-sciences grade) to a single refractory customer in [✂].[121] These sales accounted for a negligible part of Goonvean's total sales of kaolin in the UK.

7.147 The main parties submitted that they were not aware of any refractory customers having switched between the parties in the last five years or any threats by customers to do so. They also said that the parties had not approached each other's refractory customers, as these sales were de minimis volumes used in very limited applications.

7.148 The main parties also said that Sibelco's hydrous kaolin grades were close substitutes for the parties' hydrous kaolin for refractory applications, as they had high alumina, low potassium oxide and low sodium oxide content. Imerys understood that Sibelco had relationships with customers in refractory applications through its supply of ball clays and considered that the volume of hydrous kaolin sold by Sibelco to refractory applications was likely to be similar to that sold by Imerys.

7.149 Imerys and Goonvean told us that alternative materials such as bauxite, magnesite and dolomite were sold in the UK for use in refractory applications. China Mineral

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[120] Imerys submitted that [✂] tonnes of these related to sales to [✂]. Imerys understood that [✂] was a distributor and that consequently these sales were likely to have been misallocated on its system given that they were unlikely to have been used in refractory and metallurgy applications.
[121] Goonvean also supplied [0–10] tonnes to another refractory customer in the UK, [✂]. Goonvean said that it no longer supplied that customer.

Processing imported material from China whilst LKAB Minerals imported material from Greece and Turkey for processing in the UK.

7.150 Imerys and Goonvean said that they did not compete to supply refractory applications because Goonvean could not produce calcined kaolin grades and the majority of Imerys's sales for this application were of calcined kaolin.

7.151 Dupre Minerals, one of Imerys's refractory customers in the UK, told us that the acquisition was a cause of concern for it and that as a consumer it had few alternatives for kaolin. It also noted though that the acquisition might be good for the industry and that Imerys could possibly invest in the reserves that Goonvean held.

7.152 We found no overlap or potential overlap between Imerys and Goonvean in the supply of calcined kaolin, which represented the largest part of the sales for this application. We noted that Imerys and Goonvean overlapped to a very small extent in the provision of hydrous kaolin for refractory applications although Goonvean's hydrous kaolin grade, [✂], was made predominantly for the performance-mineral and life-science applications and was supplied to only one UK refractory customer in negligible quantities. Although Dupre Minerals indicated concerns, we did not consider that the removal of a supplier that was only supplying [0–50] tonnes of non-calcined kaolin would have a significant effect on competition in the market.

7.153 We therefore concluded that the merger had not resulted, and might not be expected to result, in an SLC in the supply of kaolin for refractories.

The competitive effects of the merger on the secondary aggregate market

7.154 We considered whether the merger would be likely to lead to an SLC in the supply of secondary aggregates feedstock, or in the supply of processed secondary aggregates. We considered views from main parties, third parties, and we analysed the parties' data. This evidence is set out in more detail in Appendix M.

7.155 We took into account the pre-merger situation in which both parties overlapped in the production of secondary aggregates feedstock, as a by-product of the kaolin extraction process, and considered the effect on competition of this overlap being removed. However, we noted that Imerys supplied this feedstock to third parties under contract; Goonvean processed the feedstock itself and sold it directly to customers. We considered whether Imerys would be likely to enter the market for secondary aggregates feedstock and, if so, whether it would have the ability and incentive to foreclose third parties from processing its feedstock.

7.156 We found that Goonvean only supplied feedstock internally and did not sell on the merchant market. We did not consider this situation likely to change absent the merger. GHL retained Goonvean's secondary aggregates processing business (through GAL). Therefore there would still be the same number of competitors in both the market for the supply of feedstock and the market for the supply of secondary aggregates post-merger as there were pre-merger. There was an agreement for Imerys to supply feedstock to GAL. However, the agreement did not commit Imerys to supply more volume to GAL than it previously supplied itself nor did it prevent Imerys providing feedstock to other aggregate manufacturers under its current arrangements or to alternative third parties. Therefore, we found that the agreement did not reduce Imerys's incentives to supply third parties as a result of the merger.

7.157 Imerys was currently tendering kaolin waste processing from 2014 and we saw no evidence that it intended to enter this market for secondary aggregates. We also found that because secondary aggregates feedstock was a by-product of kaolin pro-

duction, the volume of secondary aggregates feedstock produced in any year was driven by kaolin demand, not feedstock demand. This meant that to restrict the volume of feedstock supplied to customers, in order to increase prices, Imerys would need to tip excess feedstock which was costly. We found that there was already an oversupply of kaolin waste, which was being tipped.

7.158 On the basis of this evidence, we concluded that there was no pre-merger competition between the parties in either the supply of feedstock, where only Imerys was active on the merchant market; or the processing of feedstock, where only Goonvean was active and self-supplied. Our view was that the merged entity was not likely to enter the market for secondary aggregates nor, were it to do so, would it have the incentive to foreclose third parties from processing its feedstock. Therefore we concluded that the merger had not resulted, and might not be expected to result, in an SLC in any secondary aggregates market.

Efficiencies

7.159 We considered whether the efficiencies claimed by the parties to result from the merger would enhance rivalry so that the merger does not result in an SLC.

The parties' views

7.160 The parties told us that there were efficiencies arising from the merger.[122] Specifically, they pointed to reductions in their fixed and variable production costs, and overheads. They also noted that there were synergies resulting from the merger relating to the costs of mining, capital expenditure savings and the commercial development of grades from sharing deposits. In total, the parties suggested that the merger would result in efficiencies and synergies of around £[✂] million. There would be a reduction in the marginal cost per tonne of Goonvean's mined kaolin of around [✂] per cent, of which they expected that around [✂] per cent would be passed on to customers in the form of lower prices.[123]

7.161 The parties also said that the merger was 'directly output enhancing'[124] and would ensure that customers had access to products which they valued over a longer period of time. The increased output would result, in part, from the ability to mine an area that could not currently be mined by the other party because it made up the boundary between two adjacent pits owned separately by Imerys and Goonvean pre-merger.

7.162 The parties also submitted that the merger would enhance their ability to compete with rival suppliers of kaolin and other minerals to serve UK customers in all applications.

Our assessment

7.163 We did not find any evidence that any of the proposed efficiencies would be likely to be rivalry enhancing. In particular, it was not clear how and against whom rivalry would be enhanced in the UK kaolin markets we identified.

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[122] The parties' arguments and the evidence submitted are set out in more detail in Appendix L.
[123] The parties said that these price reductions would be relative to a pre-merger assumed situation, in which Goonvean would have sought large price increases to mitigate its losses, and the assumption that demand is linear.
[124] The parties said that this was relative to an assumed situation in which Goonvean would exit tableware markets and kaolin production entirely in the short term.

7.164 We also noted that in terms of whether efficiency savings would be passed on to customers, Imerys's business case model for the transaction assumed that all the synergies would be realized as additional profit. There was no assumption regarding pass-through to customers. We also noted that GHL considered that the price it had received for its kaolin business reflected the synergies available to Imerys, suggesting that the benefit of some of these synergies might have already been passed to the vendor. In our view, this placed considerable doubt on the likelihood of any cost savings being passed on to customers.

7.165 We noted that it was possible that some of the proposed efficiencies might be output enhancing, because they enabled continued and increased access to kaolin reserves for a longer period of time. Although our view was that we have not found this proposed efficiency to be rivalry enhancing for the reasons given in paragraph 7.163, we took this into account as a 'relevant customer benefit' (RCB) in our consideration of remedial action.

Conclusion on efficiencies

7.166 We found that the acquisition would not result in rivalry-enhancing efficiencies which were timely, likely and sufficient to prevent an SLC.

8. Conclusions on the SLC test

8.1 We concluded that the merger had not resulted, and might not be expected to result, in an SLC in the market for the supply of kaolin for paper-filler, sanitaryware or tableware applications in the UK. We also concluded that the merger had not resulted, and might not be expected to result, in an SLC in any market for secondary aggregates or the other kaolin markets where the parties did not overlap significantly pre-merger: paper coating, life sciences, reinforced fibreglass, boiler additives and refractories.

8.2 We concluded that the merger had resulted or might be expected to result in an SLC in the market for the supply of kaolin for performance-mineral applications in the UK.

9. Remedies

Introduction

9.1 Having concluded that the merger has resulted or may be expected to result in an SLC we must decide whether action should be taken to remedy, mitigate or prevent the SLC or any adverse effect resulting from it and, if so, to report the action to be taken and what it is designed to address.[125]

9.2 We published the Remedies Notice on 24 July 2013 and sought comments on a range of remedy options. In response we received written and oral representations from the main and third parties.

9.3 In reaching our decision on remedies, we assessed the evidence on the various remedy options and concluded on which of these options would be effective in addressing the SLC and the adverse effects that we have found.[126] We then

[125] Section 35 of the Act.
[126] The Act requires that, when considering possible remedial actions, we shall 'in particular, have regard to the need to achieve as comprehensive a solution as is reasonable and practicable to the substantial lessening of competition and any adverse effects resulting from it'. (Sections 35(4) and 36(3) of the Act.)

considered which of these effective remedies would be the least costly and intrusive and whether they were disproportionate in relation to the SLC and its adverse effects in the light of the evidence on the costs of remedies and any RCBs.[127]

9.4 This section is structured as follows. First, we set out the remedies options we have considered. Second, we assess the effectiveness and risks associated with each of the remedy options. We set out how each remedy would operate; summarize the responses made by the parties and third parties to our Remedies Notice; and set out our assessment of each remedy. Third, having identified which remedy options would be effective, we conclude on which of these effective remedies would be the least costly and intrusive. Finally, we assess any RCBs arising from the merger and how we should take these into account, before reaching our final conclusions on which remedies would be effective and proportionate.

The SLC: grades and customers

9.5 We found that as a result of the merger, the merged entity would have the incentive and ability to increase prices significantly, or otherwise worsen the offering, to UK customers of kaolin for use in performance-mineral applications. As a result, we found that the merger had resulted or might be expected to result in an SLC in the market for the supply for performance-mineral applications in the UK ('UK performance minerals market').

9.6 The SLC in the UK performance minerals market included:

(a) Imerys products: Speswhite, Polwhite B, Polwhite E, Devolite, and Polysperse 50; and

(b) Goonvean products: Crystal Sheen, Opal Alpha, Opal Beta, Opal Gamma, Opal Epsilon, and Opal Rho.

9.7 We found that the impact of the SLC in performance minerals did not apply to Imerys's highly-processed grades (Supreme being the main one, but also Aquaflat Supreme, P10, P20, Infilm 813, Infilm 1735, HEAVYK, STO), for which we found that Goonvean could not provide an alternative pre-merger. There were other performance-mineral kaolin grades that were produced in the UK, but were not being sold in the UK.[128] These products were not included in the SLC finding.

Remedies options considered

9.8 In our Remedies Notice we consulted on the following remedy options:

(a) Full divestiture of Goonvean's kaolin business and assets. Under this option it would be necessary to identify and assemble the relevant assets and capabilities to create a viable business for kaolin products that could be sold to a suitable purchaser.

(b) Partial divestiture of Goonvean's performance-minerals business and assets. Under this option a restructuring process would be required to separate all assets and capabilities involved in performance-mineral products from those involved in other kaolin products to create a viable business that could be sold to a suitable purchaser.

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[127] In accordance with sections 35(5) and 36(6) of the Act, we may also have regard to any RCBs arising from the merger.
[128] For example, Crystal Finish.

(c) Behavioural remedies to control prices and ensure ongoing supply of kaolin products.

9.9 We invited views from interested parties both on these remedies and also on whether there were other remedies which we should consider. We also asked for views on the costs of remedies and proportionality and for comments on RCBs. We received comments on the Remedies Notice and held response hearings with each of the parties and some third parties.

9.10 Imerys provided details of two potential remedies that it considered would be effective in addressing the SLC finding:

(a) a partial divestiture remedy under which Goonvean's UK performance-mineral customers and associated assets would be divested to a third party kaolin supplier and a transitional supply arrangement for performance-mineral grades would be provided whilst that purchaser developed its own supply arrangements. In addition, a price control would be put in place for Imerys's existing performance-mineral customers ('Imerys remedy 1'); and

(b) a price control remedy involving a price freeze followed by a price cap applied to the prices paid by Goonvean's and Imerys's existing customers for its performance-mineral products ('Imerys remedy 2').

Full divestiture of Goonvean's kaolin business and assets

9.11 Under this remedy option, Goonvean's kaolin business would be sold to a suitable purchaser via an effective divestiture process.

Summary views of the parties

9.12 Imerys said that a full divestiture would not be effective because there were substantial divestiture risks that could not be overcome. Imerys also said that a full divestiture would be a disproportionate remedy because the SLC was significantly narrower than the asset perimeter.

9.13 The responses we received from the Goonvean Works Council, Goonvean Holdings Limited and Richard Baker Harrison Ltd each questioned whether a viable business could be identified and sold.

Assessment of the effectiveness of a full divestiture

9.14 To be effective in restoring or maintaining rivalry in a market where the CC has decided that there is an SLC, a divestiture remedy should involve the sale of an appropriate divestiture package to a suitable purchaser through an effective divestiture process.[129] In defining the scope of a divestiture package that will satisfactorily address the SLC, the CC will normally seek to identify the smallest viable, stand-alone business that can compete successfully on an ongoing basis and that includes all the relevant operations pertinent to the area of competitive overlap.[130]

[129] *CC8, Merger Remedies: Competition Commission Guidelines*, November 2008, paragraph 3.1.
[130] *CC8,* paragraph 3.7.

9.15 Divestiture remedies may be subject to a variety of risks that may impair their effectiveness—composition risks, purchaser risks and asset risks.[131] In evaluating the effectiveness of remedies the CC needs to satisfy itself that a given remedy has an acceptable risk profile. We identify these risks below, and assess the implications for a full divestiture.

Composition risks

- *The parties' views*

9.16 Imerys said that Goonvean's kaolin business was not viable on a stand-alone basis and that the business was expected to generate a £[✂] loss in 2014 on the basis of a stand-alone budget and would continue to make losses. Imerys also considered that over [✂] per cent of sales were loss-making in 2011/12 and post-merger, Goonvean relied on financial and operational support from Imerys to continue to trade. In addition, Imerys considered that Goonvean was commercially dependent on Imerys as a result of three cross-supply agreements involving: *(a)* [✂]; *(b)* Goonvean's need to purchase Speswhite from Imerys in order to produce Opal Alpha; and *(c)* [✂].

9.17 Imerys estimated that merger-specific efficiencies would improve Goonvean's operating profit by £[✂] million, reversing a budgeted 2013 operating loss of £[✂] million.[132] Imerys considered that no purchaser other than itself could realize the operational synergies that would justify acquiring Goonvean.

9.18 Imerys also said that any other potential purchaser would be deterred by a number of features of the business that would be disclosed during the due diligence process, including a pension deficit of [✂], the poor condition of the Greensplat plant, which it estimated required around £[✂] million of investment to enable it to continue to be used safely for more than one year[133] and the limited lifetime of the G1 reserves, which SRK Consulting had estimated at less than two years.

- *Our assessment*

9.19 We noted that Imerys would have been likely to generate greater merger efficiencies from Goonvean than any other purchaser because of the geographic proximity of the operations. We did not consider that the commercial relationships between Imerys and Goonvean in paragraph 9.16 created a substantial dependency. This suggested that the value of Goonvean to Imerys was higher than the value to another purchaser. However, we did not consider that this necessarily meant that a different purchaser would be unable to derive a commercial return from the asset.

9.20 Under this remedy, in order to generate interest from prospective purchasers, the composition of the divestiture package would comprise Goonvean's entire kaolin activities, potentially further assets from Imerys, the exclusion of certain liabilities and/or a potential restructuring of commercial agreements with trading partners (eg Imerys and Goonvean Aggregates). We did not consider that any of these issues undermined the effectiveness of a full divestiture. In our view, they could be addressed if so required. The extent to which additional assets might be required could vary depending on the identity of the purchaser. The purchaser approval

[131] *CC8*, paragraph 3.3 describes the categories of risk that may impair the effectiveness of divestiture remedies.
[132] £[✂] million is the difference in operating income from the merger in 2013.
[133] See paragraph 5.11.

process would require a review of how commercial arrangements would need to be changed and how the business would be integrated and managed.

Purchaser risks

- *The parties' views*

9.21 As summarized in Section 5, Goonvean considered that there were no financial buyers for its combined kaolin and secondary aggregates business. Goonvean had not marketed the business to trade buyers.

9.22 Imerys said there would be only a very limited universe of potential suitable purchasers. No financial buyers would be able to provide the support and capabilities that Goonvean required to operate on a stand-alone basis and some potential purchasers might give rise to competitive concerns in other markets. For example, Imerys noted that Sibelco had a high market share in sanitaryware and that an acquisition of Goonvean by Sibelco might therefore give rise to competition concerns.

9.23 Imerys also considered that a prospective purchaser would not be in a position to demonstrate commitment to serving the performance-minerals market because there was a risk that it might divert production to other grades and products (eg high-value life-sciences applications). This could undermine the effectiveness of the remedy.

9.24 In the course of its investigation, the CC heard of one possible trade buyer—Sibelco—that expressed an interest in the whole Goonvean business.

9.25 During our remedies process we asked some customers for views on potential purchasers of the Goonvean business. Crown Paints said that the only purchaser it could identify was Sibelco. [✂] also suggested that Sibelco might be a potential purchaser.

- *Our assessment*

9.26 We noted that although Sibelco might be able to generate efficiencies in refining and processing, it could not match the efficiencies that Imerys could generate in extraction. This was because Imerys and Goonvean were located adjacent to one another in Cornwall; Sibelco was based in Devon.

9.27 During our remedies consultation, no other party expressed an interest in acquiring the Goonvean business as a whole.

9.28 We considered that purchaser risk was high for this remedy because the universe of potential purchasers was small. Trade buyers would need to be existing kaolin producers with sufficient operational capabilities to support the Goonvean business and would need to demonstrate commitment to the relevant product markets. We further considered it unlikely that an extensive auction process would be effective in expanding the universe of potential purchasers.

9.29 These risks could be mitigated to some extent if Imerys were required to identify a purchaser quickly via an upfront buyer process. In this way, the CC could consider the suitability of the prospective purchaser and establish how composition risk could be addressed. However, even in these circumstances we considered that the process of approving the purchaser would require a detailed review of its suitability.

Asset risks

- *The parties' views*

9.30 Imerys considered that the Goonvean business had lost almost half of its pre-merger staff and would deteriorate during a sale process. Furthermore, since the merger the business had been heavily dependent on one individual ([✂]) whose continued availability could not be assured if the business were not owned by Imerys. Imerys considered that other employees might leave the business during a divestiture process. Imerys considered that Goonvean's assets would continue to deteriorate during a divestiture process.

9.31 Imerys also said that commercial negotiations for 2014 pricing and supply would take place between November and December 2013 and that it would be impractical for a divestiture remedy to be implemented during this period.

- *Our assessment*

9.32 We noted that continuing uncertainty about the future of Goonvean as a result of the merger investigation had placed pressure on staff. The prospect of a change of ownership might reduce incentives for Imerys to provide funds for Goonvean to invest in the acquired business for the medium to long term, resulting in asset risk. However, we also noted that, if necessary, the CC could make directions under the interim undertakings to mitigate asset risks and the CC had directed Imerys to appoint a Monitoring Trustee to report on the preservation of the Goonvean business during the inquiry. We considered that asset risks could be managed during a sale process, for example, by augmenting the Goonvean management team on a temporary basis through the appointment of a Hold Separate Manager, and we considered that Imerys had a commercial interest to maintain the business and to maximize proceeds in a disposal. A rapid sale process would also help to minimize these risks.

9.33 We considered that a review of commercial contracts would be a primary focus of commercial due diligence and potential purchasers might be less willing to engage in a transaction whilst the commercial terms of key contracts remained uncertain or under negotiation by Imerys. We noted that this could have consequences for the divestiture timetable and how readily potential purchasers would engage in a due diligence process.

Our overall assessment of a full divestiture

9.34 There would be substantial practical difficulties in the implementation of a full divestiture remedy. However, we concluded that an upfront buyer process might partly address these risks and, if it were to do so, a full divestiture would be effective in addressing the SLC because it would restore competition between Imerys and Goonvean. We noted that full divestiture would, however, represent a significantly wider scope than the product market (performance minerals) in which an SLC was identified. We discuss the choice between effective remedies in the proportionality assessment in paragraph 9.102.

Partial divestiture of Goonvean's business and assets relating to performance-mineral products

9.35 Under this remedy option, a business separation would be required to carve out a divestiture package comprising the business and assets relating to performance-

mineral products which would be distinct from the business and assets relating to other kaolin products. The divestiture package would then be sold to a suitable purchaser.

The parties' and third parties' views

9.36 Imerys told us that a partial divestiture of Goonvean's pits would not be possible because deposits from a range of pits were being used to produce each of its grades and certain grades were produced using by-products of other grades. The integration of Goonvean's operations was such that grades covered by the SLC used deposits from four of the five pits.[134] Imerys also told us that a partial divestiture of processing plants was not possible because these facilities were used to dry and refine grades for a range of applications.[135]

9.37 Furlong Mills said that the extraction process for clays involved mixing clays that could be used by a number of different industries. Under a partial divestiture, the cost of separating the products between the relevant end markets would be too high.

Assessment of the effectiveness of a partial divestiture

9.38 We considered that there would be substantial composition risk associated with a partial divestiture remedy that sought to identify and carve out the assets involved in the performance-mineral business from those involved in the extraction and processing of other kaolin grades. This carve-out of assets would involve the entire production process from extraction to processing. In particular, because their use is shared there would be significant practical difficulties associated with identifying, separating and allocating assets required for the performance mineral products from the remaining kaolin products where no SLC had been identified. Although it might be possible to create contractual arrangements to facilitate asset sharing, there would be significant costs associated with these solutions.

9.39 We also considered that the purchaser and asset risks for a partial divestiture remedy were higher than for a full divestiture remedy because the smaller business had no track record of operating as a stand-alone business. It would therefore be less likely to cover its overheads or make a positive contribution towards costs, even as part of an existing competitor, and it therefore might be difficult to find a suitable purchaser.

9.40 We therefore concluded that this form of partial divestiture remedy would not be effective.

Imerys remedy 1: partial divestiture remedy with transitional supply agreement

9.41 The first alternative remedy proposed by Imerys was a partial divestiture of customer lists and product formulations. This would be combined with a transitional agreement to supply Goonvean's grades to the purchaser at a discount and in sufficient volume to fulfil existing customers' orders. Imerys would retain the pits and production capability that it acquired (the upstream assets) but Imerys would sell the Goonvean grades, formulae and customer lists relating to the performance-mineral products (the downstream assets) to a suitable purchaser.

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[134] Kaolin from [✂] pits is required to produce the range of PM grades sold by Goonvean in the UK.
[135] Its processing plants at Greensplat and Trelavour are each used to dry and refine grades for a range of applications Accordingly, if one of these plants were to be divested, similar issues would arise as with the partial divestiture of pits

9.42 The proposed divestiture package included: Goonvean's contracts with its UK performance-mineral customers; all relevant product formulations, flow charts, specification sheets, manuals and confidential information; relevant intellectual property rights for the UK including product brand names;[136] and sufficient supplies of Imerys's Speswhite grade at the current price charged to Goonvean until the end of 2015 to enable the purchaser to produce Opal Alpha at current UK sales volumes plus 10 per cent.[137,138] [✂]

9.43 The divestiture proposal also included a 'transitional supply agreement'. Under this agreement, the purchaser could, while it developed its own supply capabilities, request ex-works supply from Imerys of the six relevant Goonvean performance-mineral grades[139] for onward sale to UK customers. This would be under contracts the purchaser elected to acquire from Goonvean at prices that would be frozen until the end of 2015. Imerys proposed that the purchaser would receive a [✂] per cent discount on the customer's current ex-works price in respect of all products except Crystal Sheen, for which a [✂] per cent discount would be available.

9.44 Imerys also proposed a price freeze relating to the ex-works sale price of its own products until the end of 2015. Under this proposal, customers could purchase up to 110 per cent of their highest volume of purchases in 2009/10, 2010/11 and 2011/12 of products that conform to existing product specification sheets.

Third party views

9.45 In order to establish the level of potential purchaser interest in the remedy we permitted Imerys to contact potential purchasers to explore the practicalities of this proposed remedy. We also approached a number of possible trade buyers to elicit their views on the remedy.

9.46 Sibelco told us that in addition to the assets and services proposed by Imerys (see paragraph 9.41)[140] it would need to know how the product was to be used in the end specification. The specification sheet on its own was not sufficient as it would need to know what the customer was producing to assess if alternatives were available. Sibelco considered that together these assets and services would give it the opportunity of potentially being able to service Goonvean customers but Sibelco might require a larger supply of Speswhite in order to sell more Opal Alpha and become competitive in this product. However, the remedy did not guarantee that Sibelco would be able to supply Goonvean customers from its deposits in Devon. To ascertain this it would need to undertake extensive due diligence. Sibelco estimated that if it established that it could substitute Sibelco products for Goonvean products then a period of two years would be a sufficient duration for the transitional supply agreement. However, if Sibelco had to invest in additional processing facilities then it would require up to five years.

9.47 Soka told us that whilst it was not currently able to produce the equivalent products, it would be able to produce similar products within two years.

9.48 AKW told us that it was not interested in the remedy proposal.

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[136] By way of an irrevocable royalty-free licence.
[137] This would be up to [✂].
[138] Price increases would be capped at RPI minus 0.5 per cent.
[139] Crystal Sheen, Opal Alpha, Opal Beta, Opal Epsilon, Opal Gamma and Opal Rho.
[140] This includes: Goonvean's contracts with its UK CPM customers; all relevant product formulations, flow charts, specification sheets, manuals and confidential information; and relevant intellectual property rights for the UK including product brand names (by way of an irrevocable royalty free licence).

Our assessment

9.49 The CC's merger remedies guidelines state that in certain circumstances the CC may accept a limited transitional period in which a new purchaser is given time to establish its ability to compete on an independent basis in connection with a divestiture remedy.[141] Such arrangements are generally very limited in time and scope.

9.50 By contrast, the transitional arrangements proposed in this remedy option related to temporary access to finished goods in the event that the purchaser was unable to produce them from its own facilities at the outset of the remedy or in the short term. That is, where the purchaser would not have the reserves and production facilities needed to supply the performance-mineral market.

9.51 This remedy would have provided Goonvean's and Imerys's existing customers with comfort that they would not pay higher prices relating to historical volumes of existing products before the end of 2015. Furthermore, the partial divestiture of downstream assets would have provided a potential new entrant with a number of assets that would be helpful for establishing a presence in the market, including customer contacts and product formulations. These assets might go some way to overcoming barriers to entry for a new supplier.

9.52 A significant disadvantage of the proposed remedy was that the transitional supply agreement would have created a close commercial relationship between Imerys and the purchaser that would have lasted for at least the duration of the transitional supply agreement. This would have given Imerys continued visibility of customers' volumes and prices and the purchaser would have been dependent on access to the supply of finished goods from Imerys. In our view, the purchaser's dependency on supply from Imerys would have created uncertainty for Goonvean's former customers regarding the security of supply and the risk of unexpected disruptions unless responsibility for resolving issues were to be clearly specified. The specification of volume limits based on existing customers' historical order levels would have restricted the purchaser's ability to attract new customers or could have left it with unwanted inventory. These relationships could have reduced the ability of the potential purchaser to compete independently, undermining the effectiveness of the remedy.

9.53 In our view, there was also significant uncertainty as to whether a potential purchaser could have brought its own production on stream within a reasonable time, or whether the parties would have sought to extend the transitional supply agreement beyond the initial term. One potential purchaser told us that it would have needed to conduct extensive due diligence before determining whether it could produce identical products from an independent source of supply.

9.54 Based on what we were told by potential purchasers, we considered it unlikely that they could have produced the relevant products from their existing processing capabilities and would therefore have needed investment in new plant. The approval process for this investment would have taken some time. In Sibelco's case it would most likely have needed approval from its European board, which could have taken at least 18 months and would have taken longer for the new equipment to become operational. This would have meant a potentially long period for the transitional arrangements.

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[141] *CC8*, paragraph 3.18.

9.55 Based on these discussions we did not consider it likely that a potential purchaser would be able to bring production capability on stream within a reasonable period of time. We foresaw difficulties with the potential outcomes at the end of the initial term if there were no independent supply at that time. The supply could cease or the ongoing links might be extended. In both of these circumstances, the remedy would not be fully effective.

9.56 In light of the above, we concluded that the partial divestment of Goonvean's performance-mineral business supported by a transitional supply agreement would not be effective.

Imerys remedy 2: price control for performance mineral products

9.57 The second alternative remedy proposed by Imerys was a set of price controls for certain of Goonvean's and Imerys's performance-mineral products for a period of up to five years (see Table 1 below for details of the proposed duration).

9.58 This price control would be applied to the individual prices that existing customers had agreed with Imerys and Goonvean respectively for specific performance-mineral products affected by the SLC. The price control proposed by Imerys is summarized in Table 1 below.

TABLE 1 **Imerys proposed price control**

	Goonvean		*Imerys*	
	UK performance-mineral customers*	Crystal Sheen ([✂])	UK performance-mineral customers	Speswhite
Grade	The parties would continue to produce the relevant grades to conform with their existing product specification sheets†			
Change of grade	Provide12 months' notice if there was any plan to change specification (not to be given before 1/1/2015). Work with the customer to come up with an alternative grade†	The parties would supply [✂] with Crystal Sheen (to the end of 2014) or an agreed suitable alternative grade‡ Notice could be given to [✂] on 1 January 2014	N/A	
Base price	Current ex-works prices			
Price freeze (end of)	2015	2014	2015	2015
RPI minus 0.5% (end of)	2016–2018	2015–2018	2016–2018	N/A
Volume	For each grade, the parties would supply each customer of each grade with a maximum annual volume equal to the highest annual UK purchase volume of that customer for that grade in 2009/10, 2010/11 and 2011/12, plus 10 per cent.			

Source: Imerys.

*Exclude Crystal Sheen to [✂].
†If at the end of the notice period the parties and the customer do not agree as to whether the alternative grade is a satisfactory alternative for the existing grade, this dispute would be determined by an independent expert (whose fees would be paid by Imerys). Any alternative grade would be subject to the remedy on the same basis as the existing grade.
‡If [✂] agreed to be supplied with a suitable new or existing alternative grade offered by the parties, the price of this alternative grade would be maintained at current ex-works prices until the end of 2014, with 2015 and subsequent annual price increases being capped at RPI minus 0.5 per cent.
N/A = not applicable.

9.59 Imerys provided proposals for mechanisms relating to potential changes in product formulations and grades and a process for resolution of potential disputes with

customers. The details of these arrangements are set out in Appendix N which incorporates our amendments to these proposals.

The parties' views

9.60 Imerys considered that the price control remedy would be effective and proportionate. Imerys told us that, in order to maximize efficiency and realize expected merger synergies, it should retain flexibility to evolve and/or to merge grades in response to changing customer requirements.

Views of affected customers

9.61 We consulted affected customers to establish whether they had concerns about the price control, or any other aspect of the behavioural remedy. We received responses from several customers:

(a) [✂] had no comments on the proposed price control remedy. It commented on logistical aspects of transitioning to an Imerys product.

(b) Bostik said that it did not find the price control remedy to be problematic.

(c) Akzo Nobel said it had no further comments on the remedy proposal.

(d) Crown Paints sought confirmation that the price control would be applied to the 2013 levels and sought clarification for how the CC's remedy would interact with their multi-year contract.

(e) Everbuild said that the remedy proposal looked satisfactory. Proposals that protected Everbuild's current business in the short to medium term would allow good time to seek alternatives if required.

(f) [✂] said that the remedy proposal did not address the long-term effect of year-on-year price increases due to the lack of competition in the market place.

(g) Hodgson Sealants (Holdings) Ltd and HS Butyl Ltd said that the principle of a UK monopoly in the production of kaolin products could not be in the interests of the customer unless it allowed the new owners to continue to market a range of products that would otherwise have ceased to be produced. However, it welcomed the price control remedy and hoped that it would be sufficient to protect customers for the foreseeable future.

(h) [✂] did not comment on the remedies.

(i) Whitchem had no comments on the remedies.

(j) EOC did not comment on the remedies.

9.62 Based on this consultation we concluded that most customers did not have objections to the proposed price control remedy and it would be possible to address specific points raised in the design features.

Our assessment

9.63 As stated in our guidance,[142] behavioural remedies are subject to a number of risks: specification risk; circumvention risk; distortion risks; monitoring and enforcement risks. The design of behavioural remedies should seek to avoid these four particular forms of risks to enable these remedies to be as effective as possible. We reviewed a number of specific features of the proposed behavioural remedy and considered how we could mitigate these potential risks.

Scope of the remedy—customers

9.64 The price control would apply to all existing customers. The final undertakings (or order) would incorporate the price and volume information for each customer, but this would remain confidential because it is commercially sensitive to each affected customer. We set out below what the relevant prices and volumes are.

9.65 The proposed remedy applies to existing Imerys and Goonvean customers only. We considered carefully whether the scope of the remedy would need to extend to future customers. We noted that there have been no major new customers in the last four years, but there have been ad hoc sales (typically below 100 tonnes) to some customers, and a small proportion of such customers had purchased small quantities on more than one occasion. We did not consider that it was necessary in these circumstances to extend the remedy to future customers.

Product specification—Crystal Sheen

9.66 [✂]; it also supplied the product to [✂]. Imerys submitted that the price that [✂] paid for Crystal Sheen was below Goonvean's costs. Goonvean would therefore not have been able to sustain this price and would have no option other than to increase the price when the contract was open for renegotiation at the end of 2013, even at the risk of losing pan-European volumes.

9.67 Goonvean told us that it had won the [✂] business in 2008 and it was a two-year contract that was renewed in 2010 for a further two years to the end of 2012. As a result of the merger the contract was renewed for a further year to the end of 2013. Goonvean told us that when it won the business it was made clear to it by [✂] that the price for [✂] had to be virtually the same. Goonvean claimed that the difficulty with the UK business was that [✂] which was very expensive. Therefore its sales to [✂] were profitable but the UK portion of the contract was not. Goonvean submitted that it was therefore the intention of Goonvean to increase the price to [✂] significantly in an attempt to try to recover some of the losses.

9.68 The SLC that we found covered all grades and customers within the performance-mineral market in the UK except for highly processed grades (see paragraph 7.118 of the provisional findings and paragraph 9.7 above). We did not see any reason to treat Goonvean's Crystal Sheen grade or [✂], any differently from the other grades and customers affected by the SLC. In particular, we did not consider that the specific aspects of the bilateral negotiations between Goonvean and [✂] and the resulting performance of that contract were relevant factors when considering what was a comprehensive solution to the SLC that was reasonable and practicable.

[142] *CC8*, paragraph 4.2.

9.69 We also noted that these negotiations took place in a climate of pre-merger competition between the parties in which Goonvean decided to agree a contract with [✂] which was expected to be less profitable for the UK volumes than for the non-UK volumes. We considered that an assessment of the performance of each individual contract was not practicable nor appropriate when considering the scope of effective remedial action. It was also not reasonable for us to conduct a counterfactual of how Goonvean would have most likely approached each individual customer at the next contract renewal as the outcome of such negotiations would depend on a host of factors, not least decisions being taken as to the relative importance of that customer within the overall business strategy of the company.

9.70 We also noted that the claims in paragraph 9.67 were made by Goonvean during the course of this merger inquiry (ie post-merger). We did not see pre-merger evidence showing Goonvean's sales to [✂] were unprofitable or that Goonvean was considering significant price increases to [✂]. We also noted that post-merger the profitability of the [✂] contract might change, particularly given the synergies Imerys expected to realize from the merger.

9.71 We therefore focused on the prevailing prices and terms. The purpose of the price control is to address any price increases that would otherwise arise as a result of the merger: we have therefore included the Crystal Sheen prices [✂] in the remedy. We noted that the remedy also includes scope for Imerys to transition its customers to an alternative product over time (see paragraph 9.95) and is also time-limited (see paragraph 9.88). Therefore, any potential for any distortion costs were not likely to outweigh the benefit of the remedy.

Product specification—Speswhite

9.72 We concluded that Speswhite was included in the SLC (see paragraphs 7.99 to 7.106). Imerys argued that it did not consider that an SLC could be supported in relation to Speswhite. It proposed that the price control for Speswhite should have a shorter duration than that for other products, with the price control operating until the end of 2015.

9.73 We did not see any reason to treat Speswhite differently because this product is part of the market in which we have found an SLC. We did not consider that the fact that Speswhite was an input to Goonvean's Opal Alpha product had any bearing on the effectiveness of this remedy because the volumes supplied by Imerys to Goonvean would simply become part of the merged entity's production process such that the price control would not need to apply to these volumes.

Price specification—'current prices'

9.74 In its response to our Remedies Notice Imerys proposed that the price cap should be linked to the prevailing prices at the date of the CC's provisional findings report, 24 July 2013. Imerys stated that it would not be appropriate for the price control to be backdated to the pre-merger levels for the following reasons:

(a) Bilateral negotiations of current prices with each individual customer were based on budgets independently prepared by Imerys and Goonvean prior to the completion of the merger on 1 November 2012.

(b) Public announcements of price increases were made in October 2012, prior to completion. The individual customer negotiations subsequently took place in the fourth quarter of the year, from November 2012.

(c) In accordance with the Initial Undertakings, Imerys and Goonvean continued to negotiate prices independently of each other and had informed customers that it had been 'business as usual' during the merger control process. In this regard, Imerys confirmed that it had complied with the hold separate requirements from 1 November 2012 ahead of the Initial Undertakings being accepted by the OFT on 17 December 2012.

(d) Pre-merger price levels were in most cases those that applied from January 2012 (over 18 months ago). The parties' costs had increased in the intervening period (for example, energy and labour costs);

(e) Applying pre-merger prices would involve a price reduction for most customers and would be inconsistent with prices paid by UK customers compared with overseas customers (whose prices increased in 2013).

9.75 We noted that a European–wide planned price increase of 4 to 6 per cent was publicized by Imerys on its website in October 2012 prior to the merger.[143] Our review of internal documents on price negotiations suggested that both Imerys and Goonvean sent out individual price increase announcements to each customer in November and December 2012. This review suggested that Imerys tended to announce [✂]; Goonvean tended to announce the [✂] customers ([✂] per cent for performance-mineral grades in 2013 price negotiations). Separate discussions then took place between Imerys/Goonvean and their respective customers over the following months regarding the actual price increases.

9.76 We reviewed details of actual price changes for affected customers between December 2012 and June 2013. We observed that customers had agreed new prices with Imerys ranging from [✂] per cent to an increase of [✂] per cent (see Appendix N, Figure 1), and Goonvean's price changes ranged from [✂] increase (see Appendix N, Figure 2). However, of the price increases that were actually negotiated with Imerys only a few exceeded [✂] per cent—[✂] Imerys customer/product combinations resulted in price increases of less than [✂] per cent. All but one of Goonvean's customer/product combinations resulted in price increases that were [✂] per cent or less. Following the completion of the merger Imerys also agreed a three-year agreement with Crown Paints for the supply of Speswhite and Opacilite in May 2013 following negotiations which commenced in March 2013 (Crown Paints prices were not renegotiated at the end of 2012).[144]

9.77 Given that the merger completed on 1 October 2012, these price revisions took place post-merger. However, in this particular case we did not consider that the price changes were influenced by the competitive effects of the merger, rather that the outcome appeared broadly consistent with the pre-merger proposed price increases announced by Imerys.

9.78 We noted that Imerys said that we should specify the price control in relation to prices prevailing at the date of the CC's provisional findings report, rather than the date of the merger. We did not consider that the date of the CC's provisional findings was an appropriate starting point for the remedy.

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[143] www.imerys-perfmins.com/eu/news/news-price-increase-mica-kaolin-12.html.
[144] The contract has an effective date of 1 May 2013. The contract contained a price increase of [✂] per cent for Speswhite in year 1, followed by [✂]per cent in each of the subsequent two years, and a price increase of [✂] per cent for Opalcite in year 1 followed by [✂] per cent in each of the subsequent two years. In addition, combined sales of Speswhite and Opalcite above [✂] attract a [✂] per cent rebate in year 1 and [✂] per cent rebate in years 2 and 3.

9.79 We concluded that the prices agreed with existing customers following the October 2012 announcements were the appropriate basis from which to apply the price control. These were in effect customers' 2013 prices. The individual prices paid by each relevant customer are set out in Appendix N.[145] These prices would form the price cap for year 1 of the price control and would remain as the cap until 31 December 2015, after which the RPI indexation would apply. This means that the earliest date that price increases could take effect would be from 1 January 2016.

9.80 The price control is a price cap. Imerys would not be able to increase prices above the level over the relevant period but customers could always seek to negotiate prices below the price cap if they are able to do so. As costs are not falling and are expected to continue to increase over the period of the price control, our expectation is that the price cap would be effective in controlling prices.

Price specification—ex-works price

9.81 Imerys said that, in the context of annual contracts, specifying an ex-works price was the appropriate price to use. Production costs were within its direct control but as both Imerys and Goonvean used third party hauliers, transport costs were not. Imerys argued that haulage costs could and did change on a more frequent basis due to the price of diesel and taxation changes. A delivered cost price would therefore place all the risk of price movements on Imerys. Imerys told us that all its customers had the option of buying either on an ex-works or delivered cost basis; the delivery was viewed as simply a service to the customer. Goonvean told us that it sold on a delivered price basis.

9.82 We considered that although Goonvean had offered a delivered price to its customers, the ex-works price was transparent to those customers that wished to know the transport component. Therefore, we saw no difficulties with a price control that was applied to ex-works prices provided that existing Goonvean customers had transparency over their ex-works prices. We also noted that setting a price control with respect to delivered prices for those customers that had such prices would not enable those customers to change subsequently to an ex-works basis were they to wish to do so.

9.83 We concluded that specifying only an ex-works price was therefore the simplest way to formulate the price control in these circumstances and would leave customers with a choice over whether or not to take delivery from the merged entity or from a third party. Energy surcharges, which had previously been applied by the parties, would not be added for the duration of the remedy.[146]

Price specification—RPI indexation

9.84 Imerys stated that it had suggested the RPI as the initial indexation measure as it was transparent, allowing customers to assess readily any price changes. It believed that the alternative, a proxy based on export price increases, would be less transparent to customers and as such would require monitoring. A customer would not be able to verify price changes at the time. These would require an audit (on a six-monthly or 12-monthly basis) and it would only be at that point that the customer would get the comfort that the price it had been paying was conforming to the price control.

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[145] These will need to be verified by the Monitoring Trustee and will form the basis of the price control.
[146] This exclusion does not apply to fuel costs which form part of freight costs, as set out in Appendix N.

9.85 Imerys told us that it had proposed RPI minus 0.5 per cent as the price control based on past price increases, in particular over the last 12 months. In addition, it took into account forecasts for future RPI changes. It believed that RPI minus 0.5 per cent would provide a likely benefit for the customer compared with these past and future expected trends.

9.86 We did not have any reason to disagree with the use of the RPI or the 0.5 per cent discount. We noted that Imerys's price announcements generally took place in October to November. Depending on exact publication dates, the most recently available official statistics that customers would be able to obtain and consider in relation to their commercial decisions would most likely contain the July RPI index. The rate of RPI over the prior 12 months could be derived by calculating the percentage increase in the RPI index between July figures in consecutive years.[147]

9.87 Accordingly, we concluded that the RPI index for any given year of the price control should be tied to the 12-month change in RPI based on the July index levels in consecutive years.[148]

Specification of the duration of the price control

9.88 Imerys proposed that the duration of the price control should be shorter for Crystal Sheen and Speswhite than for the other performance-mineral grades. For the reasons set out in paragraphs 9.66 and 9.72 above we did not agree that there were sufficient and compelling reasons why these grades and related customers should be treated differently as part of the remedial action to address the SLC that we found.

9.89 As set out above, the CC recognizes that behavioural remedies may create market distortions and a price control of very long or unlimited duration is likely to increase such risks. We noted that our Guidelines envisage that the CC may specify a limited duration to its remedial action where the duration of the SLC can be predicted or, in addition, it may specify a long-stop date beyond which the measures will definitely not apply.[149]

9.90 In considering this issue, we reverted to the SLC that we found and the particular factual circumstances arising.

9.91 First, we noted that behavioural remedies that are in place for the long term can have significant distortive effects on a market (for example, by discouraging competition through entry). We consider that there is a need to balance the remedy to address the adverse effects of the SLC with the risk of distortion. Although we have noted that entry by Sibelco would not be timely, likely or sufficient to prevent the SLC, we noted that it may seek to expand into this market if the right market conditions were present. We also noted the recent entry by an Indian manufacturer (Ashapura) for high-performance-mineral products, which indicates some level of interest in investing in this market.[150] Given these two factors, we considered it important that any price control remedy should not distort the market such as to dissuade a new supplier from entering in the future. We considered that specifying a finite period

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[147] For example: July 2013 RPI = 249.7. July 2012 RPI = 242.1. Annual increase 3.1 per cent. Source: www.ons.gov.uk/ons/dcp171778_322005.pdf.
[148] We noted that one customer, Crown Paints, agreed a multi-year deal (see paragraph 82) and that the increases in year 2 and 3 were [✂] per cent per year. The remedy would take precedence over any existing contractual terms covering more than one year. Customers would of course be free to negotiate prices below the price cap if they are so able.
[149] *CC8*, paragraph 4.7.
[150] See paragraph 7.112.

would give potential entrants an opportunity to plan any entry strategy with a reasonable degree of confidence.

9.92 We also wished to ensure that customers are given sufficient protection in the medium term whilst giving them an opportunity to explore alternative sources of supply, without nullifying the incentives to do so. A price control remedy that is carried on beyond a five-year period could in this market undermine any such incentives for rivals to enter or for customers to explore alternatives.

9.93 Second, we noted that the merger was likely to lead to an SLC in the UK market for the supply of kaolin for performance-mineral applications in the foreseeable future. However, we also recognized as part of our counterfactual assessment that the Greensplat plant, [✂], would require substantial investment in the medium to long term (see paragraphs 5.32 and 5.33. We considered it unlikely that Goonvean would have refurbished Greensplat at the point at which a decision would have been required but it was not clear to us when this decision would have had to have been made. We took our conclusions on Greeensplat into account in determining the appropriate length of a price control remedy.

9.94 We considered the appropriate duration of the price control remedy given the specific factual circumstances of this case. On balance, we concluded that a price control which would operate for a finite period of five years would strike the right balance between effectively addressing the customer detriment arising whilst significantly limiting any distortive effects that might arise. We concluded that there should therefore be a sunset clause to terminate the price control on 31 December 2018. The table below shows that the period of the base price and the period of the price control would be the same for all products listed.

TABLE 2 **Revised price control duration**

	Goonvean		*Imerys*	
	UK performance mineral customers*	Crystal sheen ([✂])	UK performance mineral customers	Speswhite
Base price	Current ex-works prices			
Price cap of existing prices	End of 2015			
Price cap of existing prices plus RPI minus 0.5%	2016–end of 2018			
Volume	For each grade, the parties would supply each customer of each grade with a maximum annual volume equal to the highest annual UK purchase volume of that customer for that grade in 2009/10, 2010/11 and 2011/12, plus 10%.			

Source: CC.

Transition to alternative grades and dispute mechanisms

9.95 We considered that it was important to give both customers and Imerys the flexibility to change to alternative product formulations in the event that some grades became unviable to produce or no longer suitable for customers' applications. The proposed remedy would allow Imerys to offer customers the option of changing to an alternative grade. A crucial part of our modifications to the remedy proposal was that customers should be protected by not having to take this alternative grade unless it meets their requirements. Customers are further protected by three elements of the proposed remedy: Imerys paying for reformulation work (as described in Appendix N); that in the event of disagreement between Imerys and the customer, the customer would have the right to dispute the alternative grade; and that the price control should apply to the alternative grade, based on the price of the original product, once the customer has agreed to it as an alternative.

9.96 The dispute mechanism that Imerys proposed, incorporating the changes that we considered were required to ensure that it would be effective, is set out in Appendix N.[151]

Distortion and circumvention risks

9.97 Imerys said that it did not think that the proposed remedies would distort any markets in the UK, particularly in light of their limited duration.

9.98 We recognized that any behavioural remedy controlling outcomes brings with it a number of risks, particularly regarding distortion. We considered that the risks we identified above can be effectively addressed, particularly through the time-limited nature of the remedy and effective dispute mechanisms, such that the price control would be an effective remedy in mitigating the adverse effects of the merger.

Monitoring and enforcement risks

9.99 We consider that the monitoring and enforcement risks of this remedy were relatively low. There would need to be an annual statement provided by Imerys to the OFT (or from 1 April 2014, the Competition and Markets Authority (CMA)) to show what actual price increases have occurred set against the RPI minus 0.5 per cent control and to detail any disputes that have arisen. The remedy would rely to some extent on customers raising issues with the OFT (CMA), in particular with regard to any disputes. However, given the small number of customers affected by the SLC, monitoring costs should be relatively modest.

Our overall assessment of Imerys remedy 2

9.100 We concluded that there were several risks associated with this remedy. However, we concluded that with the changes that we require, as set out above, these risks would be reduced such that the price control would be an effective remedy in mitigating the detrimental effects on customers of the merger (see paragraph 7.128).

Proportionality and relevant customer benefits

9.101 We concluded above that two remedies could be effective:

(a) a full divestiture of the Goonvean business. We identified a number of divestiture risks associated with this remedy and noted that the scope of the remedy was substantially wider than the product market in which an SLC was identified; and

(b) a price control for Goonvean and Imerys's performance-mineral products. We addressed a number of risks associated with the specification of this remedy and identified the potential risks that a price control could have distortionary effects, although we noted that these distortion risks were significantly limited by a five-year duration to the remedial action.

[151] Any other dispute mechanism proposals, whereby the Independent Expert's decision is binding on the customer, as proposed by Imerys, would not be enforceable through undertakings given by Imerys to the CC. Moreover, any proposal where the Independent Expert is testing the products 'blind' would not address whether the alternative product is actually suitable for the customer. Given the significant work that is done to make sure that a product works for a customer, we think that it is vital that the test carried out by the Independent Expert addresses those customers' needs.

Proportionality

9.102 In order to be reasonable and proportionate the CC will seek to select the least costly remedy that it considers will be effective. If the CC is choosing between two remedies which it considers will be equally effective, it will select the remedy that imposes the least cost or that is the least restrictive. The CC also seeks to ensure that no remedy is disproportionate in relation to the SLC and its adverse effects.

9.103 We considered the relative costs and restrictiveness of the two effective approaches to remedying the SLC that we have found: full divestiture and a price control.

9.104 In relation to the costs of full divestiture, we considered that Imerys undertook the risk of incurring such costs by completing the merger without notifying the OFT, and so did not take them into account. This is in line with our guidance.[152]

9.105 The CC expects merger parties to provide convincing evidence of any efficiencies that they claim result from the merger and to quantify them. For example, the fact that a merger led or would lead to economies of scale in production or distribution will not necessarily constitute an efficiency or RCB, unless it can be shown that any cost savings will be passed on to customers.

9.106 Imerys said that the transaction would generate merger-specific efficiencies in the form of fixed and variable cost savings across both parties' operations. Such production cost savings would benefit customers in the UK through lower prices. Imerys said that the reduction in Goonvean's production cost from £[✂] per tonne to £[✂] per tonne could be expected to translate into lower prices. In the past, Goonvean's prices had tended to reflect trends in production costs, although it had not always been able to pass all of the additional costs through to customers. Imerys also considered that greater efficiencies could incentivize greater product variety and availability.

9.107 We noted that full divestiture would result in Imerys forgoing any efficiencies that could be expected to arise from the merger. In this regard we noted that the scope of the SLC is small relative to the range of markets that Goonvean served:

(a) In 2012, sales of performance-mineral products in the UK represented [✂] per cent of Goonvean's total sales volume, and [✂] per cent of UK sales, generating £[✂] revenue.

(b) In 2012, sales of performance-mineral products in the UK represented [✂] per cent of Imerys's total sales volume and [✂] per cent of UK sales, generating £[✂] revenue.

9.108 In our view, even a small loss of the potential efficiency benefits that could have flowed to customers across all markets as a result of the merger (see Appendix L) would be likely to outweigh the benefits of a divestiture in the product market where we found an SLC.

9.109 The price control remedy should not lead to significant costs. We sought to minimize distortion costs by limiting the duration of the price control to five years. Monitoring and enforcement costs should be modest due to the simplicity of the remedy and its transparency to customers.

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[152] *CC8*, paragraph 1.10.

9.110 We considered that the price control remedy was also more closely aligned with the SLC that we found than a full divestiture. We therefore concluded that it was less onerous than full divestiture. The price control addresses the specific market in which we found an SLC; full divestiture would necessarily affect activities unconnected to the SLC.

9.111 We concluded that, while a divestiture of some description is usually the most comprehensive and proportionate remedy, looking at the specific circumstances of this case and comparing as a whole the effective remedies we have found, we considered that the price control remedy was more targeted to the specific SLC that we had identified.

Relevant customer benefits

9.112 RCBs that will be foregone due to the implementation of a particular remedy may be considered as costs of that remedy by the CC. In deciding the question of remedies, the CC is permitted to have 'regard to the effects of any action on any relevant customer benefits in relation to the creation of the relevant merger situation concerned'.[153] RCBs[154] are limited by the Act to benefits to relevant customers in the form of:

(a) lower prices, higher quality or greater choice of goods or services in any market in the United Kingdom; or

(b) greater innovation in relation to such goods or services.

9.113 As set out in CC guidance, the CC will normally take RCBs into account once it has decided that an SLC exists, by considering the extent to which alternative remedies may preserve any such benefits. RCBs that will be lost due to the implementation of a particular remedy may be considered to be costs of that remedy. The CC may consider modifying a remedy to ensure that an RCB is retained, or it may consider changing its remedy selection.

9.114 We accepted that the merger might result in significant cost synergies for Imerys, and that to the extent that any efficiencies existed, these would be eliminated if full divestiture were required (see paragraphs 9.105 to 9.108 above). However, any such RCBs that might exist would not be affected by our choice of the price control remedy and the parties did not argue that any RCBs would be lost as a result of the price control remedy. Accordingly, having considered any possible RCBs which might arise as a result of the merger, we did not consider it necessary to modify the design of our chosen remedy or change our choice of remedy.

Decision on remedies

9.115 We concluded that the most effective and proportionate remedy is a price control remedy for five years, comprising a price cap based on existing ex-works prices until the end of 2015 followed by an RPI minus 0.5 per cent price cap for the period 2016–2018 inclusive. The price control will apply to all products sold to performance-mineral customers equally, namely:

(a) Imerys products: Speswhite, Polwhite B, Polwhite E, Devolite, and Polysperse 50; and

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[153] Sections 35(5) and 36(6).
[154] Section 30.

(b) Goonvean products: Crystal Sheen, Opal Alpha, Opal Beta, Opal Gamma, Opal Epsilon, and Opal Rho.

9.116 The ex-works price will be based on the individual prices agreed with the existing customers. The schedules of these prices will be appended to the final undertakings, but will remain confidential due to commercial sensitivity.

9.117 We further concluded that the detailed arrangements for product changes and dispute resolution, as set out in Appendix N, should apply.