

**AGGREGATES, CEMENT AND READY-MIX CONCRETE
MARKET INVESTIGATION**

Summary of initial hearing held with Lafarge on 18 May 2012

Background

1. Lafarge was a global building materials company which had been in existence for over 100 years and currently operated in 64 countries. In the UK Lafarge operated six cement plants, 67 quarries and just under 100 ready-mix concrete (RMX) plants. It also operated relatively small asphalt and paving business.
2. Lafarge outlined that its UK operations were managed as an independent division within the worldwide Lafarge Group. Each of its products (aggregates, cement, RMX etc) had its own management team, and each of these teams was accountable for its product's performance. The operation of each team reflected the nature of the relevant product. Cement, which was highly capital-intensive, was managed nationally while aggregates, although also capital-intensive, owing to the more localized nature of competition for aggregates, was managed at a more local level, and RMX, which was less capital-intensive, was run on a very local basis.
3. Lafarge explained that it regarded its focus on its value-added products (VAPs), which were proprietary in nature, as the primary characteristic that differentiated it from its competitors. Lafarge focused on customer service, operating safely, and sustainable construction. [REDACTED]
4. Price was a major aspect of competition in the building materials market. The construction industry was conservative in nature, and when Lafarge introduced new products it had to work hard to promote them. However, over the past ten years it had found that once some customers had begun using its new products, then it was able to grow their sales. An example of such a product was Lafarge's Agilia self-flowing concrete, which, although more expensive to buy than standard RMX, could prove to be less expensive overall for certain projects, such as laying building foundations, as less labour was required to lay self-flowing concrete. Lafarge also cited the example of its bagged, pre-mixed Postcrete product which was designed for the DIY market. VAPs currently accounted for around [REDACTED] per cent of Lafarge's RMX sales. Innovation was driven by customer demand, and Lafarge noted its introduction of plastic bags for cement as an example.
5. Between 2007 and 2009, Lafarge lost 8 per cent of its market share in cement to independent cement suppliers. [REDACTED] by competition from other suppliers, the economic downturn, and the process of consolidation in the industry that had occurred over the past few years, which had led to other majors sourcing their cement internally.
6. In order to compete more effectively, Lafarge decided to focus on growing the market for its VAPs, including its blended cements which contained less embodied carbon and self-flowing RMX, which it hoped would attract customers who would also use its regular RMX as well. Lafarge reduced its costs by retiring and mothballing inefficient facilities, [REDACTED], and redistributing that capacity to its more efficient facilities. In recent years, Lafarge had also undertaken other cost-cutting measures.
7. Competing by reducing price on cement was difficult for Lafarge because of the need for it to cover the high capital costs involved with cement manufacture. Lafarge in the

UK was not currently covering its cost of capital, and if it reduced its prices further it would cover even less of these costs. The Lafarge Group then might consider reducing its investment in the UK, which would make Lafarge's plants less efficient and further reduce its returns.

8. Lafarge had not recently purchased significant assets from or sold significant assets to its competitors. Lafarge considered pursuing joint ventures when either the scale of a project required it or where it did not have expertise in a particular area (eg offshore dredging). It currently participated in only a few joint ventures, and these were not a major part of its business.

Aggregates

9. The geology of Great Britain meant that the South-East and London only had sand and gravel quarries while further north there were both crushed rock and sand and gravel. Lafarge moved crushed rock to the South-East and London via rail from quarries in the Mendips and Leicestershire. Around [X] per cent of Lafarge's aggregates production was used by its own RMX business. A further [X] per cent went towards its asphalt production.
10. Lafarge's aggregates management team was divided into northern and southern areas with their own sales teams and managers who were responsible for sales in their areas. Each of the two regional teams supplied a number of distinct local markets in its area.
11. Lafarge considered that its customers fell into three groups: national, large businesses, and small businesses. For most customers' orders, [X]. Larger and very large and complex orders were often dealt with by tenders, and might involve Lafarge and several other businesses supplying aggregates to the same project.
12. Some types of aggregate, such as rail ballast, must meet a certain specification, and Lafarge had developed a brand of recycled aggregate, Aggneo, which met a specific quality standard. There had been innovation in the delivery of aggregates, and Lafarge noted its use of a self-discharge train which could deposit rail ballast directly on to railway lines. Lafarge also tried to differentiate itself through the quality of its customer service offering by, for example, using GPS to improve the operation of its haulage fleet and giving customers more information about their deliveries.
13. Lafarge outlined that it used around [X] million tonnes of recycled aggregates per year out of a total market of 240 million tonnes. The amount of recycled aggregates produced was dependent on the amount of activity in the construction sector (ie demolition of old buildings to make way for new ones). Growth in recycled aggregates had been assisted by a move from specifying the type of aggregates required for a given project to specifying the performance required of the aggregates instead. Currently, recycled aggregates constituted up to 25 to 30 per cent of the total market. Growth in the recycled aggregates market had been encouraged by a number of factors including: government specifications for projects such as road building (it was noted that the M25 widening had used 90 per cent recycled aggregates), tax incentives via the aggregates levy and landfill tax, inflation in the costs of extracting and transporting primary aggregates, improvements in the product quality and professionalism of recycled aggregates suppliers, and increased customer demand for aggregates.
14. Lafarge operated a recycling business which constituted a small proportion of its total supply. It sourced these recycled aggregates from construction and demolition works. It also had a secondary aggregates business based on crushed glass from which it

made sand. Lafarge outlined that for Lafarge and for new entrants, setting up a recycled aggregates site was relatively straightforward.

15. Lafarge explained that the increase in the demand for recycled aggregates had in some cases led to a decline in the demand for primary aggregates. The costs of mothballing quarries could be quite high, as costs such as rents continued to accrue. The availability of recycled aggregates was generally linked to the amount of construction activity in an area, so they were usually available where they were required, even in rural areas where there was apparently little construction activity, and often aggregates were recycled into a building on the same site. Prices for recycled aggregates could vary greatly and might depend on whether the aggregates needed to be quickly moved from a demolition site. It was noted that some recycled aggregates suppliers did stockpile some recycled material.

Cement

16. While it would be possible to produce the same type of cement and sell it in bulk and in bags, Lafarge considered that the markets for these two products were different, and bulk cement did in fact differ from bagged cement. Bulk cement was sold to large-scale producers of RMX (including Lafarge's own RMX business) which needed to produce RMX to meet the specifications set by their customers and therefore needed certainty about the quality of the ingredients in the cement they were using. Customers in the market for retail bagged cement were less concerned about the ingredients of the cement they bought than about Lafarge's ability reliably to deliver their orders. Lafarge said that there were very minor regional variations in customer preferences for the bagged cement. For example, Scottish purchasers preferred darker-coloured cement as they believed it to be stronger than lighter cement, while in the South-East purchasers preferred lighter cement as they were used to using it.
17. Lafarge explained that the competitive dynamics of the bulk and bagged cement markets differed. Lafarge had approximately [X] bulk cement customers while there were only a few large-scale buyers of bagged cement, such as builders' merchants and retail DIY chains. There was innovation in the bagged market around the packaging of cement (plastic bags, smaller tubs) and the development of 'ready-to-use' products. Many of these innovations were designed to allow customers to buy the right amount of cement for their needs and reduce wastage.
18. Lafarge indicated that it had a [X] per cent share of the bagged cement market. Hanson and CEMEX shared the vast majority of the remaining [X] per cent, while Tarmac had only a very small share. Importers' share of the market was also increasing as producers in countries like Ireland sought to sell their excess cement in Great Britain.
19. Lafarge told us that it had around 12 rivals in the bulk cement market, including Hanson, CEMEX, and Tarmac as well as importers such as CPV (Southern and Dragon Cement), CRH (Morrissey), Titan, Thomas Armstrong, Dudman and Aggregate Industries. Lafarge noted that the importers' share of the market had grown from [X] per cent since 2007 while the overall market had been affected by the economic downturn. Producers in countries where the downturn had been more drastic, such as Spain and Ireland, did not reduce production capacity even though demand in their domestic markets had declined considerably, so producers in those countries were exporting their excess production to countries like Great Britain. Due to the cost of energy in Spain being about two-thirds of that in the UK, it had been and was still cost-effective to produce cement in Spain and export it to the UK. The quality of cement from elsewhere in the EU was the same, as all such cement had to

meet the EU's EN197 standard. Finally, the EU's Emissions Trading Scheme (ETS) required cement producers to operate individual plants to a certain capacity in order to continue to acquire the full amount of carbon credits for those plants. This encouraged cement producers to maintain their existing production capacity even when there was reduced demand.

20. Lafarge told us that it was not certain whether the quantity of cement imports into Great Britain would result in price decreases in the course of the next year or so as it was not clear whether the volume of imports could be maintained given the overall economic situation. Lafarge also noted that it set its prices to cover, as best it could, its fixed costs and its return on capital, and it was unable to cover its return on capital at its current price levels. In those areas of the country which did not have cement plants, eg the South-East, the cost of serving the market would be roughly the same for cement importers and domestic producers. Lafarge's experience had been that markets for cement often had a regional dimension and the price importers offered could vary. Lafarge tried to match importers' prices when it could, but sometimes it was unable to and would lose customers.
21. Lafarge told us that it assessed whether to raise its cement prices [REDACTED].
22. Lafarge explained that some of its cement customers, usually the larger ones, bought their cement from more than one supplier while smaller customers tended to buy from a single supplier. Large customers with several RMX sites had their individual sites source their cement from whichever producer was nearest.
23. Lafarge recounted that in 2009 [REDACTED] Hanson internalizing its cement purchasing [REDACTED].
24. Lafarge currently imported a small amount of cement into the South-East of England. [REDACTED]
25. The exclusive supply arrangement for ground granulated blast furnace slag (GGBS) between Hanson and Tarmac did not cause Lafarge any difficulties. Lafarge was able to obtain GGBS from Hanson at the market price if it needed, but it currently found it cheaper to import GGBS from Spain. Lafarge understood that most other domestic RMX producers also bought GGBS from Hanson although some imported it. Lafarge had access to volumes of pulverized fuel ash (PFA) via a joint venture, and PFA was plentiful in any case as large quantities were exported to Great Britain from the Continent where landfill taxes were higher.

Ready-mix concrete

26. Vertical integration (VI) benefited Lafarge in a number of ways. It allowed Lafarge to access more customers at a number of different levels (ie cement, RMX) and offer those customers more Lafarge products. VI also allowed Lafarge to control the quality of the cement and aggregates it used in making its various value-added RMX products. It allowed it to make its products on a large scale, which was more efficient and less costly. Finally, through VI, each individual business within Lafarge (eg RMX) could forecast its needs and communicate them to the other divisions (aggregates and cement) which also helped to increase efficiency. Lafarge emphasized that, although they shared some backroom services, each of the parts of its business operated separately and was incentivized to be profitable in its own right. Lafarge considered that operating each business separately helped to protect its value and that of its products.
27. Cement was a very capital-intensive business which currently had a low return on capital employed (ROCE) while RMX was much less capital-intensive and had a

higher ROCE. [REDACTED] Lafarge did not discriminate between other majors and independent RMX producers when pricing its cement.

28. Lafarge detailed that it had around 100 RMX plants in Great Britain which were categorized into 21 local sectors, each sector on average having five plants each and run by a sector manager who oversaw a local sales office and local order office. The size of each sector business was approximately equivalent to the independent RMX businesses Lafarge would find itself competing against. The sectors roughly corresponded to county boundaries. Lafarge suggested that in any given market in Great Britain a customer would have a choice of seven to ten RMX suppliers. There were only a few areas in Great Britain where the market was more concentrated, and there were low barriers to entry to RMX, especially with the invention of volumetric trucks, so it was unlikely that any business would be able to have market power
29. Lafarge explained that the number of new entrants to the RMX market had grown despite the economic downturn. Lafarge noted that the 'independent' sector included some large companies like Breedon and Brett. Independent RMX operators could supply almost any RMX contract that Lafarge could. Small operators filled gaps in the market left by larger companies as the larger companies had closed facilities in order to cut their costs in response to the decline in demand. Lafarge operated a number of small mixer trucks (3 m³) alongside its traditional 6 m³ and 8 m³ to compete against volumetric trucks. [REDACTED] Lafarge's RMX business also faced competition from suppliers of other building materials such as timber and steel.
30. Lafarge explained that its sales of RMX could range in size from small volumes for private individuals to extremely large contracts to provide RMX for major construction projects. Lafarge normally had [REDACTED] active sales accounts at any one time. It gave thousands of quotes to potential customers every week and routinely won and lost business. [REDACTED] The range of discounts sales staff could offer depended on their seniority. [REDACTED]
31. In the past ten years, Lafarge had supplied every large and medium-sized construction company in the UK. Therefore, Lafarge had either a current or previous relationship with the majority of its potential customers. At any one time, it traded with around 10 per cent of the potential customers it was in contact with. Small customers (ie those that bought less than 500 m³ per year) accounted for about 25 per cent of its production volume.
32. Although it was possible in some cases for Lafarge's customers to replicate its value-added RMX products by purchasing and adding the relevant chemicals themselves, Lafarge explained that customers often did not have the expertise to do this as well as Lafarge could. It was possible for competitors to analyse the ingredients and recipes for many of Lafarge's VAPs and attempt to reproduce them. Lafarge outlined that its strategy was to seek a competitive advantage through better management of the supply chain, which allowed it to produce high-quality VAPs and provide the best support and service when delivering them to customers.
33. One motivation for Lafarge's entry into the joint venture with Tarmac (the JV) was to enable it to sell more of its value-added RMX products in Great Britain. Currently VAPs counted for around [REDACTED] per cent of its RMX sales, while in France they accounted for around [REDACTED] per cent. The JV would give Lafarge a better distribution footprint for supplying these products to customers, who it believed would increasingly want better quality, lower-carbon products.
34. Lafarge considered that the reference markets were already competitive, and that the implementation of the JV remedies package, which would create the new JV com-

pany and require the creation of a new entrant, would further increase competition by introducing new competitive tension and uncertainty to the reference markets, particularly in cement where the new entrant would have excess production capacity.