

**Anticipated construction materials joint venture between  
Anglo American PLC and Lafarge S.A.**

**Summary of provisional findings**

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1. On 2 September 2011, the Office of Fair Trading (OFT) referred to the Competition Commission (CC) for investigation and report under the Enterprise Act 2002 (the Act) the anticipated construction materials joint venture between Anglo American PLC (Anglo American) and Lafarge S.A. (Lafarge Group). Following two extensions to the original inquiry period ending on 16 February 2012, we are required to publish our final report by 1 May 2012.
2. The reference requires us to determine:
  - (a) whether arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation; and
  - (b) if so, whether the creation of that situation may be expected to result in a substantial lessening of competition (SLC) within any market or markets in the UK for goods or services.
3. The operations that Anglo American and Lafarge Group plan to contribute to the proposed JV are, in broad terms, their UK activities in the production of cement, aggregates, asphalt and ready-mix concrete (RMX).
4. We found that the proposed JV would result in the creation of a relevant merger situation because the share of supply test was met.

## The products

5. Cement is the 'glue' that binds together the components of building materials including RMX. Cement is made from a mixture of finely ground limestone or chalk (or other materials with a high calcium content), clay and sand (or other sources of silica and alumina). This mixture is processed to create an intermediate product, cement clinker. The finished cement is produced by grinding together clinker with a small percentage of additives.
  
6. Different types of cement are produced by blending ground clinker with other materials, including ground granulated blast furnace slag (GGBS) and pulverized fly ash (PFA). These different types of cement (also known as blended cements) are defined by their strength development and setting times, which are determined by the proportions and nature of the different products used to make them. CEM I is the basic, and the most widely produced, cement in Great Britain. CEM II and CEM III are the other two main types of cement supplied in the UK.
  
7. Aggregates are the granular base materials used in the construction of roads, buildings and other infrastructure and are also a key component of asphalt and RMX. Aggregates may be divided into:
  - (a) primary aggregates, which are extracted from quarries, pits and (in the case of marine aggregates) the seabed; primary aggregates may come from either sand and gravel pits or crushed rock quarries;
  - (b) secondary aggregates, which are by-products of industrial and mining processes; and
  - (c) recycled aggregates, which are produced, for example, from demolition sites and construction waste.

8. There are also specific types of primary aggregates for certain ‘specialist’ applications. They include:
  - (a) rail ballast, used as a bedding material underneath railway tracks; and
  - (b) high purity limestone (HPL), which is used in particular for flue gas desulphurization (FGD) at coal-fired power plants.
  
9. Asphalt is produced by heating and mixing aggregates and a viscous binding agent, usually bitumen. Its principal applications are in the surfacing of roads, car parks, footpath pavements and other surfaces.
  
10. RMX is concrete that is manufactured at the supplier’s site for delivery to a customer’s construction site in a freshly mixed and unhardened state. RMX is made from cement and (if desired) other materials such as GGBS and PFA, mixed with fine aggregates and coarse aggregates, water and other additives.
  
11. Five vertically integrated companies with national coverage (‘the majors’) are involved in the production and supply of cement, aggregates, asphalt and RMX in the UK:
  - (a) Aggregate Industries UK Ltd (Aggregate Industries)—the UK operations of Holcim Limited, a global building materials producer listed on the SIX Swiss stock exchange;
  - (b) Cemex UK Operations Limited (Cemex)—the UK operations of Cemex SAB de CV, a global building materials company listed on the Mexican stock exchange;
  - (c) Hanson—we use this term to refer to both the UK operations of Hanson and the operations of HeidelbergCement AG, Hanson’s ultimate parent company, which is a global provider of building materials listed on a number of German stock exchanges;

- (d) Lafarge Group (through its UK Cement and Aggregates & Concrete divisions);
- and
- (e) Anglo American's Tarmac business.

### **Anglo American and Tarmac**

12. Anglo American is a global mining and industrial business. It will contribute to the proposed JV Tarmac Group's entire UK operations with the exception of Tarmac Building Products Limited (TBP), a producer of heavy building materials including concrete blocks. Tarmac is active in the production and sale of cement, aggregates, asphalt, RMX and lime, as well as providing services in asphalt surfacing and maintenance, and waste management. In FY10, Tarmac generated revenues of just over £1 billion, all of which were generated in the UK.
13. Tarmac's cement operations comprise a quarry and cement plant located in Tunstead, Derbyshire and some cement depots.
14. Tarmac produces and supplies primary aggregates from quarries in the UK and operates a dredging business around the UK coast for the extraction of marine aggregates. Tarmac also operates recycling and secondary aggregates sites, as well as a small number of railheads (or rail-fed depots).
15. Tarmac also has a large number of fixed asphalt production sites and fixed RMX plants.

### **Lafarge**

16. Lafarge Group is a multinational producer and supplier of construction and building materials, focusing on cement, aggregates, concrete and gypsum. Lafarge Group will contribute its UK Cement and Aggregates & Concrete divisions to the proposed JV

(together, Lafarge). In FY10, Lafarge generated total revenues of around €920 million.

17. In Great Britain, Lafarge operates four cement plants and a number of cement depots and cement import terminals. In Northern Ireland, Lafarge operates one cement plant and one depot.
18. In the UK, Lafarge operates aggregates quarries and depots, along with several marine aggregates wharves and aggregates recycling sites, with additional recycling activity taking place on an occasional basis at Lafarge quarries and depots.
19. Lafarge currently operates a number of fixed asphalt plant sites and owns several mobile asphalt plants (plants which can be located at the customer's site). It also has a considerable number of fixed RMX plants, and several additional RMX plants which are located on the sites of precast concrete producers dedicated to supplying those customers. Lafarge also operates several mobile RMX plants.

### **The counterfactual**

20. We found that, had the JV transaction not been proposed, the prevailing competition between Tarmac and Lafarge would have been likely to continue largely unchanged.

### **The relevant markets**

21. We found that the relevant product markets for the purposes of our inquiry were:
  - (a) the supply of bulk cement. However, we recognized that differing constraints might characterize different products within this market, for example in relation to CEM I, which was the main input for the production of the other types of cement, and in relation to imported and domestically produced cement. Therefore, in the

competitive assessment, we also considered the competitive constraints arising for these products;

(b) the supply of bagged cement;

(c) the supply of primary aggregates (of all grades) for construction applications. We recognized that differing constraints might characterize different products within this market and that constraints might also arise from products outside this market. Therefore, in our competitive assessment, we considered a market segmentation into crushed rock aggregates and sand and gravel aggregates, and we considered specific products within these two segments. We also considered the possible constraints arising from secondary and recycled aggregates when available in a given geographic market;

(d) the supply of rail ballast;

(e) the supply of HPL. We recognized that the extent to which customers could switch between different grades of HPL depended on the specific application in which HPL was used and that for FGD, in particular, the specification of the product was tight. We therefore considered in our competitive assessment the constraints in relation to this specific use of HPL;

(f) the supply of asphalt (produced either by fixed or by mobile plants); and

(g) the supply of RMX (produced either by fixed or by site plants). We did not include volumetric trucks (ie trucks which carry RMX ingredients separately and mix them on site) in the relevant market but we considered competitive constraints from them in our competitive assessment.

## **Theories of harm**

22. We identified four ways in which the proposed JV might harm competition ('theories of harm'), namely:

(a) 'Unilateral horizontal effects.' Loss of competition between Tarmac and Lafarge as a result of the proposed JV might enable the JV entity to increase prices,

worsen quality or service levels and/or reduce capacity through plant closures (or mothballing) in one or more of the relevant markets.

- (b) 'Coordinated effects.' In relation to any one or more of aggregates, asphalt, cement or RMX, the proposed JV might make any pre-existing coordination between the majors more stable or effective or, in the absence of pre-existing coordination, might create the conditions where such coordination was likely. Coordinated effects may arise when firms operating in the same market recognize that they are mutually interdependent and that they can reach a more profitable outcome if they coordinate to limit their rivalry.
- (c) 'Vertical effects arising from unilateral market power.' The proposed JV might create or enhance vertical integration in certain local areas, such that the JV entity would have the ability and incentive to engage in partial or full input foreclosure<sup>1</sup> in certain local areas in relation to:
- (i) cement sold to RMX-producing customers;
  - (ii) aggregates sold to RMX-producing customers; and/or
  - (iii) aggregates sold to asphalt-producing customers.
- (d) 'Vertical effects arising from coordination.' By making coordination between the majors likely to arise, or by making any such pre-existing coordination more effective, the proposed JV might result in partial or full input foreclosure in certain local areas (as in the case of vertical effects arising from unilateral market power).

## **Unilateral effects**

### ***Primary aggregates for construction applications***

23. We carried out a local competitive analysis in catchment areas around primary aggregates sites, as primary aggregates for construction applications are, on the

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<sup>1</sup> Full input foreclosure occurs when a supplier refuses to supply an input to customers which use that input to compete with it in downstream markets. Partial input foreclosure occurs when a supplier increases (to a greater extent than otherwise might be expected) the prices of an input to customers which use that input to compete with it in downstream markets.

whole, transported over relatively short distances (unlike aggregates for specialist applications such as rail ballast, which travel much greater distances and for which there generally appeared to be national markets). Having established the relevant catchment areas, we then identified in which of these areas Tarmac and Lafarge both had plants ('overlap areas'). We then used filters to identify in which of these overlap areas there might be competition problems ('possible problem areas'). The final step was to analyse the competitive dynamics in each of the possible problem areas individually so as to decide where there was likely to be a competition problem.

24. We also carried out a price concentration analysis (PCA) to help inform our view on whether the proposed JV was likely to lead to competition problems. The PCA involved developing econometric models to determine the extent to which competition from rivals constrained pricing in a particular market.
25. Having identified around 40 possible problem areas, we considered the competitive dynamics in each possible problem area on an individual basis. We looked at shares of production (for all aggregates, primary aggregates, crushed rock and sand and gravel as appropriate) and the number of competitors. We also took into account the existence of local sources of recycled and secondary aggregates, the geographical distribution of sites and demand and any geographical barriers that might limit the scope of competition between plants that otherwise appeared to be in the same local market.
26. We identified 23 local primary aggregates markets in which we considered that the proposed JV was likely to result in an SLC.

### ***Rail ballast***

27. Network Rail buys around 99 per cent of the rail ballast produced in the UK. There are only a few suppliers of rail ballast and relatively few shipping points (ie quarries or depots) in the UK. The main suppliers are: Lafarge; Midland Quarry Products (MQP), a JV between Tarmac and Hanson; Aggregate Industries; and Cemex.
28. We found that:
- (a) The proposed JV would bring together the largest supplier of rail ballast (Lafarge) and the second largest supplier (Tarmac, through MQP). After the JV there would be no other remaining suppliers of rail ballast with a significant share.
  - (b) It was unlikely that the remaining competitors would have the ability to constrain the proposed JV's pricing. This was due to the effect of the remaining competitors' quarry locations on the cost to supply rail ballast into certain geographic areas and, therefore, on the price the remaining competitors would charge to Network Rail in those areas.
  - (c) Network Rail's position as the near-unique purchaser of rail ballast had not given it countervailing buyer power.
  - (d) It was unlikely that entry or imports could constrain the proposed JV's pricing.
29. We therefore concluded that the proposed JV was likely to result in an SLC in the supply of rail ballast.

### ***HPL***

30. We found that the proposed JV would be unlikely to result in an SLC in the supply of HPL for non-FGD customers, as there appeared to be sufficient alternative suppliers.
31. For HPL for use in FGD, we found that:

- (a) There are only a small number of power station customers for HPL for FGD, they issue tenders for the supply of HPL and they are all currently supplied by either Tarmac or Lafarge.
- (b) Suppliers of HPL for FGD had to meet the technical specification for this application and have rail-linked quarries located sufficiently close to the coal-fired power stations to allow them to bid competitively for tenders. Our analysis confirmed that HPL for FGD did not travel long distances.
- (c) Limestone powder producers did not appear to represent a significant competitive constraint, both as a result of lack of rail-linked quarries and existing FGD equipment being tailored for the use of specific grades of HPL.
- (d) Imports were unlikely to be a relevant competitive constraint due to the higher transport costs involved.
- (e) There was no evidence of countervailing buyer power.
- (f) Other than the small number of suppliers which bid to supply HPL for FGD in recent tenders (which included Tarmac and Lafarge), no other supplier of HPL in Great Britain produced the grade of HPL suitable for customers' existing FGD equipment and/or had a rail-linked quarry sufficiently close to the coal-fired power stations to allow competitive supply.

32. The proposed JV would therefore significantly reduce the number of alternative suppliers of HPL for FGD. We considered that this reduction was likely to compromise considerably the competitive dynamic in tenders, making it easier for competing bidders to anticipate the competitor's behaviour and take this into account. We therefore concluded that the proposed JV would be likely to result in an SLC in the supply of HPL for FGD customers.

## ***Asphalt***

33. Our local competition assessment methodology for asphalt was very similar to the one we used for primary aggregates and RMX. Our initial filtering produced two possible problem areas, and, following a local competitive assessment in each of these areas, we found two local asphalt markets in which we considered that the proposed JV was likely to result in an SLC.

## ***RMX***

34. Our local competition assessment methodology for RMX was very similar to the one we used for primary aggregates and asphalt. Our initial filtering produced eight possible problem areas, and, following a local competitive assessment in each of these areas (in which we took account of possible constraints from local volumetric truck operators), we found seven local RMX markets in which we considered that the proposed JV was likely to result in an SLC.

## **Coordinated effects**

### ***Bulk cement***

35. We assessed whether the proposed JV might be expected to give rise to an SLC in the bulk cement market through coordinated effects.
36. The CC's merger assessment guidelines (the Guidelines) set out that all three of the following conditions must be satisfied for coordination to be possible:
- (a) firms need to be able to reach and monitor the terms of coordination;
  - (b) coordination needs to be internally sustainable among the coordinating group, ie firms have to find it in their individual interests to adhere to the coordinated outcome; and

(c) coordination needs to be externally sustainable, in that there is little likelihood of coordination being undermined by competition from outside the coordinating group.

37. In accordance with the Guidelines, we analysed whether there was evidence that UK cement producers were coordinating in the bulk cement market currently and the extent to which the three conditions for coordination were satisfied. Among other things, we looked at:

(a) observed market outcomes (trends in market shares, changes in margins over time, evidence from our PCA and evidence from customers on the behaviour of UK cement producers);

(b) data on customer switching; and

(c) internal documents from the main parties and the other UK majors.

38. We did not come to a conclusion whether or not there was pre-existing coordination in the bulk cement market. However, we found that the evidence on market outcomes that we reviewed, when taken together, indicated that there were shortcomings in the way the market functioned and was consistent with a degree of pre-existing tacit coordination. That evidence included:

(a) the degree of stability of shares of production at the time of large changes in demand and consolidation in the industry;

(b) pricing behaviour and sustained margins that did not appear to be consistent with the excess capacity in the industry, in particular increases in the variable profits per tonne of cement over the period 2007 to 2010, which appeared inconsistent with cement producers competing for customers in a market with falling demand and excess capacity; and

(c) the results from our PCA, which were consistent with the existence of a degree of coordination in the market.

39. Our analysis also indicated that the three conditions for coordination were likely to be satisfied in the current market.
40. Condition 1 (the ability to reach and monitor the terms of coordination) seemed likely to be satisfied at present. The bulk cement market is very concentrated and not particularly complex. Cement is a relatively homogeneous product. Coordination on shares of production and/or wins and losses of customers appeared feasible. The practice of sending out price announcement letters was likely to assist the UK cement producers in coming to a common understanding on the timing and direction of price movements. Further, we found that the UK producers could with a fair degree of accuracy monitor their own shares of production with a one-month time lag, and this could be complemented with monitoring of gains and losses of their own customers and sales volumes.
41. It was also likely that condition 2 (internal sustainability of coordination) was satisfied at present, for the following reasons:
- (a) The lack of differentiation between cement made by different UK producers (within each type of cement) creates large incentives to coordinate, because without coordination, it is likely that competition would be strong in bringing prices down in periods of excess capacity.
  - (b) There was sufficient excess capacity in the market and customers were able to switch sufficiently easily between cement producers to enable punishment strategies based on taking business from a deviator to be effective.
  - (c) One available mechanism for punishment would be to reduce prices to the deviator's customers so as to reduce the deviators' sales volumes and margins. Such a mechanism appeared likely to be effective in this market given the lack of long-term contracts, regularity of cement purchasing, and customer price sensitivity. The scope for such a punishment mechanism to disrupt the market in

general (in pushing industry prices down) was limited by the limited transparency of realized prices for cement, and it would therefore not be particularly costly to the punishing firm to implement.

(d) Repatriation of cement volumes (the bringing of volumes purchased from another producer back into in-house supply) was potentially also an effective signalling and/or punishment mechanism. This was because it was swift, targeted and (if used as a signalling mechanism) could reduce the risk of more costly punishment being required and (if used as a punishment mechanism) could be very costly to deviating firms while having a low risk of destabilizing the market. We found that repatriation had occurred regularly in the past three years. However, Lafarge was at present constrained, compared with the other UK major producers, in its ability to repatriate because it was not currently a large buyer of cement for its own use. Tarmac was constrained in its ability to repatriate because it could not easily increase its self-supply of cement.

42. We considered that condition 3 (external sustainability) was likely to be satisfied at present because:

- (a) there was evidence to suggest that the constraint from imports was not sufficient to prevent the UK majors exercising a degree of collective market power;
- (b) we found high barriers to entry into the production of cement in the UK and no evidence of countervailing buyer power; and
- (c) although the evidence suggested that Tarmac was likely to have different incentives to coordinate than the other UK cement producers and was likely to be part of a competitive fringe, it currently operates at, or close to, full capacity, suggesting that it cannot expand sales further in the short term and therefore that it would not at present be able to further undermine a coordinated outcome other than by expanding its current capacity.

43. We examined the effect of the proposed JV on the likelihood and effectiveness of coordination. In doing so, we noted that, following the proposed JV, there would be:
- (a) increased concentration in UK cement production;
  - (b) increased consolidation in RMX production at a UK level; and
  - (c) a more balanced position in terms of the degree of vertical integration between the JV entity, Hanson and Cemex (compared with the present position of Lafarge, which does not control as large a RMX business as Hanson and Cemex).
44. We considered that the proposed JV would strengthen both the ability to reach and to monitor coordination (Condition 1) because:
- (a) there would be fewer cement producers; and
  - (b) there would be increased information available to the JV entity regarding RMX and cement purchases compared with Lafarge's current position, since the JV entity would have a larger and more widespread RMX business than Lafarge does currently.
45. We considered that the proposed JV would enhance the internal sustainability of coordination (Condition 2) because:
- (a) The reduction in the number of producers following the proposed JV would mean that members of any coordinating group would obtain a larger share of the overall profits from coordination.
  - (b) The level of the JV entity's variable production costs would have greater similarities to those of Hanson and Cemex than either Tarmac or Lafarge's costs have at present, resulting in greater alignment of incentives to coordinate and to punish deviation from coordination.
  - (c) The JV entity would have a larger RMX business than Lafarge currently has, and this would make its vertically integrated position closer to that of Hanson and Cemex. This would further align incentives to coordinate and ability to punish

deviation from coordination compared to the present market structure, and give the JV entity increased flexibility and options in its punishment actions.

(d) If the JV entity had greater cross-sales with Hanson and Cemex than Lafarge does currently, then it would have an enhanced ability compared with Lafarge to use repatriation as a cheap signal to deviators from the coordinated outcome to cease doing so, short of entering a more costly punishment phase.

(e) It would also increase the effectiveness of mechanisms to punish deviation by virtue of the increased information about the RMX markets available to the JV entity compared with Lafarge at present, allowing punishment to be better targeted.

46. We considered that the proposed JV would enhance the external sustainability of coordination (Condition 3) because it would eliminate an existing market participant (Tarmac) that appeared likely to be part of a competitive fringe and that had a strong incentive to expand (rather than reduce) its output. In particular:

(a) The JV entity would have stronger incentives to reduce production than Tarmac currently does because it would, on average, be a less efficient cement producer than Tarmac is currently.

(b) After the proposed JV, the threat that the JV entity might expand its capacity further (as Tarmac has done on two occasions in the last ten years) would be lower as the JV entity would already benefit from Lafarge's excess capacity.

47. We noted that some of the ways in which the proposed JV was likely to increase firms' abilities and incentives to coordinate in cement would arise from the combination of Tarmac and Lafarge's cement businesses, and some would arise from the combination of Tarmac and Lafarge's RMX businesses. The latter would arise even if it were not proposed to combine Tarmac and Lafarge's cement businesses, and therefore these effects may have additional implications for remedies.

48. We found that the proposed JV was likely to result in each of the three conditions for coordination being satisfied to a greater extent than at present in the bulk cement market. Taken together with the other evidence we considered, we found that this would make coordination in the market more likely (if there were no pre-existing coordination), as well as increasing the effectiveness and sustainability of any pre-existing coordination. We concluded that the proposed JV would be likely to result in an SLC in the bulk cement market.

### ***Bagged cement***

49. Bulk cement is a key input into the production of bagged cement. As set out above, we found that the proposed JV would make coordination in the bulk cement market likely (if there were no pre-existing coordination), as well as increasing the effectiveness and sustainability of any pre-existing coordination. We found that Tarmac had only a very small share of the bagged cement market. In light of these factors, we reached no conclusion on the effect of the proposed JV in the bagged cement market specifically as we considered that any possible concerns would be captured by our findings in relation to the bulk cement market.

### ***Coordination in other relevant markets***

50. In light of our views on unilateral effects in the aggregates, asphalt and RMX markets, we have come to no conclusions at this point on the scope for coordinated effects in these markets as a result of the proposed JV.

### **Vertical effects**

51. The Guidelines set out the framework for assessing the likelihood of input foreclosure in terms of assessing the ability and incentive of the JV entity to harm rivals following the proposed JV, and whether the effect of any such foreclosure would be sufficient to reduce competition downstream to the extent that it gives rise to an SLC.

### ***Aggregates into asphalt and/or RMX***

52. We found that the JV entity would not have the ability to foreclose non-integrated asphalt or RMX producers because it would not have a sufficient share of supply of aggregates to non-integrated asphalt and RMX producers in any local area. We therefore did not consider the JV entity's incentives to foreclose, nor the ability of downstream aggregate customers to undermine any attempts at foreclosure.
53. We therefore found that the proposed JV was not likely to result in an SLC as a result of vertical effects in relation to aggregate supply into asphalt and/or RMX.

### ***Cement into RMX***

54. We have not concluded at this point on whether there are likely to be vertical effects as a result of the proposed JV in relation to cement as an input to RMX.

### **Countervailing factors**

55. We considered whether the following factors would prevent or reduce an SLC that might otherwise arise as a result of the proposed JV:
- (a) rivalry-enhancing efficiencies;
  - (b) expansion by existing market participants or entry by new market participants;
  - and
  - (c) buyer power.
56. We did not receive any evidence that either efficiencies arising from the proposed JV or buyer power might be expected to prevent or reduce the SLCs we identified as a result of the proposed JV.
57. In relation to expansion:

(a) For cement, we found that the existing overcapacity in the market meant that three of the four UK cement producers had the ability to expand their output, if they had the incentive to do so. However, we considered that such expansion was unlikely to offset the SLC we identified in the bulk cement market, since, following the proposed JV, any coordinating group of firms would be likely to recognize that expansion of production would undermine the coordinated outcome.

(b) For primary aggregates, asphalt and RMX, there was evidence of overcapacity nationally. However, we did not find evidence of specific expansion plans in those local primary aggregates, asphalt and RMX markets in which we found that the proposed JV would be likely to result in an SLC. We also did not find evidence of expansion plans in relation to rail ballast and HPL for FGD that might offset an SLC in those markets.

58. In relation to entry, we found that for all the relevant markets, substantial excess capacity at a national level would act as a barrier to entry by reducing the incentives for new entry. In addition, we identified specific barriers to entry to particular relevant markets:

(a) For cement, the large capital investment required to build a new cement plant means that small-scale entry would not be feasible (ie there are significant economies of scale which would deter entry). Entry via setting up a grinding station (to grind clinker) or an import terminal would require economic access to a supply of clinker (in the case of a grinding station) or cement (in the case of an import terminal), both of which would either have to be imported or come from a rival UK cement supplier. This would be likely to weaken the business case for entry via either of these routes.

- (b) For both primary aggregates and cement, the limited availability of suitable greenfield sites, along with the difficulties and costs in obtaining planning permission, would make any entry slow and expensive.
  - (c) For aggregates, the supply of raw materials for the production of secondary and recycled aggregates appears likely to be sufficiently limited (because of finite resources) and confined to specific geographic locations to make entry into production of these types of aggregates on a large scale unlikely.
  - (d) For asphalt, the initial capital requirements to serve a limited local market, combined with current market conditions (ie both excess capacity and falls in market demand), appeared to make entry unlikely.
59. In light of significant barriers to entry into the cement market and the uncertain plans for future entry, we found that entry into the bulk cement market was unlikely to offset the SLC we identified in this market.
60. For primary aggregates, asphalt and RMX, we did not find evidence of specific entry plans in those local primary aggregates, asphalt and RMX markets in which we found that the proposed JV was likely to result in an SLC. We also did not find evidence of specific entry plans in the rail ballast or HPL (for FGD) markets. Taken together with barriers to entry into these markets that we had identified, we therefore found that entry was unlikely to offset the SLCs we identified in these markets.

### **Provisional findings**

61. We provisionally concluded that the proposed JV may be expected to result in an SLC in the following markets, leading to prices that are higher than might otherwise be the case:
- (a) the market for the supply of bulk cement in the UK, as a result of coordinated effects;

- (b) 23 local markets for the supply of primary aggregates for construction applications, as a result of unilateral effects;
- (c) the market for the supply of rail ballast in the UK, as a result of unilateral effects;
- (d) the market for the supply of HPL in the UK, in relation to HPL supplied for FGD applications, as a result of unilateral effects;
- (e) two local markets for the supply of asphalt, as a result of unilateral effects; and
- (f) seven local markets for the supply of RMX as a result of unilateral effects.