

Anticipated acquisition by Tarmac Trading Limited of certain assets of Breedon Group PLC

Decision on relevant merger situation and substantial lessening of competition

ME/6719-17

The CMA's decision on reference under section 33(1) of the Enterprise Act 2002 given on 26 April 2018. Full text of the decision published on 15 May 2018.

Please note that [X] indicates figures or text which have been deleted or replaced in ranges at the request of the parties for reasons of commercial confidentiality.

SUMMARY

1. Tarmac Trading Limited (**Tarmac**) has agreed to acquire 27 ready-mix concrete (**RMX**) plants, a marine aggregates terminal at Briton Ferry (the **Briton Ferry Wharf**) as well as certain assets utilised in connection with the RMX plants and the Briton Ferry Wharf from Breedon Group PLC (**Breedon**) (the **Merger**). The acquired assets are together referred to as the **Target Assets**. Tarmac and the Target Assets are together referred to as the **Parties**.
2. The Competition and Markets Authority (**CMA**) believes that it is or may be the case that the Parties will cease to be distinct as a result of the Merger, that the share of supply test is met and that accordingly arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation.
3. The Parties overlap in the supply of: (i) primary aggregates which are used as base materials in the construction of roads, buildings, and other infrastructure, and are quarried from land or dredged from the sea; and (ii) RMX, which comprises a mix of aggregates, cement, and water supplied in ready-mix form.

4. In addition, Tarmac is a producer of cement which, as set out above, is a key input in the production of RMX.
5. The CMA considered the impact of the Merger in relation to the following frames of reference:

RMX

6. In line with its precedent cases,¹ the CMA considered the effects of the Merger within a product frame of reference for all types of RMX, including RMX produced by fixed plant, mobile plant or by volumetric truck. The CMA considered any differentiation between RMX offerings as part of its competitive assessment.
7. RMX is supplied on a local basis and, accordingly, the CMA used the following catchment areas around each fixed RMX plant as a starting point for its local competitive assessment: (i) [X] miles; (ii) [X] miles; and (iii) [X] miles.

Aggregates

8. For the supply of aggregates, the CMA, in line with its precedent cases,² considered the effects of the Merger within a product frame of reference which includes all types of primary aggregates (ie sand, gravel and crushed rock), all grades of primary aggregates (ie fine, coarse, graded/mixed aggregates) and all sources of aggregates, including primary, secondary and recycled aggregates.
9. The CMA used the following local catchment areas around each primary aggregates site as a starting point for its local competitive assessment: (i) 18 miles; and (ii) [X] miles.

¹ See for example: CMA Report on [the completed acquisition by Breedon Aggregates Limited of certain Scottish assets of Aggregate Industries UK Limited](#), 9 April 2014, paragraph 4.27; CMA's decision on [Breedon Aggregates / Hope Construction Materials merger inquiry](#), 12 April 2016.

² CMA's decision on [Breedon Aggregates / Hope Construction Materials merger inquiry](#), 12 April 2016, paragraph 71, [Completed acquisition by Breedon Aggregates Limited of certain Scottish assets of Aggregate Industries UK Limited](#), paragraph 4.14; [Aggregates, cement and ready-mix concrete market investigation - Final report](#), paragraph 5.24.

Cement

10. The CMA believes that the product frame of reference for cement includes the supply of bulk cement (including all types of cement, and both domestically-produced and imported cement).³
11. In previous investigations, the CMA and its predecessor entities have typically not concluded on the precise market definition.⁴ During the course of its investigation, the CMA received evidence indicating that the appropriate geographic frame of reference for cement may be sub-national or regional, in particular, since 80% of customers supplied by Tarmac's cement plants are served on average within [X] miles of its plants. Therefore, on a cautious basis, the CMA proceeded to assess the effects of the Merger by reference to the supply of cement in the South Wales region.
12. Applying the frames of reference set out above, the CMA considered the following theories of harm in assessing the effects of the Merger:

Horizontal unilateral effects arising from the loss of existing competition in the production and supply of RMX at the local level

13. The CMA assessed whether there is a realistic prospect that the Merger will result in a substantial lessening of competition (**SLC**) in the supply of RMX at the local level, as a result of the merged entity increasing the price of its RMX (or otherwise worsening its competitive offer), due to the loss of existing competition between the merging Parties.
14. The CMA identified 36 RMX plants where the Parties overlapped. The CMA applied filters to identify those sites that required a more detailed competitive assessment. The Parties provided data on the number and location of fixed RMX plants and the CMA was able to obtain site-level production data for the local areas affected. Having applied the filters, the CMA carried out a more detailed local competitive assessment of the local areas relating to 18 RMX plants.
15. As a result of these investigations, the CMA believes there is a realistic prospect that the Merger will give rise to an SLC in the supply of RMX in four local areas.

³ This is in line with the precedent cases referenced in footnotes 1 & 2 above.

⁴ [ibid].

Horizontal unilateral effects arising from the loss of existing competition in the production and supply of aggregates at the local level

16. The CMA assessed whether there is a realistic prospect that the Merger will give rise to an SLC in the supply of primary aggregates at the local level, as a result of the merged firm increasing the price of its primary aggregates products (or otherwise worsening its competitive offer), due to the loss of existing competition between the merging Parties.
17. As a result of these investigations, the CMA concluded that there would be a sufficient number of close competitors remaining in the local area affected by the Merger providing a sufficient competitive constraint on the merged firm. As such, the CMA believes that there is no realistic prospect of an SLC arising in the supply of primary aggregates in any local area as a result of the Merger.

Vertical effects arising through input foreclosure of primary aggregates into RMX at the local level

18. The CMA considered whether, as a result of the Merger, the Parties' presence in both the production and supply of primary aggregates (upstream) and the production and supply of RMX (downstream) may give rise to input foreclosure of downstream rival RMX producers. On the basis of the evidence gathered during its investigation, the CMA believes that the merged firm would not have the ability to engage in input foreclosure since there will be a sufficient number of alternative suppliers to whom customers can switch for their supply of primary aggregates in each local area affected by the proposed Merger. The CMA therefore believes that there is no realistic prospect of an SLC arising through the foreclosure of the supply of primary aggregates to downstream competitors in RMX supply at the local level as a result of the Merger.

Vertical effects arising through input foreclosure of cement into RMX

19. The CMA considered whether, as a result of the Merger, Tarmac's presence in both the production and supply of cement (upstream) and the production and supply of RMX (downstream) may give rise to input foreclosure of its downstream rival RMX producers in Wales, and in particular those rivals based in the South Wales region. On the basis of the evidence gathered during its investigation, the CMA believes that Tarmac would not have the ability to engage in an input foreclosure strategy since there will be a sufficient number of alternative suppliers to which customers could switch. The CMA therefore believes that there is no realistic prospect of an SLC arising through input foreclosure in the supply of cement to downstream RMX competitors in the South Wales region as a result of the Merger.

Conclusion

20. The CMA is therefore considering whether to accept undertakings under section 73 of the Enterprise Act 2002 (**the Act**). Tarmac has until 3 May 2018 to offer an undertaking to the CMA that might be accepted by the CMA. If no such undertaking is offered, then the CMA will refer the Merger pursuant to sections 33(1) and 34ZA(2) of the Act.

ASSESSMENT

Parties

21. Tarmac is a private limited company registered in England and Wales. Tarmac operates primarily in Great Britain (**GB**), where it produces and supplies asphalt, RMX and aggregates, as well as building products including blocks, mortar and flooring solutions. Tarmac is also active in the surfacing and repair of roads, traffic management and highway and local authority maintenance. In the year ending 31 December 2016, Tarmac's turnover was £2.2 billion.⁵
22. Tarmac's immediate parent company is Tarmac Holdings Limited, which was formed as Lafarge Tarmac in March 2013 pursuant to a joint venture between Anglo American Finance (UK) Limited (**Anglo American**) and Lafarge UK Holdings Limited (**Lafarge**). On 17 July 2015, Anglo American sold its stake in Tarmac Holdings Limited to Lafarge, which in turn sold it on 31 July 2015 to CRH PLC (**CRH**), Tarmac's ultimate parent company.⁶
23. CRH is the parent company of an international group of building material businesses. Through its subsidiary Tarmac Cement and Lime Limited, CRH produces and supplies cement, lime and other construction materials in GB.⁷ In the year ending 31 December 2016, CRH's turnover in the UK was £[~~XX~~] and its worldwide turnover was £[~~XX~~].⁸
24. The Target Assets' turnover in the year ending 31 December 2016 was £[~~XX~~].⁹

⁵ Merger Notice, paragraph 2.2.

⁶ Merger Notice, paragraph 2.4.

⁷ Merger Notice, paragraph 2.8.

⁸ Merger Notice, paragraph 6.1, Table 3. Tarmac has submitted that CRH's turnover has been converted from EUR into GBP on the basis of the mean average exchange rate published by the European Central Bank for the 12-month period preceding 31 December 2016 (0.819:1).

⁹ Merger Notice, paragraph 6.1, Table 3.

25. The Target Assets were divested pursuant to divestiture undertakings offered by (amongst others) Anglo American and Lafarge, which were accepted by the Competition Commission (**CC**) on 26 July 2012 (the **Undertakings**).¹⁰ Under the Undertakings, no group company of Anglo American or Lafarge can re-acquire the assets that were divested (which include the Target Assets) for a period of ten years as of the date of the Undertakings without prior consent of the Office of Fair Trading (**OFT**) (or its successor body).¹¹
26. As set out in paragraph 22 above, Tarmac Holdings Limited was formed pursuant to a joint venture between Anglo American and Lafarge and is therefore subject to the Undertakings. Tarmac has requested the CMA's consent to re-acquire the Target Assets under the Undertakings.
27. The CMA issued a consultation inviting representations as to whether it should grant consent to the reacquisition of the Target Assets. On 26 April 2018, the CMA announced its decision granting its consent to Tarmac to acquire the Target Assets under clause 3.5 of the Undertakings. These documents are available on the case page.¹²

Transaction

28. On 12 December 2017, Tarmac and Breedon entered into: (i) an agreement for Tarmac's purchase of the Target Assets; (ii) an agreement for Breedon's purchase of the business and assets of certain aggregates quarry sites owned by Tarmac; and (iii) a master transaction agreement (together the **Transaction Agreements**).
29. Under the terms of the Transaction Agreements, Breedon will transfer the Target Assets to Tarmac and pay Tarmac a cash consideration of £[~~£~~]. As consideration, Tarmac will transfer to Breedon four aggregates quarries (one of which includes an asphalt plant) together with certain assets used in connection with those quarries (the **Breedon Transaction**).¹³

Procedure

30. The Merger was considered at a Case Review Meeting.¹⁴

¹⁰ Anticipated joint venture between Anglo American PLC and Lafarge S.A., [Notice of acceptance of final undertakings of 26 July 2012](#) (the **Undertakings**).

¹¹ Clause 3.5 of the Undertakings.

¹² <https://www.gov.uk/cma-cases/tarmac-trading-limited-breedon-group-plc-merger-inquiry>

¹³ Breedon and Tarmac have submitted that the Breedon Transaction constitutes a distinct relevant merger situation. The Breedon Transaction is subject to a separate CMA investigation (<https://www.gov.uk/cma-cases/breedon-tarmac-merger-inquiry>).

¹⁴ See *Mergers: Guidance on the CMA's jurisdiction and procedure* (CMA2), January 2014, from paragraph 7.34.

Jurisdiction

31. As a result of the Merger, Tarmac and the Target Assets will cease to be distinct.
32. The Parties overlap in the production and supply of RMX to customers in GB and the production and supply of aggregates to customers in GB. Tarmac submitted that the combined share of supply in at least one of the local areas affected by the Merger is above 25%.¹⁵ As set out in Annex 1, the Parties' combined share of RMX output by volume within a [~~5~~]-mile radius of the Parties' plants supplying Bristol, Cardiff, Portsmouth, Lancaster and Bridgend is equal to or more than 25%, with an increment in each case. The CMA believes that these areas are collectively of such a size, character and importance as to make them worth consideration for the purposes of the Act, and accordingly the share of supply test in section 23 of the Act is met.
33. The CMA therefore believes that it is or may be the case that arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation.
34. The initial period for consideration of the Merger under section 34ZA(3) of the Act started on 28 February 2018 and the statutory 40 working day deadline for a decision is therefore 26 April 2018.

Counterfactual

35. The CMA assesses a merger's impact relative to the situation that would prevail absent the merger (ie the counterfactual). For anticipated mergers, the CMA generally adopts the prevailing conditions of competition as the counterfactual against which to assess the impact of the merger. However, the CMA will assess the merger against an alternative counterfactual where, based on the evidence available to it, it believes that, in the absence of the merger, the prospect of these conditions continuing is not realistic, or there is a realistic prospect of a counterfactual that is more competitive than these conditions.¹⁶
36. In this case, there is no evidence supporting a different counterfactual, and Tarmac and third parties have not put forward arguments in this respect.

¹⁵ Merger Notice, paragraph 5.3.

¹⁶ [Merger Assessment Guidelines](#) (OFT1254/CC2), September 2010, from paragraph 4.3.5. The [Merger Assessment Guidelines](#) have been adopted by the CMA (see [Mergers: Guidance on the CMA's jurisdiction and procedure](#) (CMA2), January 2014, Annex D).

Therefore, the CMA believes the prevailing conditions of competition to be the relevant counterfactual.

Background

37. This industry has been considered by competition authorities on a number of occasions. The OFT referred the acquisition by Breedon of certain Scottish assets of Aggregate Industries UK Limited (***Breedon/Aggregate Industries***) to the CC in 2013. The CMA¹⁷ published its report (which considered the markets for aggregates, RMX, and asphalt) on the merger on 9 April 2014.¹⁸ In 2014, the CC completed an investigation into the markets for aggregates, RMX, and cement following a reference from the OFT on 18 January 2012.¹⁹ It published its report on 14 January 2014 (**the market investigation into aggregates, cement and RMX**).²⁰ The OFT also referred the anticipated construction materials joint venture between Anglo American PLC and Lafarge S.A (***Anglo American / Lafarge***) to the CC in September 2011. The CC published its report (which considered the markets for cement, aggregates asphalt and RMX) on the joint venture on 1 May 2012.²¹
38. The most recent case in this sector is the acquisition by Breedon Aggregates Limited of Hope Construction Materials Limited in 2016, which was cleared in Phase 1 after the acceptance of undertakings in lieu of reference.²²
39. In this case, the CMA has taken into account the approach in decisions of the CMA, the OFT, CC and the European Commission in the same and related sectors as well as the market investigation into aggregates, cement and RMX.

Frame of reference

40. Market definition provides a framework for assessing the competitive effects of a merger and involves an element of judgement. The boundaries of the market do not determine the outcome of the analysis of the competitive effects of the merger, as it is recognised that there can be constraints on

¹⁷ The CMA was established on 1 October 2013. By virtue of the Enterprise and Regulatory Reform Act 2013 and the Enterprise and Regulatory Reform Act 2013 (Commencement No 6, Transitional Provisions and Savings) Order, No 416 of 2014, the CC's merger control functions were transferred to the CMA on 1 April 2014.

¹⁸ CMA Report on *the completed acquisition by Breedon Aggregates Limited of certain Scottish assets of Aggregate Industries UK Limited*, 9 April 2014.

¹⁹ OFT Market investigation reference: *Aggregates: The OFT's reason for making a market investigation reference to the Competition Commission*, January 2012.

²⁰ CC market investigation reference report: *Aggregates, cement and ready-mix concrete market investigation - Final report*, 14 January 2014.

²¹ CC Report on *the anticipated construction materials joint venture between Anglo American PLC and Lafarge S.A*, May 2012.

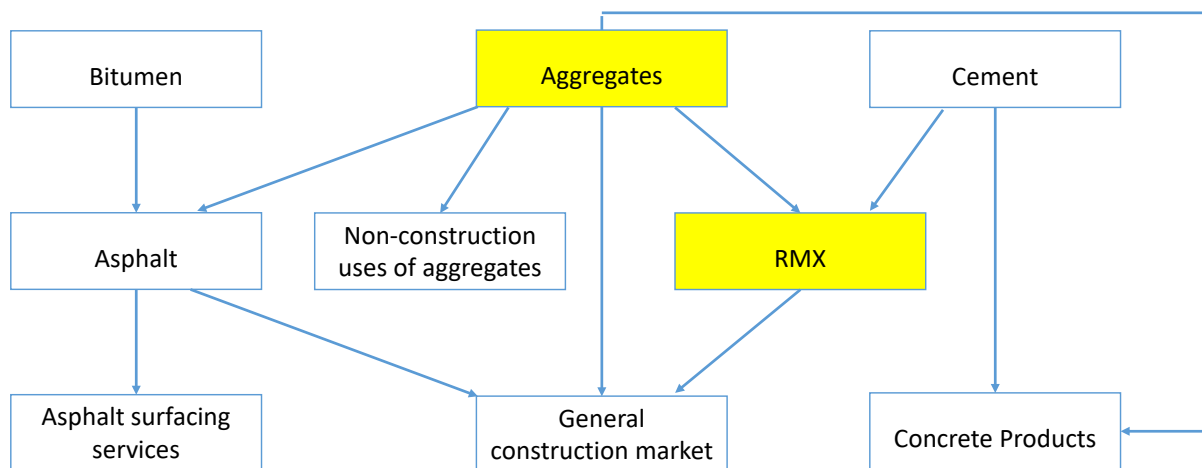
²² CMA's decision on *Breedon Aggregates / Hope Construction Materials merger inquiry*, 12 April 2016.

merging parties from outside the relevant market, segmentation within the relevant market, or other ways in which some constraints are more important than others. The CMA will take these factors into account in its competitive assessment.²³

The products and overlaps

41. Primary aggregates (along with cement or other cementitious products) form the basic ingredients of RMX. Most aggregates are used for construction purposes. Around 50% of all the aggregates produced in the UK are used as a sub base (the layer of stone which forms the foundation for many construction/road building projects) and for other structural fills in construction.²⁴
42. A simplified overview of the relationship between aggregates, RMX, their inputs and other key heavy building materials is presented in Figure 1. The products and services in which the Parties overlap have been highlighted in yellow.

Figure 1: Simplified overview of the relationships between major heavy building materials



Source: CMA

43. The Parties overlap in the supply of RMX and aggregates in the UK.

²³ *Merger Assessment Guidelines*, paragraph 5.2.2.

²⁴ CMA Report on *the completed acquisition by Breedon Aggregates Limited of certain Scottish assets of Aggregate Industries UK Limited*, 9 April 2014, paragraph 2.27.

44. In addition, Tarmac's parent company, CRH, is a producer of cement. There are therefore also vertical relationships between the Parties because:
- Cement is an important input into the production of RMX; and
 - Primary aggregates are an important input into the production of RMX.
45. The vertical relationships between these different products are also shown in Figure 1 above.

RMX

Product frame of reference

46. RMX is concrete which is produced in a freshly-mixed and unhardened state. RMX is manufactured by mixing specific quantities of cement, and (if desired) other cementitious products, with fine and coarse aggregates, water and other additives. The specific composition and resulting properties of RMX can be customised to suit different applications.²⁵
47. Tarmac submitted that the relevant product market should be the production and supply of RMX.²⁶
48. Tarmac submitted that RMX is typically batched at fixed plants and then transported to the customer's site using special delivery vehicles which rotate the RMX in drums during delivery to prevent it from setting. Tarmac said that RMX can also be produced in mobile plants²⁷ (at or near the customer site) or in volumetric trucks which carry the ingredients separately and mix them on-site.²⁸
49. Tarmac explained that RMX is widely used across the construction industry, for example in structures such as buildings, bridges and roads, and in foundations, domestic oversites, floors, bases, driveways, footpaths, shed bases and many other construction applications.²⁹

²⁵ CMA Report on [the completed acquisition by Breedon Aggregates Limited of certain Scottish assets of Aggregate Industries UK Limited](#), 9 April 2014, paragraph 2.36.

²⁶ Merger Notice, paragraph 12.10.

²⁷ Mobile RMX plants (also known as a site plants) are RMX plants in modular form that are readily transportable by road. They may be located on a construction site itself or nearby. [See [Breedon Aggregates and Aggregate industries UK](#), a report by the CMA, Glossary].

²⁸ Merger Notice, paragraph 12.8.

²⁹ Merger Notice, paragraph 12.9.

50. Tarmac submitted that the relevant product market should include all grades of RMX, whether produced in fixed plants, mobile plants or volumetric trucks.³⁰

Different grades of RMX

51. The CMA has previously found that all grades of RMX should be included in the same product market.³¹ This is consistent with findings in previous cases of the European Commission,³² and the predecessors of the CMA, the CC³³ and the OFT.³⁴
52. The evidence available to the CMA in this case supports the findings of these precedent cases in this regard.

RMX produced by fixed plants, mobile plants and volumetric trucks

53. Tarmac submitted that RMX sold from both mobile plants and volumetric trucks competes with RMX sold from fixed plants and that, therefore, the narrowest and most appropriate candidate product market would be the production and supply of RMX, including RMX supplied from fixed plants, mobile plants and volumetric trucks.
54. Tarmac submitted that where a construction project is of sufficiently large scale, civil engineering contractors may opt to set up a dedicated mobile RMX plant on-site, rather than purchasing RMX from fixed local plants. Tarmac considers that due to certain important technological advances facilitating the ease of setting up mobile plants, mobile plants act as a competitive constraint on RMX producers, irrespective of whether or not they are currently present in a local market.³⁵
55. Tarmac also submitted that volumetric trucks represent an increasingly significant proportion of supply within the RMX sector. Tarmac told the CMA that, in 2009, the volumetric production was estimated to be around 8.5% of total RMX production, and since then the output has grown by more than 40%

³⁰ Merger Notice, paragraph 12.10.

³¹ CMA Report on [the completed acquisition by Breedon Aggregates Limited of certain Scottish assets of Aggregate Industries UK Limited](#), 9 April 2014, paragraph 4.27; CMA's decision on [Breedon Aggregates / Hope Construction Materials merger inquiry](#), 12 April 2016.

³² For example, European Commission case, [Case COMP/M.7252 – Holcim/Lafarge](#), paragraph 281.

³³ For example, CC Report on [the anticipated construction materials joint venture between Anglo American PLC and Lafarge S.A.](#), May 2012, paragraph 5.48.

³⁴ For example, CMA Report on [the completed acquisition by Breedon Aggregates Limited of certain Scottish assets of Aggregate Industries UK Limited](#), 9 April 2014, paragraph 37.

³⁵ Merger Notice, paragraphs 13.16 to 13.18.

and now equates to 10% of all RMX production.³⁶ Tarmac also submitted that [✂].

56. The competitive interaction between fixed plants, mobile plants and volumetric trucks has been considered in several previous competition investigations.
57. In most of these cases, the CMA and its predecessors concluded that all types of RMX should be included in the same product market, including RMX supplied by fixed plants, mobile plants (referred to as site plants in some cases) and volumetric trucks.³⁷ However, there was evidence in these cases indicating that:
 - (a) mobile plants only appeared to be suitable for larger projects; and
 - (b) RMX supplied by volumetric trucks tends to be a substitute for fixed plants for smaller projects (eg typically requiring 50m³ of RMX or less); that they may be serving different types of projects or customers, such as more remote projects; and that there can be quality issues with RMX supplied by volumetric trucks.³⁸
58. For these reasons, the CMA and its predecessors noted that the competitive constraints on fixed plants posed by mobile plants and volumetric trucks was limited and took this into account within its competitive assessment.³⁹
59. Consistent with the approach adopted in previous cases, the CMA considers that all types of RMX are part of the same product market whether produced by fixed plant, mobile plant or by volumetric truck. However, based on the available evidence, the CMA recognises that mobile plants and volumetric trucks may exercise a limited constraint on RMX produced by fixed plants (eg for certain project sizes).
60. In addition, the Parties were only able to provide complete data on the number and location of fixed RMX plants, and some additional information in relation to the location of and nature of the competitive constraint posed by

³⁶ Merger Notice paragraph 13.19. Source: BDS report: "*Estimated market shares of ready mixed concrete companies in Great Britain (2015)*".

³⁷ CMA's decision on [Breedon Aggregates / Hope Construction Materials merger inquiry](#), 12 April 2016, paragraphs 89 and 90; CMA Report on [the completed acquisition by Breedon Aggregates Limited of certain Scottish assets of Aggregate Industries UK Limited](#), 9 April 2014; CC market investigation reference report: [Aggregates, cement and ready-mix concrete market investigation - Final report](#), 14 January 2014, paragraphs 5.101-5.102. In [Anglo American PLC and Lafarge S.A.](#) (Report by the Competition Commission, 1 May 2012), the CC excluded RMX produced by volumetric trucks from the product frame of reference on the basis that these trucks appeared to serve a different segment of the market and the product was perceived to be of lower quality (paragraphs 5.48 to 5.50).

³⁸ CMA Report on [the completed acquisition by Breedon Aggregates Limited of certain Scottish assets of Aggregate Industries UK Limited](#), 9 April 2014, paragraph 4.26.

³⁹ CMA Report on [the completed acquisition by Breedon Aggregates Limited of certain Scottish assets of Aggregate Industries UK Limited](#), 9 April 2014, paragraph 4.27.

volumetric trucks in relation to certain local areas affected by the Merger. The Parties did not provide any information on mobile plants.

61. For these reasons, the CMA considered that, as the Parties overlap in the production and supply of RMX produced by fixed plants, the CMA should focus its analysis on the degree of competition that exists between producers of RMX from fixed sites. Where the CMA was presented with evidence that mobile plants and volumetric trucks exercise a competitive constraint in a particular area, the local competitive assessment considered the extent of such a constraint at the local level.

Conclusion

62. The CMA believes that the appropriate product frame of reference includes:
- (a) all types of RMX, and
 - (b) all RMX produced by fixed plant, mobile plant or by volumetric truck.
63. For the reasons set out in paragraphs 60 and 61, the CMA has focussed its competitive assessment on the degree of competition that exists between producers of RMX from fixed sites and has considered the constraints provided by mobile plants and volumetric trucks where there was evidence supporting the existence of such a constraint in specific local areas in its competitive assessment.

Geographic frame of reference

64. Tarmac submitted that the geographic frame of reference for RMX is local. It calculated that the average weighted distance over which it delivered 80% of its external RMX sales (by volume) across each of its plants in GB was [X] miles, excluding the figures for Tarmac's London sites which are consistently lower because of traffic congestion (the **Average Catchment Area** for RMX).⁴⁰
65. Tarmac also submitted that, post-filtering, in the competitive assessment, the geographic scope of each Target Asset should be assessed by reference to the actual 80% customer catchment area of that site.
66. Previous competition investigations have consistently found that the geographic frame of reference for RMX is local. This is due to the high cost of

⁴⁰ Merger Notice, paragraph 13.30.

transportation, relative to the price of RMX, and the perishability of the product, which limits the distance over which it can be transported.⁴¹ In order to identify the appropriate geographic boundaries of local markets, previous investigations have calculated the average distance over which 80% of external sales were delivered.

67. In *Breedon / Hope*, the CMA considered that the appropriate geographic frame of reference was local and used catchment areas of [X] miles and [X] miles as a starting point for local assessment. In the competitive assessment, for the identification of overlaps, the CMA also considered a catchment area of [X] miles, as this captured two contiguous [X]-mile catchment areas and represented 1.5 times the size of the average catchment area for RMX identified by Breedon ([X] miles).⁴²
68. The market investigation into aggregates, cement and RMX found that RMX markets were local in nature, with catchment areas in the region of 8 to 10 miles, albeit with some scope for variation according to local factors and the means available for distributing the product (ie via volumetric trucks or conventional mixer trucks).⁴³
69. In *Holcim / Lafarge*, the European Commission considered that the relevant geographic market should be defined by reference to a radius of 25 km (15.5 miles) around each RMX plant.⁴⁴
70. Consistent with the approach taken in previous cases, the CMA considers that the appropriate geographic frame of reference for the supply of RMX is local and has used the following catchment areas as a starting point for its local competitive assessment:
 - (i) [X] miles (the Average Catchment Area for RMX calculated by Tarmac and consistent with the lower bound of distances in the precedents);
 - (ii) [X] miles (representing 1.5 times the size of the average catchment area calculated by Tarmac); and
 - (iii) [X] miles (representing two contiguous [X]-mile catchment areas).

⁴¹ RMX is best used a short time after production (preferably within 2 hours).

⁴² CMA's decision on [Breedon Aggregates / Hope Construction Materials merger inquiry](#), 12 April 2016, paragraph 92 and 113.

⁴³ CC market investigation reference report: [Aggregates, cement and ready-mix concrete market investigation - Final report](#), 14 January 2014, paragraph 5.104.

⁴⁴ [Holcim / Lafarge](#), COMP/M.7252, European Commission decision of 15 December of 2014, paragraph 286.

71. However, in its competitive assessment, the CMA has not applied these catchment areas in a mechanistic way but has considered the constraint posed by competitors both inside and outside these areas, while also recognising that the strength of competition is likely to be different in different parts of each catchment area.

Aggregates

Product frame of reference

72. Tarmac and the Briton Ferry Wharf Target Asset overlap in the production and supply of aggregates to customers in GB.
73. Aggregates are the granular base materials used in the construction of roads, buildings, and other infrastructure. The different types of aggregates include crushed rock, sand and gravel. Aggregates are also used in the production of RMX, concrete products and asphalt. Aggregates may be divided into primary aggregates (quarried from land or dredged from the sea), secondary aggregates (derived from waste products of other mining or industrial activities), and recycled aggregates (derived from recycled sources such as demolition sites and construction waste).
74. Primary aggregates are classified as either fine aggregates, coarse aggregates or granular aggregates. The precise classification is determined by reference to the grade (ie size) of the material.⁴⁵
75. Tarmac submitted that the most appropriate product frame of reference would be the supply of all primary and secondary and recycled aggregates, excluding specialist aggregates.⁴⁶
76. Previous competition investigations have considered this issue and concluded that the appropriate product frame of reference includes:
- (i) all types of primary aggregates (ie sand, gravel and crushed rock). However, in some of the precedent cases, competition authorities found that there was limited scope for substitution for some

⁴⁵ CMA's decision on [Breedon Aggregates / Hope Construction Materials merger inquiry](#), 12 April 2016, footnote 26; CC market investigation reference report: [Aggregates, cement and ready-mix concrete market investigation - Final report](#), 14 January 2014, paragraph 2.9.

⁴⁶ Merger Notice, paragraph 13.38.

applications,⁴⁷ and that there was a certain degree of differentiation between crushed rock and sand and gravel;⁴⁸

- (ii) all grades of primary aggregates (ie fine, coarse, graded/mixed aggregates); and
- (iii) all sources of aggregates, including primary, secondary and recycled aggregates. However, competition authorities previously indicated that secondary and recycled aggregates were an imperfect substitute to primary aggregates, and that substitutability varies significantly by application and availability.⁴⁹

77. Based on the available evidence, and in line with the most recent precedent, the CMA considers that all primary, secondary and recycled aggregates are part of the same product frame of reference. However, in line with previous decisions, the CMA also recognises that secondary and recycled aggregates are an imperfect substitute for primary aggregates and that the extent of substitutability of recycled and secondary aggregates for primary aggregates varies significantly by application and availability.
78. Moreover, the CMA has received evidence indicating that differentiation between each type of primary aggregate (eg crushed rock, sand and gravel) means that some quarries may compete more closely than others depending on their product output. However, for the purposes of this Merger, it has not been necessary for the CMA to consider this further given that the horizontal overlap between the Parties is limited to just one site and that the supply of primary aggregates has primarily been considered within the context of a vertical theory of harm (where this kind of potential differentiation is less relevant for competitive assessment).
79. Given that the Parties overlap in the production and supply of primary aggregates, the CMA has focussed its competitive assessment on the degree of competition that exists between producers of primary aggregates taking into account the factors set out above as part of its competitive assessment.

⁴⁷ Merger Notice, paragraph 5.23.

⁴⁸ CC Report on [the anticipated construction materials joint venture between Anglo American PLC and Lafarge S.A.](#), May 2012, paragraph 5.38.

⁴⁹ CC market investigation reference report: [Aggregates, cement and ready-mix concrete market investigation - Final report](#), 14 January 2014, paragraph 5.25.

Geographic frame of reference

80. Tarmac submitted that the geographic frame of reference for the supply of aggregates is local.⁵⁰
81. Previous inquiries have consistently found that the geographic frame of reference for primary aggregates is local since the cost of transportation relative to the total price is relatively high. As a starting point for the delineation of local markets, previous inquiries have used catchment areas calculated on the basis of the average distance over which 80% of the external sales of a quarry or depot were delivered:
- (i) In *Breedon / Hope*, the CMA used catchment areas of 18 miles (consistent with the lower bound of distances in prior decisions related to this industry) and [X] miles (which was the weighted average distance over which Breedon delivered 80% of its primary aggregates external sales (by volume) across GB);⁵¹
 - (ii) in *Breedon/Aggregate Industries*, the CC used the weighted⁵² average catchment area for both parties of [X] miles;⁵³
 - (iii) In *Northstone / Catherwood*,⁵⁴ the OFT applied a 30-mile catchment area as suggested by the Parties and largely supported by third parties.⁵⁵
82. Consistent with the approach adopted in precedent cases, the CMA believes that the appropriate geographic frame of reference is local and has used the following catchment areas as a starting point for its local competitive assessment:
- (i) 18 miles (consistent with the lower bound of distances in prior OFT, CC, CMA and European Commission decisions relating to this industry); and
 - (ii) [X] miles (the average catchment area for aggregates calculated by Breedon and consistent with the higher bound of distances in prior

⁵⁰ Merger Notice, paragraph 13.38.

⁵¹ CMA's decision on [Breedon Aggregates / Hope Construction Materials merger inquiry](#), 12 April 2016, paragraph 75.

⁵² Weighted by the volume of aggregates delivered by each site.

⁵³ CMA Report on [the completed acquisition by Breedon Aggregates Limited of certain Scottish assets of Aggregate Industries UK Limited](#), 9 April 2014, paragraph 4.54.

⁵⁴ OFT decision on the [Anticipated acquisition by Northstone \(NI\) Limited of RMC Catherwood Limited](#), 3 April 2013.

⁵⁵ [ibid], paragraph 23.

OFT, CC, CMA and European Commission decisions relating to this industry).

83. However, in its competitive assessment, the CMA has not applied these catchment areas in a mechanistic way but has considered the constraint posed by competitors both inside and outside these areas, while also recognising that the strength of competition is likely to be different in different parts of each catchment area.
84. It is, in any case, not necessary to reach a conclusion on the product or geographic frame of reference for aggregates in this case because no competition concerns arise on any plausible basis.

Cement

Product frame of reference

85. Cement is the 'glue' that binds together the components of building materials. Among other uses, cement is mixed with aggregates and water to produce 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 heated almost to melting point (around 1,450 °C) in a large rotating kiln, creating an intermediate product, cement clinker, which has specific chemical proportions of lime, alumina, silica and iron. The finished cement is produced by grinding together around 95 per cent cement clinker with 5 per cent additives including gypsum.⁵⁶
86. Tarmac supplies cement to customers in GB, including through its cement plant at Aberthaw in South Wales. Its parent company, CRH, supplies cement in this area through its import terminal in Swansea.
87. Tarmac submitted that the relevant product market is the production and supply of bulk cement (including all types of cement and both domestically-produced and imported cement).⁵⁷
88. Tarmac submitted that bagged cement is not relevant to the production of RMX, as the production of RMX requires large volumes of cement and therefore relies on bulk supplies.⁵⁸

⁵⁶ CC market investigation reference report: [Aggregates, cement and ready-mix concrete market investigation - Final report](#), 14 January 2014, paragraph 2.44.

⁵⁷ Merger Notice, paragraph 13.32.

⁵⁸ [ibid].

89. Previous competition investigations have consistently defined the relevant product markets in relation to the supply of bulk cement (including all types of cement and both domestically-produced and imported cement) and, separately, the supply of bagged cement (including all types of cement and both domestically-produced and imported cement).⁵⁹
90. In accordance with the evidence received, the CMA believes (consistent with the approach adopted in previous cases) that the relevant product frame of reference is for the supply of bulk cement (including all types of cement, and both domestically-produced and imported cement).

Geographic frame of reference

91. Tarmac submitted that the geographic frame of reference for the supply of bulk cement should not be narrower than national.⁶⁰ Tarmac also submitted that imported cement should be considered to be part of the relevant market, given that customers have the ability to substitute imported cement for British-produced cement.⁶¹
92. The CMA noted that while the supply of bulk cement has been considered in a number of previous cases by both the CMA (and predecessor organisations) and the European Commission, the geographic dimension of the relevant market has typically been left open. The supply of bulk cement has been analysed by reference to both a national frame of reference and a narrower (typically sub-national) frame of reference.
93. In both the *Anglo/Lafarge* merger inquiry and the market investigation, the CC focussed primarily on competitive dynamics at a GB level, taking into account the constraints from imported cement.⁶² The CMA notes that the competitive analysis of the supply of bulk cement in both cases was focussed on the potential for coordination at a national (GB) level (and therefore that it was not necessary for the purposes of those cases to consider whether the supply of bulk cement should be analysed on a narrower geographic basis). No conclusions were reached in either case in relation to the geographic scope of the relevant market.⁶³

⁵⁹ For example, CC Report on [the anticipated construction materials joint venture between Anglo American PLC and Lafarge S.A.](#), May 2012, paragraph 5.20 and CC market investigation reference report: [Aggregates, cement and ready-mix concrete market investigation - Final report](#), 14 January 2014, paragraphs 5.38 and 5.105(b).

⁶⁰ Merger Notice, paragraph 13.36.

⁶¹ [ibid].

⁶² CC Report on [the anticipated construction materials joint venture between Anglo American PLC and Lafarge S.A.](#), May 2012, paragraph 6.112.

⁶³ The most recent case in which the CMA has assessed the market for bulk cement is *Breedon / Hope*. In this case, the CMA did not reach a conclusion on the geographic frame of reference since no competition concerns

94. The supply of bulk cement has, however, also been analysed by reference to a narrower frame of reference in certain other cases (although again no conclusions were reached in relation to the geographic scope of the relevant market).
95. In the 2014 Lafarge / Tarmac phase 1 merger inquiry, the CMA considered competition in the supply of bulk cement on a regional basis, using “Economic Planning Regions” (EPRs), such as Wales.⁶⁴
96. In its decision on the *Lafarge/Holcim* merger and the subsequent divestments to CRH, the European Commission considered that the relevant geographic market should be defined by reference to circular areas of 150km and 250km around the relevant cement plants, reflecting the distance within which cement suppliers can economically sell cement.⁶⁵
97. This is consistent with the analysis carried out by the CC in the market investigation into aggregates, cement and RMX, in which it indicated that for the Aberthaw plant, the geographic coverage of the customer catchment area covered most of the South West and parts of the central regions of GB, being the 80% catchment area distance [90-100] miles (ie approximately 150km).⁶⁶
98. In this case, the evidence available to the CMA indicates that the relevant market for the supply of bulk cement may be narrower than GB-wide in scope.
99. In particular, the evidence available to the CMA indicates that distance appears to be an important factor that can hinder switching between cement suppliers. Some customers told the CMA that they tend to procure their cement needs only from ‘local’ suppliers because transportation is costly. Another customer told the CMA that certain suppliers of bulk cement decline to supply cement within its local area, and therefore that its supply options are restricted to (a more limited number of) more localised suppliers.
100. Tarmac also submitted the 80% catchment areas for 2017 in relation to external sales delivered made from its cement plants in Aberthaw (South Wales), Dunbar (East Lothian) and Tunstead (Derbyshire). According to this

arose in relation to the supply of bulk cement (CMA’s decision on [Breedon Aggregates / Hope Construction Materials merger inquiry](#), 12 April 2016, paragraph 108).

⁶⁴ [Completed acquisition by Lafarge Tarmac Holdings Limited of Tarmac Building Products Limited](#), paragraphs 62 and 63. The decision referred to standard EPRs: Scotland, South East, North, North West, Yorkshire and Humberside, East Midlands, West Midlands, South West, East Anglia and Wales.

⁶⁵ [Holcim / Lafarge](#), COMP/M.7252, European Commission decision of 15 December of 2014, paragraph 68; [CRH / Holcim Lafarge Divestment Business](#), COMP/M.7550, European Commission decision of 24 of April 2015, paragraph 47.

⁶⁶ CC market investigation reference report: [Aggregates, cement and ready-mix concrete market investigation - Final report](#), 14 January 2014, Appendix 13.2, Annex C, supplement 4, paragraph 28.

data, all three cement plants have a similar geographic coverage, being the 80% catchment areas for all of them between [REDACTED] miles.

101. This is consistent with the position that shares of supply in bulk cement appear to vary significantly on a local basis (with a supplier's share typically being materially higher in regions where its cement plants and/or import terminals are located). For example, while Tarmac's share of supply (including its parent company CRH) on a GB-wide basis amounts to [20-30] %, its share of supply within the region of South Wales (where Tarmac has its cement plant in Aberthaw and CRH has an import terminal at Swansea) is significantly higher, at [50-60]%.⁶⁷
102. In addition, some of the internal documents submitted by Tarmac suggest that geographic location has a material impact on the commercial strategy for a given cement plant. For example:
- One internal document, which discusses Breedon's strategic rationale for the Merger, states that: '[REDACTED]'.⁶⁸
 - Similarly, the agreed head of terms for the Merger state that Tarmac and Breedon will [REDACTED].⁶⁹
103. Accordingly, on the basis of the evidence described above (and within the context of the approach adopted by the CMA and the European Commission in previous cases), on a cautious basis the CMA has considered the supply of bulk cement on a sub-national and/or regional basis, focussing on the supply of bulk cement in the South Wales region.⁷⁰ However, the CMA considers that it is not necessary to precisely set out the exact boundaries of the geographic frame of reference in this case, since no competition concerns arise in relation to the supply of cement.

Conclusion on frame of reference

104. For the reasons set out above, the CMA has considered the impact of the Merger in the following frames of reference:
- The production and supply of RMX at a local level;

⁶⁷ The CMA notes that these shares of supply have been calculated on the basis of the information provided by the Parties and third parties, in particular, volume data provided by the five large cement suppliers, Dragon Alfa, an importer based at Sharpness in Gloucestershire.

⁶⁸ Annex 5.b to the Merger Notice.

⁶⁹ [ibid].

⁷⁰ The CMA considers that South Wales is the area which comprises the following unitary authorities: Blaenau Gwent; Bridgend; Caerphilly; Cardiff; Carmarthenshire; Ceredigion; Merthyr Tydfil; Monmouthshire; Neath Port Talbot; Newport; Pembrokeshire; Powys; Rhondda, Cynon, Taf; Swansea; Torfaen; and Vale of Glamorgan.

- The production and supply of primary aggregates at a local level; and
- The production and supply of cement at a sub-national level, focussing on the South Wales region.

Competitive assessment

105. As set out in the following sections, the CMA has assessed the following theories of harm:

- (i) Horizontal unilateral effects arising from the loss of existing competition in the production and supply of RMX at the local level;
- (ii) Horizontal unilateral effects arising from the loss of existing competition in the production and supply of primary aggregates at the local level;
- (iii) Vertical effects arising through input foreclosure of primary aggregates into RMX at the local level; and
- (iv) Vertical effects arising through input foreclosure of cement into RMX at the local level.

106. The CMA analysed each theory of harm, as set out in turn below.

Horizontal unilateral effects

107. Horizontal unilateral effects may arise when one firm merges with a competitor that previously provided a competitive constraint, allowing the merged firm profitably to raise prices or to degrade quality on its own and without needing to coordinate with its rivals.⁷¹ Horizontal unilateral effects are more likely when the merging parties are close competitors. The CMA assessed whether it is or may be the case that the Merger has resulted, or may be expected to result, in an SLC in relation to horizontal unilateral effects in the production and supply of RMX and the production and supply of primary aggregates.

Horizontal unilateral effects arising from the loss of existing competition in the production and supply of RMX at the local level

108. The CMA assessed whether there is a realistic prospect that the Merger will give rise to an SLC in the supply of RMX at the local level, as a result of the

⁷¹ [Merger Assessment Guidelines](#), from paragraph 5.4.1.

merged firm increasing the price of its RMX (or otherwise worsening its competitive offer), due to the loss of existing competition between the Parties.

Framework of the local assessment

109. The CMA followed a number of steps in carrying out the local competitive assessments, in particular:
- (a) The identification of overlaps and the delineation of catchment areas for specific sites;
 - (b) Filtering to exclude from further analysis the overlap sites/areas where there is no realistic prospect of competition concerns arising; and
 - (c) Local competitive assessment of sites/areas which fail these filters.

Identifying overlaps and delineation of catchment areas

110. Tarmac submitted that it had used the methodology employed by the CMA in its previous decisional practice, which involved:
- (i) Determining the straight-line distance within which 80% of Tarmac's external RMX deliveries were made for each of its existing RMX plants in GB (excluding its RMX plants in London);
 - (ii) Calculating the average 80% delivery distance across Tarmac's entire RMX portfolio (excluding London sites), weighted to take account of volumes sold per site relative to Tarmac's overall RMX volumes. According to Tarmac, this calculation resulted in an average 80% delivery distance of [X] miles (which was rounded up to [X] miles for the purposes of the overlap analysis); and
 - (iii) Identifying which of the 27 RMX Target Assets were located within [X] miles (representing two times the size of the Average Catchment Area) of a fixed Tarmac RMX plant (including Tarmac's planned and mothballed RMX plants).
111. By applying this methodology, Tarmac identified 36 overlapping sites (14 Target Assets which fall within [X] miles of a Tarmac RMX plant; and 22 Tarmac RMX plants which fall within [X] miles of one of those 14 Target Assets).
112. The CMA verified the approach followed by the Tarmac and identified the same overlaps between Tarmac's existing portfolio of RMX plants and the Target Assets.

Filtering

113. Following the methodology used in previous merger investigations within this sector,⁷² after identifying the relevant overlaps, the CMA applied filters to remove from further consideration areas in which the Merger does not raise competition concerns. The CMA considered that competition concerns can be excluded in areas where none of the following criteria are met:
- (a) The Parties' post-Merger share of supply (by volume) will be more than 33% based on an [X]-mile catchment area and there is at least a 5% increment of the share of supply;⁷³ or
 - (b) The Parties' post-Merger share of supply (by volume) will be more than 33% based on a [X]-mile catchment area and there is at least a 5% increment of the share of supply; or
 - (c) The Parties' post-Merger share of supply (by volume) will be more than 50% based on a [X]-mile catchment area and there is at least a 5% increment of the share of supply; or
 - (d) In the [X]-mile catchment area, the [X]-mile catchment area or the [X]-mile catchment area there are 3 or fewer remaining fascia post-Merger and there is a reduction in the fascia-count.
114. The CMA has used a slightly higher threshold of concern (ie 50%) within the [X]-mile catchment area. This is because such a catchment area is twice as large as the Average Catchment Area and the available evidence indicates that plants located less closely to one another will typically compete less closely (and therefore that concerns could only arise where the Parties account for a particularly significant share of supply within such a catchment area). The next section sets out how we calculated market shares for the filtering analysis.
115. The CMA also removed from consideration two overlap areas where there will be a reduction in local concentration post-Merger because only some of Breedon's RMX plants will transfer to Tarmac, which will retain other plants within that area.⁷⁴

⁷² These filters are based on those applied in the Breedon/Hope case with the addition of an increment requirement intended to filter out those areas where the Parties' activities did not significantly overlap (CMA's decision on [Breedon Aggregates / Hope Construction Materials merger inquiry](#), 12 April 2016).

⁷³ By 'share of supply' the CMA means share of production. A detailed explanation on the calculation of these shares is included in paragraphs 117 to 125.

⁷⁴ These areas are: Shawell (Rugby) (Target Asset) and Shawell Concrete (Tarmac).

116. On the basis of the filters described above, the CMA identified 18 sites for more detailed assessment (8 Target Assets and 10 Tarmac sites). A list of these sites is provided in Annex 1.

Calculation of market shares

117. Tarmac submitted data on fixed RMX plants identifying the owners of each site and its location and provided maps of the catchment areas around the Parties' plants. The Parties submitted market shares using the number of fixed RMX plants but did not submit any shares of supply by volume or by revenue.
118. The shares of supply used by the CMA in the filters described in paragraph 113 are based on volume. To calculate these shares, the CMA:
- (a) obtained the output of Tarmac at all RMX plants within a given catchment (i.e. [X], [X], and [X] miles from the focal RMX plant);
 - (b) obtained the output of the Target Assets at all RMX plants within a given catchment;
 - (c) obtained the output of Breedon and the main national players (**Majors**) within a given catchment;⁷⁵ and
 - (d) estimated the outputs of independent RMX producers within a given catchment, by calculating the number of independents' plants within a given catchment, multiplied by the average output across all Majors' plants.
119. Tarmac submitted that this methodology departs from the filtering methodology used previously by the CMA (ie whereby the number of fixed RMX plants was used to calculate market shares). Tarmac submitted that using the average output of Majors' plants to estimate the outputs of independent RMX suppliers is liable to understate the output of the independent plants. This is because, in Tarmac's view, the business model of the independents tends to result in higher RMX output by site compared to the Majors.
120. Tarmac indicated that the use of volume data for the Majors would also understate the competitive constraints that Tarmac will face post-Merger

⁷⁵ By Majors, the CMA is referring to Cemex, Hanson, LafargeHolcim (Aggregate Industries), Breedon and Tarmac.

because RMX competitors operating volumetric trucks were not included within this data.

121. The CMA notes that the use of shares of supply by volume in RMX markets is consistent with the approach adopted in most previous cases. In Breedon/Hope, the CMA, exceptionally used shares of supply by number of sites because volume data was not available.⁷⁶
122. The CMA notes that the methodology used to calculate market shares relies on certain assumptions, in particular in relation to the volumes produced by independents. The available evidence does not suggest, however that shares based on number of sites provide a more accurate measurement of competitive significance (in particular because such shares ignore differences in size between Majors' sites).
123. The CMA also notes that using the Majors' average production as the estimate for the volume supplied by independent RMX suppliers is more likely to be overstating than understating their share. Analysis carried out by the CC in the market investigation into aggregates, cement and RMX found that independents' sites tend to be smaller than Majors' sites on average.⁷⁷ Independents who responded to the merger investigation reported lower volume data than the Majors. Similarly, BDS estimates for the independents within the areas that failed filters applied suggest their output may be lower than an estimate based on the output of the Majors.
124. Finally, further to Tarmac's submission in relation to the exclusion of volumetric trucks for this filtering analysis, the CMA lacks data on the output and exact location of volumetric trucks. However, the CMA considered the constraint posed by these trucks as part of the competitive assessment for each local area that failed the filters.
125. For these reasons, the CMA considers that the use of shares of supply by volume is adequate for the competitive analysis of this Merger and provides a better metric than a share of supply based on the number of sites.

Competitive assessment – factors considered in the competitive analysis

126. Consistent with its approach in previous investigations within this sector, the CMA assessed the likelihood of the Merger resulting in horizontal unilateral

⁷⁶ CMA's decision on [Breedon Aggregates / Hope Construction Materials merger inquiry](#), 12 April 2016, paragraphs 116 and 118.

⁷⁷ CC market investigation reference report: [Aggregates, cement and ready-mix concrete market investigation - Final report](#), 14 January 2014, paragraph 9.12.

effects in each of the areas around the 18 fixed RMX plants that required a more detailed competitive assessment by reference to the following factors:

(a) Closeness of competition:

- (i) The number of Parties' sites and the distance between the Parties' sites;
- (ii) The Parties' combined shares of supply in the [X]-mile, [X]-mile and [X]-mile catchment areas;
- (iii) The increment in the shares of supply within the [X]-mile, [X]-mile and [X]-mile catchment areas;
- (iv) Heat maps showing the Parties' customer locations; and
- (v) Third parties' views on the closeness of competition between the Parties in the local area (where available).

(b) Competitive constraints:

- (i) The number, identity and location of competitors with respect to the Parties' sites within or just outside the local area, including whether those competitors are independents or one of the Majors;
- (ii) The fascia reduction within [X] miles, [X] miles and [X] miles of the focal site; and
- (iii) Third parties' views on the constraint from competitors in the local area (where available).

127. When considering the location of the Parties' sites and those of competitors in each area, the CMA considered that the closer any RMX plants were to each other the more closely they would compete, because they are likely to be able to compete for similar customers given of the importance of distance in competition in the supply of RMX. The CMA therefore considered that where sites were within [X] miles of each other this was a reason for heightened concern.

128. When considering the constraint competitors' sites provided on the Parties' sites, the CMA also took into account whether or not a competitor was located in-between the Parties' sites, as well as the number of competitor fascia that would be present in each area post-Merger and the number of sites owned by each competitor.

129. Finally, the CMA also considered the relevance of the following factors to competitive assessment across all local areas subject to individual analysis post-filtering:
- a) The nature of any capacity constraints and the extent this may weaken the strength of competition from nearby RMX plants;
 - b) relevance of shares of supply;
 - c) the competitive strengths of independent providers of RMX; and
 - d) the constraint exerted by volumetric trucks.
130. These factors are discussed below.
- *Capacity of competitors*
131. Tarmac submitted that it is not aware of any RMX competitors (Majors or independents) facing capacity constraints within the vicinity of the Target Assets. Tarmac indicated that the supply of RMX from fixed plants is characterised by spare capacity.
132. Tarmac noted that when setting up an RMX plant, firms usually invest in more capacity than they require as this extra capacity may be required in the future and there is no further cost associated with holding this extra capacity.
133. In response to the CMA's questionnaire, [REDACTED].
134. The CMA therefore considered whether this could significantly weaken the competitive constraint these competitors could provide, post-Merger, on the Parties in those local areas affected by the Merger.
135. Where there are capacity constraints, competitors also told the CMA that [REDACTED].
136. Overall, given the available evidence supporting the general lack of capacity constraints, the CMA has considered that such constraints are not significant and that some competitors – ie the Majors – with multiple RMX locations have scope to mitigate capacity constraints [REDACTED]. However, the CMA also noted that certain measures to increase capacity, such as [REDACTED] may not be an option for smaller players (which may lack a regional network of plants and/or the financial resources to make these large investments), which may therefore be less able to readily expand capacity.

- *Relevance of shares of supply*

137. Tarmac submitted that high shares of supply are not indicative of significant market power in the supply of RMX. According to Tarmac, customer choice in respect of RMX is primarily driven by price and customers usually show little, if any brand loyalty. In this context, Tarmac considers that the volumes ultimately supplied by an RMX supplier can fluctuate significantly, and consequently that shares of supply by volume are not a good indicator of market power.
138. The CMA considers, however, that shares of supply (by volume) do have some weight for the purposes of competitive assessment. Shares of supply can give an indication of the potential extent of a firm's market power and, in horizontal mergers involving undifferentiated products, unilateral effects are more likely where the merger results in a firm with a large market share.⁷⁸ Furthermore, shares of supply may give some indication of how effective competitors are; less effective competitors (eg those with higher costs) are likely to have lower shares of supply. The CMA acknowledges that, in undifferentiated product markets, it may be better to measure shares by capacity but it has not been possible within the scope of a Phase 1 investigation to obtain realistic measures of RMX capacity that allow for factors such as variation in demand over the course of the week and the year.
139. In the competitive assessment of previous cases affecting this sector, the CMA, and its predecessors have attached weight to the shares of supply of the merging parties as well as other factors such as fascia count post-merger and locations of customers and plants. Following the approach taken in previous cases, the CMA has considered the shares of supply of the Parties together with other relevant factors such as the identity and number of remaining competitors post-Merger and location of the relevant plants and customers.

- *Competition from independent RMX producers*

140. Tarmac submitted that independent RMX suppliers can, and do, impose significant competitive constraints within the local markets for the supply of RMX.
141. Tarmac submitted that [redacted]. This is because their business model is different and they are likely to have higher output by site and wider catchment areas as

⁷⁸ [Merger Assessment Guidelines](#), paragraph 5.3.4.

RMX producers outside of a catchment radial may supply RMX within that catchment.

142. Finally, Tarmac indicated that a number of independent RMX suppliers are vertically integrated with regard to aggregates (and therefore cannot be considered to be disadvantaged by the lack of their own source of supply for this key input).
143. This is consistent with [✂].
144. The available evidence indicates, however, that independent suppliers generally tend to be a more limited competitive constraint on the Parties (and other Majors). This is because independent RMX suppliers typically lack the same economies of scale and buyer power as the Majors (which may impact their ability to compete on price), are not vertically integrated (so may have more difficulty obtaining access to key inputs such as aggregates and cement), lack the same financial resources as the Majors (and therefore, as described above, may be less able to invest in capacity expansion), and lack the reputation of the Majors.
145. This is consistent with the findings of previous competition investigations in this sector. In the market investigation, the CC concluded that most independent RMX producers are small, with many of them operating just one site.⁷⁹ In *Breedon / Hope*, the CMA considered, on an area-by-area basis, whether independent RMX operators offered the same competitive constraint as Majors (given evidence that independent competitors might lack the resources, brand name, reputation and marketing expertise of larger players). In that case, in each local area affected by the transaction, the CMA scrutinised the independents to ensure they represented a credible competitor, and placed less weight on them if it was not clear that they could provide a similar level of constraint as a larger operator.⁸⁰
146. On the basis of the available evidence, the CMA also notes that the volumes supplied by independent RMX suppliers are usually lower than those of Majors. As indicated in paragraph 123 above, independents who responded to the merger investigation reported lower volume data than the Majors, and BDS data for the independents within the areas that failed our filters suggest that they have lower volumes on average than the Major's average. As regards Tarmac's submission that independents supply RMX in wider

⁷⁹ CC market investigation reference report: [Aggregates, cement and ready-mix concrete market investigation - Final report](#), 14 January 2014, paragraph 9.12.

⁸⁰ CMA's decision on [Breedon Aggregates / Hope Construction Materials merger inquiry](#), 12 April 2016, paragraph 132.

catchment areas than Majors, the CMA has received mixed evidence, with catchment areas ranging from [10-20] miles up to [40-50] miles.

147. Finally, the CMA notes that only a limited proportion of independent RMX producers are vertically integrated for aggregates (and are typically not vertically integrated in relation to cement).
148. For the purposes of the filtering analysis, independent RMX suppliers have, consistent with the CMA's approach in previous cases, been given the same weight as larger multi-site operators (on the basis that the filters used provide a relatively conservative screening on any basis). However, in light of the available evidence indicating that independents may be a less effective competitive constraint on the Majors within a given local area, the CMA has, in its competitive assessment of the local areas that failed the filters, placed less weight on the constraint provided by independent operators of RMX plants as compared to plants operated by other Majors (in the absence of specific evidence to the contrary).

- *Volumetric trucks*

149. The Parties submitted that the share of RMX produced by volumetric trucks appears to be generally growing.⁸¹ Tarmac has also identified some local areas in which it is aware of competitors using volumetric trucks to supply RMX.⁸² Tarmac also acknowledged, however, that in the context of larger projects (eg typically requiring more than 50m³ of RMX), volumetric trucks may impose a lesser competitive constraint on RMX fixed plants.
150. As explained above in paragraph 52, the CMA has analysed the competitive effects of the Merger within a frame of reference that includes fixed plants, site plants and volumetric trucks.
151. The CMA notes that volumetric trucks have consistently been found to exercise a more limited constraint on fixed plants in previous cases, at least for certain customers.⁸³ [REDACTED].⁸⁴ The CMA also notes that the Parties have provided data only on the number and market shares of fixed RMX plants across all areas, and the CMA has been unable to verify the volume of RMX provided by volumetric trucks in some specific local areas.

⁸¹ Merger Notice, paragraph 15.63.

⁸² Merger Notice, paragraphs 15.62, 15.72, 15.79, 15.84, 15.89 and 15.97.

⁸³ See paragraph 57.

⁸⁴ Tarmac provided a summary of its orders banded by size. The estimate is based on assuming orders were on average at the midpoint of the range, except for the largest orders which were assumed to be at the bottom of the range.

152. The CMA therefore currently considers that, within its competitive assessment at the local level, only very limited weight can be placed on the constraint provided by volumetric trucks (absent further evidence to substantiate the extent of such supply within the local areas subject to in-depth assessment).

Local competitive assessment

153. The CMA carried out local competitive assessments in relation to all 18 RMX plants which it had identified as requiring a more detailed competitive assessment (see paragraph 116). Annex 1 contains a summary of the main factors the CMA has considered when carrying out this detailed competitive assessment for each of these sites.
154. Having carried out this detailed analysis of the local areas, the CMA found that the Merger will not result in a realistic prospect of an SLC in relation to 10 of the 18 sites mentioned above, on the basis that sufficient competitive constraints will remain post-Merger. The CMA found that the Parties' RMX plants were not each other's closest competitors and the remaining competitors in these areas will exert a sufficient constraint on the Parties post-Merger. In particular:
- In Portsmouth (one Target Asset and one Tarmac plant), there will be three Majors (Hanson, Cemex and Aggregate Industries) within both the [redacted]-mile and [redacted]-mile catchment areas post-Merger, and two of these Majors are located between the Parties. There will be a higher number of fascia in the [redacted]-mile catchment area. No third party raised any competition concerns as regards this area.
 - In Meriden Coventry (one Target Asset and two Tarmac plants), the increment resulting from the Merger is limited and there will be three Majors (Cemex, Hanson, Aggregate Industries) remaining in the [redacted]-mile catchment area post-Merger and Breedon will continue operating in this area. There will be a higher number of fascia in the wider catchment areas (ie [redacted]-mile and [redacted]-mile). No third party raised any competition concerns as regards this area.
 - In Bristol (one Target Asset (Stancombe – Flax Bourton) and two Tarmac plants (Bristol St Annes and Avonmouth)), the increment resulting from the Merger is moderate, there are two Majors remaining in the [redacted]-mile catchment area post-Merger and there is a regional RMX player just beyond the [redacted]-mile catchment area. There will be a higher number of fascia competitors in the [redacted]-mile catchment area. A third party raised concerns in relation to this area [redacted]. The CMA notes that there are sufficient competitors remaining post-Merger and that the

increment resulting from the Merger is moderate, therefore, the CMA does not believe that the Merger will result in a realistic prospect of an SLC in this local area post-Merger.

- In Alrewas (one Target Asset), the Parties are not located particularly closely to each other (being 8 miles apart) and although there are only two Majors remaining post-Merger in the [X]-mile catchment area, there are 4 more sites just beyond the [X]-mile catchment area. In both the [X]-mile and [X]-mile catchment, there will remain four Majors and some independents. No third party raised any competition concerns as regards this area.
- In Llanwern (one Tarmac plant), the Parties are further apart (12.3 miles), and therefore [X]. In the [X]-mile catchment area there will remain two Majors and five independent RMX suppliers. No third parties have raised competition concerns as regards this area.

155. The CMA's more detailed analysis of these local areas identified material concerns in 8 of these 18 sites. These sites are located in the following local areas:

- (a) Cardiff (inner) – one Target Asset and one Tarmac plant.
- (b) Cardiff (outer) – one Target Asset (Tongwynlais) and one Tarmac plant (Taffs Well).
- (c) Bridgend – one Target Asset and one Tarmac plant.
- (d) Carnforth – one Target Asset (Dunald Mill) and one Tarmac plant.

- *Cardiff (inner)*

156. Figure 1 shows the [X]-mile, [X]-mile and [X]-mile catchment areas of the local area centred on the Target Asset.⁸⁵ This map includes the location of the Parties' and competitors' fixed RMX plants.

Figure 1 - Locations of the Target Asset, and its competitors within [X], [X], and [X] miles of the Target Asset

[X]

Source: CMA.

⁸⁵ Given the proximity between the Parties' sites in this area, a map centred on Tarmac's site would be very similar to that centred on the Target Asset and is not shown.

157. Tarmac submitted that competition concerns would not arise within this local area in particular because:
- (a) the Target Asset and Tarmac's site are not close competitors, given that two Majors and a significant independent are in close proximity to the Target Asset and Tarmac's site;
 - (b) post-Merger, there will be five, seven and nine competing fascia within the [X]-mile, [X]-mile and [X]-mile radii, including at least two Majors and significant independents;
 - (c) there are volumetric competitors active in the locality; and
 - (d) there are credible competitors in this area, as indicated by the 'loss data' submitted by Tarmac.⁸⁶ In particular, Tarmac indicates that there is an independent that [X].
158. The CMA noted, however, that the Parties seem to be close competitors in this area for the following reasons:
- (i) the share of supply of Tarmac post-Merger would be high (above [50-60]%) within the [X]-mile catchment area (with an increment of [20-30]%) and almost [40-50]% within the [X]-mile catchment area for the Target Asset;
 - (ii) the Parties are geographically very close to each other (0.5 miles apart); and
 - (iii) the heat maps of customers served by the Target site and Tarmac's plant in this area suggest that the Parties compete for the same customers, as a large number of customers of the two sites are located in the same area and the size of orders supplied to some customers [X]).
159. In addition, the CMA considered that the competitive constraints remaining post-Merger would not be sufficient to prevent a realistic prospect of an SLC, in particular, for the following reasons:
- (a) In the [X]-mile catchment area, there would be a reduction in fascia from 6 to 5. However, there would only remain two Majors, as the rest of competitors are independents. BDS estimates of the output of these independents suggest that the CMA's share of supply estimates (see

⁸⁶ The 'loss data' captures specific quotes for work that Tarmac understands have either been lost to identified competitors, or to unknown competitors.

paragraph 117) may have overstated the extent to which independents provide a competitive constraint in this area. [REDACTED];

- (b) the CMA considered that only very limited weight could be placed on the 'loss data' submitted by Tarmac. The CMA noted that this data generally [REDACTED] and therefore may not provide a representative picture of customer decision-making. In any event, Tarmac's loss data showed that, when considering the number of jobs, [REDACTED];
- (c) as regards Tarmac's submission of competitors operating volumetric trucks in this area, as stated in paragraphs 150 to 152, the competitive constraint that these trucks can pose is more relevant to smaller projects (ie up to 50m³). The total output from these volumetric trucks was relatively small compared to the total volume from fixed sites in this area. The CMA did not receive any underlying evidence to support the Parties' submissions in relation to the extent of supply from volumetric truck within this local area (and notes that such supply, even if evidenced, would not be sufficient to ensure that the merged entity would face sufficient competitive constraints post-Merger); and
- (d) the CMA has not identified any evidence to suggest that entry or expansion would be timely, likely or sufficient so as to offset its concerns.⁸⁷

160. On the basis of the evidence described above, the CMA believes that there is a realistic prospect of an SLC arising as a result of the Merger in relation to the supply of RMX within the Cardiff (inner) catchment areas of the Target Asset and Tarmac's plant.

- *Cardiff (outer)*

161. Consistent with the approach to competitive assessment described above (which is based on the catchment areas of specific plants), the CMA has analysed the Cardiff 'inner' and 'outer' areas separately. As both sets of catchment areas include many of the same plant, there are a number of similarities between competitive conditions within both areas (albeit that the competition concerns raised by the Merger appear to be particularly acute in relation to supply to Cardiff city centre given the additional constraints that the Parties face to supply into the Welsh valleys region).

⁸⁷ [Merger Assessment Guidelines](#), section 5.8.

162. Figure 2 shows the [X]-mile, [X]-mile and [X]-mile catchment area of the local area centred on the Target Asset.⁸⁸ This map includes the location of the Parties' and competitors' fixed RMX plants.

Figure 2 - Locations of the Target Asset, and its competitors within [X], [X], and [X] miles of the Target Asset

[X]

Source: CMA.

163. Tarmac submitted that competition concerns would not arise within this local area in particular because:
- (a) the Parties are not close competitors, given that there are other operators located very closely to the Parties, such as Cardiff Concrete, which lies between the Target Asset and Tarmac's site and is less than 1 mile away from each, or Cemex's RMX plant, which is approximately 1 mile from each of the Target Asset and Tarmac's site. Tarmac submitted that Hanson's RMX plant is located by the M4 motorway and is less than [X] miles away from the Parties' sites and there are other additional competitors within [X] miles of the Target Asset;
 - (b) Tarmac would continue to face significant competitive constraints post-Merger as within the [X]-mile catchment area there will be five competing fascia, including two Majors and two independents. Within the [X]-mile and [X]-mile catchment area there will be more fascia: eight and nine respectively;
 - (c) there are volumetric operators active in this area; and
 - (d) the 'loss data' for the Tarmac site suggest that [X].
164. The CMA noted, however, that the Parties seem to be close competitors in this area for the following reasons:
- (i) the share of supply of Tarmac post-Merger would be high (around [50-60]%) within the [X]-mile catchment area (with an increment of [10-20]%) and above [30-40]% within both the [X]-mile and [X]-mile catchment area;
 - (ii) the Parties are located very close to each other (0.7 miles apart); and

⁸⁸ Given the proximity between the Parties' sites in this area, a map centred on Tarmac's site would be very similar to that centred on the Target Asset and is not shown.

(iii) the heat maps of customers served by the Target site and Tarmac's plant in this area suggest that the Parties compete for the same customers, as a large number of customers from the two sites are located in the same area.

165. In addition, the CMA considered that the competitive constraints remaining post-Merger would not be sufficient to prevent a realistic prospect of an SLC, in particular for the following reasons:

- (a) In the [redacted]-mile catchment area, there would be a reduction in fascia from 6 to 5. However, there will only remain two Majors, as the rest of competitors are independents. BDS estimates of the output of these independents suggest that the CMA's share of supply estimates (see paragraph 119) may have overstated the extent to which independents provide a competitive constraint in this area. [redacted];
- (b) limited weight could be placed on the 'loss data' submitted by Tarmac for the reasons explained in paragraph 159 above. However, even placing limited weight on this evidence, it is noteworthy that for this site [redacted];
- (c) as regards Tarmac's submission of competitors operating volumetric trucks in this area, as stated in paragraphs 150 to 152, the competitive constraint that these trucks can pose is limited to smaller projects (ie up to 50m³). The total output from these volumetric trucks was relatively small compared the total volume from fixed sites in this area. The CMA did not receive any confirmation of the validity of the submission but even if it were the case, without compelling evidence of the constraint from volumetric trucks in this area, this would not be sufficient to offset the CMA's concerns; and
- (d) the CMA has not identified any evidence to suggest that entry or expansion would be timely, likely or sufficient so as to offset its concerns.⁸⁹

166. On the basis of the evidence described above, the CMA believes that there is a realistic prospect of an SLC arising as a result of the Merger in relation to the supply of RMX within the Cardiff (outer) catchment areas of the Target Asset and Tarmac's plant.

⁸⁹ [Merger Assessment Guidelines](#), section 5.8.

- *Bridgend*

167. Figures 3 and 4 show the [redacted]-mile, [redacted]-mile and [redacted]-mile catchment areas of the local area centred on the Target Asset and the Tarmac RMX plant. These maps include the location of the Parties' and competitors' fixed RMX plants.

Figure 3 - Locations of the Target Asset, and its competitors within [redacted], [redacted], and [redacted] miles of the Target Asset

[redacted]

Source: CMA.

Figure 4 - Locations of Tarmac's site, and its competitors within [redacted], [redacted], and [redacted] miles of the Tarmac's site at Bridgend

[redacted]

Source: CMA.

168. Tarmac submitted that competition concerns would not arise within this local area in particular because:
- (a) The Target Asset and the Tarmac site are not close competitors as they are approximately 5 miles apart, separated by a Major, and with another Major in close proximity;
 - (b) the merged entity will face significant competitive constraints as there are two Majors within 5 miles of the Target Asset and Tarmac's site, Cardiff Concrete will be opening an RMX plant within 2 miles of the Target Asset and there remain four competing fascia within the [redacted]-mile and [redacted]-mile catchment area of the Target Asset and five fascia within the [redacted]-mile catchment area;
 - (c) there are volumetric operators in the locality; and
 - (d) the 'loss data' for the Tarmac site suggest that [redacted].
169. The CMA noted, however, that the Parties seem to be close competitors in this area for the following reasons:
- (i) The share of supply of Tarmac post-Merger would be above [40-50]% within the [redacted]-mile catchment area (with an increment of [20-30]%) and above [50-60]% within the [redacted]-mile catchment area (with an increment of [10-20]%) for the Target Asset; and

(ii) the heat maps of customers served by the Target site and Tarmac's plant in this area suggest that the Parties compete for the same customers, as a large number of customers from the two sites are located in the same area.

170. In addition, the CMA considered that the competitive constraints remaining post-Merger would not be sufficient to prevent a realistic prospect of an SLC, in particular, for the following reasons:
- (a) In the [redacted]-mile catchment area, there would be a reduction in fascia from 5 to 4. There will also only remain two Majors, as the rest of competitors are independents. BDS estimates of the output of these independents suggest that the CMA's share of supply estimates (see paragraph 119) may have overstated the extent to which independents provide a competitive constraint in this area;
 - (b) as indicated in paragraph 159 above, limited weight could be placed on the 'loss data' submitted by Tarmac, but the CMA notes the loss data shows that, in terms of number of jobs, Tarmac [redacted] share of losses;
 - (c) as regards Tarmac's submission of competitors operating volumetric trucks in this area, as stated in paragraphs 150 to 152, the competitive constraint that these trucks can pose is limited to smaller projects (ie up to 50m³). The CMA did not receive any confirmation of the validity of the submission but even if it were the case, without compelling evidence of the constraint from volumetric trucks in this area, this would not be sufficient to offset the CMA's concerns; and
 - (d) the CMA has not identified any evidence to suggest that entry or expansion would be timely, likely or sufficient to offset concerns.⁹⁰ Further to Tarmac's submissions in relation to Cardiff Concrete intentions to open a new RMX plant in Pyle, the CMA [redacted], taking a cautious approach, has treated this plant as an already open site for its calculations.
171. On the basis of this evidence, the CMA believes that there is a realistic prospect of an SLC arising as a result of the Merger in relation to the supply of RMX within the Bridgend catchment areas of the Target Asset and Tarmac's plant.

⁹⁰ [Merger Assessment Guidelines](#), section 5.8.

- *Carnforth*

172. Figure 5 shows the [X]-mile, [X]-mile and [X]-mile catchment area of the local area centred on the Target Asset.⁹¹ This map includes the location of the Parties' and competitors' fixed RMX plants.

Figure 5 - Locations of the Target Asset, and its competitors within [X], [X], and [X] miles of the Target Asset

[X]

Source: CMA.

173. Tarmac submitted that competition concerns would not arise within this local area in particular because:
- (a) the Parties are not close competitors, given that Breedon has been supplying lower volumes from the Target Asset meaning that its activities have reduced in this locality;
 - (b) Tarmac would continue to face significant competitive constraints post-Merger as within the [X]-mile catchment area there will be two Majors (Cemex and LafargeHolcim);
 - (c) Breedon, which has two RMX plants within the [X]-mile catchment area of the Target Asset (Garstang and Kendal), will continue competing in this area;
 - (d) There are volumetric operators active in this area; and
 - (e) There is an RMX independent operator, L&W Wilson, which has received planning permission to build an RMX plant 16 miles north of the Tarmac site in this area.
174. The CMA noted, however, that the Parties seem to be close competitors in this area for the following reasons:
- (a) the share of supply of Tarmac post-Merger would be high (just below [40-50]%) within the [X]-mile and the [X]-mile catchment areas (with an increment of [10-20]%);
 - (b) the Parties are located very close to each other (1.1 miles apart); and

⁹¹ Given the proximity between the Parties' sites in this area, a map centred on Tarmac's site would be very similar to that centred on the Target Asset and is not shown.

- (c) the heat maps of customers served by the Target site and Tarmac's plant in this area suggest that the Parties compete for the same customers, as a large number of customers from the two sites are located in the same area and [REDACTED].
175. In addition, the CMA considered that the competitive constraints remaining post-Merger would not be sufficient to prevent a realistic prospect of an SLC, in particular, for the following reasons:
- (a) In the [REDACTED]-mile catchment area, there would be a reduction in fascia from 4 to 3, with just two Majors remaining;
 - (b) as regards Tarmac's submission of competitors operating volumetric trucks in this area, as stated in paragraphs 150 to 152, the competitive constraint that these trucks can pose is limited to smaller projects (ie up to 50m³). The CMA did not receive any confirmation of the validity of the submission but even if it were the case, without compelling evidence of the constraint from volumetric trucks in this area, this would not be sufficient to offset the CMA's concerns;
 - (c) customer heat maps for Breedon's Garstang and Kendal plants showed that these Breedon sites had [REDACTED]. The Parties did not submit further relevant evidence to support their submission that Breedon will compete effectively in this area from its plants in Garstang and Kendal;
 - (d) the CMA has not identified any evidence to suggest that entry or expansion would be timely, likely or sufficient so as to offset its concerns.⁹² As regards Tarmac's submission of L&W Wilson planning permission to open a RMX plant, the CMA notes that it has been unable to confirm this statement and, in any event, as indicated in paragraph 114, plants located less closely to one another will typically compete less closely, and this plant would be located 16-miles away from the Tarmac's site.
176. On the basis of this evidence, the CMA believes that there is a realistic prospect of an SLC arising as a result of the Merger in relation to the supply of RMX within the Carnforth catchment areas of the Target Asset and Tarmac's plant.

⁹² [Merger Assessment Guidelines](#), section 5.8.

Conclusion

177. For the reasons set out above, the CMA believes that the Merger creates a realistic prospect of an SLC as a result of horizontal unilateral effects in relation to the production and supply of RMX in the local areas of Cardiff (inner), Cardiff (outer), Bridgend and Carnforth.

Horizontal unilateral effects arising from the loss of existing competition in the production and supply of aggregates at the local level

178. The CMA assessed whether there is a realistic prospect that the Merger will result in an SLC in the supply of primary aggregates at the local level as a result of the merged firm increasing the price of its primary aggregates products (or otherwise worsening its competitive offer), due to the loss of competition between the merging Parties.
179. Tarmac and the Briton Ferry Wharf Target Asset overlap in the supply of aggregates to customers in GB, as the Briton Ferry Wharf sells (but does not produce) aggregates.
180. The CMA considers that the appropriate geographic frame of reference is local and, as a starting point for its analysis, it identified local geographic catchment areas as described in paragraph 82 above.
181. On the basis of a [X]-mile catchment area, there are five Tarmac sites that overlap with the Briton Ferry Wharf. However, the shares of supply and increments around the Target site are relatively modest; Tarmac's share of supply in the supply of primary aggregates post-Merger will be [20-30] % (with an increment of [0-5]%) in a catchment area of 18-miles and [20-30]% (with an of increment of [0-5]%) in a catchment area of [X]-miles. Furthermore, post-Merger there would remain 13 competitors (three of them Majors) located within the [X]-mile catchment area of the Target site.
182. The CMA therefore believes that there is no realistic prospect of an SLC arising as a result of the Merger as a result of horizontal unilateral effects in relation to the production and supply of primary aggregates at a local level.

Vertical effects

183. Vertical effects may arise when a merger involves firms at different levels of the supply chain, for example a merger between an upstream supplier and a downstream customer.
184. Vertical mergers may be competitively benign or even efficiency-enhancing, but in certain circumstances can weaken rivalry, for example when they result

in foreclosure of the merged firm's competitors. The CMA only regards such foreclosure to be anticompetitive where it results in an SLC in the foreclosed market(s), not merely where it disadvantages one or more competitors.

185. Tarmac (but not the Target Assets) is currently active in the production and supply of cement, and both Tarmac and the Target Assets are active in the production and supply of aggregates⁹³ and downstream in the production and supply of RMX, which uses aggregates and cement as key inputs.
186. In the present case, the CMA has considered whether, as a result of the Merger, Tarmac could profitably increase the price it charges for the aggregates and/or cement to rival RMX suppliers. This, in turn, would make it harder for rival RMX suppliers to compete by increasing their costs, making them less competitive. Competition in RMX may thus be lessened. While the Merger does not bring about any change on Tarmac's upstream positions,⁹⁴ the Merger materially changes Tarmac's position in the downstream supply of RMX and therefore could change Tarmac's incentive to pursue a foreclosure strategy of this type.
187. The CMA's approach to assessing vertical theories of harm is to analyse (a) the ability of the merged entity to foreclose competitors, (b) the incentive of it to do so, and (c) the overall effect of the strategy on competition.⁹⁵

Vertical effects arising through input foreclosure of primary aggregates into RMX at the local level

188. As noted above, the supply of RMX is local in scope and therefore the CMA has assessed to what extent the Merger will alter the existing degree of vertical integration across GB (and how this might bring about a change in Tarmac's ability and incentive to pursue a foreclosure strategy).
189. The CMA identified 25 catchment areas in which at least one Target Asset is located within [X] miles of a Tarmac aggregates site, giving rise to a vertical relationship between the Parties' activities within these areas.
190. Tarmac submitted that a general excess of production capacity in aggregates in GB, including across the regions affected by the Merger, means that competing aggregates producers could increase supply relatively quickly and cheaply in response to an attempt by Tarmac to foreclose downstream RMX competitors post-Merger.

⁹³ The Target Asset at Briton Ferry sells, but does not produce aggregates.

⁹⁴ Other than at Briton Ferry.

⁹⁵ [Merger Assessment Guidelines](#), paragraph 5.6.6.

191. The CMA considers that Tarmac would not have the ability to pursue a foreclosure strategy in these areas post-Merger. First, [X], Tarmac's share of production of primary aggregates is less than 30%, the threshold level below which the CMA's Merger Assessment Guidelines note that input foreclosure concerns are unlikely to arise.⁹⁶ In the areas where Tarmac's share of production of primary aggregates exceeds 30% ([X]), there will remain at least 6 alternative aggregates suppliers to Tarmac post-Merger.
192. On third party raised concerns about four of these areas, as it considered that the Merger will reduce the sources of primary aggregates supply to independent RMX producers. However, as noted above, the CMA considered that downstream customers will have credible alternative options of supply available in any of these areas.
193. On this basis, the CMA believes that post-Merger Tarmac would not have the ability to foreclose the supply of primary aggregates to downstream RMX competitors post-Merger, in particular because downstream rivals have a number of alternative sources of supply. The CMA has therefore not assessed the impact of the Merger on the incentive to foreclose or the effect of a foreclosure strategy on competition.
194. The CMA therefore believes that there is no realistic prospect of an SLC arising through input foreclosure in the supply of primary aggregates to downstream competitors in RMX supply at the local level.

Vertical effects arising through input foreclosure of cement into RMX at the local level

195. The CMA identified this as a concern in areas of South Wales where Tarmac is a significant cement supplier and the Merger would result in a potentially significant change to Tarmac's share of RMX supply.
196. Tarmac submitted that at all times, in all areas, downstream purchasers of cement will have a number of alternative supply options available to them. Tarmac submitted that the appropriate geographic frame of reference for the production and supply of bulk cement is GB-wide and Tarmac estimates that its market share would be no more than [20-30]%, below the 30% market share threshold indicated by the CMA in its guidance when considering whether input foreclosure concerns might arise.⁹⁷

⁹⁶ [Merger Assessment Guidelines](#), paragraph 5.3.5.

⁹⁷ [Merger Assessment Guidelines](#), paragraph 5.3.5.

197. In relation to the supply of bulk cement in South Wales, Tarmac submitted that it faces competition from rivals including Hanson, a domestic producer, and Dragon Alfa, an importer.ⁱ Tarmac also submitted that [REDACTED].
198. The CMA considered whether Tarmac could have the ability to foreclose its downstream RMX rivals. To assess Tarmac's ability to foreclose cement, the CMA considered RMX producers' alternative supply options. For the reasons described in paragraphs 92 to 103 above, the CMA considered that the market for the production and supply of bulk cement may be sub-national in scope and therefore has based its assessment on the availability of alternative sources of cement supply within the South Wales region.
199. The CMA has used information provided by the Parties and third parties to generate shares of supply in the supply of cement for South Wales. According to this data, Tarmac (including its parent company CRH) would have a share of supply of bulk cement of [50-60]% in South Wales, which would make it the largest supplier in the region, followed by Hanson, Cemex and Breedon, which have lower shares of supply ([10-20]%, [10-20]% and [10-20]%, respectively). The CMA considers that these shares of supply, which include internal supply, may understate Tarmac's significance as a supplier within the merchant market, because [REDACTED]. This is consistent with submissions from some RMX suppliers in South Wales, which told the CMA that Tarmac is often the only supplier of cement from which they receive competitive quotes.
200. The CMA noted that other cement suppliers may be less competitive in South Wales because their facilities are located further away than Tarmac's. Hanson, Cemex and Breedon's closest cement plants to South Wales are in Flintshire, Rugby and Derbyshire, respectively. Dragon Alfa's closest import terminal is in Sharpness, Gloucestershire. Furthermore, importers tend to operate with smaller margins, which may limit their ability to provide a price-competitive alternative source of cement supply for downstream customers.
201. The CMA considers, however, that the available evidence shows that Tarmac would not have the ability to foreclose downstream rivals in RMX (notwithstanding its high share of cement supply in South Wales). In particular, the available evidence shows that Dragon Alfa [REDACTED]. The CMA notes that Dragon Alfa has recently opened a new import terminal in Portland (in the South of England), [REDACTED].
202. The CMA notes, in addition, that Hanson and Cemex [REDACTED].ⁱⁱ
203. Accordingly, were Tarmac to significantly increase the price it charges rival RMX producers for cement (or to cease to supply its downstream rivals

completely), the available evidence indicates that rival RMX producers would have sufficient alternative sources of supply.

204. On the basis of the evidence set out above, the CMA believes, on balance, that post-Merger Tarmac would not have the ability to foreclose the supply of cement to downstream RMX suppliers. Given this conclusion, the CMA has not assessed the impact of the Merger on the incentive to foreclose or the effect of a foreclosure strategy on competition.
205. The CMA therefore believes that there is no realistic prospect of an SLC arising through input foreclosure in the supply of cement to downstream RMX competitors, as a result of the Merger.

Barriers to entry and expansion

206. Entry, or expansion of existing firms, can mitigate the initial effect of a merger on competition, and in some cases may mean that there is no SLC. In assessing whether entry or expansion might prevent an SLC, the CMA considers whether such entry or expansion would be timely, likely and sufficient.⁹⁸ In terms of timeliness, the CMA's guidelines indicate that the CMA will look for entry to occur within two years.⁹⁹

RMX

207. Tarmac submitted that the barriers to entry and expansion in RMX markets are relatively low, in particular: (i) the costs and the time involved in setting up (or acquiring second-half) fixed, mobile RMX plant or a volumetric plant are relatively low; (ii) there are low regulatory barriers to entry in relation to the RMX market; and (iii) expansion by Tarmac's existing competitors in the affected local areas can be done quickly and on a relatively risk-free basis.¹⁰⁰
208. Although barriers of entry are relatively low, entry is only likely to occur in areas where an operator takes the view that there will be enough new projects in that locality to support its investment. The CMA needs to be convinced during its Phase 1 investigation that entry is likely to be sufficiently capable of preventing any prospect of an SLC, and requires specific evidence in this regard.

⁹⁸ [Merger Assessment Guidelines](#), from paragraph 5.8.1.

⁹⁹ [Merger Assessment Guidelines](#), paragraph 5.8.11

¹⁰⁰ Merger Notice, paragraph 21.1.

209. The CMA did not receive any evidence indicating that any RMX suppliers were intending to enter or expand into any of the local areas in which the CMA identified the realistic prospect of an SLC, as set out in paragraph 155.
210. Based on the evidence available, the CMA does not believe that entry or expansion will be timely, likely or sufficient to prevent a realistic prospect of an SLC as a result of the Merger.

Aggregates and cement

211. The CMA has not found any realistic prospect of an SLC in the supply of aggregates and cement hence the CMA has not had to conclude on barriers to entry or expansion in any of these markets as the Merger does not give rise to competition concerns on any basis.

Decision

212. Consequently, the CMA believes that it is or may be the case that (i) arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation; and (ii) the creation of that situation may be expected to result in an SLC within a market or markets in the United Kingdom.
213. The CMA therefore believes that it is under a duty to refer under section 33(1) of the Act. However, the duty to refer is not exercised¹⁰¹ whilst the CMA is considering whether to accept undertakings¹⁰² instead of making such a reference. The Parties have until 3 May 2018¹⁰³ to offer an undertaking to the CMA.¹⁰⁴ The CMA will refer the Merger for a phase 2 investigation¹⁰⁵ if the Parties do not offer an undertaking by this date; if the Parties indicate before this date that they do not wish to offer an undertaking; or if the CMA decides¹⁰⁶ by 11 May 2018 that there are no reasonable grounds for believing that it might accept the undertaking offered by the Parties, or a modified version of it.

(signed)

¹⁰¹ Section 33(3)(b) of the Act.

¹⁰² Section 73 of the Act.

¹⁰³ Section 73A(1) of the Act.

¹⁰⁴ Section 73(2) of the Act.

¹⁰⁵ Sections 33(1) and 34ZA(2) of the Act.

¹⁰⁶ Section 73A(2) of the Act.

Sheldon Mills (Senior Director, Mergers) on behalf of Adam Land (Senior Director, RBFA)
Competition and Markets Authority
26 April 2018

Annex 1 – Local analysis of RMX plants

Local area	Plant name (Party)	Distance between Parties	[✂]-mile		[✂]-mile		[✂]-mile		Customer location	Volum. trucks	Third party concerns
			Fascia change (number of majors)	Share of RMX output by vol. (incr.)	Fascia change (number of majors)	Share of RMX output by vol. (incr.)	Fascia change (number of majors)	Share of RMX output by vol. (incr.)			
Cardiff (inner)	Cardiff (Target)	0.5	9-to-8 (2)	[30-40] % ([10-20]%)	8-to-7 (2)	[30-40] % ([10-20]%)	6-to-5 (2)	[50-60] % ([20-30]%)	[✂]	Yes (3)	Yes
	Cardiff Concrete (Tarmac)	0.5	10-to-9 (2)	[30-40] % ([10-20]%)	8-to-7 (2)	[40-50] % ([10-20]%)	6-to-5 (2)	[50-60] % ([20-30]%)			Yes
Cardiff (outer)	Taffs Well Concrete 1+2 (Tarmac)	0.7	10-to-9 (2)	[30-40] % ([10-20]%)	9-to-8 (2)	[30-40] % ([10-20]%)	6-to-5 (2)	[50-60] % ([10-20]%)	[✂]	Yes (3)	No
	Tongwynlais (Target)	0.7	10-to-9 (2)	[30-40] % ([10-20]%)	9-to-8 (2)	[30-40] % ([10-20]%)	6-to-5 (2)	[50-60] % ([10-20]%)			Yes
Bridgend (Wales)	Bridgend (Target)	4.9	6-to-5 (2)	[30-40] % ([10-20]%)	5-to-4 (2)	[50-60] % ([10-20]%)	5-to-4 (2)	[40-50] % ([20-30]%)	[✂]	Yes (3)	No
	Bridgend Concrete (Tarmac)	4.9	6-to-5 (2)	[50-60] % ([20-30]%)	6-to-5 (2)	[30-40] %	5-to-4 (2)	[30-40] %			No

Local area	Plant name (Party)	Distance between Parties	[✂]-mile		[✂]-mile		[✂]-mile		Customer location	Volum. trucks	Third party concerns
			Fascia change (number of majors)	Share of RMX output by vol. (incr.)	Fascia change (number of majors)	Share of RMX output by vol. (incr.)	Fascia change (number of majors)	Share of RMX output by vol. (incr.)			
						[(10-20)%]		[(10-20)%]			
Lancaster (England)	Carnforth - Dunald Mill (Target)	1.1	remains 4 (3)	[20-30]%([5-10]%)	4-to-3 (2)	[30-40]%([(10-20)%])	4-to-3 (2)	[30-40]%([(10-20)%])	[✂]	Yes (2)	No
	Carnforth Concrete (Tarmac)	1.1	remains 4 (3)	[20-30]%([5-10]%)	4-to-3 (2)	[30-40]%([(10-20)%])	4-to-3 (2)	[30-40]%([(10-20)%])			No
Portsmouth (England)	Havant Concrete – Bedhampton (Tarmac)	4.2	6-to-5 (2)	[20-30]%([(10-20)%])	6-to-5 (2)	[20-30]%([(10-20)%])	5-to-4 (2)	[40-50]%([(20-30)%])	[✂]	Yes (3)	No
	Portsmouth (Target)	4.2	7-to-6 (3)	[20-30]%([5-10]%)	5-to-4 (2)	[30-40]%([(10-20)%])	5-to-4 (2)	[30-40]%([(10-20)%])			No
Coventry (England)	Coventry Concrete (Tarmac)	10.6	remains 10 (4)	[40-50]%([(10-20)%])	remains 8 (4)	[40-50]%([(10-20)%])	remains 7 (4)	[20-30]%([(0-5)%])	[✂]	Yes (5)	No
	Meriden Concrete (Tarmac)	0	remains 12 (4)	[20-30]%([(0-5)%])	remains 10 (4)	[30-40]%([(0-5)%])	7-to-6 (3)	[50-60]%([(10-20)%])			No
	Meriden Coventry (Target)	0.1	remains 12 (4)	[20-30]%	remains 10 (4)	[30-40]%	7-to-6 (3)	[50-60]%			No

Local area	Plant name (Party)	Distance between Parties	[✂]-mile		[✂]-mile		[✂]-mile		Customer location	Volum. trucks	Third party concerns
			Fascia change (number of majors)	Share of RMX output by vol. (incr.)	Fascia change (number of majors)	Share of RMX output by vol. (incr.)	Fascia change (number of majors)	Share of RMX output by vol. (incr.)			
				([0-5]%)		([0-5]%)		([10-20]%)			
Bristol (England)	Avonmouth Concrete 1+2 (Tarmac)	7.3	6-to-5 (3)	[30-40] % ([5-10]%)	5-to-4 (2)	[40-50] % ([5-10]%)	5-to-4 (2)	[40-50] % ([5-10]%)	[✂]	Yes (2)	No
	Bristol St Annes Concrete (Tarmac)	7.6	8-to-7 (3)	[30-40] % ([5-10]%)	6-to-5 (2)	[30-40] % ([5-10]%)	5-to-4 (2)	[30-40] % ([5-10]%)			No
	Stancombe - Flax Bourton (Target)	7.3	9-to-8 (3)	[30-40] % ([5-10]%)	6-to-5 (3)	[30-40] % ([5-10]%)	4-to-3 (2)	[40-50] % ([5-10]%)			Yes
Burton upon Trent (England)	Alrewas (Target)	8	remains 7 (4)	[10-20] % ([5-10]%)	remains 6 (4)	[20-30] % ([5-10]%)	4-to-3 (2)	[40-50] % ([10-20]%)	[✂]	Yes (2)	No
Newport (Wales)	Llanwern Concrete (Tarmac)	12.3	9-to-8 (2)	[50-60] % ([10-20]%)	remains 7 (2)	[50-60] % ([0-5]%)	remains 6 (2)	[20-30] % ([0-5]%)	[✂]	No	No

ENDNOTES

ⁱ In relation to paragraphs 197, 200 and 201 the term 'Dragon Alfa' must be considered a generic title for two associated UK registered companies: Dragon Alfa Cement Limited and Dragon Portland Limited.

ⁱⁱ In relation to paragraph 202, the CMA notes that [X].