

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

## **Provisional decision on remedies**

Notified: 8 October 2013

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 Some numbers have been replaced by a range.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

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## Summary

1. This document presents our provisional decision on the package of remedies required to remedy the adverse effects on competition (AECs) and the resulting customer detriment that we have provisionally found.
2. Our provisional decision on remedies was based on our provisional findings which were published in full on 23 May 2013 (provisional findings); our augmented provisional findings set out in the Addendum to the provisional findings: Further analysis on GGBS and GBS and provisional findings (Addendum to PFs) published on 8 October 2013; and our consideration of the evidence we received from written responses to our Notice of possible remedies (Remedies Notice) published on 21 May 2013, response hearings with both main and third parties to this investigation, and their further submissions of evidence. Our final decisions on any AEC, and appropriate remedies, will take into account the responses to this document, our provisional findings and Addendum to PFs.
3. We have provisionally decided on a package of remedies that comprises three main elements: (a) a measure based on the divestiture of a cement plant; (b) two measures aimed at reducing transparency in the cement markets in Great Britain (the GB cement markets); and (c) measures to promote competition in the supply chain for ground granulated blast furnace slag (GGBS).
4. We summarize these elements in further detail below:
  - (a) *Cement plant divestiture*. Lafarge Tarmac should be required to choose between divesting either its Caudon or Tunstead cement plant. In support of this divestiture, we have proposed the following measures:
    - (i) *Inclusion of ready-mix concrete (RMX) plants in the divestiture package*. A purchaser of the divested cement plant should be able to acquire a limited

number of RMX plants from Lafarge Tarmac subject to the purchaser's total internal cementitious requirement being capped at 15 per cent of the acquired cement production capacity. Lafarge Tarmac would not be required to divest any RMX plants to a purchaser that already owns RMX plants (or other cement-consuming downstream operations) whose cementitious requirement exceeds this upper limit.

- (ii) *Suitable purchaser.* A purchaser must satisfy the Competition Commission's (CC's) suitable purchaser criteria and cannot be one of the GB cement producers. This requirement will facilitate the entry of a fifth and independent GB cement producer.
- (iii) *Implementation of divestiture.* A monitoring trustee should be appointed as soon as is reasonably practicable following publication of our final report to ensure the protection of the divestiture package until completion of the divestiture. The CC will reserve the right to appoint a divestiture trustee should divestiture not be implemented within the specified divestiture period, or if the CC reasonably expects that an effective disposal would not be achieved within this divestiture period.

(b) *Restrictions on the publication of GB cement market data.* For each set of monthly, quarterly and annual GB cement market data that is currently published by the Minerals Products Association (MPA) and the Department for Business, Innovation & Skills, there should be a time lag of no less than three months from the time to which the data refers, before the data can be made public. This remedy measure has two main components:

- (i) *Conditions on the MPA.* As a condition for continuing to collate and publish the relevant GB cement market data, the MPA should give undertakings to continue to engage a 'permitted' third party, that is both independent of the GB cement producers and has the necessary safeguards in place to comply fully with this remedy, in the collation, aggregation and release of this data

(but only in aggregated form) to the MPA and any other parties subject to the lapse of the time-lag requirement. Any changes to these arrangements would require the MPA to seek CC approval (or Competition and Markets Authority approval from 1 April 2014).

- (ii) *Restrictions on GB cement producers.* An Order should be made that prohibits GB cement producers from providing their sales and production data to any other private sector organization. The only exceptions to this prohibition are when one of the following two conditions is satisfied: either (a) the data is being collated by a permitted third party on behalf of the MPA under the terms of the undertakings set out above; or (b) the third party does not also receive data from any other GB cement producer and the output is only used for internal consumption by the GB cement producer that had engaged the third party.

(c) *Prohibition of the practice of issuing generic price announcement letters.*

- (i) *Prohibition.* An Order should be made that prohibits GB suppliers of cementitious materials, including GB cement producers and importers, as well as suppliers of other cementitious materials (but with certain exemptions, eg builders' merchants), from sending generic price announcement letters to their customers. Instead GB suppliers of cementitious materials should only be permitted to send customer-specific price announcement letters that state clearly, as a minimum, both the current actual unit price and the proposed revised unit price.
- (ii) *Product scope.* The prohibition covers all forms of cementitious materials sold by GB cement suppliers, including CEM I cement, blended cement, GGBS and pulverized fuel ash.

(d) *Measures to increase competition in the GGBS supply chain.* Hanson should divest two of its GGBS production facilities (GGBS plants) and Lafarge Tarmac

should divest two of its GBS production facilities (GBS plants). The key components of this remedy are:

- (i) *Divestiture of GGBS plants.* We identified Hanson's Port Talbot and Scunthorpe GGBS plants as effective divestitures that would also present the least divestiture risks. However, we are also prepared to consider alternative divestitures, but limited to the Purfleet and Teesport GGBS plants, subject to Hanson addressing the specific divestiture risks associated with these plants.
- (ii) *Divestiture of GBS plants.* We identified Lafarge Tarmac's Port Talbot and Scunthorpe GBS plants as effective divestitures that would also present the least divestiture risks. However, we are also prepared to consider divestiture of the Teesside GBS plant, if Lafarge Tarmac were able to address the additional divestiture risks associated with this plant.
- (iii) *Suitable purchaser.* A purchaser of any GGBS plant or GBS plant must satisfy the CC's suitable purchaser criteria and cannot also be one of the GB cement producers. Whilst our preference would be for the divestiture of GGBS plants and GBS plants to be made to more than one purchaser, we would be prepared to consider a solution where a single purchaser is permitted to acquire: (a) both GGBS plants; (b) both GBS plants; or (c) up to two GGBS and two GBS plants.
- (iv) *Monitoring and divestiture trustees.* A single monitoring trustee should be appointed as soon as reasonably practicable following the publication of our final report, who will be charged with overseeing both Hanson's GGBS and Lafarge Tarmac's GBS operations and ensuring the protection of the package of assets that will form part of any divestiture. The CC will reserve the right to appoint a divestiture trustee should divestiture not be implemented within the specified divestiture periods for the GGBS and / or GBS plant divestitures, or if the CC reasonably expects that an effective disposal would not be achieved within the relevant divestiture period.

5. We have provisionally concluded that the proposed package of remedies represents a comprehensive and effective solution to the AECs we have provisionally found.
  
6. We further provisionally concluded that:
  - (a) Each of the remedy measures that form part of our package of remedies is capable of effective implementation, monitoring and enforcement, and that once the relevant divestitures have been implemented, ongoing monitoring and compliance costs of the package of remedies are expected to be very small.
  - (b) Our proposed package of remedies could be implemented and have a substantial beneficial impact on competition and on market outcomes within a relatively short timescale following publication of our final report. We would also expect this beneficial impact to grow over time, such that we would expect the full benefits of increased competition to be realized within five years of publication of our final report.
  
7. In relation to the proportionality of our proposed package of remedies in addressing the AECs, we provisionally concluded that, having evaluated the potential benefits and costs of these measures, the beneficial effects that would flow from addressing these AECs were likely to outweigh significantly the potential costs of our remedies. We provisionally concluded that our proposed package of remedies represented a proportionate solution to the AECs and their resulting customer detriment.
  
8. We therefore provisionally concluded that this package of remedies represents as comprehensive a solution as is reasonable and practicable to the AECs and resulting customer detriment that we have provisionally found.

## Provisional decision on remedies

### 1. Introduction

- 1.1 On 18 January 2012, the Office of Fair Trading (OFT), in exercise of its powers under the Enterprise Act 2002 (the Act),<sup>1</sup> referred the supply or acquisition of aggregates, cement and RMX in GB to the CC for investigation.<sup>2</sup>
- 1.2 In our provisional findings, a summary of which was published on 21 May 2013 and which was published in full on 23 May 2013, we provisionally found market features that prevent, restrict or distort competition in the GB markets for bulk and bagged cement (together, the GB cement markets) that result in two separate AECs within the meaning of the Act.<sup>3</sup> We made no provisional finding with regard to any features giving rise to an AEC in any GB market for the supply of construction aggregates or RMX. Consequently, we are not considering any remedies in these markets.
- 1.3 On 8 October 2013, we published our Addendum to the PFs, which set out our assessment of the further evidence we received in relation to GGBS since the publication of our provisional findings, which led us to augment our provisional finding in relation to the existence of a third and further AEC in the market for GGBS in addition to the two AECs we had found in the GB cement markets.
- 1.4 If the CC finds that there is an AEC, it is required under the Act<sup>4</sup> to decide whether action should be taken by it, or whether it should recommend the taking of action by others, for the purpose of remedying, mitigating or preventing the AEC, or any detrimental effect on customers (the customer detriment) so far as it has resulted from, or may be expected to result from, the AEC. If the CC decides action should be taken, it

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<sup>1</sup> Sections 131 and 133 of the Act.

<sup>2</sup> The OFT's full terms of reference are provided in [Appendix 1.1](#) of the provisional findings.

<sup>3</sup> Section 134(2) of the Act.

<sup>4</sup> Section 134(4) of the Act.

must then decide what action should be taken and what is to be remedied, mitigated or prevented. In deciding these questions, the Act requires the CC 'in particular to have regard to the need to achieve as comprehensive a solution as is reasonable and practicable to the adverse effect on competition and any detrimental effects on customers so far as resulting from the adverse effect on competition'.<sup>5</sup> To satisfy this requirement, the CC considers how comprehensively potential remedies (or packages of remedies) address the AECs and resulting customer detriment, and whether they are effective and proportionate.<sup>6</sup>

- 1.5 On 21 May 2013, we published our Remedies Notice setting out and inviting comments on the possible actions which the CC or others might take to address the two AECs in the GB cement markets. Given that the underlying causes of our further AEC finding in the GGBS market are the same as those that give rise to one of the two AECs in the GB cement markets, the remedial actions that were set out in our Remedies Notice were equally relevant to addressing our third AEC.
- 1.6 Since the publication of our Remedies Notice, we have received views and comments from a wide variety of parties including the five Majors,<sup>7</sup> independent cement importers and RMX producers,<sup>8</sup> government bodies and various other interested parties.
- 1.7 This document together with its supporting appendices form our provisional decision on the package of remedies required to remedy the AECs and the resulting customer detriment we have provisionally found, and serve as a basis for further consultation

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<sup>5</sup> Section 134(6) of the Act.

<sup>6</sup> Section 134(6) of the Act.

<sup>7</sup> The five Majors are the five largest heavy building materials producers in GB and comprise the four GB cement producers and Aggregate Industries UK Ltd (Aggregate Industries). The four GB cement producers are: Lafarge Tarmac Ltd (Lafarge Tarmac); the UK heavy building materials operations of HeidelbergCement AG (Hanson); Cemex UK Operations Ltd (Cemex); and the combined entity comprising Hope Cement Ltd and Hope Ready Mixed Concrete Ltd (together, HCM).

<sup>8</sup> The term 'independent' shall, unless stated otherwise, refer to any business entity or group that is not owned (wholly or partly) by any of the five Majors.

with interested parties. Our provisional decision was based on our provisional findings, our Addendum to PFs, and our consideration of the evidence we received from written responses to the Remedies Notice, response hearings with both main and third parties to this investigation, and their further submissions of evidence.

[Summaries of these response hearings](#) have been published on the CC website.

1.8 On 25 July 2013, we published for consultation a working paper setting out our further work on quantifying the customer detriment in the GB cement markets.<sup>9</sup> We have taken the comments we received from this consultation and that of our provisional findings into account in our consideration of the customer detriment in this document. Our estimate of the customer detriment resulting from our further AEC finding in the GGBS market is set out in the Addendum to PFs and is also discussed later in this document in the context of our assessment of remedies.

1.9 We have not, at this stage, made a final decision regarding the existence and form of any AEC and/or resulting customer detriment. Therefore, our final decisions on any AEC, and appropriate remedies, will take into account the responses to our provisional findings, Addendum to PFs and provisional decision on remedies.

1.10 The CC invites views in writing on this provisional decision on remedies by **5pm on 29 October 2013**.

### ***Structure of our provisional decision***

1.11 This document begins by setting out an overview of the three AECs we have provisionally found (paragraphs 2.1 to 2.12). We also set out the customer detriment resulting from these AECs, which takes into account the results of our consultation on our provisional findings and on our further work on quantifying the customer

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<sup>9</sup> [‘Estimating the competitive price of cement from cost and demand data’](#) (25 July 2013).

detriment which we have undertaken since the publication of our provisional findings (paragraphs 2.13 to 2.18).

1.12 In the remaining sections of this document, we set out:

- (a) our assessment of each individual remedy measure which we are proposing to include within our package of remedies, including a discussion of how each measure addresses the AECs and/or customer detriment, and its design and implementation (paragraphs 3.1 to 3.482);
- (b) the remedy measures that we have considered but have provisionally decided not to pursue further, and our reasons for doing so (paragraphs 4.1 to 4.105);
- (c) our consideration of any potential relevant customer benefits (RCBs) within the meaning of the Act,<sup>10</sup> and whether some or all of any such RCBs would be lost if we implemented our package of remedies (paragraphs 5.1 to 5.54); and
- (d) our assessment of the effectiveness and proportionality of the package of remedies in addressing the AECs and/or resulting customer detriment that we have provisionally found (paragraphs 6.1 to 6.128).

## **2. The AECs and the resulting customer detriment**

2.1 In this section we set out a summary of the three AECs that we have provisionally identified and their resulting customer detriment, which takes into account the results of our consultation on our provisional findings and on our further work on quantifying the customer detriment, which we have undertaken since the publication of our provisional findings.

2.2 In our provisional findings and Addendum to PFs, we provisionally found the following three AECs:

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<sup>10</sup> Section 134(8)(a) of the Act.

- *Coordination AEC*: an AEC in the GB cement markets arising from market coordination involving the three largest GB cement producers (the Top 3 cement producers), namely Lafarge (now Lafarge Tarmac),<sup>11</sup> Hanson and Cemex, where coordination is an overarching feature of the GB cement markets that results from a combination of structural and conduct features of the GB cement markets (the Coordination AEC);<sup>12</sup>
- *GGBS-related AEC in the GB cement markets and an AEC in GGBS*: we provisionally found that there are features of the GB cement markets that combine to give rise to a GGBS-related AEC for the supply of cement in GB (the GGBS-related AEC), as well as an AEC in the market for the supply of GGBS in GB (the AEC in GGBS).<sup>13</sup>

2.3 We describe below in further detail each of these AECs and the features which give rise to them. The nature and extent of the customer detriment resulting from the AECs we have provisionally found are discussed later in paragraphs 2.13 to 2.18.

### ***Coordination AEC in the GB cement markets***

2.4 We described in our provisional findings, a mechanism for coordination in the GB cement markets, whereby the Top 3 cement producers limit competition between them by taking steps to reduce any incentives to increase volumes and shares of sales,<sup>14</sup> seeking instead to maintain rather than increase their relative shares of sales.<sup>15</sup>

2.5 In our provisional findings, we stated that the GB cement markets are characterized by high concentration, a significant degree of transparency, frequent interactions

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<sup>11</sup> Lafarge Tarmac was formed on 7 January 2013 from the merger of Lafarge (which comprised both Lafarge Cement UK Ltd and Lafarge Aggregates Ltd) and Tarmac (which comprised Tarmac Group Ltd, the wholly-owned UK heavy building materials arm of Anglo American plc).

<sup>12</sup> Provisional findings, paragraph 8.285.

<sup>13</sup> Provisional findings, paragraph 8.292 and Addendum to PFs, paragraph 94.

<sup>14</sup> Provisional findings, paragraph 8.268.

<sup>15</sup> *ibid*, paragraph 8.271.

between the main cement producers, and a lack of complexity in the environment in which they compete and the products they produce. We stated that these factors when taken together, suggest that the GB cement producers have strong awareness of each other's actions and the ability to anticipate each other's future actions, which lead to strategic interdependence in their competitive behaviours and to coordination between the Top 3 cement producers. Other factors we found that increased the structural susceptibility of the GB cement markets to coordination included high barriers to entry into GB cement production, limits to the competitive constraint imposed by imported cement, and vertical integration from cement into downstream operations.<sup>16</sup>

2.6 Evidence of the conduct of the Top 3 cement producers showed that they recognized, and took steps to exploit, this structural susceptibility of the GB cement markets to coordination, using shares of sales as a focal point for coordination. Evidence of such conduct included: a strategic focus on maintaining market stability between the three members of the coordinating group rather than independently pursuing unconstrained growth; price announcement behaviour; tit-for-tat behaviour; use of cement sales between the members of the coordinating group as a mechanism for transparency, signalling and, on occasion, share balancing and retaliation; and attempts to target cement importers beyond normal competition on price and service.<sup>17</sup>

2.7 We provisionally found that all three conditions necessary for coordination to be sustained (the three conditions) are met in the GB cement markets, although we stated in our provisional findings that the extent to which each condition was satisfied may have varied over time.<sup>18</sup> These three conditions are that:<sup>19</sup> (a) firms must be able to

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<sup>16</sup> *ibid*, paragraph 8.276.

<sup>17</sup> *ibid*, paragraph 8.277.

<sup>18</sup> *ibid*, paragraph 8.278.

reach an understanding and monitor the terms of the coordination; (b) coordination must be internally sustainable, ie it must be in the individual interest of the coordinating firm to adhere to the coordinated outcome; and (c) coordination needs to be externally sustainable, ie coordination is unlikely to be undermined by competition from firms outside the coordinating group.

2.8 Our competitive assessment of the GB cement markets in Section 8 of the provisional findings explains in detail how each of these three conditions is met in the GB cement markets. A broad summary of this explanation is set out below:

- We found that the first condition is satisfied given the high degree of market transparency of shares of sales, customer wins and losses and customer-supplier relationships, and (to an extent) pricing behaviour at a general level, with evidence that the Top 3 cement producers closely monitor these parameters.<sup>20</sup> Factors that contributed to increasing this transparency and the ability of the Top 3 cement producers to reach an understanding on the terms of coordination included a high degree of market concentration.<sup>21</sup>
- The second condition is satisfied given the low gains from deviation, the existence of effective deterrent mechanisms, and the low risk of incorrect or accidental punishment.<sup>22</sup> We found that differences between the Top 3 cement producers, in terms of their cement production capacities and the extent of their vertical integration into downstream operations, gave rise to different incentives that manifest themselves in the different roles adopted by each member of the coordinating group, but do not prevent coordination taking place.<sup>23</sup>
- Finally, we found that the third condition is satisfied given the high barriers to entry into GB cement production; the limited (although variable over time) con-

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<sup>19</sup> CC3 (Revised), *Guidelines for market investigations: Their role, procedures, assessment and remedies* (the Guidelines), paragraph 250.

<sup>20</sup> Provisional findings, paragraphs 8.179 & 8.276.

<sup>21</sup> *ibid*, paragraphs 8.162 & 8.163.

<sup>22</sup> *ibid*, paragraph 8.207.

<sup>23</sup> *ibid*, paragraph 8.280.

straint from imported cement and non-coordinating firms more generally; and the limited impact of countervailing buyer power.<sup>24</sup>

2.9 We refer back to these three conditions later in this document during our discussion of the effectiveness of our proposed remedy measures in addressing the Coordination AEC.

2.10 In summary, we provisionally found the following structural and conduct features of the GB cement markets to give rise to an overarching market feature of coordination involving the Top 3 cement producers.<sup>25</sup>

*Structural features*

- high market concentration;
- transparency of sales and production shares, wins and losses and customer-supplier relationships;
- high barriers to entry (including limits to the constraint imposed by imported cement);
- homogeneity of product;
- customer characteristics and behaviour (in particular, regularity of purchases, purchases at fixed locations, concentration of customer base and single sourcing for a particular job site); and
- vertical integration from cement into downstream operations.

*Conduct features*

- a strategic focus on maintaining market stability between the members of the coordinating group, frequently manifested in a focus on maintaining existing (or returning to pre-existing) relative shares of sales;
- price announcement behaviour;

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<sup>24</sup> *ibid*, paragraph 8.216.

<sup>25</sup> *ibid*, paragraphs 8.283–8.284.

- tit-for-tat behaviour;
- use of cement cross-sales as a mechanism for transparency, signalling and, on occasion share balancing and retaliation; and
- attempts to target cement importers beyond normal competition on price and service.

### ***GGBS-related AEC in the GB cement markets and a further AEC in GGBS***

2.11 We stated in our provisional findings that Hanson, also one of the Top 3 cement producers, had market power for the supply of GGBS in GB, and that the features we had identified were resulting in a prevention, restriction or distortion of competition both directly in the GGBS market itself and also in the GB cement markets.<sup>26</sup> In our Addendum to PFs, we augmented our provisional findings specifically to identify an AEC in relation to the GGBS market, to identify more clearly the AECs arising from the operation of the GGBS supply chain and its interaction with the GB cement markets. Our augmented provisional findings in relation to the GGBS supply chain are that the following features of the GB cement markets combine to give rise to an AEC in GGBS, as well as a GGBS-related AEC in the GB cement markets:<sup>27</sup>

- the extensive participation of Lafarge Tarmac and Hanson in both the GGBS supply chain on the one hand, and the GB cement markets on the other, whereby Lafarge Tarmac and Hanson are two of the Top 3 cement producers, and between them own all the plants in GB that produce granulated blast furnace slag (GBS), the primary input into GGBS production, and GGBS;<sup>28</sup>

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<sup>26</sup> We set out in paragraph 8.291 of our provisional findings that Hanson had a degree of market power in relation to GGBS, resulting in higher GGBS prices in GB than might otherwise be the case.

<sup>27</sup> Addendum to PFs, paragraphs 93 & 94.

<sup>28</sup> We stated in our Addendum to PFs that this is a structural feature of the GB cement markets, and that we recognize that this is also a characteristic of the GGBS market.

- Lafarge Tarmac's entering into, and maintaining of, exclusive long-term agreements with GB steel producers for the supply by the GB steel producers of blast furnace slag (BFS) for Lafarge Tarmac to produce GBS;<sup>29</sup> and
- Lafarge Tarmac's and Hanson's entering into and maintaining of exclusive long-term agreements with each other for the supply by Lafarge Tarmac of GBS for Hanson to produce GGBS.<sup>30</sup>

2.12 We discuss these exclusive long-term agreements in further detail later in this document in the context of our discussion on the remedy measures concerning the GGBS-related AEC and the AEC in GGBS (see Figure 3.4 below).

### ***Customer detriment***

2.13 Customer detriment within the meaning of the Act is defined as one that results from, or may be expected to result from, any AECs that have been found, and takes the form of either (a) higher prices, lower quality or less choice of goods or services in any market in the UK (whether or not the market to which the feature or features concerned relate); or (b) less innovation in relation to such goods or services.<sup>31</sup>

2.14 We first set out below the nature of the customer detriment resulting from each of the three AECs we have provisionally found, before setting out our estimates of the customer detriment based on the results of our consultation on our provisional findings and on our further work on customer detriment since the publication of our provisional findings.

2.15 In relation to the Coordination AEC, we stated in our provisional findings that coordination is likely to dampen any price competition between the Top 3 cement

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<sup>29</sup> The definition of a 'feature' of a market in section 131(2)(b) of the Act provides that any conduct (whether or not in the market concerned) of any participants in the market concerned can be considered to be a feature of that market. It follows that Lafarge Tarmac's and Hanson's conduct in the GGBS supply chain can be regarded as a feature of a 'relevant market', within the meaning of section 134(3) of the Act, namely the markets in cement.

<sup>30</sup> See previous footnote.

<sup>31</sup> Sections 138(2) and 134(5) of the Act.

producers and result in higher average prices for cement than if they were actively seeking to increase their respective shares of sales.<sup>32</sup> We also considered that these higher average prices were likely to affect all GB cement users, regardless of which supplier this cement is purchased from, and regardless of whether this cement is sold to independent customers or to the GB cement producers' own downstream businesses.<sup>33</sup>

2.16 In relation to the GGBS-related AEC and the AEC in GGBS, we stated in our provisional findings and Addendum to PFs that the resulting customer detriment is higher prices for cement and for GGBS than might otherwise be the case.<sup>34</sup>

2.17 In our provisional findings, we provided an initial estimate of the size of the customer detriment arising in the GB cement markets based on one methodology, and stated that further work would be carried out on estimating the size of the customer detriment as part of our consideration of possible remedies.<sup>35</sup> The details of this further work on the customer detriment resulting from the AECs in the GB cement markets are set out in Appendix 1 and Appendix 2. In our Addendum to PFs, we provided an estimate of the customer detriment resulting from the AEC in GGBS. We provide a summary of the results of this further work on customer detriment below.

2.18 Based on our further work on customer detriment since the publication of our provisional findings:

- In relation to the customer detriment resulting from the Coordination AEC and the GGBS-related AEC in the GB cement markets, we estimated the customer detriment using two different methodologies (see Appendices 1 and 2):

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<sup>32</sup> Provisional findings, paragraph 8.268.

<sup>33</sup> *ibid*, paragraph 8.271.

<sup>34</sup> Provisional findings, footnote 205 to paragraph 8.271, and Addendum to PFs, paragraph 95.

<sup>35</sup> Provisional findings, footnote 205 to paragraph 8.271.

- Based on our updated analysis of the profitability of GB cement producers (see Appendix 1), we estimated the annual customer detriment from high cement prices to be of the order of £30 million on average for the period 2007 to 2012 (see Appendix 2, paragraphs 5 to 9). However, we considered this to be a significant underestimate of the customer detriment in the GB cement markets going forward, because the period that we have investigated includes a very severe and prolonged economic downturn. When construction demand and the wider economy recovers, we would expect cement prices to rise and the profitability of the GB cement producers to increase, given the competitive shortcomings that we have identified in this sector and the relatively high levels of operational gearing (ie high fixed cost base) of their cement operations.
- Based on our cost-based calculation of customer detriment, we estimated an annual customer detriment of £92 million in 2011. However, as a result of some of the assumptions used to estimate this customer detriment, we considered this to be an overestimate (see Appendix 2, paragraphs 10 to 88).
- In relation to the AEC in GGBS, based on our profitability-based calculation of measuring customer detriment, we estimated the annual customer detriment associated with high GGBS prices to be of the order of £15–£20 million on average for the period 2007 to 2012 (see Appendix E of the Addendum to PFs). We considered this to be a substantial underestimate of the harm to customers given that the period for which we estimated this customer detriment included a very severe and prolonged economic downturn.<sup>36</sup>

### **3. Remedy measures that we are proposing to take forward**

- 3.1 In this section, we discuss the remedy measures that we propose to take forward as our preferred package of remedies. We have proposed remedies in relation to the following areas:

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<sup>36</sup> Addendum to PFs, paragraphs 97 & 98.

- Divestiture of a cement plant by a Top 3 cement producer (see Figure 3.1 and paragraphs 3.4 to 3.183 below).
- Restrictions on the disclosure of GB cement market data (see Figure 3.2 and paragraphs 3.184 to 3.231 below).
- A prohibition on generic cement price announcements (see Figure 3.3 and paragraphs 3.232 to 3.269 below).
- GGBS and GBS remedies (see Figure 3.4 and paragraphs 3.270 to 3.482 below).

3.2 For each of these remedy measures, we discuss the aims of the remedy; how the remedy effectively achieves its aims; and what is required to give effect to that remedy. Our discussion for each remedy measure is therefore set out under the following headings:

- a description of the remedy;
- how the remedy addresses the AEC and/or resulting customer detriment;
- the key considerations relating to the design of the remedy; and
- how the remedy should be implemented.

3.3 In our assessment of each remedy measure, we present and consider the views we received from the main and third parties. A summary of these parties' views concerning all of the different possible remedies is provided separately in Appendix 3.

### ***Remedy measure A: Divestiture of a cement plant by a Top 3 cement producer***

#### ***Summary of proposed remedy***

3.4 Figure 3.1 summarizes our proposed remedy measure in relation to a cement plant divestiture by one of the Top 3 cement producers to create a new entrant in the GB cement markets.

FIGURE 3.1

**Summary of remedy measure:  
Divestiture of a cement plant by a Top 3 cement producer**

We have provisionally decided that:

- Lafarge Tarmac should divest the Cauldon plant or the Tunstead plant.
- In relation to the supply of limestone as a raw material into cement production:
  - (a) Should the Cauldon plant be divested, Lafarge Tarmac's limestone quarry (Cauldon Quarry) that currently supplies it with raw materials should be included in the divestiture package. A divestiture of the Cauldon plant should be subject to Lafarge Tarmac providing the CC with a satisfactory update on the status of its [redacted], we may consider the possibility of including the Cauldon Low Quarry within the divestiture package alongside the Cauldon Quarry.
  - (b) Should the Tunstead plant be divested, there are two possible options which Lafarge Tarmac should explore given that the limestone quarry which supplies the Tunstead plant also supplies its lime operations: (i) Lafarge Tarmac could sell all, or part, of its limestone quarry to the buyer of the Tunstead plant; or (ii) Lafarge Tarmac could enter into a long-term supply agreement with the buyer of the Tunstead plant to guarantee its supply of limestone on arm's length terms.
- The Cauldon plant currently does not have a rail connection, and therefore relies on road transport to fulfil its delivered sales. A divestiture package involving the Cauldon plant should include at least the four non-rail-linked depots currently used by the Cauldon plant, or at least four suitable and acceptable alternatives. A divestiture involving the Tunstead plant should include, as a minimum, all of its three rail-linked depots and the one non-rail-linked depot (or a suitable and acceptable alternative) currently used by the Tunstead plant.
- A buyer of either the Cauldon or Tunstead plant should be permitted to acquire a limited number of fixed RMX plants from Lafarge Tarmac, subject to an upper limit based on a buyer's total annual cementitious requirement (including the requirement of any pre-existing downstream operations) not accounting for more than 15 per cent of the divested cement plant's annual cement production capacity. A buyer, however, would be permitted to opt-out of acquiring any RMX plants and acquire the divested cement plant on a stand-alone basis. For the avoidance of doubt, we would not require Lafarge Tarmac to sell any RMX plants to a buyer whose pre-existing downstream operations alone would exceed this upper limit. When selecting which of Lafarge Tarmac's RMX plants should be divested, all RMX plants should be located within the catchment area of the divested cement plant. Should a buyer wish to acquire RMX plants up to its permitted limit, we estimate that a divestiture package might include around seven 'large-scale' or 20 'small-scale' RMX plants.
- Divestiture of a cement plant should be made to a purchaser who satisfies the CC's suitable purchaser criteria and should not be made to another GB cement producer.
- A monitoring trustee should be appointed as soon as is reasonably practicable following the publication of our final report to ensure the protection of the divestiture package until completion of the divestiture and to ensure that Lafarge Tarmac is taking the steps necessary to achieve an effective and timely disposal. The monitoring trustee should be required to report to the CC on at least a monthly basis on the current trading of the

divestiture package benchmarked against the performance of Lafarge Tarmac's other three cement plants. The first of these reports should include details of any changes to the asset register at either the Caudon or Tunstead plant (whichever is being divested) since 1 September 2013, with an update on any changes to the relevant asset register every six months.

- A divestiture period should not exceed [X] months from the date of signing the final undertakings, or the issuance of an Order (whichever may be applicable). Lafarge Tarmac should periodically provide the CC with an update on the progress of the divestiture process against a timetable to be agreed with the CC. The CC reserves the right to appoint a divestiture trustee should divestiture not be implemented within the specified divestiture period; or if the CC reasonably expects that an effective disposal would not be achieved within this divestiture period.

3.5 In this section, we set out the assessment and preliminary conclusions we reached in relation to a cement plant divestiture remedy. Our assessment is structured as follows:

- (a) *Description of remedy measure:* where we provide an overview of this remedy option as set out in our Remedies Notice (paragraphs 3.6 and 3.7).
- (b) *How this remedy measure addresses the AEC and/or customer detriment:* where we set out the general views of parties concerning the above question and our own assessment (paragraphs 3.8 to 3.38).
- (c) *Design issues:* where we set out our assessment and preliminary conclusions on:
  - (i) the scope of the divestiture package, where we set out the criteria on which a suitable divestiture package might be based (paragraphs 3.40 to 3.102);
  - (ii) the selection of cement plants for possible divestiture, where we set out our assessment of the suitability of each cement plant owned by the Top 3 cement producers for possible divestiture (paragraphs 3.103 to 3.147); and
  - (iii) purchaser suitability assessment, where we consider both the likely availability of suitable purchasers and the appropriate purchaser suitability criteria (paragraphs 3.148 to 3.165).

*(b) Implementation of remedy measure:* where we set out our consideration of achieving a timely divestiture, and protecting the divestiture package prior to completion of a sale (paragraphs 3.166 to 3.183).

### *Description of remedy measure*

- 3.6 In our Remedies Notice, we presented a remedy option involving the divestiture of cement production capacity by one or more of the Top 3 cement producers. We stated that we would primarily consider cement plant divestitures from Lafarge Tarmac, which currently has the largest number of cement plants and the greatest cement production capacity in GB, but would also look at possible cement plant divestitures from either Hanson or Cemex.<sup>37</sup> For the avoidance of doubt, HCM was not subject to this remedy primarily on the grounds that it operates only one cement plant and that a divestiture of this cement plant would not therefore affect the structure of the GB cement markets.
- 3.7 We also stated in our Remedies Notice that we would have regard to the implications of any divestiture on both the current market structure as well as the market structure that might prevail if latent capacity was taken into account, ie if mothballed capacity was reactivated or permitted capacity (ie future production capacity that has already received planning permission) was subsequently developed and activated.<sup>38</sup>

### *How this remedy measure addresses the AEC and/or customer detriment*

- 3.8 In relation to how this remedy addresses the Coordination AEC and/or resulting customer detriment, we first set out the parties' general views on a cement plant divestiture remedy, before setting out our own assessment and conclusions.

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<sup>37</sup> Remedies Notice, paragraphs 25–30.

<sup>38</sup> *ibid*, paragraph 27.

*General views from parties about the effectiveness of the remedy*

- 3.9 We set out below parties' views about the likely effectiveness of this remedy. Parties' submissions on the costs of divestiture are considered when we look at the proportionality of our proposed package of remedies later in this document.
- 3.10 An argument common to all of the Top 3 cement producers was the impact of recent market developments on competition in the GB cement markets, in particular, the replacement of Tarmac by HCM in January 2013 as the new fourth GB cement producer, thereby not necessitating another new entrant. We consider this argument and set out our current thinking on the implications of the creation of HCM when we evaluate the effectiveness and proportionality of our proposed package of remedies.
- 3.11 Lafarge Tarmac told us that a cement plant divestiture remedy would not be an effective remedy,<sup>39</sup> and that the creation of HCM had gone much further than simply replicating the previous existence of Tarmac as it had created a substantially different competitor.<sup>40</sup> It added that there was already increased competition through the introduction of HCM, which had significant capacity and market share. Therefore it did not understand how a fifth competitor would increase competition, particularly as the majority of Lafarge Tarmac's cement plants were already operating at full capacity, and consequently any new competitor would find it near impossible to increase output or reduce prices. In addition, given that there were other remedy options available, it argued that a cement plant (or an RMX plant) divestiture remedy would not be required,<sup>41</sup> for example it believed that an alternative remedy that freed up the supply chain for GGBS (a cement substitute) would itself drive down cement prices.<sup>42</sup>

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<sup>39</sup> [Lafarge Tarmac response hearing summary](#), paragraph 11.

<sup>40</sup> *ibid*, paragraph 9.

<sup>41</sup> *ibid*, paragraphs 11 & 16.

<sup>42</sup> *ibid*, paragraph 12.

- 3.12 Lafarge Tarmac told us that the focus of our competition concerns appeared to be on the conduct of the major cement producers, rather than on the structure of the market. As such, it argued that a structural divestiture remedy should not be imposed for a ‘conduct-based AEC’.<sup>43</sup>
- 3.13 Hanson told us that it believed that the creation of HCM had effectively introduced a new player and significant competitor, which had increased competition in the market. It noted in particular that HCM was operating in a completely different manner to how Tarmac had operated as the fourth player in the market, and that HCM was utilizing its excess capacity to sell to the market generally, in comparison with Tarmac whose cement operations had been focused on ‘self-supply’.<sup>44</sup> It told us that it did not believe that there was room in the market for a new competitor and that a fifth GB producer would not have the effect of reducing prices as there was already sufficient competition in the market. It argued that such a step could harm the economic viability of the other producers, as any new entrant would have to price cement in a manner that was going to generate sufficient returns to cover the substantial fixed costs involved in running a cement plant, and the subsequent volumes required to achieve this could potentially be severe for viability of the established players in the market.<sup>45</sup>
- 3.14 Cemex told us that it did not believe that there was a need for a new entrant as there was already a new entrant in the form of HCM. It added that the entry of HCM fully undermined any ‘alleged coordination’ in the GB cement markets.<sup>46</sup> It also argued that behavioural remedies should be preferred to structural remedies,<sup>47</sup> and that

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<sup>43</sup> [Lafarge Tarmac response to provisional findings and Remedies Notice](#), paragraph 191b).

<sup>44</sup> [Hanson response hearing summary](#), paragraph 7.

<sup>45</sup> *ibid*, paragraph 19.

<sup>46</sup> [Cemex response to Remedies Notice](#), paragraph 4.67.

<sup>47</sup> *ibid*, paragraph 4.67.

measures to reduce market transparency, eg restrictions on the monthly publication of cement market data, would address the cause of the AEC rather than its results.<sup>48</sup>

3.15 Aggregate Industries told us that overall, structural remedies were likely to be more effective than any behavioural remedies,<sup>49</sup> and that the entry into the GB cement markets by HCM and [X] would [X] be effective in increasing competition in the GB cement markets,<sup>50</sup> and would [X].<sup>51,52</sup>

3.16 The OFT believed that there was a strong justification for divestiture remedies involving cement and RMX plants. However, it added that divestitures alone would not be enough to remedy the Coordination AEC, and therefore behavioural remedies would also be necessary to minimize any risk of collusion.

3.17 [A mid-tier aggregates and RMX producer] told us that cement and RMX plant divestiture remedies together with behavioural remedies would correctly focus on the structure and conduct of the suppliers at their level of the supply chain, and therefore would be sufficient to address the Coordination AEC and increase the relative customer buyer power without the need for the creation of a separate cement buying group (as set out in the Remedies Notice).<sup>53</sup>

3.18 One individual, F E Gilman,<sup>54</sup> told us that divestiture remedies were essential and that cement plant divestitures would be far simpler to implement than divestitures of downstream operations.<sup>55</sup> However, it suggested a more extensive structural remedy than what we had proposed in the Remedies Notice, whereby it proposed that each

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<sup>48</sup> *ibid*, paragraph 4.69.

<sup>49</sup> [Aggregate Industries response hearing summary](#), paragraph 35.

<sup>50</sup> [Aggregate Industries response to Remedies Notice](#), paragraph 3.2.

<sup>51</sup> *ibid*, paragraph 2.1.

<sup>52</sup> [Aggregate Industries response hearing summary](#), paragraph 7.

<sup>53</sup> Remedies Notice response from [\[a mid-tier aggregates and RMX producer\]](#), paragraph 2.1.

<sup>54</sup> Chairman of FH Gilman & Co, an independent producer of aggregates, RMX and asphalt that went into administrative receivership in May 2011.

<sup>55</sup> [F E Gilman response to Remedies Notice](#), paragraph 3.

cement plant should be held under separate ownership by new players,<sup>56</sup> thereby also ensuring the removal [§] from the 'cementitious industry'.<sup>57</sup>

- 3.19 Brett Group, a mid-tier independent producer of aggregates and RMX operating in the South-East,<sup>58</sup> supported the decoupling of cement from RMX and other integrated operations. However, it added that it would be preferable to divest a cement plant with no, or very little, downstream operations, as this would create a new entrant with an interest in selling beyond its own downstream operations.<sup>59</sup> It also considered that whilst the current number of GB cement producers could potentially address the AEC, the fact that they were so vertically integrated meant that they were generally less interested in supplying it with cement. It added that [§].<sup>60</sup>
- 3.20 [An independent RMX producer] told us that the reduction in cement prices (both in terms of quoted and achieved prices) in the months leading up to, and following, the entry by HCM, demonstrated that the GB cement markets were not operating correctly and that prices were higher as a result. It encouraged the CC to take action to improve competition further, but did not explicitly state that this should take the form of a cement plant divestiture remedy.<sup>61</sup>
- 3.21 Breedon Aggregates told us that whilst this remedy would increase competition to some degree, it was not sure whether a new (fifth) entrant would make a significant difference to the degree of competition, given that there were already four producers

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<sup>56</sup> *ibid*, paragraphs 4 & 5.

<sup>57</sup> *ibid*, paragraph 15.

<sup>58</sup> Robert Brett & Sons Ltd (Brett Group) is the ultimate parent company for its two primary trading subsidiaries, Brett Aggregates Ltd and Brett Concrete Ltd (paragraph 3.67 of the provisional findings).

<sup>59</sup> [Brett Group response hearing summary](#), paragraph 6.

<sup>60</sup> *ibid*, paragraph 11.

<sup>61</sup> In its response, [§] described how in September 2012, it had received 'cold calls' looking for business from two incumbent [§] that had not contacted it for some years. It also mentioned that it had received a quote from [§] in March 2013, and in May 2013, it was able to negotiate a better price from its current supplier ([§]) (provisional findings and Remedies Notice response from [an independent RMX producer](#)).

and a number of importers in GB. It added that the problems with competition might therefore be due to reasons other than the number of market participants.<sup>62</sup>

3.22 We also received views from three cement importers:

(a) Dragon Alfa (CPV), an operator of a single cement import terminal at Sharpness docks in the South-West,<sup>63</sup> told us that if there were more cement producers, this would have the effect of increasing competition in the GB cement markets.<sup>64</sup>

(b) However, CRH,<sup>65</sup> which operates seven cement import terminals in GB, told us that it considered cement prices in GB to be competitive, and that [REDACTED].<sup>66</sup>

(c) [REDACTED], Titan, which operates one cement import terminal in Hull.<sup>67</sup> Titan told us that cement plant divestitures might promote competition between cement producers, but they could potentially weaken competition from cement importers who might struggle to compete in a region where a divestiture had occurred.<sup>68</sup> It told us that it [REDACTED].<sup>69</sup>

3.23 MI, which owns HCM, told us that the majority of our provisional findings related to the period before it had entered the market and therefore it was not able to comment on our provisional findings.<sup>70</sup> However, it did engage with us on the discussion of this remedy, and its views on the various aspects of this remedy are referred to in the rest of this section.

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<sup>62</sup> [Breedon Aggregates response hearing summary](#), paragraph 6.

<sup>63</sup> Dragon Alfa Ltd (Dragon Alfa) is based in the South-West of England and operates one import terminal at Sharpness Docks, Gloucestershire (provisional findings, Appendix 3.1, paragraph 134). Dragon Alfa is a wholly-owned subsidiary of Cementos Portland Valderrivas SA (CPV), the Spanish multinational heavy building materials producer (provisional findings, paragraph 3.68).

<sup>64</sup> [Dragon Alfa \(CPV\) response hearing summary](#), paragraph 10.

<sup>65</sup> CRH (UK) Ltd (CRH) is the UK holding company of CRH plc (provisional findings, paragraph 3.77).

<sup>66</sup> [CRH response hearing summary](#), paragraph 10 (its total number of import terminals is based on paragraphs 2–4).

<sup>67</sup> Titan Cement UK Ltd (Titan) carries out the UK cement import operations of Titan Cement Company SA, a Greek multinational producer of heavy building materials (provisional findings, paragraphs 3.84 & 3.85).

<sup>68</sup> [Titan response hearing summary](#), paragraph 11.

<sup>69</sup> *ibid*, paragraph 12.

<sup>70</sup> [MI and HCM response hearing summary](#), paragraph 16.

*Our assessment of how the remedy measure addresses the AEC/customer detriment*

- 3.24 A cement plant divestiture by one of the Top 3 cement producers would result in a limited but important structural change in the GB cement markets that would increase the share of the GB cement markets held by a non-coordinating producer or producers, relative to the coordinating group. This outcome could result either from an acquisition of a cement plant(s) by a new entrant(s) that is currently not active in the GB cement markets, or an expansion of an existing non-coordinating firm in the GB cement markets, ie HCM or a cement importer. However, as we set out later (see paragraph 3.28), we considered that the impact of this remedy would be substantially enhanced if it were to increase the number of GB cement producers, and therefore we did not consider that a divestiture to HCM would be as effective a remedy as HCM already owns a cement plant. This would substantially reduce the potential effect of this remedy on the structure and operation of this market relative to a divestiture to a party who did not currently produce cement in GB. We concluded that a cement plant divestiture remedy to create a new GB cement producer could address important aspects of the structural susceptibility to coordination that currently exists in the GB cement markets directly and at source.
- 3.25 We also considered the impact of a cement plant divestiture on the three conditions necessary for coordination to be sustained, namely that:
- (a) firms must be able to reach an understanding and monitor the terms of coordination;
  - (b) coordination must be internally sustainable; and
  - (c) coordination must be externally sustainable.
- 3.26 We discuss below how this remedy has an impact on each of these three conditions and the overall impact on the incentive and ability of the Top 3 cement producers to sustain a coordinated outcome.

- *Impact on ability to reach an understanding and monitor coordination*

3.27 In our provisional findings, we found that one of the factors that contributed to the ability of the GB cement producers to have a strong awareness of each other's actions, and to anticipate each other's future actions, was the high level of market concentration, where nine of the ten cement plants in GB are owned by the three firms within the coordinating group. We stated that that this high level of awareness had led to strategic interdependence in their competitive behaviour and to co-ordination between the Top 3 cement producers.<sup>71</sup>

3.28 The impact of a cement plant divestiture on the ability of the Top 3 cement producers to reach an understanding and monitor the terms of coordination, arises from the reduced market transparency that would result from a more fragmented market structure, and the need for firms within the coordinating group to take into account in their decisions, the independent competitive actions of any new entrant or expanding non-coordinating producer that is active in the GB cement markets. We considered that the greater the number of GB cement producers, in particular the number of non-coordinating producers, the greater the potential reduction in market transparency as the scope for, and relative significance of, independent rather than coordinated action increases. Therefore, we considered that a remedy that increased the number of GB cement producers would be more effective at reducing market transparency and disrupting the strategic interdependence of the coordinating firms than a remedy that resulted in the expansion of HCM (the only non-coordinating GB cement producer at present). Our assessment of this remedy is therefore based on a cement plant divestiture remedy that would result in the creation of another GB cement producer(s) in addition to the four existing GB cement producers.

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<sup>71</sup> Provisional findings, paragraph 8.276.

3.29 The resulting reduction in market transparency and increase in strategic uncertainty could have a significant impact on the ability of the Top 3 cement producers to monitor the terms of coordination. Therefore, a cement plant divestiture could have the effect of making it more difficult for the Top 3 cement producers to detect changes in each other's behaviours and anticipate the actions of the individual non-coordinating producers, and in turn, to reach an understanding between themselves (or with any currently non-coordinating producer) on the terms of any coordination.

- *Impact on internal sustainability of coordination*

3.30 In our provisional findings, we found that the significant size of the cement operations of each of the Top 3 cement producers gave them strong incentives to coordinate, and that their respective cement operations made the largest contribution to their consolidated EBITDA.<sup>72</sup> We also found that Lafarge (now Lafarge Tarmac) benefited most from coordination as the largest GB cement producer, and that this, together with its relatively low extent of vertical integration, gave it an incentive to take a greater proportion of any costs of coordination, eg the costs of any deviation and accommodating the growth of the competitive fringe.<sup>73</sup> In our provisional findings, we stated our expectation that, at least in the period following its formation, Lafarge Tarmac would follow broadly similar competitive strategies to those pursued by Lafarge up to the end of 2012.<sup>74</sup>

3.31 We considered that a cement plant divestiture remedy could have the following effects on the incentives of the Top 3 cement producers to coordinate, depending on how a divestiture package was specified:

(a) A cement plant divestiture by any one of the Top 3 cement producers would result in a reduction in its share of industry profits and benefits from any coordin-

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<sup>72</sup> Consolidated EBITDA (or the earnings before the deduction of interest, tax, depreciation and amortization) means the sum of the EBITDA generated by their aggregates, cement and RMX operations.

<sup>73</sup> Provisional findings, paragraphs 8.247–8.250 & 8.280.

<sup>74</sup> *ibid*, paragraph 7.222.

ation, thereby potentially weakening its incentives to coordinate. Whilst the incentives of the other coordinating firms may not be directly impacted, if the reduced incentive of a divesting party to coordinate resulted in it no longer being part of the coordinating group, then this would have the effect of increasing the collective size of the non-coordinating producers in the GB cement markets further and reinforcing the impact of this remedy on the external sustainability of coordination (see also paragraphs 3.32 and 3.33 below).

- (b) A cement plant divestiture by Lafarge Tarmac would reduce the size of its cement operations which could reduce its ability and incentive to bear the costs of any coordination. This could result in coordination being more difficult to sustain if there is greater uncertainty among the Top 3 cement producers in the absence of a firm with a clear incentive to bear the future costs of any coordination.
- (c) A cement plant divestiture by either Hanson or Cemex could have the effect of reducing the amount of excess production capacity it holds, which we stated in our provisional findings provided them with an effective punishment mechanism that supported the internal sustainability of coordination, for example if a divesting party in response to a cement plant divestiture wished to recover some of its lost sales and profits, it may choose to increase the utilization of its spare capacity at its remaining plant(s).

- *Impact on external sustainability of coordination*

- 3.32 Finally, and in our view, critically, the creation of a new entrant(s) in the GB cement markets would lead to an enlarged group of non-coordinating producers at the expense of the coordinating group, which could disrupt the GB cement markets and undermine any coordination between the Top 3 cement producers, therefore weakening the external sustainability of coordination.

- 3.33 In our view, an enlarged group of non-coordinating producers in the GB cement markets that can successfully undermine any coordination, could also reinforce the impact of the remedy on the other two conditions necessary for coordination to be sustained, whereby:
- (a) an enlarged group of non-coordinating producers could increase the scale and significance of any independent actions taken by the different participants within it, and disrupt the ability of any coordinating group to reach an understanding and monitor the terms of coordination; and
  - (b) the competitive constraint from an enlarged group of non-coordinating producers could reduce the ability and incentives of the coordinating group to maintain a coordinated outcome and weaken the internal sustainability of coordination.

*Conclusions on how the remedy addresses the AEC*

- 3.34 Based on our assessment above, we expect a cement plant divestiture remedy to change the structure of the GB cement markets through the creation of at least one new GB cement producer and thereby make a substantial contribution to addressing both the Coordination AEC and the resulting customer detriment of higher cement prices by disrupting and weakening the extent to which coordination may be sustained, with the result that customers are offered prices that are lower than under coordination.
- 3.35 As argued by [redacted] of the cement importers, one of the consequences of more competition in the GB cement markets may be that lower prices from the GB cement producers could price cement imports out of the markets. Should this happen, one possible effect of more competition could be to weaken what currently accounts for, in volume terms, a relatively significant share of the market (ie the cement importers),

and any competitive constraint (notwithstanding its limitations<sup>75</sup>) that comes from them. However, it is far from clear that it is a desirable feature of the current operation of the GB cement markets that the financial viability of this element (ie the cement importers) within the current market structure should rely to some extent on the higher prices that result from the Coordination AEC. It is our view that the possible risk that the future competitive constraint from cement imports could reduce, emphasizes the need for a market structure that includes participants that can be sustained in a more competitive environment, whereby the ability of non-coordinating firms to exert a competitive constraint on the coordinating group, and therefore undermine any coordination that results, is not compromised, or itself undermined, by the effects of lower prices arising from greater competition. We considered that such a strong and sustainable group of non-coordinating firms was most likely to be achieved by the transfer of cement production capacity from the coordinating group to a new entrant such that the remedy both strengthens and enlarges the group of non-coordinating producers relative to the coordinating group.

- 3.36 We noted Lafarge Tarmac's argument that a divestiture of one of its cement plants would not give a buyer the ability to expand output and therefore reduce prices given that the majority of its cement plants were operating at capacity. However, in our view, this argument does not acknowledge the additional competitive tension and constraint that any new entrant (in addition to the four existing GB cement producers) can bring to the market and their potential impact on lowering prices, even if domestic production volumes were to remain broadly similar. Furthermore, as explained above, we considered that the impact of any new entrant would be more far reaching than its ability to expand volumes, in particular in relation to its impact on the three conditions necessary for coordination to be sustained; the structural change that

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<sup>75</sup> We set out the reasons why we considered that cement importers provided a limited competitive constraint on GB cement producers in paragraph 7.105 of the provisional findings.

would result in the GB cement markets; and the increase in the collective share of the non-coordinating producers relative to the coordinating group.

3.37 We considered that Lafarge Tarmac's argument that coordination was a 'conduct feature' and therefore should only be addressed by behavioural remedies, does not acknowledge the importance of structural features and how they have resulted in the GB cement markets becoming structurally susceptible to coordination, and how they have strengthened both the ability and incentives of market participants to coordinate, as manifested in the conduct of the Top 3 cement producers. A cement plant divestiture remedy has the potential ability to address this structural susceptibility almost immediately, directly, and at source.

3.38 We concluded that a cement plant divestiture was capable of significantly reducing the incentive and ability of the Top 3 cement producers to coordinate, and that the design of any potential divestiture package would play an important role in determining the extent to which this remedy would have this impact. We consider this below.

### *Design issues*

3.39 We considered the following design issues concerning this remedy:

(a) Scope of the divestiture package: where we set out the criteria by which a suitable divestiture package might be designed, and identify and address possible composition risks<sup>76</sup> (see paragraphs 3.40 to 3.102).

(b) Selecting cement plants for possible divestiture: where we set out our assessment and conclusions on which cement plants would be suitable for possible divestiture and, in light of this assessment, consider the number of cement plant divestitures that should be required (see paragraphs 3.103 to 3.165).

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<sup>76</sup> Composition risks are risks that the scope of the divestiture package may be too constrained or not appropriately configured to attract suitable purchasers or may not allow a purchaser to operate as an effective competitor in the market (the Guidelines, [Annex B, paragraph 6](#)).

(c) Purchaser suitability assessment: where we identify and address purchaser risks,<sup>77</sup> and set out our assessment and conclusions on the availability of suitable purchasers and the criteria for purchaser suitability (see paragraphs 3.166 to 3.183).

#### *Scope of the divestiture package*

3.40 In determining the scope of a possible cement plant divestiture package, we considered the criteria for identifying a suitable cement plant(s) that could provide an effective competitive constraint on the coordinating group, and was capable of being divested to a suitable purchaser. As part of this assessment, we were also concerned with identifying and addressing potential composition risks.

- *Our assessment on the scope of the divestiture package*

3.41 We focused our assessment on the following issues, which we considered to be relevant for the design of an appropriate divestiture package:

(a) Cement production capacity (paragraphs 3.45 to 3.51).

(b) Location, geographic reach and distribution capabilities (paragraphs 3.52 to 3.62).

(c) Availability of raw material reserves (paragraphs 3.63 to 3.70).

(d) Production efficiency (paragraphs 3.71 to 3.84).

(e) Vertical integration considerations (paragraphs 3.85 to 3.98).

(f) Financial considerations (paragraphs 3.99 to 3.102).

3.42 For each of the above, we set out the views of parties; our assessment of the relevant evidence we received; and our conclusions in relation to each issue. We then apply these conclusions when we set out our assessment of which cement plants are suitable for divestiture in paragraphs 3.103 to 3.136 below. We finally set out our

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<sup>77</sup> Purchaser risks are risks that a suitable purchaser is not available or that the divesting party (or parties) will dispose to a weak or otherwise inappropriate purchaser (the Guidelines, [Annex B, paragraph 6](#)).

assessment on how many cement plants should be divested in paragraphs 3.141 to 3.147 below.

3.43 To assist us with our assessment of these areas, we requested the Top 3 cement producers to provide us with information concerning all of their cement plants, including information concerning their efficiency, raw materials and distribution network.

3.44 For information, in Appendix 4, Annex A, we set out a description of all ten cement plants, as well as other cement facilities in GB, together with a map showing their locations.

- *Cement production capacity*

3.45 In relation to production capacity, we considered that sufficient production capacity and scale would be required by a new entrant, to be an effective competitive constraint on the coordinating group; and for the divestiture package to attract potential and suitable purchasers. We considered that a divestiture of a cement plant with insufficient production capacity would weaken the structural impact of this remedy on the current market.

3.46 A number of parties considered a cement plant's production capacity to be a relevant design consideration:

(a) Hanson told us that the capacity of the cement plant was one of numerous factors that would be involved in determining which cement plants were suitable for divestiture.<sup>78</sup>

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<sup>78</sup> [Hanson response hearing summary](#), paragraph 23.

(b) The OFT told us that we should consider the minimum plant size required for a sustainable operation as part of an assessment into determining the level of cement plant divestitures that might be required.

(c) Cemex described how a divestiture of a plant with low production capacity might be a disadvantage. It told us that [REDACTED].<sup>79</sup>

3.47 Some of the parties' views concerning production capacity related to the need for a divested cement plant to achieve economies of scale:

(a) [REDACTED]<sup>80</sup>

(b) Breedon Aggregates told us that a divested cement plant needed to be reasonably sized so that economies of scale could be obtained, and that this was an important consideration when acquiring a cement plant.<sup>81</sup>

(c) Cemex told us that the [REDACTED].<sup>82</sup>

3.48 We considered that the size of a cement plant's production capacity was relevant for the following reasons:

(a) Based on our provisional findings,<sup>83</sup> we would expect a cement plant's production capacity to be a good indicator of its potential production and market shares going forwards, and therefore it provides one means by which its ability to exert a competitive constraint could be measured.

(b) Given parties' views concerning the benefits of scale, the ability of a cement plant to compete effectively would to some extent depend on its ability to extract some of these benefits. We note that Cemex's Barrington plant was closed in the last quarter of 2008 because it was not financially viable due to its small annual

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<sup>79</sup> [Cemex response to Remedies Notice](#), paragraph 5.10.

<sup>80</sup> [REDACTED]

<sup>81</sup> [Breedon Aggregates response hearing summary](#), paragraph 8(c).

<sup>82</sup> [Cemex response to Remedies Notice](#), paragraph 5.10.

<sup>83</sup> In our provisional findings, we found that the GB cement producers' shares of clinker production capacity were similar to their market shares (provisional findings, paragraph 7.19).

production capacity (of around 300 kt), as well as requiring further investment to meet modern environmental and regulatory standards.<sup>84</sup>

3.49 Based on Appendix 4, Annex B, Tables 2 and 5, we calculated that in GB, the average annual clinker capacity for a GB cement plant was 0.8 Mt in FY12, ranging from [redacted] to [redacted].<sup>85</sup> This average clinker capacity approximates to 0.9 Mt or around 1 Mt of cement production capacity. We note that the Top 3 cement producers' cement plants with active clinker production capacity below the GB average are: Lafarge Tarmac's Aberthaw plant ([redacted]); Hanson's Padeswood plant ([redacted]);<sup>86</sup> and Cemex's South Ferriby plant ([redacted] if its mothballed kiln was included).

3.50 We also assessed how we should treat latent capacity in the context of this remedy. Our detailed assessment is set out in Appendix 4, Annex C, where we concluded that we would primarily focus on active capacity when determining which cement plant to divest, and only take latent capacity into account when we later examine the impact of the remedy on the future structure of the GB cement markets.

3.51 We concluded that the production capacity of a divested cement plant should not be smaller than the GB average and should therefore have at least 1 Mt of cement production capacity. Based on Appendix 4, Annex B, this represents just over 10 per cent of total GB production capacity. We considered that a divestiture of a cement plant with significantly less than this capacity would raise concerns in relation to the structural impact of this remedy on the current market as well as reducing the likelihood that the divestiture package would attract sufficient interest from potential purchasers.

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<sup>84</sup> Provisional findings, Appendix 7.2, paragraph 14 & Figure 1.

<sup>85</sup> Clinker production capacity based on active kilns only, ie excluding mothballed kilns.

<sup>86</sup> We note that whilst the Ribblesdale plant's clinker capacity was [redacted] Mt in FY12, we note that it was [redacted] Mt in FY11. We therefore considered that the variation in the clinker capacity was due to differences in the underlying assumptions used in their respective calculations, eg as shown in Appendix 4, Annex G, the Ribblesdale plant was operated for [redacted] days in FY11, but [redacted] days in FY12.

o *Location, geographic reach and distribution capabilities*

- 3.52 We considered the views of parties on the relevance of a cement plant's location, geographic reach and distribution capabilities. It was clear from the views of parties that these three issues were closely related.
- 3.53 In relation to a cement plant's location, MI (HCM) told us that the divestiture of centrally located plants would be more beneficial as it would result in a 'central market' with multiple competitors and would not result in the creation of 'local markets'.<sup>87</sup>
- 3.54 Titan told us that one unintended consequence of a cement plant divestiture could be the creation of 'local hotspots of competition' in areas where a divestiture took place. It added that this could lead to intense localized competition and 'negatively' affect other market participants in the area, such as cement importers, who are already 'challenged by the peculiarities inherent' in importing cement.<sup>88</sup> [REDACTED]<sup>89</sup>
- 3.55 Brett Group told us that if it were to consider acquiring a divested cement plant, the plant's location would need to align with its other construction materials interests.<sup>90</sup> It told us that in Brett Group's case, its key market for its own aggregates and RMX operations was in the South-East of England.<sup>91</sup> [REDACTED], it added that the planning permission that had been granted for a new cement plant in Medway, Kent, [REDACTED].<sup>92</sup>
- 3.56 Several parties mentioned the importance of a cement plant's geographic reach and transport links:

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<sup>87</sup> [MI and HCM response hearing summary](#), paragraph 19.

<sup>88</sup> [Titan response hearing summary](#), paragraph 9.

<sup>89</sup> *ibid*, paragraph 10.

<sup>90</sup> [Brett Group response hearing summary](#), paragraph 8.

<sup>91</sup> *ibid*, paragraph 5.

<sup>92</sup> *ibid*, paragraph 9.

- (a) Aggregate Industries told us that [REDACTED], it added that whilst a centrally located plant could give it access to a large geographic part of the market, a good logistical support network could improve the desirability of cement plants that were less centrally located. It considered [REDACTED].<sup>93</sup>
- (b) Hanson told us that one of the numerous factors that would be involved in determining which cement plants were suitable for divestiture would be the plant's access to customers and its rail-linkage.<sup>94</sup>
- (c) Breedon Aggregates told us that a cement plant would need to be connected to the rail network so that it could reach as many customers as possible.<sup>95</sup>
- (d) CRH, when considering whether to bid for a cement plant or not, told us that it would look at the plant's location and transport links (among other factors). It added that the more modern and better located a given plant was, the more likely it would be interested in acquiring it.<sup>96</sup>
- (e) MI told us that a buyer of a central cement plant, [REDACTED], would be interested in (among other things) the plant's rail links.<sup>97</sup>

3.57 One party, F E Gilman, told us that there should be a separation of cement production and distribution activities,<sup>98</sup> and argued that the 'overwhelming majority of bulk cementitious material transport' was under the control of producers,<sup>99</sup> and that each geographical production site and distribution centre (and its associated transport operations) conferred a 'potential monopoly of supply in that locality'.<sup>100</sup>

3.58 Cemex told us that it viewed the market as 'national' in that each cement plant, in its own right, could reach every part of the country. It added that the plant location was a

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<sup>93</sup> [ibid](#), paragraph 13.

<sup>94</sup> [Hanson response hearing summary](#), paragraph 23.

<sup>95</sup> [Breedon Aggregates response hearing summary](#), paragraph 8(a).

<sup>96</sup> [CRH response hearing summary](#), paragraph 11.

<sup>97</sup> [MI and HCM response hearing summary](#), paragraph 21.

<sup>98</sup> [F E Gilman response to Remedies Notice](#), paragraph 11.

<sup>99</sup> [ibid](#), paragraph 10.

<sup>100</sup> [ibid](#), paragraph 14.

factor that a buyer would have to balance against other aspects of the plant in question, and that a rail connection would be a critical factor for any buyer to consider.<sup>101</sup> Whilst none of Cemex's cement plants are rail-linked, in our provisional findings, Cemex had told us that it could transport cement from its plants to customers anywhere in GB by road, and that it used its import terminals to serve customers in more remote parts of GB, eg it served many customers in Scotland by transporting cement produced at its South Ferriby plant to a terminal in Leith (Scotland) by ship.<sup>102</sup> However, [redacted], it also told us that because its [redacted] compared with [redacted]. It argued that the lack of [redacted] was a significant factor affecting its [redacted] and contributed to why its [redacted] other GB cement producers.<sup>103</sup>

3.59 However, Lafarge Tarmac told us that a divestiture of a cement plant would not necessarily require a rail link and added that a cement plant without a rail connection could be bought at a lower price. However, it stated that a cement plant with no rail link would have a more limited network and therefore less opportunity to sell to customers. It also told us that cement plants could be fully rail-linked with sidings within the plant or non-fully rail-linked where a rail connection was close, although this would entail additional logistical costs.<sup>104</sup>

3.60 In Appendix 4, Annex D, we assessed the availability, and use of, transport links, in terms of rail-linked and non-rail-linked depots for each of the Top 3 cement producers' cement plants. For those cement plants that did not have a rail connection, we also set out the views of the Top 3 cement producers in relation to the timescale and costs that might be involved in constructing a new rail connection. We also looked at the cement volumes dispatched from each cement plant to its rail-linked and non-rail-linked depots to determine which of these may be considered key for its

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<sup>101</sup> [Cemex response hearing summary](#), paragraph 23.

<sup>102</sup> Provisional findings, Appendix 3.1 paragraph 32.

<sup>103</sup> [Cemex response to Remedies Notice](#), paragraphs 5.8 & 5.10.

<sup>104</sup> [Lafarge Tarmac response hearing summary](#), paragraph 20.

distribution capabilities. Based on Appendix 4, Annex D, out of the Top 3 cement producers' nine cement plants, four are rail-connected, namely Lafarge Tarmac's Dunbar and Tunstead plants, and Hanson's Ketton and Ribblesdale plants. For those cement plants with a rail connection, the volumes transported by rail in FY12 accounted for between [X] (Ketton plant) and [X] per cent (Dunbar plant) of total cement volumes dispatched from the relevant plant.

3.61 Based on the evidence from parties and our own assessment, we considered that the quality of the transport network available to a cement plant would significantly influence its geographic reach and ability to serve a wider customer catchment area. We considered customer catchment areas in further detail when we set out our assessment of which cement plants represented suitable divestitures in paragraphs 3.103 to 3.140 below and also in Appendix 4, Annex E. Furthermore, we considered that distribution capabilities were relevant, as any cost advantage that a cement plant derives from its production efficiencies could be eroded if its limited distribution capabilities resulted in higher distribution and haulage costs to reach its customers.

3.62 On this basis, we concluded that it would be essential for any cement plant divestiture package to include the cement depots (rail-linked and non-rail-linked) currently used by the cement plant being divested in order to extend its geographic reach and access to a wide customer catchment area.

- *Availability of raw material reserves*

3.63 By availability of raw material reserves, we refer to the number of years remaining on a cement plant's permitted raw material reserves, although this will invariably depend on the annual extraction rate assumed in its calculation.

3.64 There was a broad consensus from parties that the availability of sufficient raw materials to the cement plant was a key consideration that underpinned the long-term sustainability of its operation:

- (a) Breedon Aggregates told us that when buying a cement plant, one important factor (among others) was its access to sufficient mineral reserves in order to ensure its long-term operation.<sup>105</sup> It mentioned the issue of access to mineral reserves as a ‘future risk’, and that it would be interested in particular in acquiring a cement plant that did not have such ‘future risks’ attached.<sup>106</sup>
- (b) CRH told us that among other things, it would look at the proximity of the cement plant to its mineral resources when considering whether to buy a plant.<sup>107</sup>
- (c) MI told us that a potential purchaser of a cement plant would be interested in the longevity of the asset it would acquire, in terms of limestone reserves plus any planning restrictions or opportunities.<sup>108</sup>
- (d) Aggregate Industries told us that [REDACTED].<sup>109</sup>
- (e) Lafarge Tarmac told us that the availability of its limestone reserves determined the lifespan of a cement plant rather than the age of its kiln.<sup>110</sup> It also told us that in GB, cement plants were generally located in very close proximity to significant primary raw material reserves such that these were likely to be sufficient to sustain the cement plant over the course of its intended productive life. It added that these on-site reserves were by definition the most economic raw material supply available to serve that cement plant, but it was also entirely possible to bring in raw materials from much further afield and still maintain a competitive domestic operation, eg Cemex’s Rugby plant, where chalk and clay were supplied from quarries located around [REDACTED] and [REDACTED] miles respectively from the cement plant itself.

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<sup>105</sup> [Breedon Aggregates response hearing summary](#), paragraph 8(c).

<sup>106</sup> *ibid*, paragraph 11.

<sup>107</sup> [CRH response hearing summary](#), paragraph 11.

<sup>108</sup> [MI and HCM response hearing summary](#), paragraph 21.

<sup>109</sup> [Aggregate Industries response hearing summary](#), paragraph 8.

<sup>110</sup> [Lafarge Tarmac response hearing summary](#), paragraph 5.

(f) Hanson told us that one of the factors that would be involved in determining which cement plants were suitable for divestiture would be its access to sufficient reserves and any associated planning permission.<sup>111</sup>

3.65 Cemex also told us that a cement plant's raw material quarries were an integral part of the cement production process, and therefore if the cement plant's operations were to be divested, the relevant quarries would also need to be included within the divestiture package. It told us that [REDACTED].<sup>112</sup>

3.66 For each of the Top 3 cement producers' cement plants, we examined the availability and procurement arrangements in relation to its raw materials, to determine whether it would face any issues sourcing sufficient raw materials economically into the future. The details of our assessment are set out in Appendix 4, Annex F.

3.67 Based on Appendix 4, Annex F, in volume terms, the most heavily consumed raw material is limestone (or chalk). For all of the Top 3 cement producers' cement plants, limestone is internally supplied by their own respective quarries. We considered that the security of supply of limestone would be a key consideration for a purchaser as its supply represents an integral part of the cement production process. We considered that this would be best achieved if the associated limestone quarries formed part of any cement plant divestiture package.

3.68 In relation to other raw materials which a cement plant currently procures from external suppliers, in the event of its divestiture, we would expect a purchaser to determine whether existing procurement arrangements should be continued or whether alternative economic sources should be found.

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<sup>111</sup> [Hanson response hearing summary](#), paragraph 23.

<sup>112</sup> [Cemex response to Remedies Notice](#), paragraph 5.8.

3.69 We considered that the longevity of the availability of limestone reserves underpins a cement plant's ability to utilize its maximum production capacity on a sustained basis into the medium to long term. For example, the closure of the Northfleet plant in March 2008 was due to the expiry of its quarry planning permission.<sup>113</sup> We also noted that the Hope plant when it was divested to MI had permitted limestone reserves of around [X] years, and potential reserves of around [X] years.<sup>114</sup> It was also divested together with Lafarge's Dowlow Quarry to provide a potential alternative source of limestone.<sup>115</sup> It is our preliminary view that a buyer would generally seek at least 25 to 30 years of permitted limestone reserves.

3.70 Where permitted reserves fall below this level, we would take into account the ability of the owner of the cement plant concerned to extend its permitted reserves by obtaining further planning permission. Based on Appendix 4, Annex F, the Ketton and Cauldon plants were the only plants with [X] years of permitted reserves, ie [X] years and [X] years of permitted reserves respectively. However, by obtaining planning permission to extend their permitted limestone reserves, the Ketton plant can increase its availability by [X] years and the Cauldon plant by [X] years.

- *Production efficiency*

3.71 In relation to a cement plant's production efficiency, we looked at its production technology, costs of production, kiln reliability and its carbon efficiency.

- ○ *Production technology*

3.72 When referring to a cement plant's production technology, we are primarily concerned with whether a cement plant is a dry-process, wet-process, semi-wet or semi-dry process plant. In our provisional findings, we noted that three of the cement plant

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<sup>113</sup> Provisional findings, Appendix 7.2, paragraph 27(a).

<sup>114</sup> *A report on the anticipated construction materials joint venture between Anglo American PLC and Lafarge S.A.*, 1 May 2012, paragraph 8.35.

<sup>115</sup> *ibid*, paragraph 8.33.

closures since 2007 were ‘inefficient’ wet-process plants, namely the Northfleet plant (2008), the Barrington plant (2008) and the Westbury plant (2010).<sup>116</sup> For example, Lafarge (now Lafarge Tarmac) had told us that production costs at its Westbury plant had been high because of its energy-intensive wet process, and was the reason for its closure back in 2010.<sup>117</sup>

3.73 In relation to production technology, [REDACTED].<sup>118</sup> CRH told us that it would prefer a more modern plant, and therefore its age was a relevant consideration when deciding whether to acquire a cement plant.<sup>119</sup> Lafarge Tarmac, however, told us that the efficiency of a cement plant was based on its production technology and not on its age.<sup>120</sup>

3.74 In our provisional findings, in relation to the age and production technology of the cement plants, we noted that:<sup>121</sup>

- (a) The kilns at the Padeswood, Tunstead and Rugby plants were all commissioned after 2000: in 2005, 2004 and 2002 respectively. During the 1980s, the kilns at the following cement plants were commissioned: the Dunbar plant (1986), the Ketton plant (Kiln 8 in 1986), the Cauldon plant (1985) and the Ribblesdale plant (1983). The active kiln at the South Ferriby plant was commissioned in 1978 (Kiln A3), whilst the Hope plant’s two kilns (both currently active) were commissioned in 1970. The Aberthaw plant has the oldest active kiln in GB, having been commissioned in 1967.
- (b) All of Lafarge Tarmac’s and Hanson’s cement plants are dry-process plants, whilst Cemex operates the only semi-wet process plant (the Rugby plant) and semi-dry process plant (the South Ferriby plant).

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<sup>116</sup> Provisional findings, Appendix 7.2, paragraph 46 & Figure 1.

<sup>117</sup> *ibid*, Appendix 7.2, paragraph 36.

<sup>118</sup> [REDACTED]

<sup>119</sup> [CRH response hearing summary](#), paragraph 11.

<sup>120</sup> [Lafarge Tarmac response hearing summary](#), paragraph 5.

<sup>121</sup> Provisional findings, Appendix 7.7, Table 8.

3.75 Based on the above evidence, we considered it likely that production technology would take precedence over the age of the kiln or plant, and that a purchaser would express a strong preference for a dry-process plant over a wet- or semi-dry process plant, in particular given its implications on costs. For example, in our provisional findings, we stated that a wet-process plant would have at least 50 per cent higher thermal energy costs (the single largest element of production costs) than a dry-process plant.<sup>122</sup> We also noted that only Cemex did not have any dry-process plants.

o o *Costs of production*

3.76 In relation to the costs of production, CRH told us that one of the factors it would consider when deciding whether to acquire a cement plant was its efficiency, particularly in relation to its energy costs.<sup>123</sup>

3.77 In Appendix 4, Annex G, we compared the key production cost items, namely the costs of raw materials and power for each tonne of clinker produced (unit variable cost), for each of the Top 3 cement producers' nine GB cement plants. Their data, however, suggested differences in measurement definitions which reduced the comparability of their figures across different producers.<sup>124</sup> We therefore compared the unit variable costs of the cement plants under common ownership (see also Appendix 4, Annex G). We do this for FY12 figures:

(a) Lafarge Tarmac: in FY12, out of Lafarge Tarmac's four cement plants, the Cauldon plant had the lowest unit variable costs at £[redacted]. This was followed by the Tunstead plant at £[redacted], the Dunbar plant at £[redacted], and lastly the Aberthaw plant at £[redacted].

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<sup>122</sup> *ibid*, Appendix 7.7, paragraph 126.

<sup>123</sup> [CRH response hearing summary](#), paragraph 11.

<sup>124</sup> For example, between FY10 and FY12, unit raw material costs ranged from £[redacted] (Ketton plant) to £[redacted] (Rugby plant), whilst unit power costs ranged from £[redacted] (Rugby plant) to £[redacted] (Padeswood plant) (see Appendix 4, Annex G).

(b) Hanson: in FY12, out of Hanson's three cement plants, the Ketton plant had the lowest unit variable costs at £[redacted], followed by the Ribblesdale plant at £[redacted] and then the Padeswood plant at £[redacted].

(c) Cemex: in FY12, out of Cemex's two cement plants, the South Ferriby plant had [redacted] costs at £[redacted] compared with the Rugby plant at £[redacted].

o o *Kiln reliability*

3.78 We also looked at kiln efficiency and reliability. We considered kiln reliability to be a particularly important consideration where a new entrant acquires a single cement plant with one kiln, as in times of unexpected plant outages a single kiln operator would be unable to service its customers using its own cement volumes. Whilst HCM operates a single cement plant, we note that its Hope plant has two active kilns. Even for a multi-plant operator like Cemex, we noted that the ability to have a second kiln at the same plant (ie the mothballed kiln at its South Ferriby plant) provided it with the desired flexibility to be able to service future demand.

3.79 In Appendix 4, Annex G, we set out our assessment of kiln reliability. Based on our assessment, we found that, in terms of the number of days that a cement plant was operated during each year, both the Cauldon and Tunstead plants consistently achieved the highest figures over the period from FY10 to FY12, not falling below [redacted] and [redacted] days a year respectively. In relation to Lafarge Tarmac's four cement plants, the Cauldon plant and the Aberthaw plant benefited from the lowest extent of kiln breakdown days, with breakdowns (as a percentage of total operating and breakdown days) at [redacted] and [redacted] per cent respectively. These figures were [redacted] per cent for the Tunstead plant and [redacted] per cent for the Dunbar plant. As mentioned in Appendix 4, Annex G, Hanson and Cemex included outages relating to planned maintenance into their calculation of 'breakdown' days and therefore, their downtime percentage figures did not reveal the underlying reliability of their respective kilns.

o o *Emissions efficiency*

3.80 In relation to the emissions efficiency of a cement plant, a small number of parties raised this as a relevant issue:

(a) Breedon Aggregates mentioned ‘emissions issues’ as a ‘future risk’, and that it would be interested in particular in acquiring a cement plant without such ‘future risks’ attached.<sup>125</sup>

(b) CRH also mentioned that a cement plant’s compliance with environmental standards was a key factor in its decision whether to bid or not for a cement plant.<sup>126</sup>

(c) Cemex told us that [REDACTED].<sup>127</sup>

3.81 We calculated and compared the emissions factor for each of the Top 3 cement producers’ cement plants, where the emissions factor measures the tonne of carbon emissions associated with the production of one tonne of clinker. Our assessment is set out in Appendix 4, Annex H. Based on Appendix 4, Annex H, Table 1, where we compared the three-year average emissions factor for each of the Top 3 cement producers’ plants, the average emissions factor ranged from [REDACTED] ([REDACTED] plant) for the most carbon efficient cement plant to [REDACTED] ([REDACTED] plant), for the least carbon efficient:

(a) Lafarge Tarmac: the Tunstead plant had the [REDACTED] average emissions factor with [REDACTED], but was closely followed by the Cauldon and Aberthaw plants which both had an average emissions factor of [REDACTED]. The Dunbar plant was the [REDACTED] carbon efficient out of its four plants with an average emissions factor of [REDACTED].

(b) Hanson: the most carbon efficient plant was the [REDACTED] with an average emissions factor of [REDACTED], followed closely by the [REDACTED] with [REDACTED]. The [REDACTED] was the least carbon efficient plant with an average emissions factor of [REDACTED].

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<sup>125</sup> [Breedon Aggregates response hearing summary](#), paragraph 11.

<sup>126</sup> [CRH response hearing summary](#), paragraph 11.

<sup>127</sup> [Cemex response to the Remedies Notice](#), paragraph 3.10.

(c) Cemex: the average emissions factor was [REDACTED] for the South Ferriby plant, and [REDACTED] for the Rugby plant.

3.82 We also assessed whether any GB cement plant would have to pay for any carbon allowances under the European Union (EU) Emissions Trading System (ETS) during ETS Phase III, which lasts from the start of 2013 to the end of 2020, if it wished to produce at full capacity, ie whether a cement plant had a sufficient benchmark allocation of free carbon allowances to produce at full capacity. Based on Appendix 4, Annex H, we found that under ETS Phase III, if all of the Top 3 cement producers operated at their full clinker capacity (notwithstanding that there may be clinker grinding capacity issues that might prevent this from happening), the following cement plants are likely to generate surpluses of carbon allowances: the [REDACTED] and [REDACTED] plants. We note that our analysis was based on a preliminary benchmark allocation of carbon allowances for ETS Phase III, and that a revised allocation was recently published. We will therefore update this analysis using the revised benchmark allocation figures in our final report.

3.83 For Lafarge Tarmac's plants, its free carbon allowances would enable the Aberthaw plant to produce at [REDACTED] per cent of clinker capacity; the Cauldon plant to produce at [REDACTED] per cent; the Dunbar plant to produce at [REDACTED] per cent; and the Tunstead plant to produce at [REDACTED] per cent. Based on Appendix 4, Annex B, Table 1, a clinker capacity utilization of [REDACTED] per cent at the Cauldon plant represents a [REDACTED] per cent utilization of its cement production capacity. We would expect that producing beyond this level of clinker would require additional carbon allowances to be sourced. However, we note that for companies that operate multiple ETS installations either in the UK or in other member states within the EU, there would be some scope for them to reallocate the carbon allowances they receive between their ETS installations, eg if one installation expects to have a surplus of carbon allowances, these can be transferred to another

installation that have a shortage. However, we note that the opportunity cost of doing so would be that firms would not be able to rollover any surplus carbon allowances into the following year, or sell them on to the secondary market.

○ ○ *Our views on production efficiency*

3.84 Based on our assessment above, we concluded that ‘production efficiency’ should be regarded as being multi-dimensional, in that there was no single, ‘most efficient’ plant in GB, and that there may be other measures of production efficiency, against which the relative performance of each plant might change. Therefore, when selecting a suitable cement plant for divestiture, we concluded that we should not place too much weight on any single measure of production efficiency, but instead note the relative strengths of each cement plant against a range of such measures as part of an overall assessment of suitability.

○ *Vertical integration considerations*

3.85 Parties generally took the view that a purchaser of a cement plant would also require some downstream operations, eg RMX or concrete product plants, as part of a divestiture package.

3.86 Some parties expressed the view that a divested cement plant must have a significant degree of vertical integration. Others commented on the competition benefits of having a low level of vertical integration, for example this would create the need for the purchaser of a divested plant to compete more vigorously for external sales. One party highlighted the importance of including an aggregates operation into a divestiture package to provide a balance between the cement, aggregates and RMX operations. We set out these viewpoints below.

o o *Parties' views on the need for vertical integration into RMX*

- 3.87 Lafarge Tarmac told us that it did not believe that a cement plant divestiture also required RMX plant divestitures, as there was no shortage of available independent RMX customers to be serviced and there were a number of RMX producers without a cement plant, eg Breedon Aggregates. It noted that the level of vertical integration that had been given to HCM under the Lafarge Tarmac JV remedies process was around 50 per cent (ie proportion of production volumes sold internally). Based on a consultation with its customers, it believed that a level of 15 to 20 per cent would be an acceptable level.<sup>128</sup>
- 3.88 Hanson told us that it did not consider it necessary for any potential buyer of a cement plant to own RMX plants. It added that if a buyer was vertically integrated, it would be likely to supply itself and this would have little to no effect on competition. It also told us that should the buyer wish to enter the RMX market, it could do so as the barriers to entry were fairly low. It also told us that Hanson's own vertical integration was designed to benefit its aggregates business.<sup>129</sup>
- 3.89 Cemex told us that it did not believe that a buyer of a divested cement plant required in-house RMX operations. Instead, it believed that such a buyer should serve the external market,<sup>130</sup> and added that should the buyer wish to establish its own RMX operations, it could do so as there were no issues concerning barriers to entry into RMX production. It told us that it had entered foreign markets without RMX capacity, and had been able to compete successfully there in both the cement and RMX markets.<sup>131</sup> In a further submission, Cemex observed that Lafarge Tarmac was the largest and [✂] of the GB cement producers and commented that it was 'difficult to understand on what basis it can be argued that a large cluster of vertically integrated

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<sup>128</sup> [Lafarge Tarmac response hearing summary](#), paragraph 18.

<sup>129</sup> [Hanson response hearing summary](#), paragraph 20.

<sup>130</sup> [Cemex response hearing summary](#), paragraph 22.

<sup>131</sup> *ibid*, paragraph 26.

RMX plants is necessary in order to be able to compete successfully in the GB cement market’.

3.90 Brett Group told us that there was ‘little value’ in the creation of another cement producer with some integrated RMX capabilities, and that it would be preferable to divest a stand-alone cement plant or a cement plant with a low level of integrated capacity as this would create a cement producer with an interest in selling beyond its own operations.<sup>132</sup> It illustrated this by telling us that as cement producers became more vertically integrated they became less interested in supplying the independent sector. It added that [REDACTED].<sup>133</sup>

3.91 Aggregate Industries told us that a cement plant bundled together with RMX plants would be less attractive for potential buyers that already owned RMX plants [REDACTED]. Therefore, it considered that an ‘unbundled’ divestiture package would be more attractive because of the ease of integration and greater flexibility that this would provide. It added that a ‘bundled’ divestiture package could equate to a fairly large part of total GB cement production which would be quite challenging and more risky.<sup>134</sup> It added that [REDACTED], it saw no need to tie the divestiture of RMX plants to a cement plant divestiture remedy.<sup>135</sup>

3.92 MI told us that it would be important for any buyer of a cement plant divestiture package to have some form of downward vertical integration, and that these concrete plants needed to be ‘reasonably close’ to the cement plant in order to limit haulage costs.<sup>136</sup> It added that it had been looking to enter the GB construction sector for some time, and had previously considered buying the Hope plant when an earlier

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<sup>132</sup> [Brett Group response hearing summary](#), paragraph 6.

<sup>133</sup> [ibid](#), paragraph 13.

<sup>134</sup> [Aggregate Industries response hearing summary](#), paragraph 10.

<sup>135</sup> [Aggregate Industries response to Remedies Notice](#), paragraph 11.3.

<sup>136</sup> [MI and HCM response hearing summary](#), paragraph 18.

opportunity to do so had arisen, but did not proceed at the time as it had been the only asset for sale. It decided to acquire the Hope plant when the opportunity presented itself again, because it also included the acquisition of complementary assets.<sup>137</sup>

3.93 In deciding whether to buy a cement plant, Breedon Aggregates told us that an important consideration was having ‘access to in-house concrete production’ to ensure that there was a ‘guaranteed purchaser’ for some of the cement plant’s output, and that internal sales could be set at around 10 to 15 per cent of the cement plant’s total production.<sup>138</sup> It acknowledged that a buyer of a cement plant that did not already own any RMX plants might need to acquire some as ‘building an RMX business from scratch could take some time’, although it considered barriers to entry into the RMX market to be low (eg an RMX plant could be acquired for around £200,000). It told us that for a buyer that already owned an RMX business, it would be relatively straightforward to acquire more plants from other sellers, and increase the scale of its downstream operations to accommodate production from an acquired cement plant.<sup>139</sup> Since it already owned its own aggregates and RMX operations, if it acquired a cement plant, Breedon Aggregates told us that it would not need to acquire any further RMX plants.<sup>140</sup>

3.94 Breedon Aggregates also told us that one of the biggest risks concerning the inclusion of RMX plants into a cement plant divestiture package would be the losses which the RMX business would be likely to sustain for the first couple of years. Therefore, since margins on concrete were low, it cautioned that it would be risky for

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<sup>137</sup> *ibid*, paragraph 1.

<sup>138</sup> [Breedon Aggregates response hearing summary](#), paragraph 8(b).

<sup>139</sup> *ibid*, paragraph 10.

<sup>140</sup> *ibid*, paragraph 11.

a buyer to take on a 'significant' number of RMX plants together with a cement plant.<sup>141</sup>

3.95 We considered the following views from cement importers on the need to include some downstream plants into a divestiture package:

(a) CRH told us that it would want a cement plant divestiture package to include some RMX plants to ensure that a buyer's own cement production volumes would have an outlet.<sup>142</sup> However, it added that wherever possible 'shared sites', eg RMX plants that were co-located at an aggregates quarry under different ownership, should not be included in any divestiture package as these sites were more problematic for buyers.<sup>143</sup>

(b) Titan told us that the need for a new entrant to be vertically integrated in GB was largely driven by the structure of the GB cement industry, where the incumbent producers were all vertically integrated. It added that the need to be vertically integrated did not arise in some other countries, where vertical integration was less prevalent.

o o *Parties' views on whether a divestiture package should include aggregates operations*

3.96 Two parties mentioned the relevance of aggregates for a buyer of a cement plant if it also acquired a number of RMX plants:

(a) MI told us that once RMX plants were divested to a buyer of a cement plant, these RMX plants could source their aggregates requirement externally, but added that this would not be 'optimal as there could be issues of quality' with the aggregates.<sup>144</sup> Instead, it considered that it would be necessary for at least 80 per

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<sup>141</sup> *ibid*, paragraph 10.

<sup>142</sup> [CRH response hearing summary](#), paragraph 13.

<sup>143</sup> *ibid*, paragraph 13.

<sup>144</sup> [MI and HCM response hearing summary](#), paragraph 18.

cent of the aggregates required for RMX production also to form part of the divestiture package.<sup>145</sup>

(b) CRH told us that, in addition to RMX plants, it would also be important for a buyer of a cement plant to have access to a ‘ready supply’ of aggregates.<sup>146</sup> However, it did not imply that an aggregates site should also form part of any divestiture package.

o o *Our views on vertical integration*

3.97 When deciding whether to include downstream operations into a divestiture package, the key considerations are to enable a buyer to compete effectively and to ensure that the divestiture package would be sufficiently attractive to suitable purchasers to ensure an effective disposal takes place. We considered that an acquisition of a cement plant with no RMX plants that resulted in a new entrant with no vertical integration would be a ‘high risk’ strategy for a purchaser. We therefore considered that the issue of whether a new entrant should have some level of vertical integration was largely to address the composition risks of any divestiture package, and to provide a purchaser with some degree of comfort in terms of having an outlet for some of its cement production and hence a ‘platform’ for effective competition. We therefore provisionally concluded that a purchaser should be able to acquire a number of RMX plants as part of its acquisition of a cement plant.

3.98 However, since barriers to entry into, and expansion in, RMX production are low, we considered that the number of RMX plants that a purchaser could acquire as part of the divestiture package could be set at a relatively low level so as to provide an initial platform on which to commence its upstream and downstream operations and to create a divestiture package that would be attractive to some potential purchasers.

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<sup>145</sup> [ibid](#), paragraph 25.

<sup>146</sup> [CRH response hearing summary](#), paragraph 13.

We took the view that such a level should be calculated as the percentage of total cement production capacity of the divested plant that would be accounted for by the internal cement requirement of its downstream operations, and that this should be set at 15 per cent as an upper limit. This level was consistent with the views of parties mentioned above, as well as [REDACTED], and would therefore ensure that a new entrant would not have a [REDACTED] low level of vertical integration [REDACTED]. However, where a suitable purchaser already has its own downstream operations, with which it has already reached, or exceeded, this 15 per cent limit, we did not consider it necessary to include RMX plants within a divestiture package to such a purchaser. We consider the number of RMX plants that might be required to be divested under this remedy when we determine which cement plants would be suitable for a possible divestiture.

o *Financial considerations*

3.99 We also considered the potential stand-alone financial performance of a new entrant and its cement plant. Since none of the cement plants owned by the Top 3 cement producers was operated as a stand-alone plant, but instead was operated as part of a wider network of cement plants, the historic financial performance of a cement plant may not reflect the future financial performance that might be achieved by that plant if it were to operate on a fully stand-alone basis.

3.100 In this context, we note that in our provisional findings, some of the GB cement producers told us that some economies of scale arose through operating more than one site, because:<sup>147</sup>

- (a) logistics costs could be reduced if production could be matched better geographically with demand;
- (b) production could be scheduled efficiently across plants; and

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<sup>147</sup> Provisional findings, paragraph 7.47.

(c) overall scale allowed central costs to be spread across a larger volume of output, with procurement savings being achieved as a bulk purchaser. We were also told that being part of a larger group was a benefit in terms of access to technical expertise.

3.101 We considered that the effects described above might have implications on the stand-alone financial performance of a cement plant. In Appendix 4, Annex I, we set out the annual financial performance of each cement plant over the period FY10 to FY12. However, we noted that each plant's historic financial performance might not provide a fully accurate indication of its potential future financial performance on a fully stand-alone basis.

3.102 Based on Appendix 4, Annex I, we focused on examining FY12 'site variable profit' per tonne of cement produced (unit site variable profit), a measure of profits based on taking a plant's revenues and deducting only its variable costs, but before the deduction of any site-level fixed costs, divisional-level and central cost allocations. We did this to minimize the impact of capacity utilization on the recovery of fixed costs since capacity utilization varied significantly between the various cement plants:

(a) Lafarge Tarmac: FY12 unit site variable profit ranged from £[redacted] (Dunbar plant) to £[redacted] per tonne (Tunstead plant), with the Cauldon plant at £[redacted] and the Aberthaw plant at £[redacted]. Site variable profit margins were the [redacted] for the Tunstead plant at [redacted] per cent, followed by the Cauldon plant at [redacted] per cent, and then the Aberthaw and Dunbar plants at [redacted] per cent and [redacted] per cent respectively.

(b) Hanson: FY12 unit site variable profit ranged from £[redacted] (Padeswood plant) with a [redacted] per cent margin, to £[redacted] per tonne (Ketton) with a [redacted] per cent margin, with the Ribblesdale plant at £[redacted] with a [redacted] per cent margin.

(c) Cemex: FY12 unit site variable profit was £[§] for the South Ferriby plant with a margin of [§] per cent, whilst it was £[§] for the Rugby plant, with a margin of [§] per cent.

*Selecting cement plants for possible divestiture*

3.103 Based on our conclusions above, we assessed which of the Top 3 cement producers' cement plants might form the basis of a possible divestiture under this remedy. As part of this assessment, an important consideration was that both the purchaser and the divesting party should be an effective competitor following the divestiture.

3.104 Before we do so, we set out the key conclusions based on our assessment of the scope of an effective divestiture package, and the key characteristics of potential cement plant divestitures:

- (a) The 'ideal' cement divestiture package would involve the divestiture of a modern dry-process cement plant which operates two active kilns and has sufficient clinker production and grinding capacity to produce at least 1 Mt of cement each year.
- (b) Whilst a central location would be preferable, we considered that the geographic reach and distribution capabilities of the cement plant were also relevant, and could potentially overcome disadvantages associated with its site location. We concluded that it would be essential for any divestiture of a rail-linked cement plant to be accompanied by divestiture of the rail-linked depots on its rail network, which would enable a rail-linked cement plant to make full and effective use of its rail distribution capabilities. Similarly, it would be essential for a cement plant without a rail connection, to also have its own network of depots.
- (c) The cement plant should also be located on, or close to, its own natural source of limestone. The availability of raw material reserves will underpin the longevity of the competitive presence of the cement plant, and potentially its ability to produce

at full capacity without the need to conserve current reserves for future production. We considered that purchasers would need to have confidence that there would be sufficient permitted limestone reserves to allow at least 30 years of cement production, and that any divestiture of a cement plant should also be accompanied by the divestiture of the limestone quarry that supplies it with raw materials, unless suitable alternative arrangements can be put in place.

- (d) In relation to the extent to which the cement plant should be divested together with downstream production facilities, we considered that this would largely depend on the circumstances of the specific purchaser.
- (e) We should avoid putting too much weight or emphasis on any single factor, for example on its production capacity or distribution capabilities, especially at the expense of some of the other considerations, which whilst on their own may not be significant, but taken together, may significantly contribute to the effectiveness of a new entrant.

3.105 When identifying which cement plant has some, or all, of the characteristics that would ensure that its divestiture would be an effective remedy, we recognized that our eventual choice is necessarily constrained by the characteristics of the existing nine cement plants from which to base our decision.

3.106 A number of parties told us which cement plants they considered would be suitable candidates for divestiture:

- (a) MI told us that a divestiture of centrally located plants, such as [REDACTED], would be more beneficial as it would result in a central market with multiple competitors and would not result in the creation of 'local markets'.<sup>148</sup>
- (b) When CRH told us that it would be more interested in a modern plant situated in a good location, [REDACTED] would be of likely interest.<sup>149</sup>

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<sup>148</sup> MI and HCM response hearing summary, paragraphs 19 & 21.

(c) Aggregate Industries [REDACTED].<sup>150</sup>

(d) [REDACTED], Breedon Aggregates [REDACTED].<sup>151</sup>

3.107 [REDACTED]<sup>152</sup>

3.108 Brett Group told us that it would be concerned if Lafarge Tarmac was the prime divestiture candidate [REDACTED] current supply arrangements with Lafarge Tarmac. It added that requiring Lafarge Tarmac to divest cement production capacity could mean that it would be more interested in supplying its own RMX business and less interested in supplying companies like Brett Group. It would also be concerned if the implementation of a cement plant divestiture remedy resulted in three or four 'barely interested' cement producers. This, it added, would [REDACTED].<sup>153</sup>

3.109 Brett Group told us that it was not familiar with the location, dynamics, reserves or cost bases of the different GB cement plants, and was therefore unable to assess which would be the most attractive divestment. However, it did mention that the planning permission for a new cement plant in Medway, Kent, [REDACTED].<sup>154</sup>

- *Our assessment on selecting cement plants for possible divestiture*

3.110 The details of our assessment of which cement plant (or plants) might form the basis for an effective divestiture remedy are set out below. We consider each of the Top 3 cement producers in turn. In determining which cement plants would represent a suitable basis for a divestiture remedy, we have taken into account the relevant selection criteria relating to the individual cement plant, as well as the impact on the divesting party, in particular its ability to continue to operate as an effective partici-

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<sup>149</sup> [CRH response hearing summary](#), paragraph 11.

<sup>150</sup> [Aggregate Industries response hearing summary](#), paragraph 13.

<sup>151</sup> [Breedon Aggregates response hearing summary](#), paragraph 9.

<sup>152</sup> [REDACTED]

<sup>153</sup> [Brett Group response hearing summary](#), paragraph 12.

<sup>154</sup> *ibid*, paragraph 9.

part in the GB cement markets. This is an important consideration, given that a key objective for this remedy is to increase the number of effective competitors in the GB cement markets, which would be undermined if an individual Top 3 cement producer were unable to provide an effective competitive constraint post divestiture.

- o *Assessment of Cemex's plants*

3.111 Cemex told us that it was [REDACTED],<sup>155</sup> and therefore a cement plant divestiture would have a greater impact on its business, and would be counter-productive as it would make Cemex a less effective competitor.<sup>156</sup> It also pointed out that whilst it only owned two plants, Lafarge Tarmac had four and Hanson had three plants.<sup>157</sup> It also told us that given Cemex's [REDACTED], there was the real possibility that its [REDACTED] if there was a forced divestiture. This, it told us, would unnecessarily [REDACTED] placed on Cemex and restrict its ability to compete effectively in the market.<sup>158</sup>

3.112 In relation to each of its plants:

(a) Cemex argued that the divestiture of the [REDACTED] plant would not be an effective remedy given its [REDACTED], which would make it very unattractive for a new entrant.<sup>159</sup> It added that the [REDACTED] plant accounted for around [REDACTED] per cent of its clinker capacity and over [REDACTED] per cent of its cement production, and therefore its divestiture would result in Cemex becoming a much smaller [REDACTED] competitor, [REDACTED].<sup>160</sup> It also argued that the [REDACTED] plant was a [REDACTED], would not allow a competitor to compete efficiently.<sup>161</sup>

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<sup>155</sup> [Cemex response hearing summary](#), paragraph 15.

<sup>156</sup> [Cemex response to Remedies Notice](#), paragraph 5.6.

<sup>157</sup> [Cemex response hearing summary](#), paragraph 15.

<sup>158</sup> [Cemex's response to Remedies Notice](#), paragraph 3.38.

<sup>159</sup> *ibid*, paragraph 2.17.

<sup>160</sup> *ibid*, paragraph 2.18.

<sup>161</sup> *ibid*, paragraph 5.8.

(b) In relation to its [REDACTED] plant, Cemex argued that it would be unattractive to a buyer because of its [REDACTED],<sup>162</sup> and [REDACTED]. It added that since the plant was not rail-linked, it [REDACTED].<sup>163,164</sup>

3.113 Based on our assessment of plant characteristics, we did not consider that a divestiture of the South Ferriby plant would be effective for the following reasons:

- (a) It is the smallest cement plant in GB, with active clinker production capacity of [REDACTED] Mt compared with a GB average of 0.8 Mt. Even if its mothballed kiln was to be reactivated, its clinker production capacity at [REDACTED] Mt would still be below the GB average (see paragraph 3.49 above).
- (b) It is the only semi-dry process plant, with Cemex's Rugby plant being the only semi-wet process plant (see paragraph 3.74(b) above).
- (c) Out of the nine cement plants of the Top 3 cement producers, the South Ferriby plant generated one of the [REDACTED] site variable profit margins in FY12, at [REDACTED] per cent. Only Lafarge Tarmac's Dunbar plant and Hanson's Padeswood plant generated [REDACTED] per cent respectively, and compares unfavourably with the far [REDACTED] site variable profit margins generated by the Tunstead ([REDACTED] per cent), Cauldon ([REDACTED] per cent), Ketton ([REDACTED] per cent), Ribblesdale ([REDACTED] per cent) and Aberthaw ([REDACTED] per cent) plants. Its Rugby plant had generated margins of [REDACTED] per cent (see paragraph 3.102 above).

3.114 All of these factors indicate that a purchaser of the South Ferriby plant would be a relatively weak competitor. A divestiture of the Rugby plant would result in Cemex becoming a substantially smaller competitor, with only the South Ferriby plant, which for the same reasons given above would not enable Cemex to compete effectively in the market in the future. The Rugby plant represents a significant proportion of

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<sup>162</sup> *ibid*, paragraph 2.20.

<sup>163</sup> *ibid*, paragraph 5.10.

<sup>164</sup> *ibid*, paragraph 5.10.

Cemex's current cement operations and is the largest plant in GB with clinker production capacity of [REDACTED] Mt (see paragraph 3.49 above).

3.115 We therefore concluded that neither of Cemex's plants would provide a suitable basis for divestiture.

- o *Assessment of Hanson's plants*

3.116 Hanson told us that a divestiture of one of its plants would lead to a reduction in its operations and footprint in GB, and result in Hanson [REDACTED] business that would ultimately increase costs for customers and consumers.<sup>165</sup> It also added that a divestiture of its [REDACTED] would reduce its capacity [REDACTED]. It argued, therefore, that a divestiture would be unduly punitive on Hanson and would 'remove from the competitive market an operator having a suitably strong production capacity and status as an effective competitive Major'.<sup>166</sup> It also told us that a divestiture of one of its plants could [REDACTED].<sup>167,168</sup>

3.117 In Appendix 4, Annex D, Supplement 1, Figure 1, we looked at the customer catchment areas for Hanson's cement plants. Appendix 4, Annex D, Supplement 1, Table 2, showed that the [REDACTED] per cent customer catchment area was [REDACTED] miles for the Ketton plant, [REDACTED] miles for the Padeswood plant, and [REDACTED] miles for the Ribblesdale plant. Therefore, based on customer catchment areas that accounted for [REDACTED] per cent of each plant's total sales volumes in FY11 (including both external and internal sales), we found that each of Hanson's cement plants sales extended into all regions of GB.

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<sup>165</sup> [Hanson response to Remedies Notice](#), paragraph 3.6.

<sup>166</sup> *ibid*, paragraph 3.7.

<sup>167</sup> *ibid*, paragraph 3.9.

<sup>168</sup> *ibid*, paragraph 3.6.

- 3.118 We note that a divestiture of either the Padeswood plant or the Ribblesdale plant would result in a reduction of its clinker capacity share from its current [X] per cent down to either [X] or [X] per cent respectively (based on Appendix 4), Annex K, which would result in Hanson moving from being the second largest producer to the third largest producer, just ahead of HCM at [X] per cent, but just below Cemex at [X] per cent.
- 3.119 We note that out of Hanson's three plants, in FY12 unit site variable profit terms, its Ketton plant generated £[X] per tonne ([X] per cent margin), whilst its two smaller plants, the Ribblesdale and Padeswood plants generated £[X] ([X] per cent margin) and £[X] per tonne ([X] per cent margin) respectively (see paragraph 3.102(b) above). Whilst, in active clinker capacity terms, the Ketton and Padeswood plants have a similar clinker capacity of [X] Mt, the Ketton plant generates a higher margin of [X] per cent than the Padeswood plant at [X] per cent. Therefore, [X], but it also represents the plant with the [X] out of all nine plants owned by the Top 3 cement producers. We therefore concluded that a divestiture of the Padeswood plant would not be an effective remedy.
- 3.120 In relation to the Ribblesdale plant, however, this plant generates a unit site variable profit of £[X] per tonne and margins of [X] per cent (see paragraph 3.102(b) above). However, its clinker production capacity of [X] Mt makes the Ribblesdale plant one of smallest plants in GB (behind the South Ferriby and Aberthaw plants) and below the GB average of 0.8 Mt (see Appendix 4, Annex B). We therefore concluded that a divestiture of the Ribblesdale plant would have a limited structural impact on the market, in particular when compared with the impact that other potential cement divestitures could have, and would be unlikely to represent a sufficient competitive constraint to undermine and prevent future coordination in the GB cement markets.

3.121 Finally, in relation to the Ketton plant, we note that this represents Hanson's largest [redacted]. It was also the most utilized plant out of its three plants, for example during FY12, clinker capacity utilization was highest at the Ketton plant at [redacted] per cent compared with [redacted] per cent at its Padeswood plant and [redacted] per cent at its Ribblesdale plant. We also note that the Ketton plant has two kilns, [redacted]. Whilst the Ketton plant accounts for [redacted] per cent of Hanson's active clinker capacity, [redacted] (see Appendix 4, Annex B).<sup>169</sup> We therefore considered that whilst the Ketton plant might potentially represent an effective cement plant divestiture, its divestiture would result in a significant reduction in Hanson's total capacity (whether mothballed capacity is taken into account or not), and that this would leave it with one of the smallest plants in GB (Ribblesdale plant) and the plant with the [redacted] profit margins in FY12 out of the Top 3 cement producers' plants (Padeswood plant). This could in turn put at risk Hanson's ability to operate as an effective competitor in the future.

3.122 We therefore concluded, on balance, that none of Hanson's GB cement plants would represent a suitable basis for a divestiture remedy.

- o *Assessment of Lafarge Tarmac's plants*

3.123 In terms of FY12 unit site variable profits, the Cauldon and Tunstead plants generated £[redacted] and £[redacted] per tonne respectively, compared with £[redacted] for the Aberthaw plant and £[redacted] for the Dunbar plant (see paragraph 3.102(b) above).

3.124 Based on annual clinker capacity only, we would rule out the Aberthaw plant given that its clinker capacity of [redacted] Mt is significantly below the GB average of 0.8 Mt, and the smallest of Lafarge Tarmac's four plants. Another reason for concern about the Aberthaw plant as the basis for a stand-alone divestiture is the fact that it has the [redacted]

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<sup>169</sup> We calculated Hanson's total clinker capacity based on the highest capacity figure available for each plant over the period from FY10 to FY12. This is to overcome the fact that Hanson's total clinker capacity calculations are sensitive to certain assumptions that may be peculiar to a particular year, eg a 'Reliability Coefficient'.

unit variable costs in terms of clinker production, almost [redacted] the unit cost achieved by the Caudon plant, for example in FY12, its unit variable costs were £[redacted] compared with £[redacted] for the Dunbar and Tunstead plants and £[redacted] for the Caudon plant (see Appendix 4, Annex G).

3.125 We noted that the Aberthaw and Dunbar plants are not centrally located, and this raises a significant risk that either plant, once divested, develops into a regional producer, rather than one that would impact the GB cement markets on a national basis. In this regard, we would have concerns that the Aberthaw plant is not rail-linked, and that the Dunbar plant, whilst rail-linked, is located in Scotland, and would also be limited by its location in terms of its geographic reach and ability to access markets with growing demand (eg London and the South-East). This represents a substantial risk to the effectiveness of a divestiture of either the Aberthaw or Dunbar plant. Consequently, we provisionally concluded that neither plant would represent a suitable basis for a divestiture remedy.

3.126 When examining a possible divestiture of either the Caudon or the Tunstead plant, we note that each plant consistently achieved the highest number of operating days during the year (see Appendix 4, Annex G), where the Caudon plant was operated for at least [redacted] days in a year during the period from FY10 to FY12, and the Tunstead plant was operated for at least [redacted] days over the same period. This compares with a range of [redacted] to [redacted] days for the Aberthaw plant and [redacted] to [redacted] days for the Dunbar plant. We considered that for a new single plant operator with only one kiln, this would be a particularly important consideration (see paragraph 3.78). We also note that the Caudon plant achieved the lowest unit variable costs out of the four cement plants (see paragraph 3.77(a) above).

3.127 As set out in paragraphs 3.52 to 3.62, geographic reach is a relevant consideration when identifying whether a cement plant represents a suitable divestiture package. One key difference between the Cauldon and Tunstead plants is that the latter has a rail connection. We noted that one possible option to provide the Cauldon plant with a rail connection would permit [redacted] of cement to be transported by rail, compared with over [redacted] achieved by the Dunbar and Tunstead plants (see Appendix 4, Annex D).

3.128 In terms of their respective permitted limestone reserves, we note that the Tunstead plant has [redacted] permitted and future reserves compared with the Cauldon plant. We also note that the limestone quarry used by the Tunstead plant is also used by Lafarge Tarmac's lime operations, and therefore this may give rise to separation issues during a sales process, in particular in relation to the limestone quarry, and any shared sites and facilities. In relation to the Cauldon plant, we note that its permitted reserves of limestone at the Cauldon Quarry appear limited to [redacted] years, unless planning permission can be obtained to extend this by a further [redacted] years (see Appendix 4, Annex F).

- *Our conclusions on suitable cement plants for a possible divestiture*

3.129 Based on our assessment in paragraphs 3.110 to 3.128, we provisionally concluded that of the nine cement plants owned by the Top 3 cement producers, only Lafarge Tarmac's Cauldon and Tunstead plants had the potential to represent a suitable basis for a divestiture remedy. Between the Cauldon and Tunstead plants, a divestiture of the Tunstead plant represents, in our view, the stronger of the two cement plants on a stand-alone basis, in terms of its ability to exert a competitive constraint across a wider customer catchment area by virtue of having a rail-linked plant, together with the added flexibility of having permission to build a second kiln, which once built, would double its production capacity and reduce a single plant operator's reliance on one kiln. We compared the two plants further by reference to a variety of

other aspects of plant suitability in line with our assessment at paragraphs 3.40 to 3.102.

3.130 In Appendix 4, Annex F, we noted that the Tunstead plant had significant reserves of limestone available to it, whilst there were currently [X] years remaining at the Cauldon plant from its Cauldon Quarry, which could be extended by a further [X] years through obtaining planning permission. In relation to its shale reserves, the Cauldon Quarry had [X] years of permitted reserves, which could be extended by [X] years through obtaining planning permission. In relation to its Cauldon Quarry, Lafarge Tarmac told us that it was [X]. It added that on this basis, proven limestone reserves at the Cauldon plant would now run for [X] years until around [X] based on maximum production. Lafarge Tarmac also told us that it was likely that a significant part of the reserves at the Cauldon Low Quarry (adjacent to the Cauldon Quarry) could be used to supply limestone to the Cauldon plant subject to obtaining the required planning permissions (see Appendix 4, Annex F).

3.131 On this basis, in relation to the supply of limestone as a raw material into cement production:

- (a) Should the Cauldon plant be divested, the Cauldon Quarry that currently supplies it with raw materials (limestone and shale) should be included in the divestiture package. We would ensure that a selection of the Cauldon plant for divestiture should be subject to Lafarge Tarmac providing the CC with a satisfactory update on the status of its [X], including any change of circumstances which should be brought to our attention. Depending on the outcome of this update, we may consider the possibility of including the Cauldon Low Quarry within the divestiture package alongside the Cauldon Quarry.
- (b) Should the Tunstead plant be divested, there are two possible options which Lafarge Tarmac can explore: (i) Lafarge Tarmac could sell all, or part, of the

limestone quarry to the buyer of the Tunstead plant; or (ii) Lafarge Tarmac could enter into a long-term supply agreement with the buyer of the Tunstead plant to guarantee its supply of limestone on arm's length terms.

3.132 The Cauldon and Tunstead plants also source some of their key raw materials from external suppliers (see Appendix 4, Annex F). We would expect that a purchaser would renegotiate these contracts with suppliers of its choice, including the option to maintain existing suppliers where it is beneficial to do so.

3.133 Whilst the Cauldon plant sources its sand externally, the Tunstead plant sources its sand internally. This variation in the supply arrangements for sand also occurs across the different cement plants of the other producers (see Appendix 4, Annex F), and therefore suggests that sand does not need to be supplied internally. We also noted that the consumption of sand at each of these plants was significantly smaller when compared with the other raw materials consumed at the plant. We are currently not minded to include the sand quarry currently supplying the Tunstead plant, should this plant be divested on the basis that we did not consider it necessary for a divestiture remedy involving the Tunstead plant to be effective. We also considered that sand appears to be relatively easily sourced from third party sources and therefore, we concluded that it would not be necessary for a new entrant to have an internal supply of sand.

3.134 The Cauldon plant currently does not have a rail connection and therefore relies on road transport to fulfil its delivered sales. In order to provide a purchaser with the required distribution capabilities for its acquired cement plant, a divestiture package involving the Cauldon plant should include at least the four non-rail-linked depots currently used by the Cauldon plant, or at least four suitable and acceptable alternatives. In this regard, a divestiture package involving the rail-linked Tunstead plant

should include, as a minimum, all of its three rail-linked depots and the one non-rail-linked depot currently used by the Tunstead plant, or a suitable and acceptable alternative.

3.135 We compared the geographic reach of Lafarge Tarmac's Cauldon and Tunstead plants by looking at each cement plant's customer catchment area as a measure of its respective geographic reach. Based on our customer catchment area analysis in Appendix 4, Annex E, we found that based on FY11 sales data, whilst the customer catchment areas that covered 50 per cent of total sales volumes in FY11 (including both external and internal sales) were similar for both the Cauldon and Tunstead plants, the Tunstead plant achieved a wider customer catchment during FY11 than the Cauldon plant at the 80 and 90 per cent customer catchment area levels. In Appendix 4, Annex D, Table 10, our analysis showed that the 80 per cent customer catchment area was around [X] miles for the Cauldon plant and [X] miles for the Tunstead plant. These distances can be viewed graphically in Appendix 4, Annex D, Figure 4. We note, however, that our analysis may have underestimated the potential customer catchment area of the Cauldon plant for the following reasons: (a) our analysis was based on sales data for FY11, during which Lafarge had operated the Cauldon plant as part of a network of cement plants which also included the nearby and rail-linked Hope plant. The fact that the Cauldon plant was not serving customers located further away may have been a result of Lafarge's strategy in relation to the Cauldon and Hope plants during FY11; and (b) if the Cauldon plant had been operated on a stand-alone basis, it may have been operated differently, such that its operator may seek to serve customers located further away. In this regard, we would also note that should a purchaser of the Cauldon plant wish to provide the plant with a rail connection, there may be a number of options available to it based on business need, eg Lafarge Tarmac provided details of these options which it had considered in 2011 (see Appendix 4, Annex D).

- 3.136 We provisionally concluded that a divestiture of either the Cauldon plant or the Tunstead plant could form the basis of an effective remedy. In relation to the former, our provisional conclusion is subject to an [✂].
- 3.137 As mentioned in paragraph 3.98 above, we stated that a purchaser of a cement plant should also be able to purchase a number of RMX plants in order to address the composition risks associated with the divestiture of a stand-alone cement plant. The scope of any RMX divestitures should be subject to an upper limit whereby the RMX plants' total annual cementitious requirement (including any pre-existing requirement of a purchaser's own RMX operations) could not account for more than 15 per cent of a divested cement plant's annual cement production capacity. We acknowledge that depending on the individual circumstances of a purchaser, not all purchasers may wish to acquire RMX plants alongside a divested cement plant, eg if it already owns a substantial RMX operation. We therefore concluded that a purchaser should be permitted to opt out from acquiring any RMX plants as part of this remedy.
- 3.138 We next considered whether any RMX plants to be divested alongside either Lafarge Tarmac's Cauldon or Tunstead plant should also come only from Lafarge Tarmac, or whether it should be required from Hanson and/or Cemex.
- 3.139 We considered that the RMX plants that are currently internally supplied by the cement plant being divested would represent the most practicable and suitable RMX plants for divestiture on the basis that these RMX plants would face the least disruption in their operations as a result of the cement plant divestiture. We considered that there are likely to be logistical reasons why these RMX plants were supplied cement from the plant in question, and therefore a divestiture of a cement plant and its internally supplied RMX plants would preserve any such logistical benefits. Furthermore, a requirement that a purchaser should be able to acquire RMX plants from a

number of sellers would add significantly to the complexity of any divestiture process and increase the potential risk of achieving an efficient and timely disposal. We therefore concluded that Lafarge Tarmac should also divest the RMX plants to be included in the divestiture package under this remedy, subject to the requirements of the purchaser and the 15 per cent ratio of internal cementitious requirement to total cement production capacity.

3.140 Based on this, our estimate of the size of such a divestiture of RMX plants on Lafarge Tarmac's RMX operations is set out in Appendix 4, Annex J, where we estimated that based on an upper limit of 15 per cent in relation to permitted internal cement sales, Lafarge Tarmac may be required to divest seven 'large-scale' RMX plants (each producing 75,000 cubic metres a year) or 20 'small-scale' RMX plants (each producing 25,000 cubic metres a year). To put these figures into context, as at 30 June 2013, Lafarge Tarmac operated 84 active RMX plants, 11 mothballed plants and seven dormant or closed plants, which bring the total up to 102 plants (or 95 active and mothballed plants).

- *Our conclusions on the number of cement plant divestitures required*

3.141 We conclude this subsection with our assessment of the implications of a divestiture of either the Cauldon plant or the Tunstead plant on the market structure, and of the number of cement plant divestitures that should be required. This involved the consideration of a number of factors including issues of practicality and the structural and behavioural consequences of different divestiture scenarios.

3.142 We first considered a scenario involving one cement plant divestiture. Based on this scenario, with the non-coordinating producers, HCM and a new entrant having cement production volumes of around [redacted] Mt and 1 Mt respectively, and combined with imported cement sales of [redacted] Mt, this gives the non-coordinating firms a total

potential sales volumes figure of [3–4] Mt, or [35–45] per cent combined market share (out of a total of 8.9 Mt). We considered this share to be attributable to the new and enlarged group of non-coordinating firms in the GB cement markets. This compares with a current situation, ie without a new entrant, where the group of non-coordinating firms accounts for a combined 30 per cent of market share, ie HCM ([~~3~~] Mt) and cement importers (1.2 Mt) (see Appendix 4, Annex K). This would represent a limited but important structural change that will have a substantial effect on the operation of the GB cement markets, particularly if introduced alongside other measures.

3.143 We took the view that, if feasible, a divestiture of two cement plants and the creation of two new entrants would further reduce the risk that coordination would remain in the market post divestiture, or would re-establish itself at some future date. If two cement plants were to be divested, the relative shares of the GB cement markets accounted for by the coordinating group and the group of non-coordinating firms would become more evenly balanced, resulting in six GB cement producers operating in a relatively unconcentrated market.

3.144 However, our detailed assessment of GB cement plants above revealed a very limited number of cement plants that could provide a suitable basis for divestiture, particularly when taking into account the impact of a divestiture on the divesting party and its ability to compete effectively in the GB cement markets post-divestiture. Therefore, whilst we considered that the divestiture of two cement plants might maximize the opportunity for new competition, these practical considerations strongly suggested that no more than one cement plant should be divested.

3.145 Divestiture of a single cement plant would, in our view, go a substantial way towards addressing the structural susceptibility of the GB cement markets to coordination,

and disrupting the conditions necessary for coordination to be sustained, thereby contributing substantially to addressing the Coordination AEC and the customer detriment we provisionally found. The enlargement of the group of non-coordinating producers through the addition of a new entrant operating either the Cauldon or the Tunstead plant would to a large extent enhance the competitive constraint provided by this group, given the quality of the cement plant being divested. We considered that the impact of the sale of this divestiture package to a new GB cement producer on the conditions necessary for coordination to be sustained would be considerable, and would likely take effect through a combination of reducing market transparency—through the new entrant’s independent competitive actions—as well as providing a strong source of competitive constraint on the coordinating group, thereby helping to undermine the internal and external sustainability of coordination.

3.146 In addition, based on Appendix 4, Annex K, where we consider the impact of a divestiture of one cement plant on market structure, we note that a divestiture of either the Cauldon or the Tunstead plant would result in Lafarge Tarmac’s active clinker capacity reducing to [X] per cent (if the Cauldon plant was divested) or [X] per cent (if the Tunstead plant was divested). This compares with Hanson’s clinker capacity share of [X] per cent. Therefore, a further consequence of the divestiture on Lafarge Tarmac would be to reduce its ability and incentive to bear the costs of coordination.

3.147 In this way, a divestiture of either the Cauldon or Tunstead plant by Lafarge Tarmac would:

- (a) leave the divesting party with a viable cement operation;
- (b) result in a divestiture of an effective and sizable stand-alone competitor; and
- (c) reduce Lafarge Tarmac’s ability and incentives to bear the costs of coordination.

### *Purchaser suitability*

3.148 In addressing purchaser risks, we considered both the likely availability of suitable purchasers, and the purchaser suitability criteria that we should apply to potential bidders. We discuss each of these in turn below. We first set out the views of the parties in relation to each, before setting out our own assessment and conclusions.

- *Availability of suitable purchasers*

3.149 While we have not conducted a full market-testing process in relation to particular cement plants, we have explored with parties, in general terms, who might be interested in acquiring a cement plant divestiture package.

3.150 MI told us that whilst it was not currently considering buying other cement assets in GB or in the sector elsewhere in Europe, it might do so if the opportunity arose.<sup>170</sup> It added that it would be very disappointed if it was excluded from any opportunities presented by a divestiture remedy.<sup>171</sup> From its perspective, whether it acquired any assets that were to be divested would depend on the overall package.<sup>172</sup> In relation to other suitable purchasers, it told us that it would be easier for a pan-European operator with an existing supply chain capability to enter the GB market rather than a new entrant, and considered [redacted].<sup>173</sup>

3.151 Hanson told us that there was a range of possible buyers that could conceivably be interested in acquiring a cement plant, eg CRH, Aggregate Industries (Holcim Ltd), a steel company or a private equity investor. However, it questioned whether they

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<sup>170</sup> [MI and HCM response hearing summary](#), paragraph 1.

<sup>171</sup> *ibid*, paragraph 15.

<sup>172</sup> *ibid*, paragraph 26.

<sup>173</sup> *ibid*, paragraph 20.

would still remain interested after carrying out due diligence and considering the level of interest from competition regulators in this market.<sup>174</sup>

3.152 Aggregate Industries told us that cement importers might be less able to operate an acquired cement plant given the level of technical competence required. However, it added that such expertise might be present within the parent companies of some of the importers.<sup>175</sup> It also told us that the investment that would be required to acquire a cement plant would be significant, and that for a potential buyer, the opportunity would have to be benchmarked against alternative investment opportunities elsewhere in the world. It considered that the GB market on the whole was currently less attractive than others.<sup>176</sup> However, it told us that [REDACTED]. It added that there were advantages and disadvantages of owning a single cement plant rather than two or more, and that this largely depended on the buyer's strategic aspirations.<sup>177</sup>

3.153 Breedon Aggregates had previously sought to acquire some of the assets divested as part of the Lafarge Tarmac JV remedies process, but withdrew from the process at an early stage.<sup>178</sup> It told us that it would still be interested in acquiring a cement plant, particularly if it did not have 'future risks' attached to it, eg access to mineral reserves and emissions issues.<sup>179</sup>

3.154 Brett Group told us that whilst it did not have the financial resources on its own to acquire a divested cement plant, it might consider doing so as part of a JV with another partner. However, it added that it would need to ensure that it had the right

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<sup>174</sup> [Hanson response hearing summary](#), paragraph 24.

<sup>175</sup> [Aggregate Industries response hearing summary](#), paragraph 11.

<sup>176</sup> *ibid*, paragraph 12.

<sup>177</sup> *ibid*, paragraph 14.

<sup>178</sup> [Breedon Aggregates response hearing summary](#), paragraph 2.

<sup>179</sup> *ibid*, paragraph 11.

expertise to manage a cement plant, and that the plant's location would need to align with its other construction materials interests.<sup>180</sup>

3.155 CRH told us that if there were to be further cement plant divestitures, then it would be interested in looking at them, but it would need to evaluate whether or not the plant(s) would be able to provide the returns that its board and shareholders would expect.<sup>181</sup>

3.156 Lafarge Tarmac told us that it did not believe that there would be any suitable buyers for a cement plant divestiture, and that this would affect its market value.<sup>182</sup> It added that the market had changed following the introduction of HCM and the significant growth of importers, and therefore any potential investor would be more likely to invest in a developing market than in GB. It also told us that there were few cement buyers who were entirely new entrants to the market and who did not have activities in another country.<sup>183</sup>

3.157 The following parties ruled themselves out as potential buyers: [REDACTED].<sup>184</sup>

- *Purchaser suitability criteria*

3.158 Our guidance indicates that the CC would expect suitable buyers to:<sup>185</sup>

- (a) be independent of any divesting party or any related party;
- (b) have the appropriate expertise, commitment and financial resources to operate and develop the divestiture business as an effective competitor; and
- (c) not itself create further competition or regulatory concerns.

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<sup>180</sup> Brett Group response hearing summary, paragraph 8.

<sup>181</sup> CRH response hearing summary, paragraph 11.

<sup>182</sup> Lafarge Tarmac response hearing summary, paragraph 11.

<sup>183</sup> *ibid*, paragraph 23.

<sup>184</sup> Dragon Alfa (CPV) response hearing summary, paragraph 12.

<sup>185</sup> The Guidelines, Annex B, paragraph 17.

3.159 We asked parties what they considered would be an appropriate purchaser suitability criteria.

3.160 Aggregate Industries told us that [REDACTED].<sup>186</sup> It added that it would be concerned if a new market entrant, or a relatively small company with limited experience, [REDACTED], were to acquire any divested assets and face serious difficulties, eg if a buyer lacked the necessary infrastructure, supply agreements, customer relationships, technical support and other key business functions necessary to run a commercially viable operation.<sup>187</sup> It added that the CC would have to be satisfied that a buyer of a divested cement plant(s) had the operational expertise to run the plant(s) effectively.<sup>188</sup> However, Aggregate Industries told us that [REDACTED].<sup>189</sup>

3.161 Cemex told us that a suitable purchaser was one that knew the market in GB and also knew how to run a cement plant. In this regard, it believed that [REDACTED] would qualify as suitable purchasers.<sup>190</sup>

3.162 Brett Group told us that it hoped that any divested cement plants would be acquired by a 'credible' buyer, as cement plants were large operations and customers needed them to be operated reliably. Therefore, it considered that any company operating a cement plant would need to demonstrate a good track record, [REDACTED].<sup>191</sup> It also told us that if it acquired a cement plant (either on its own or possibly with another partner), it would seek to ensure that it had the appropriate expertise in managing a cement plant operation.<sup>192</sup>

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<sup>186</sup> [Aggregate Industries response hearing summary](#), paragraph 7.

<sup>187</sup> [Aggregate Industries response to Remedies Notice](#), paragraph 2.2(d).

<sup>188</sup> [Aggregate Industries response hearing summary](#), paragraph 16.

<sup>189</sup> *ibid*, paragraph 15.

<sup>190</sup> [Cemex response hearing summary](#), paragraph 25.

<sup>191</sup> [Brett Group response hearing summary](#), paragraph 10.

<sup>192</sup> *ibid*, paragraph 8.

3.163 MI told us that the buyer's 'profile' was very important, particularly if it could internalize, say, 50 per cent of its production.<sup>193</sup>

- *Our conclusions on purchaser suitability*

3.164 Views from parties suggested a limited universe of potential purchasers with sufficient financial resources and expertise, but whilst we earlier ruled out existing GB cement producers including MI (HCM) as potential purchasers of the divested cement plant, we noted that at this early stage and prior to any market-testing exercise by Lafarge Tarmac, the number and range of potential purchasers that were mentioned by parties was significant, ie Aggregate Industries, Breedon Aggregates, Brett Group (as part of a consortium), and possibly other types of bidder such as steel producers and private equity firms. We cannot rule out the possibility that interested and credible buyers may come from outside the UK or from outside the heavy building materials sector. For example, we noted that MI had been looking to enter the GB construction sector for some time, and achieved this when the right opportunity arose through its acquisition of the Hope plant and other complementary assets.<sup>194</sup> At this stage, our provisional conclusion is that, were either the Cauldon or Tunstead plant to be actively marketed, Lafarge Tarmac would be able to attract a number of potential purchasers interested in the opportunity to enter, or expand their presence in the GB cement markets.

3.165 We provisionally concluded that a suitable purchaser would need to display the following characteristics:

- (a) *Independence*. In order to maintain the independence of the new entrant that will form part of the future group of non-coordinating producers, a suitable purchaser

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<sup>193</sup> [MI and HCM response hearing summary](#), paragraph 25.

<sup>194</sup> *ibid*, paragraph 1.

would not have any structural or financial links (whether directly or indirectly) with Lafarge Tarmac, or with Cemex or Hanson.

(b) *Expertise, commitment and financial resources.* We considered that given the sizable investment represented by a cement plant divestiture package, we would expect that this would limit the universe of purchasers to those with the ability to finance the acquisition either through internal or external sources. We would expect that a potential purchaser to be able to demonstrate a track record in manufacturing, ideally in the heavy building materials sector. Where in-house expertise is not currently available, we would expect a potential purchaser to set out how it intends to procure the relevant expertise. We would also expect a purchaser to provide us with information on its strategy for developing the divestiture package following its acquisition including its plans regarding the geographic reach of its cement operations.

(c) *Does not itself create further competition or regulatory concerns.* We would consider this on a case-by-case basis based on the individual circumstances of the potential purchaser.

- (i) At this stage, we have not attempted to assess the nature or scale of the potential competition or regulatory concerns that specific purchasers might raise. In relation to the question of whether Aggregate Industries might be considered a suitable purchaser, we would not, at this stage, rule it out as a potential purchaser given that it is not currently a GB cement producer and did not form part of any coordinating group in our provisional findings, and we have not yet assessed the competitive impact of an acquisition by it.
- (ii) In assessing the suitability of a potential purchaser under this heading, and in the light of our Coordination AEC, we will look closely at any evidence of past cartel activity or any other infringement of Article 101(1) TFEU or equivalent prohibitions (including any conduct admitted during leniency or other settlement proceedings) involving potential purchasers or their senior manage-

ment. The CC will look particularly closely at participation in any infringements in cement, RMX and/or related markets and will have regard to the frequency and seriousness of any infringement, where and when any such infringement occurred and may also take account of any steps taken following any infringement to improve compliance with competition law.

### *Implementation of remedy measure*

3.166 An effective divestiture process should ensure that divestiture of an appropriate divestiture business to a suitable purchaser takes place within a reasonable time period. It should also ensure that the divestiture business does not degrade prior to divestiture (also known as asset risks<sup>195</sup>). An important factor that is likely to drive asset risks is the timescale between deciding on the divestiture and its implementation.

3.167 When considering how to implement this remedy measure, we focused on identifying potential asset risks and how these should be addressed through the design of the divestiture process:

- (a) achieving a timely divestiture; and
- (b) protecting the divestiture package.

### *Achieving a timely divestiture*

3.168 In relation to ensuring a timely divestiture, we asked parties what timescale should be allowed for the implementation of any divestiture; and under what circumstances a divestiture trustee should be appointed.

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<sup>195</sup> Asset risks are risks that the competitive capability of a divestiture package will deteriorate before completion of divestiture, eg through loss of customers or key staff (see the Guidelines, [Annex B, paragraph 6](#)).

3.169 MI considered that any divestitures should be conducted in a timely fashion. It told us that [redacted].<sup>196,197</sup>

3.170 The OFT told us that it wanted to see a package of remedies that would have an early prospect of eliminating most, or all, of the customer detriment we provisionally identified.

3.171 Cemex and Lafarge Tarmac mentioned that the process could be delayed by the need for the divesting party to achieve a ‘fair market value’:

(a) Cemex considered that the negotiation process for divestment would take between 12 and 18 months, and this timescale was necessary in order to achieve a fair value for such an asset.<sup>198</sup>

(b) Lafarge Tarmac told us that any divestiture could not take effect before 2016 in order to achieve a fair market price. It added that the divestiture of the Hope plant had been able to proceed on an accelerated timetable because of the scale of efficiencies that were to be achieved through the merger. It also told us that there would be difficulties in selling in the current market to a restricted buyer community and complications in separating various other assets from a cement plant.<sup>199</sup>

3.172 In relation to the Anglo-Lafarge merger inquiry, we noted that following the publication of that inquiry’s final report on 1 May 2012, a notice of acceptance of final undertakings was published on the CC website on 27 July 2012, with completion of the Hope divestiture package sale process on 7 January 2013, ie completion took place in just over eight months from the publication of the final report, or around five months from the date of the final undertakings. We note that the Hope divestiture package not only included the Hope plant, but also included some aggregates and

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<sup>196</sup> [MI and HCM response hearing summary](#), paragraph 52.

<sup>197</sup> [ibid](#), paragraph 22.

<sup>198</sup> [Cemex response hearing summary](#), paragraph 25.

<sup>199</sup> [Lafarge Tarmac response hearing summary](#), paragraph 24.

asphalt sites together with a sizable number of RMX plants, and that divestiture had been achieved in a matter of months. A key factor in the speed with which this process was achieved was the incentive of the two shareholders (Lafarge SA and Anglo American plc) to push through with the transaction. Lafarge Tarmac told us that there were large synergies to gain from doing the transaction quickly.

*Protecting the divestiture package*

3.173 MI told us that consideration should be given to the use of a monitoring trustee with a remit to conduct follow-up work about how well the divestiture was implemented.<sup>200</sup> It also told us that whilst it was competing vigorously, it was not easy being a new entrant. It noted that a number of challenges had arisen from the fact that it had not acquired an existing business entity with a track record. These challenges had related to credit insurance, dealings with banks and large suppliers, issues with integrating management and costs, as well as [REDACTED].<sup>201</sup>

3.174 The OFT told us that a cement plant divestiture would be more effective if the businesses to be divested could operate almost immediately after sale as stand-alone businesses with their own set of customers and orders to fulfil.

3.175 We also considered that another type of asset risk concerns the transfer of 'high quality' contracts and customers from the plant that is to be divested to the retained plants. This concern arose partly based on the submission from [REDACTED].<sup>202</sup>

3.176 Once a cement plant is identified for divestiture, we note that this might give rise to some uncertainty among customers of the security of supply from that cement plant, and the potential for some disruption following a new entrant taking over its oper-

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<sup>200</sup> [MI and HCM response hearing summary](#), paragraph 53.

<sup>201</sup> *ibid*, paragraph 2.

<sup>202</sup> [REDACTED]

ation. This could affect the willingness of customers to accept deliveries from that cement plant, resulting in a deterioration of the asset. The quicker the divestiture process is completed, the lower this risk and shorter the period of uncertainty.

*Our conclusions on implementation*

- 3.177 Whilst Lafarge Tarmac may be incentivized to preserve the divestiture package in order to achieve a higher sale price, it is also conversely incentivized not to win and maintain higher value and longer-term customers if these customer relationships were likely to be transferred to the acquirer of the divested plant, and not to incur further maintenance capital expenditure (other than possibly the minimum spend necessary), especially given that the creation of a stronger new entrant could potentially have a long-lasting and sustained effect on Lafarge Tarmac's ongoing and future profitability in the GB cement markets. In our view, the consequences of Lafarge Tarmac pursuing the latter strategy could significantly undermine the divestiture package, and for its ability to act as an effective competitive constraint as soon as it commences trading under new ownership. We therefore considered there to be significant asset risk, which would increase the longer the divestiture process continues.
- 3.178 To protect against these forms of asset risk, and in line with our normal practice, we would expect to seek interim undertakings from Lafarge Tarmac which impose a general duty to maintain the divestiture package in good order and not to undermine the competitive position of the package. Such undertakings would also contain a commitment from Lafarge Tarmac to maintain the relevant cement plant in good working order, and to conduct routine maintenance as normal. The CC would make an interim Order to this effect if suitable interim undertakings were not forthcoming from Lafarge Tarmac within a reasonable period of time.

- 3.179 To support these interim undertakings (or interim Order), we would expect to require a monitoring trustee to be appointed as soon as is reasonably practicable once interim undertakings (or an interim Order) have been put in place, to ensure the protection of the divestiture package until completion of the divestiture and to ensure that Lafarge Tarmac is taking the steps necessary to achieve an effective and timely disposal.
- 3.180 The monitoring trustee should be required to report to the CC on at least a monthly basis on the current trading of the divestiture package benchmarked against the performance of Lafarge Tarmac's other three cement plants. The first of these reports should include details of any changes to the asset register at either the Cauldon or Tunstead plant (whichever is being divested) since 1 September 2013, with an update on any changes to the relevant asset register every six months.
- 3.181 In our view, the asset risks are likely to increase the longer the divestiture period that is given to achieve a disposal. We considered Lafarge Tarmac's lack of incentive to complete any cement plant divestiture to represent a significant risk to the effective and timely completion of a divestiture process, for example based on paragraph 3.171(b) above, the incentives that existed in relation to the Anglo-Lafarge JV do not exist now for Lafarge Tarmac. We would therefore need to include sufficient safeguards in any divestiture process to ensure that Lafarge Tarmac had strong incentives to achieve a prompt and effective divestiture.
- 3.182 We have therefore provisionally decided that a divestiture period should not exceed [X] months from the date of signing the final undertakings, or the issuance of an Order (whichever may be applicable). Lafarge Tarmac should periodically provide the CC and any monitoring trustee with an update on the progress of the divestiture process against a timetable to be agreed with the CC. The CC reserves the right to

appoint a divestiture trustee should divestiture not be implemented within the specified divestiture period; or if the CC reasonably expects that an effective disposal would not be achieved within this divestiture period.

3.183 Given that the divestiture package currently operates as part of a wider network of Lafarge Tarmac's cement plants, and in our view, operates as part of a 'national' business, we do not propose the immediate introduction of hold-separate arrangements for the divestiture package during the divestiture period. Instead, the divestiture package should continue to share existing central and other support functions provided by Lafarge Tarmac, while the process of separating the divestiture package from Lafarge Tarmac's remaining business is under way.

***Remedy measure B: Restrictions on the disclosure of GB cement market data***

*Summary of proposed remedy*

3.184 Figure 3.2 summarizes our proposed remedy measure in relation to the disclosure of GB cement market data.

FIGURE 3.2

**Summary of remedy measure:  
Restrictions on the disclosure of GB cement market data**

We have provisionally decided that:

- This remedy covers all data that is currently provided by the GB cement producers to the Mineral Products Association (MPA) through a permitted third party.
- For each set of monthly, quarterly and annual GB cement market data that is currently published by the MPA and Department for Business, Innovation and Skills (BIS), there should be a time lag of no less than three months before the data can be made public.
- As a condition for continuing to collate and publish the relevant GB cement market data, the MPA should give undertakings that it will not receive or publish any GB cement market data collected on its behalf by Bessler Hendrie, or any other permitted third party, before the expiry of the three-month time lag. Any proposed change in such arrangements must receive specific approval from the CC (or the Competition and Markets Authority (CMA) from 1 April 2014). It will further undertake that the relevant GB cement market data collected by a permitted third party engaged on its behalf, will be fully independent of the GB cement producers and have the necessary safeguards in place to ensure that the relevant data is not released to the MPA or any other person before the three-month time lag has passed.
- An Order should be issued that prevents any GB cement producer from providing its sales and production data that has yet to pass its three-month time lag to a third party private sector organization. The only exceptions to this prohibition are when one of the following two conditions is satisfied: either (a) the data is being collated by a permitted third party on behalf of the MPA under the terms of the undertakings set out above; or (b) the third party does not also receive data from any other GB cement producer and the output is only used for internal consumption by the GB cement producer that had engaged the third party.

3.185 In this section, we set out the assessment and preliminary conclusions we reached in relation to a remedy concerning the disclosure of GB cement market data. Our assessment is structured as follows:

- *Description of remedy measure:* where we provide an overview of this remedy option (paragraphs 3.186 to 3.189).
- *How this remedy measure addresses the AEC and/or customer detriment:* where we set out the general views of parties concerning the above question and our own assessment (paragraphs 3.190 to 3.211).

- *Design issues*: where we set out our assessment and preliminary conclusions on the scope of this remedy (paragraphs 3.212 to 3.227).
- *Implementation of remedy measure*: where we set out our consideration of the implementation of this remedy (paragraphs 3.228 to 3.231).

### *Description of remedy measure*

3.186 There are currently two primary sources where monthly, quarterly and annual data containing GB cement sales and production volumes are published.<sup>203</sup>

- in a document titled ‘Monthly Statistics of Building Materials and Components’ which is published each month by BIS on its website; and
- on the website of the trade association, the MPA, where monthly data is published on cement sales volumes by region and sales channel (eg to RMX producers or builders’ merchants) and quarterly data is published on GB sales volumes for cement and cementitious materials.

3.187 In our Remedies Notice, we proposed making a recommendation to BIS and any other UK public bodies which collected and/or published monthly cement market data that:<sup>204</sup>

- monthly data should only be published after a sufficient time lag had passed such that it would no longer be of use to the GB cement producers in monitoring their own shares of sales and production and those of their rivals; and
- where disclosure of aggregated cement market data which has yet to pass its permitted time lag for disclosure is judged to be essential, an appropriate process should be put in place to permit exceptions in limited cases.<sup>205</sup>

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<sup>203</sup> Remedies Notice, paragraph 79.

<sup>204</sup> Remedies Notice, paragraphs 78–84.

<sup>205</sup> For example, an application could be made to the relevant government body holding the market data, which would consider the potential for competitive harm to arise from disclosure and ensure that safeguards were put in place to prevent any such adverse effects on competition (eg ensuring that appropriate non-disclosure agreements are signed).

3.188 We also noted in the Remedies Notice,<sup>206</sup> that in order for this remedy to be effective in addressing the Coordination AEC, we would need to restrict also the publication of monthly cement market data by private sector organizations. Therefore, we also considered prohibiting the GB cement producers from submitting, or selling, their commercially sensitive cement sales and production volume data to trade associations or any other private sector organization, including, but not limited to, the MPA, CEMBUREAU (the European Cement Association) and market research or consulting firms. We also proposed that exceptions to such a prohibition should only apply where such disclosure was required by law or for regulatory reasons.

3.189 In the context of our assessment of this remedy, unless stated otherwise, references to GB cement market data mean the data published by the MPA and BIS concerning the GB cement markets.

#### *How this remedy measure addresses the AEC and/or customer detriment*

3.190 In relation to how this remedy addresses the Coordination AEC and/or the resulting customer detriment, we first set out the parties' general views on the effectiveness of this remedy, before setting out our own assessment and conclusions.

#### *General views from parties about the effectiveness of the remedy*

3.191 In general, most parties considered that there was a benefit to publishing cement market data, eg in relation to planning the reactivation of capacity to meet an upturn in demand; supporting business planning and assisting new entrants to the industry and supply chain; used by public and private entities to assess the UK economy and in particular the construction industry, its market conditions and activity levels; supporting appropriate policy developments; and enabling financial institutions to provide intelligence on UK market conditions and investment opportunities.

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<sup>206</sup> Remedies Notice, paragraph 83.

3.192 Cemex told us that the publication of cement and sales production data after a time lag would be a particularly effective remedy to eliminate the alleged coordination.<sup>207</sup> It considered that three months would be an appropriate time lag for publication of any sales data.<sup>208</sup> Furthermore, it considered that the GB cement producers should be able to supply sales and production volume data to trade associations and other private sector organizations after the expiry of an appropriate time lag of no longer than three months.<sup>209</sup>

3.193 Hanson considered that a time lag of three months would be suitable and would reduce the level of market transparency.<sup>210</sup> However, it noted that there should be a suitable 'exceptions regime' that would allow for the provision of data where required by law or for other justified reasons.<sup>211</sup> It stated that the CC should ensure that any restriction imposed on the GB cement producers as regards the provision of data to bodies such as the MPA or CEMBUREAU, were not more restrictive than necessary to achieve the general objective of the three-month time lag for the publication of industry statistics.<sup>212</sup>

3.194 Lafarge Tarmac told us that a package of some, or all, of the remedies in the Remedies Notice that targeted market transparency would comprehensively eliminate any possibility of the GB cement producers establishing or monitoring a common understanding on the terms of coordination.<sup>213</sup>

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<sup>207</sup> [Cemex response to Remedies Notice](#), paragraph 4.15.

<sup>208</sup> [ibid](#), paragraph 6.3.

<sup>209</sup> [ibid](#), paragraph 6.7.

<sup>210</sup> [Hanson response to Remedies Notice](#), paragraph 7.5.1.

<sup>211</sup> [ibid](#), paragraph 7.5.2.

<sup>212</sup> [ibid](#), paragraph 7.5.3.

<sup>213</sup> [Lafarge Tarmac response to provisional findings and Remedies Notice](#), paragraph 233.

3.195 MI (HCM), which had recently joined the MPA, considered that a delay in publication of around three months was acceptable.<sup>214</sup>

3.196 Aggregate Industries indicated that it did not use the published cement market data and therefore would not be adversely affected if it was not made available.<sup>215</sup>

3.197 In relation to the views of the cement importers:

- CRH considered it unnecessary to prohibit the data completely but told us that publication on a quarterly or semi-annual basis should still enable interested parties to observe trends in the industry.<sup>216</sup>
- Titan told us that whilst it was not a member of the MPA,<sup>217</sup> and did not submit any data to it, it did use the data in order to perform a high level analysis of the GB market and to ascertain general consumption levels, although it stated that this was of limited use.<sup>218</sup> It did not express any views in relation to the appropriate time lag for publishing such data.
- Dragon Alfa (CPV) told us that whilst it used the data for comparing its business performance against the market,<sup>219</sup> a time lag of three months would not be problematic.<sup>220</sup> It added that it found the published regional data useful.<sup>221</sup>

3.198 Breedon Group told us that it used the MPA data as an indication of what the market was doing both regionally and nationally,<sup>222</sup> and noted that a three-month time lag would not present any problems.<sup>223</sup>

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<sup>214</sup> [MI \(HCM\) response hearing summary](#), paragraph 43.

<sup>215</sup> [Aggregate Industries response hearing summary](#), paragraph 27.

<sup>216</sup> [CRH response hearing summary](#), paragraph 19.

<sup>217</sup> [Titan response hearing summary](#), paragraph 21.

<sup>218</sup> [ibid](#), paragraph 22.

<sup>219</sup> [Dragon Alfa \(CPV\) response hearing summary](#), paragraph 22.

<sup>220</sup> [ibid](#), paragraph 24.

<sup>221</sup> [ibid](#), paragraph 23.

<sup>222</sup> [Breedon Aggregates response hearing summary](#), paragraph 22.

<sup>223</sup> [ibid](#), paragraph 23.

3.199 Brett Group used the published cement market data<sup>224</sup> and considered that it gave Brett Group competitive leverage when combined with other market intelligence.<sup>225</sup> It also considered that a three-month time lag would not be problematic.<sup>226</sup>

3.200 We now turn to the views of the parties involved in the collation and publication of this data, namely the MPA, Bessler Hendrie (the firm of chartered accountants involved in the collation of this data on behalf of the MPA), and BIS. We also set out the views from the Office for National Statistics (ONS) which also publishes cement market data, but in a different form from the data published by the MPA and BIS. We set out the details of the ONS data later.

3.201 The MPA told us that it provided a valuable service in ensuring that its members provided Bessler Hendrie with the requested information on a timely basis and that it had a legitimate role in effectively sense checking the data. It told us that it had doubts about the usability of the data where its collection became the sole responsibility of a government department, referring to the problems experienced in the past by way of support for this position.<sup>227</sup>

3.202 The MPA explained that previously the Department of Trade and Industry (DTI) had collected the cement market data until 2006 when the British Cement Association (BCA) (now part of the MPA) commissioned Bessler Hendrie to collect the data from the four GB producers on a confidential basis. The MPA told us that from January 2007, the BCA decided to publish the aggregated data one month in arrears rather than three. It told us that the BCA had alerted the OFT to this change in practice and

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<sup>224</sup> [Brett Group response hearing summary](#), paragraph 20.

<sup>225</sup> [ibid](#), paragraph 21.

<sup>226</sup> [ibid](#), paragraph 22.

<sup>227</sup> [MPA response hearing summary](#), paragraph 11.

was advised by the OFT in 2007 that it was for the BCA to analyse the effect of its own conduct as to whether it was compliant with competition laws.<sup>228</sup>

3.203 In relation to this remedy, the MPA told us that it was a disproportionate way of addressing the AEC and was inconsistent with past EU and UK authority decisional practice.<sup>229</sup> Moreover, it argued that it did not see why a different remedy should be imposed on a private sector organization such as the MPA as opposed to a government department such as BIS.<sup>230</sup> It told us that a recommendation under this remedy would restrict access to market data except through a government source, and therefore would stifle market analysis and innovation, eg when this data was collected by the DTI, errors were identified in the collected data and there was a view that the collation and publication of this data was less of a priority for a public sector organization such that it was not wholly reliable.<sup>231</sup> However, the MPA told us that it was prepared to consider a longer time lag provided it struck a reasonable balance between competition considerations and the legitimate benefits that users derived from the publication of the data.<sup>232</sup>

3.204 Bessler Hendrie told us that it had collected this data for the BCA (the precursor to the MPA) since 2006. It explained that the GB cement producers (all MPA members) submitted their data directly to Bessler Hendrie using template spreadsheets. It told us that it aggregated the data before sending the results back to the MPA, its members, CEMBUREAU and BIS. It confirmed that no individualized data was provided to the MPA members or the executive of the MPA. [REDACTED] It added that it was bound by its ethical standards and code and as a firm of chartered accountants was

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<sup>228</sup> Namely, the Competition Act 1998.

<sup>229</sup> [MPA response to Remedies Notice](#), paragraph 1.2.

<sup>230</sup> [ibid](#), paragraph 1.3.

<sup>231</sup> [ibid](#), paragraph 1.4.

<sup>232</sup> [ibid](#), paragraph 1.5.

regulated by the Institute of Chartered Accountants in England and Wales and compliance with confidentiality aspects was mandatory.

3.205 BIS told us that prior to 2007, data on cement sales and production volumes were published three months in arrears and that when Bessler Hendrie commenced collecting it on behalf of the BCA (now the MPA), it moved to collecting and publishing the data one month in arrears.<sup>233</sup> BIS indicated that the data provided a very useful guide to predicting construction output,<sup>234</sup> and considered that the longer the time lag, the less useful the data would become in this regard.<sup>235</sup> In particular, BIS informed us that it was considering developing a forecasting model which used a number of different data points related to the construction industry, including the data it published monthly in relation to the GB cement markets. It added that the reliability and usefulness of its forecasting model would be undermined if it were to use data that was published more than three months in arrears.

3.206 Finally, we also found that the ONS published cement market data, but in a different form to that published by the MPA and BIS. The ONS told us that it collected monthly price data from the GB cement producers, which was used in calculating its producer price indices. It told us that it surveyed a sample of companies operating in the cement sector but did not publish company-specific data, and only published the data in aggregated index form on a monthly basis. It told us that its producer price indices were used by various different types of institutions and users, eg other divisions within the ONS, HM Treasury, the Bank of England, financial institutions, BIS and other government departments, and academics and researchers.

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<sup>233</sup> [BIS response hearing summary](#), paragraph 8.

<sup>234</sup> [ibid](#), paragraph 12.

<sup>235</sup> [ibid](#), paragraph 5.

3.207 The ONS told us that it also collated data for the PRODCOM Survey (PRODUCTION COMmunautaire, or products of the European Community), for which the ONS estimated the sales of UK manufacturers by product, and then submitted to EUROSTAT (Statistical Office of the European Community). Aggregated PRODCOM data is published for all European countries on the EUROSTAT website, and UK data is published on the ONS website. The ONS told us that its PRODCOM branch collected manufacturers' sales values and volumes from all cement producers in the UK (including Northern Ireland) with more than 20 employees, and estimates for smaller manufacturers' sales from a sample of producers with fewer than 20 employees. It added that this data included cement clinker, Portland cement and other hydraulic cements. It explained that the relevant firms were required to submit their data two months after the year-end, after which the ONS published preliminary figures six months after year-end; intermediate figures 12 months after year-end; and final figures 18 months after year-end.

*Our assessment of how the remedy measure addresses the AEC/customer detriment*

3.208 In our provisional findings, we found that the publication of cement market data contributed to the Coordination AEC in the GB cement markets.

3.209 We considered that a delay or disruption to the publication of this data would make it more difficult for the Top 3 cement producers to use the data to determine their own monthly shares of sales of GB cement production, which is part of the mechanism by which each monitors its relative position in the market.

3.210 This remedy would thereby seek to address one of the features identified in our provisional findings that contributes to the Coordination AEC finding, namely: market transparency, in particular in relation to market shares, and the strategic focus of the Top 3 cement producers on maintaining market share stability between them. We

considered that applying a time lag would introduce uncertainty for any GB cement producer in relation to calculating its own position in the market (and hence its relative position in the market compared to its rivals), and would therefore reduce the level of transparency that currently exists in this regard.

3.211 We consider below the issues relating to the design of this remedy.

### *Design issues*

3.212 In determining the design of this remedy, we considered the following issues:

- the GB cement market data covered by this remedy;
- the appropriate time lag for publication of cement market data;
- whether the MPA should continue to have overall responsibility for collecting the cement market data through Bessler Hendrie; and
- whether there should be an absolute prohibition on GB cement producers from submitting their data to other third party private sector organizations.

### *GB cement market data covered by this remedy*

3.213 We considered that any market data provided by the GB cement producers to the MPA (whether directly, or as at present through Bessler Hendrie) should be covered by this remedy.

3.214 We do not propose to include within the scope of this remedy, the data provided by the GB cement producers to the ONS in relation to the PRODCOM survey for the following reasons: (a) the provision of data by the GB cement producers to the ONS for the purposes of PRODCOM is required under EU law; and (b) the PRODCOM data is annual and only preliminary figures are published six months after the year end, which already exceeds the three-month time lag we have proposed under this remedy. In addition, there appears to be some 'noise' within the PRODCOM data for

UK cement since data on Northern Ireland was included (albeit we note that there are only two cement producers in Northern Ireland of which one is Lafarge Tarmac), such that the usefulness of this data to GB cement producers for monitoring their relative positions is limited.

3.215 When implementing this remedy, we will ensure that this remedy does not prevent the collection of cement market data by government agencies in accordance with their legal requirements to do so, eg the ONS in relation to its collection of data from the GB cement producers in relation to its PRODCOM survey, and for calculating its cement price indices for use in its producer price index.

*Appropriate time lag for publication of cement market data*

3.216 In relation to determining the appropriate time lag for the publication of cement market data, we sought to balance the needs of the wider user base for the data with the aims of our remedy. Currently, monthly data is published by the MPA and BIS one month in arrears and quarterly data is published three months in arrears. We considered that publishing monthly data one month in arrears provided the most timely and strategically valuable information in relation to determining a GB cement producer's relative share of sales of GB production.

3.217 We considered that delaying the publication of this monthly data by three months would to a large extent impair the strategic value of this data to the Top 3 cement producers such that the publication of this data would provide a less useful means by which the GB cement producers could detect deviations from the coordinated outcome, whilst retaining much of its value to the wider users of this data, eg BIS. The MPA told us that it was prepared to move to a three-month time lag for the publica-

tion of the monthly cement market data, and did not highlight any practical difficulties in this regard.<sup>236</sup>

3.218 We concluded that a time lag of three months for the publication of monthly, quarterly and annual cement market data would be sufficient to weaken any coordinating group's ability to rely on this data whilst providing the benefits conferred by the availability of this data to the wider economy and users.

*GB cement producers' provision of data to the MPA*

3.219 We considered whether the MPA should be involved in the collation of data and the role of third parties, in particular Bessler Hendrie, before considering whether the GB cement producers should be prohibited from providing any of their data to third party organizations.

3.220 The MPA told us that it had strict safeguards in place with Bessler Hendrie to prevent any leakage of individualized information to the MPA, its members and any other entities, with Bessler Hendrie never releasing an individual firm's information and only providing aggregated data (where there were at least three suppliers of data and no data where there were less than three suppliers). The MPA also told us that it had knowledge of this industry; relationships with the GB cement producers (including agreements in place for the management of the provision of this data); and that it would prioritize the collection and publication of this data whilst BIS was less likely to do so.<sup>237</sup>

3.221 On whether we should change the way that the GB cement producers provided the MPA with data, we took considerable comfort from the involvement of a third party such as Bessler Hendrie that was itself:

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<sup>236</sup> [MPA response hearing summary](#), paragraph 18

<sup>237</sup> [MPA response to Remedies Notice](#).

- independent of the GB cement producers in all respects, unlike the MPA which as a trade association would have ongoing working relationships and interactions with the GB cement producers; and
- bound by its ethical guidelines and regulated as a firm of chartered accountants, in particular in relation to issues concerning confidentiality and disclosure of commercially sensitive information.

3.222 We have reviewed the agreement between Bessler Hendrie and the MPA and considered that there were sufficient safeguards in place that prevented the dissemination of individual firm information to the MPA, its members and other parties. We therefore propose that the MPA should be permitted to maintain overall responsibility for collating the data from the GB cement producers, subject to the following conditions:

- The MPA must collate any data from each of the GB cement producers through a third party that is fully independent of the MPA and the GB cement producers. In particular, the third party should not have any working relationships with the GB cement producers other than through its engagement by the MPA to collate the relevant data.
- The terms of any engagement of the third party must contain provisions that prohibit the disclosure of any individual firm's data, or any aggregated data containing data from fewer than three firms. The MPA should ultimately be responsible for ensuring that the third party implements and maintains these safeguards.
- The third party engaged by the MPA to collate the data must not release any data (whether individual firm or aggregated data) to the MPA or any other party (including BIS) until such time as the time lag for disclosure, which we propose to be three months, has fully passed. For the avoidance of doubt, the release of individual firm data would be fully prohibited even after three months.

3.223 We found no reason to suspect that the MPA would seek to circumvent such a remedy proposal. However, in order to ensure that the MPA could not circumvent this remedy by changing its form and/or transferring its responsibilities to another entity, we propose that an obligation should be placed on the MPA to provide the OFT (or the CMA from 1 April 2014) with information on any change in circumstance being considered for the collation, aggregation and publication of the data in question, whereby the MPA must receive specific consent before it could change its practices from those in existence at the time of adoption of the remedial action.

*GB cement producers' provision of data to other private sector organizations*

3.224 We also considered whether there should be a full prohibition on the GB cement producers from providing any of their cement market data to other private sector organizations, other than that permitted under this remedy.

3.225 We considered that a remedy that narrowly targeted the MPA and its ability to collect and publish cement market data would leave significant scope for circumvention to take place given the much wider universe of possible private sector organizations that the GB cement producers could provide their data to without any restrictions. We considered that circumvention could take place either intentionally by the GB cement producers or inadvertently by a third party, eg a third party may wish to publish monthly cement production volumes (one month in arrears) for economic planning or environmental reasons, whereby the GB cement producers would face no restrictions on providing their individual data to this third party. The effect of such circumvention may be that it replicates the current situation which this measure is trying to address.

3.226 However, at the same time, we note that the GB cement producers may have legitimate reasons for wanting to provide their cement market data to third party organizations.

3.227 We would therefore propose that whilst a GB cement producer should be prevented from providing its sales and production data that has yet to pass its three-month time lag to a third party organization, the only exceptions to this prohibition are when one of the following two conditions is satisfied, either:

- the data is being collated by a permitted third party on behalf of the MPA ; or
- the third party does not also receive data from any other GB cement producer and the output is only used for internal consumption by the GB cement producer that had engaged the third party.

#### *Implementation of remedy measure*

3.228 In the first instance, we would seek to implement our proposals in relation to the MPA's obligations under this remedy by seeking undertakings from the MPA. Only by way of the MPA giving satisfactory undertakings would we be prepared for the MPA to retain its overall responsibility for collating the GB cement market data.

3.229 Absent such undertakings from the MPA, we will consider the alternative of recommending to BIS that it should assume responsibility for collecting the relevant data. We note that BIS had indicated that it would seek to implement any recommendation made by the CC in this regard and had not highlighted any practical issues that may prevent it from doing so.<sup>238</sup>

3.230 Should the MPA give satisfactory undertakings to collate the GB cement market data, BIS would continue to receive the relevant GB cement market data from Bessler Hendrie or a permitted third party appointed by the MPA, subject to the same three-month time lag faced by the MPA. Indeed, our remedy measure once implemented would effectively return BIS to a situation it had operated prior to 2006 when it had collected the data with a three-month time lag.

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<sup>238</sup> [BIS response to Remedies Notice](#), paragraph 12.

3.231 In relation to the restrictions described above concerning the ability of GB cement producers to provide their individual data to other third party private sector organizations, we noted that there would be a number of practical risks in seeking to implement a prohibition on all GB cement producers by way of undertakings, eg the complexity and length of time that might be involved in reaching any consensus or agreement with all of the GB cement producers. Moreover, undertakings would only bind current GB cement producers. As such, we considered that an Order would be more effective and expeditious in implementing this part of the remedy.

### **Remedy measure C: Price announcement letters remedy**

#### *Summary of proposed remedy*

3.232 Figure 3.3 summarizes our proposed remedy measure in relation to price announcement (or increase) letters.

FIGURE 3.3

#### **Summary of remedy measure: Price announcement letters remedy**

We have provisionally decided that:

- The CC should make an Order that prohibits GB cement suppliers from sending generic price announcement letters to their customers.
- This prohibition should apply to price announcement letters used for all forms of cementitious materials, including GGBS and PFA.
- This prohibition would apply to all GB cement suppliers and includes GB cement producers (and any new entrant that owns a cement plant divested as part of the implementation of our proposed package of remedies), importers and suppliers of GGBS and PFA.
- Whilst we do not propose a mandatory template for customer-specific price announcement letters, a customer-specific price announcement letter should specify: (a) the name of the customer and the effective date of any price change; (b) the current (or last) unit price paid by the customer; (c) the new unit price being proposed; and (d) details of any other changes that affect the overall price paid.

3.233 In this section, we set out our assessment and preliminary conclusions in relation to a possible remedy concerning price announcement letters. Our assessment is structured as follows:

- *Description of remedy measure*: where we provide an overview of this remedy option (paragraphs 3.234 to 3.236).
- *How this remedy measure addresses the AEC and/or customer detriment*: where we set out the general views of parties concerning the above question and our own assessment (paragraphs 3.237 to 3.251).
- *Design issues*: where we set out our assessment and preliminary conclusions on the scope of this remedy (paragraphs 3.252 to 3.262).
- *Implementation of remedy measure*: where we set out our consideration of the implementation of this remedy (paragraphs 3.263 to 3.269).

### *Description of remedy measure*

3.234 In the Remedies Notice, we proposed a remedy to prohibit all GB cement producers from sending generalized price announcement letters to their cement customers.<sup>239</sup>

3.235 In our provisional findings, we found that price announcement letters provided a means by which the Top 3 GB cement producers could exploit the structural susceptibility of the GB cement market to coordination, and that price announcement letters softened customer resistance to price increases.<sup>240</sup> We also provisionally found that the Top 3 cement producers appeared to be signalling that they would try to accommodate the others' price increases in many cases.<sup>241</sup>

3.236 We also noted in our provisional findings that there may be legitimate reasons for notifying customers of planned or intended price increases, eg recovery of forecast cost increases and recovery of actual cost increases previously not recovered (or under-recovered).<sup>242</sup> However, we also noted that this did not preclude price

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<sup>239</sup> Remedies Notice, paragraphs 72–74.

<sup>240</sup> Provisional findings, paragraphs 7.1.67 & 7.174 and Appendices 8.2, 8.3 & 8.4.

<sup>241</sup> *ibid*, paragraph 7.158.

<sup>242</sup> *ibid*, Appendix 7.11.

announcement letters from serving other, anti-competitive purposes at the same time.

*How this remedy measure addresses the AEC and/or customer detriment*

3.237 In relation to how this remedy addresses the Coordination AEC and/or customer detriment, we first set out the parties' general views on the effectiveness of this remedy, before setting out our own assessment and conclusions.

*General views from parties about the effectiveness of the remedy*

3.238 Most parties indicated that there were benefits to the provision of price information to customers, and it was noted by the GB cement producers that price announcement letters were an effective way to communicate with customers and provided a starting point for price negotiations to commence. The OFT submitted that notice of an intended price increase permitted the customer to plan and budget in advance and provided an opportunity for them to switch from, or terminate, the contract with their existing cement producer.

3.239 We set out below the general views concerning the effectiveness of this remedy from the four GB cement producers, before setting out the views of the other parties.

3.240 Lafarge Tarmac told us that price announcement letters did not materially influence actual prices and disagreed with our analysis of the role of these letters in facilitating price parallelism and price leadership. It noted that Anglo American and Lafarge had offered similar remedies during the Lafarge Tarmac JV merger inquiry but that these were not accepted by the CC at the time.<sup>243</sup>

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<sup>243</sup> [Lafarge Tarmac response to Remedies Notice](#), paragraphs 104–106 & 204.

- 3.241 Hanson did not agree that these letters had the ability to facilitate price leadership, price following or softening customer resistance to price increases.<sup>244</sup> However, it submitted that a prohibition on generalized price announcement letters would appear to address the CC's concerns.<sup>245</sup> It considered that any remedy should not prevent individualized proposals from being sent to customers.<sup>246</sup>
- 3.242 Cemex told us that a prohibition on generalized price announcement letters would reduce transparency and address a number of the CC's proposed concerns including: price leadership, price following and softening customers to price increases; transparency on competitor's prices; and Lafarge's leadership role in coordination.<sup>247</sup> It did not consider that it would be beneficial to develop a general template to be used for customer-specific price announcement letters as it would unduly restrict the commercial freedom of the GB cement producers and customers to negotiate in their preferred manner.<sup>248</sup>
- 3.243 MI told us that it did not use price announcement letters and preferred to deal with customers face to face.<sup>249</sup> It noted that it understood the risks around signalling and that a prohibition on generalized price announcement letters would not present any problems for it.<sup>250</sup>
- 3.244 Aggregate Industries considered that these letters were a starting point for negotiations and therefore it did not matter whether they were generalized or specific. It also told us that it received price announcement letters at the same time of year that it conducted its business planning and budget modelling, including negotiations with its own customers. It considered these letters to be a more efficient means of communi-

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<sup>244</sup> [Hanson response to Remedies Notice](#), paragraph 7.9.

<sup>245</sup> [ibid](#), Paragraph 7.10.

<sup>246</sup> [ibid](#), Paragraph 7.11.

<sup>247</sup> [Cemex response to Remedies Notice](#), paragraph 4.47.

<sup>248</sup> [ibid](#), paragraph 5.8.

<sup>249</sup> [MI and HCM response hearing summary](#), paragraph 34.

<sup>250</sup> [ibid](#), paragraph 37.

cation as opposed to face-to-face contact and it was important that this practice continued in some form.<sup>251</sup>

3.245 In relation to the views of the mid-tier independent aggregates and RMX producers:

- Breedon Aggregates told us that a move away from generalized price announcement letters in place of personalized letters would be logical including information about the actual prices paid by the customer which would reduce the likelihood that either the buyer or seller would allow the letter to be circulated more widely.<sup>252</sup> It also told us that letters relating to GGBS should be treated in the same way as cement.<sup>253</sup>
- Brett Group told us that it found price announcement letters beneficial especially when dealing with customers that had entered into contracts in excess of 12 months as it was able to use these letters to pass on price increases.<sup>254</sup> However, it did not put much credence in the letters themselves and preferred to negotiate face to face with the cement supplier.<sup>255</sup> It told us that it would not present any problems if suppliers wrote to it in more personal terms.<sup>256</sup>

3.246 In relation to the views of the cement importers:

- CRH told us that the proposed remedy would not impact on its business as Premier Cement did not currently send its customers such letters nor did it request them from the GB cement producers.<sup>257</sup>
- Titan understood the rationale for this remedy and was content with it although it pointed out that there would need to be clear rules on what was permissible and

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<sup>251</sup> [Aggregate Industries response hearing summary](#), paragraphs 22, 23 & 25.

<sup>252</sup> [Breedon Aggregates response hearing summary](#), paragraph 19.

<sup>253</sup> [ibid](#), paragraph 21.

<sup>254</sup> [Brett Group response hearing summary](#), paragraph 17.

<sup>255</sup> [ibid](#), paragraph 18.

<sup>256</sup> [ibid](#), paragraph 19.

<sup>257</sup> [CRH response hearing summary](#), paragraph 18.

what was not as suppliers still had to be able to communicate their pricing policy to their customer.<sup>258</sup>

- Dragon Alfa (CPV) told us that price announcement letters provided an indication of what the GB cement producers wanted to achieve and provided an idea of what it should be doing with its own prices.<sup>259</sup> It had abandoned the practice of sending such letters around two to three years ago and now negotiated directly with its customers. It would therefore not be problematic if the CC imposed a prohibition on these types of letters.<sup>260</sup>

3.247 Finally, the OFT submitted that it would expect customers to be told in advance of price changes so that they could budget accordingly and make well-informed decisions on whether to terminate their contracts and switch suppliers. It told us that the CC needed to consider the definition of 'price announcement' and suggested a wide definition that would encompass notifications about changes in either both actual prices and pricing structure. It added that it would prefer to see a prohibition of forms and content of communications rather than a template.

*Our assessment of how the remedy measure addresses the AEC/customer detriment*

3.248 As mentioned above in paragraph 3.235, we had provisionally found that the practice of sending generalized price announcement letters contributed to the Coordination AEC in the GB cement markets. We considered that a prohibition on generalized or generic price announcement letters would remove a means by which the GB cement producers were able to signal price increases to each other.

3.249 In our view, such a prohibition would bring about a change in the manner and possibly timing by which the GB cement producers communicated with their customers.

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<sup>258</sup> [Titan response hearing summary](#), paragraph 20.

<sup>259</sup> [Dragon Alfa \(CPV\) response hearing summary](#), paragraph 20.

<sup>260</sup> [ibid](#), paragraph 21.

For those customers that have annual contracts with the GB cement producers, the timing of their price announcement letters would potentially occur at different times of the year from other customers. This would replace the practice of generic letters being sent to all customers at pre-defined times in the year.

3.250 By being permitted only to produce customer-specific price announcement letters, it will be more difficult for the GB cement producers to appreciate the level of price increase their competitors are seeking to apply. Whilst some leakage of information is always possible (eg customers may provide their letters to another GB cement producer), having knowledge of one customer's specific price increase would not be sufficient to deduce accurately the gross price increase being sought that year by that cement producer. It is also possible that suppliers and customers may be less willing to allow price announcement letters to be circulated more widely within the market, if they were to contain customer-specific information about the prices to be charged.

3.251 However, to ensure that this remedy is sufficiently effective in addressing this aspect of the Coordination AEC we provisionally found, it may be necessary to extend the prohibition to other cementitious material such as GGBS and on to suppliers of these cementitious materials other than the GB cement producers. We consider this and other design issues below.

### *Design issues*

3.252 In considering the design of the remedy, we had regard to the risks typically associated with behavioural remedies, ie specification, circumvention, distortion and monitoring and enforcement risks. We considered the following specific design issues:

- *Scope of the remedy*: where we set out the appropriate scope of this remedy, in terms of products and providers (see paragraphs 3.253 to 3.256).

- *Specification of the remedy*: where we consider: (i) how any prohibition of generic price announcement letters should be specified; and (ii) whether any prohibition should be accompanied by a template illustrating the type of communications that would be permissible with customers about pricing (see paragraphs 3.257 to 3.262).

#### *Scope of the remedy*

- 3.253 In relation to the scope of this remedy, we considered which products and providers should be subject to any prohibition.
- 3.254 In our view, in order to prevent the effectiveness of this remedy from being undermined, eg by GB cement producers using generalized price announcement letters for other products to signal changes in the price of cement, we concluded that it would be necessary to ensure that the prohibition extends to all forms of cementitious materials sold by the GB cement producers. This would include GGBS and PFA.
- 3.255 We considered that generic price announcement letters, whether issued by the GB cement producers or other suppliers of cementitious materials, represented a feature of the GB cement markets which could have the potential to distort competition in the future absent their prohibition. We therefore considered it appropriate for this remedy to apply to all GB suppliers of cementitious materials in addition to the GB cement producers, including, for the avoidance of doubt, HCM, any new entrant that owns a cement plant divested as part of the implementation of our proposed package of remedies, as well as GB cement importers and suppliers of GGBS and PFA (together, the GB cement suppliers).
- 3.256 We would, however, exclude certain types of cement suppliers from the requirements of this remedy, depending on the nature of their principal activity, which might cate-

gorize them as a cement customer rather than a cement supplier, eg intermediaries such as builders' merchants. This would ensure that the practice of sending generalized price announcement letters was effectively removed from the market and did not reappear in another form. In this context, we noted HCM's support for this remedy and considered that the extension of the measure beyond the Top 3 cement producers whose behaviour had contributed to the Coordination AEC was not especially onerous.

#### *Specification of the remedy*

3.257 We now consider how a prohibition should be specified and whether those subject to this remedy should be required to use a set template for a customer-specific price announcement letter.

- *Specification of the prohibition*

3.258 We considered that any prohibition must be sufficiently clear as to the conduct we are seeking to prohibit. In particular, in relation to a prohibition of generic price announcement letters, we would need to consider its definition:

- By the term 'generic', we considered that it includes information expressed in a general manner, whether addressed to an individual customer or not, which is not specific to a particular customer's demand for cementitious products and would apply equally to any existing or new customer. This term should be clearly defined so as to exclude the use of customer-specific letters.
- By the term 'price', we considered this to include gross prices for cementitious products, percentage price increases and pricing structures (including discounts and rebates). We considered that this remedy should also apply to price movements and not just price increases since in a declining market, coordination may also be reached on the maximum price decreases that should be made, which would also result in realized prices being higher than might otherwise be the case.

Other areas to consider as part of the implementation of this remedy would include whether a change in other prices, eg fuel surcharges, should be included in this definition.

- By the term 'letters', we considered this to include all modes of written communication made by GB cement suppliers to their customers, eg letters, notes, memoranda, emails and faxes.
- *On whether there should be a template for customer-specific letters*

3.259 We considered whether to provide a template price announcement letter, either as a mandatory format which must be used, or to illustrate the types of communication with customers which would be permitted in the future.

3.260 A potential benefit of this approach would be that it provides greater specificity to the remedy, making it easier for GB cement suppliers to comply with, and for customers and the appropriate monitoring authority to detect any divergence.

3.261 However, one potential risk of requiring a mandatory format would be that the GB cement suppliers may be less inclined to be flexible in the manner in which they communicated with their customers. Such action may also harmonize how they communicated with their customers and may remove the likelihood for further improvements in this area. Furthermore, the definition and interpretation of terminology may not be consistent across all of the GB cement suppliers and therefore imposing a template may remove these differentiations and add to the complexity of the implementation of this remedy.

3.262 We concluded that on balance, the costs of requiring the GB cement suppliers to use a set template for their price announcement letters outweighed its potential benefits and therefore, we would not seek to mandate the use of a template. However, to

assist in understanding how we anticipate this remedy would work, we give, at Appendix 5, an illustrative example of a customer-specific price announcement letter.

In the absence of a mandatory use of a specific template, we would, however, propose that a customer-specific price announcement letter should specify:

- the name of the customer and the effective date of any price change;
- the current (or last) unit price paid by the customer;
- the new unit price being proposed; and
- details of any other changes that affect the overall price payable.

### *Implementation of remedy measure*

3.263 In our consideration of the implementation of this remedy, we looked at:

- the instrument by which this remedy should be implemented, eg by way of the GB cement suppliers giving undertakings or by way of an Order;
- the timetable for its implementation; and
- monitoring and enforcement considerations.

### *Instrument by which this remedy should be implemented*

3.264 Since the Top 3 cement producers did not object to this remedy proposal, with [REDACTED] and Lafarge Tarmac already putting in place changes to their processes,<sup>261</sup> we considered it unlikely that they would resist this remedy. Furthermore, given MI's stance on these issues, ie that it did not use generalized price announcement letters, we also considered it likely that it would also agree to such a remedy.

3.265 We considered whether to pursue the implementation of this remedy through a series of undertakings or Orders. In our view, we considered that there were a number of identifiable risks with implementation through undertakings:

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<sup>261</sup> [Lafarge Tarmac response hearing summary](#), paragraph 38.

- Since we would seek to extend the scope of this remedy to include all cementitious materials, we may face some resistance from the GB cement suppliers to limit the remit of the undertakings.
- Entering into negotiations with all of the GB cement suppliers would likely increase the complexity and length of time that would be needed to implement this remedy. We also considered that there was an increased likelihood that there would not be absolute uniformity in the undertakings each GB cement supplier signed up to.

3.266 In light of the above issues, we concluded that the most expeditious means of implementing this remedy and ensuring uniformity in application was to do so by way of issuing an Order.

*Timetable for implementation*

3.267 We considered that the implementation of this remedy would neither be difficult nor onerous. As mentioned above, we noted that [X] and Lafarge Tarmac have told us that they have already changed their practices and now send customer-specific price announcement letters.

3.268 We would also highlight that since this remedy would be capable of implementation within a short time frame, we considered that this remedy would be likely to be an effective means of addressing the targeted conduct feature in relation to price announcement letters that contributed to our provisional Coordination AEC finding.

*Monitoring and enforcement considerations*

3.269 As a behavioural remedy, monitoring compliance is important to ensure it has the intended impact of addressing the AEC we have provisionally identified. We considered that a prohibition of this nature is capable of effective monitoring in that it is a transparent and visible action by the GB cement suppliers (sending notification (in

whatever form) to its customers), and therefore any deviation would be capable of easy detection. We considered that the number of customers served by GB cement suppliers was sufficient to hold them to account.

### **Remedy measure D: GGBS and GBS remedies**

#### *Summary of proposed remedy*

3.270 Figure 3.4 below summarizes our proposed remedy to increase competition in the GGBS supply chain and thereby address the AEC in GGBS and the GGBS-related AEC we have provisionally identified and their resulting customer detriment. Our final decision on this remedy will be conditional upon our continued adherence to our findings as set out in our provisional findings and Addendum to PFs.

FIGURE 3.4

#### **Summary of remedy measure: GGBS and GBS remedies**

We set out below our preliminary conclusions on this proposed remedy measure:

##### *Proposed downstream remedy in relation to GGBS:*

- Hanson should divest two GGBS plants.
- The remedy with the fewest divestiture risks, in our view, is for Hanson to divest its two active GGBS plants at Port Talbot and Scunthorpe, where:
  - (a) a divestiture of the Port Talbot GGBS plant should be accompanied by the divestitures of Hanson's Glasgow and Teignmouth depots; and
  - (b) a divestiture of the Scunthorpe GGBS plant should allow for Hanson's existing Calumite Ltd JV to continue operating on the Scunthorpe GGBS plant site. This would be subject to Hanson providing satisfactory undertakings that ensure that the operation of this JV does not compromise the ability of the Scunthorpe GGBS plant to compete independently from Hanson.
- However, we would be prepared to consider alternative GGBS plant divestitures involving:
  - (a) Hanson's active Purfleet GGBS plant if Hanson were able to address the additional divestiture risks associated with this plant; or
  - (b) Hanson's currently mothballed Teesport GGBS plant, which is situated near the Teesside GBS plant and steelworks, if Hanson were able to reactivate this plant within the specified divestiture period and subject to Hanson providing the CC with confirmation of the viability of the Teesport GGBS plant as a going concern.
- Each GGBS plant divestiture should include the assets and operations required for it to

compete on a stand-alone basis including, subject to the purchaser's requirements, its own vehicle fleet.

*Proposed upstream remedy in relation to GBS:*

- Lafarge Tarmac should divest two of its three GBS plants, namely the GBS plants at Port Talbot, Scunthorpe and Teesside.
- In our view, the remedy with the fewest divestiture risks would be for Lafarge Tarmac to divest its Port Talbot and Scunthorpe GBS plants. However, we would be prepared to consider divestiture of the Teesside GBS plant, if Lafarge Tarmac wished to retain one of the other two plants and if it were able to address the additional divestiture risks associated with this plant.

*Suitable purchasers of GGBS and GBS plants*

- A divestiture of GGBS plants should be made to a purchaser(s) who satisfies the CC's suitable purchaser criteria and therefore should not be made to another GB cement producer. To avoid circumvention of this requirement, any purchaser of a divested GGBS plant would be required to give an undertaking not to sell the acquired GGBS plant to a GB cement producer either for a period of ten years or without consent from the CC (or the CMA from 1 April 2014).
- A divestiture of GBS plants should be made to a purchaser(s) who satisfies the CC's suitable purchaser criteria and therefore should not be made to another GB cement producer. To avoid circumvention of this restriction, any purchaser of a divested GBS plant would be required to give an undertaking not to sell the acquired GBS plant to a GB cement producer without the CC's consent (or the CMA's consent from 1 April 2014).
- Whilst our preference would be for the divestiture of GGBS plants and GBS plants to be made to more than one purchaser, we would be prepared to consider a solution where a single purchaser was permitted to acquire: (a) both GGBS plants; (b) both GBS plants; or (c) up to two GGBS and two GBS plants.

*Proposals concerning the supply relationship between GBS and GGBS producers*

- The plant divestitures required under this remedy are likely to involve the effective cessation of the current exclusive long-term agreements between Hanson and Lafarge Tarmac. Therefore, as part of its oversight of the divestiture process, the CC will review the supply agreements governing the supply of GBS and GGBS to ensure that these do not compromise the effective implementation of this remedy.

*Remedy implementation*

- A monitoring trustee should be appointed as soon as reasonably practicable following the publication of our final report, who will be charged with overseeing both Hanson's GGBS and Lafarge Tarmac's GBS operations and ensuring the protection of the package of assets that will form part of any divestiture. In particular, the monitoring trustee should report on the allocation of GBS volumes across the GGBS plants, and provide a monthly report to the CC on the financial performance of each GGBS plant and GBS plant subject to divestiture benchmarked against the performance of the divesting parties' remaining plants.
- From the date of signing the final undertakings, or the issuance of an Order (whichever may be applicable), the divestiture period should not exceed: (a) [X] months for the

GGBS plant divestitures; and (b) [X] months for the GBS plant divestitures.

- Hanson and Lafarge Tarmac should each periodically provide the CC with an update on the progress of their respective divestiture processes against a timetable to be agreed with the CC. The CC reserves the right to appoint a divestiture trustee should divestitures not be implemented within the maximum divestiture period; or if the CC reasonably expects that the divestiture period would likely exceed the relevant maximum divestiture period.

3.271 In this section, we set out our assessment of the GGBS and GBS remedies, and the preliminary conclusions we reached. Our assessment is structured as follows:

- (a) Description of the remedy measure:* where we provide a description of the relevant remedy options set out in our Remedies Notice (paragraphs 3.272 and 3.275);
- (b) How this remedy measure addresses the AEC and/or customer detriment:* where we set out the general views of parties on the effectiveness of this remedy, and our own view of how the remedy would address both the AEC in GGBS and the GGBS-related AEC in the GB cement markets and/or their resulting customer detriment, as well as consider any potential impact of this remedy on the Coordination AEC in the GB cement markets (paragraphs 3.276 to 3.288);
- (c) The need for each element of the remedy:* where we set out why each aspect of the remedy is necessary and how the different elements combine to address the relevant AECs and/or their resulting customer detriment (paragraphs 3.289 to 3.336).
- (d) Other design issues:* where we set out our assessment and provisional conclusions on the specification of the different elements of this remedy (paragraphs 3.337 to 3.464); and
- (e) Implementation issues:* where we set out how we proposed to take forward and implement the remedy (paragraphs 3.465 to 3.482).

### *Description of remedy measure*

3.272 In our Remedies Notice, we set out a possible remedy comprising one or more of the following elements to address the GGBS-related AEC in the GB cement markets and/or the resulting customer detriment:<sup>262</sup>

- (a) a divestiture of at least one of Hanson's GGBS plants;
- (b) a divestiture of at least one of Lafarge Tarmac's GBS plants; and/or
- (c) a prohibition of any exclusive agreements between operators of GGBS and GBS plants.

3.273 Following our further assessment of the evidence on competition in GGBS which is set out in our Addendum to PFs,<sup>263</sup> we augmented our provisional findings in relation to the GGBS supply chain, and provisionally found that the following features of the GB cement markets combine to give rise to an AEC in GGBS and a GGBS-related AEC in the GB cement markets, resulting in higher prices for GGBS and for cement than might otherwise be the case:<sup>264</sup>

- (a) The extensive participation of Lafarge Tarmac and Hanson in both the GGBS supply chain on the one hand, and the GB cement markets on the other, whereby Lafarge Tarmac and Hanson are two of the Top 3 cement producers and between them own all of the GBS and GGBS plants in GB. As stated in our Addendum to PFs, this is a structural feature of the GB cement markets and a characteristic of the GGBS market;
- (b) Lafarge Tarmac's entering into, and maintaining of, exclusive long-term agreements with GB steel producers for the supply by the GB steel producers of BFS for Lafarge Tarmac to produce GBS; and

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<sup>262</sup> Remedies Notice, paragraphs 93 & 95.

<sup>263</sup> Our assessment of the evidence on competition in GGBS is set out in the Addendum to PFs, paragraphs 84–91.

<sup>264</sup> Addendum to PFs, paragraph 94.

(c) Lafarge Tarmac's and Hanson's entering into, and maintaining of, exclusive long-term agreements with each other for the supply by Lafarge Tarmac of GBS for Hanson to produce GGBS.

3.274 Given that the underlying causes that give rise to the GGBS-related AEC in the GB cement markets are identical to those that give rise to our further AEC in GGBS, we concluded that the remedy options set out in our Remedies Notice to address the GGBS-related AEC were equally valid to addressing the AEC in GGBS.

3.275 For the purposes of our assessment, we defined the series of exclusive long-term agreements (of which there are three active and one lapsed agreements) between Lafarge Tarmac and the GB steel producers for the supply of BFS and steel slag as the 'BFS agreements'; and the series of exclusive long-term agreements (of which there are three active agreements) between Hanson and Lafarge Tarmac for the supply of GBS as the 'GBS agreements'.

#### *How this remedy measure addresses the AEC and/or customer detriment*

3.276 In our Remedies Notice, we stated that the remedy option we had proposed could be effective in addressing the AECs in the GB cement markets by increasing competition within the entire GGBS supply chain and consequently increasing competitive pressures within the GB cement markets.<sup>265</sup> For the reasons set out in paragraph 3.274 above, we concluded that these remedy options are equally valid in addressing the AEC in GGBS.

3.277 We first set out the general views of the parties on the effectiveness of this remedy option based on their responses to our Remedies Notice and/or their response hearings, before setting out our own view of how this remedy is likely to address the

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<sup>265</sup> Remedies Notice, paragraph 91.

AEC in GGBS and the GGBS-related AEC and their resulting customer detriment, as well as how it may potentially impact on the Coordination AEC and its resulting customer detriment.

3.278 Some of the parties provided their views on the costs, loss of RCBs and proportionality of implementing this remedy. These views are considered later in this document when we evaluate potential RCBs and the proportionality of our proposed package of remedies.

*General views from parties about the effectiveness of the various remedy options*

3.279 Hanson told us that the exclusivity granted by its GBS agreements was critical for its GGBS operations to ensure they could secure GBS from multiple locations given the lack of stability in steel production, the absence of any guarantee in relation to the supply of BFS, and the consequent [redacted] supply of GBS.<sup>266</sup> It told us that the customer benefited from having access to a product on a national basis and the uncertain future of the steel industry was such that only a single supplier with access to all three steelworks could provide the required supply and availability of GBS should one of the plants no longer be operating.<sup>267</sup> [redacted] It also argued that the steel producers themselves would not have a strong demand for producing either GBS or GGBS because the current arrangements were driving the supply and demand for GGBS in the market.<sup>268</sup>

3.280 However, Lafarge Tarmac told us that a remedy that freed up the GGBS supply chain would drive down GGBS prices, enabling customers to secure access to low-cost and local sources of GGBS, and also help to drive down the price of cement.<sup>269</sup> It told us that under the GBS agreements, it was prevented from lowering the price of GBS,

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<sup>266</sup> [Hanson response hearing summary](#), 2 July 2013, paragraph 44.

<sup>267</sup> [ibid](#), 23 July 2013, paragraph 25.

<sup>268</sup> [ibid](#), 23 July 2013, paragraph 33.

<sup>269</sup> [Lafarge Tarmac response hearing summary](#), paragraph 12.

since the price it received for GBS was linked to Hanson's selling price of GGBS. It believed that an effective remedy would take the form of its full exit from its GBS operations in order to facilitate the creation of new GBS producers that would have the ability to set their own prices and sell GBS to the open market to any customer that could grind GBS into GGBS (including the GB cement producers).

3.281 In relation to the views on the effectiveness of this remedy from the two GB steel producers that were party to the BFS agreements with Lafarge Tarmac, namely Tata Steel UK Ltd (Tata) and Sahaviriya Steel Industries UK Ltd (SSI):

(a) Tata believed that the [REDACTED], and that any 'anti-competitive' issues existed because

[REDACTED].<sup>270</sup> It told us that the GGBS market was closer to the cement market<sup>271</sup> and

[REDACTED].<sup>272</sup>

(b) SSI, [REDACTED], told us that [REDACTED].<sup>273</sup> It considered that the market for slag products had

for some time been 'tightly controlled' by individual firms at various stages of the supply chain through their 'specialization' and 'very long-term' contracts. [REDACTED]<sup>274</sup>

SSI also told us that for a competitive market, there would need to be several GGBS plant owners, and probably at least as many as the number of owners of GBS plants.<sup>275</sup>

3.282 We set out below the views of the other Majors:

(a) Cemex told us that prices were determined through negotiations and therefore it

did not know whether increased competition would drive down GGBS prices.<sup>276</sup>

However, even if increased competition did result in lower GGBS prices, it told us that it would not look to increase the amount of GGBS it purchased.<sup>277</sup>

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<sup>270</sup> [Tata Steel response hearing summary](#), paragraph 1.

<sup>271</sup> [ibid](#), paragraph 30.

<sup>272</sup> [Tata Steel response to Remedies Notice](#), p2, under ii) a).

<sup>273</sup> [SSI response to Remedies Notice](#), p2, paragraph A.

<sup>274</sup> [ibid](#), p2.

<sup>275</sup> [ibid](#), p2, paragraph C.

<sup>276</sup> [Cemex response hearing summary](#), paragraph 36.

<sup>277</sup> [ibid](#), paragraph 35.

(b) MI told us that the [REDACTED].<sup>278</sup>

(c) Aggregate Industries told us that it was not well placed to comment on the effectiveness of this remedy as [REDACTED].<sup>279</sup>

3.283 Breedon Aggregates and Brett Group, both mid-tier independent aggregates and RMX operators, focused on the effectiveness of a GGBS plant divestiture remedy:

(a) Breedon Aggregates considered that whilst a GGBS plant could be divested to any of the existing GB cement producers other than Hanson, a divestiture to HCM, as the new entrant in the GB cement markets, might encourage more competition, and a divestiture to a party that was independent of any of the GB cement producers, would likely result in the new entrant competing ‘vigorously’ against them.<sup>280</sup>

(b) Brett Group told us that it considered Hanson’s ‘domestic monopoly’ in the supply of GGBS allowed it to sell GGBS at a price that tracked below the price of CEM I cement in order to maintain its GGBS sales volumes.<sup>281</sup> It told us that this ‘monopoly’ was one of the reasons why it imported GGBS for its internal use,<sup>282</sup> and that it would prefer to deal with a number of competing GGBS suppliers.<sup>283</sup>

3.284 In relation to the views of three GB cement importers, CRH told us that its businesses were not affected by the current arrangements in GB for the production of GBS and GGBS as CRH was not involved with GBS or GGBS production.<sup>284</sup> Titan told us that it was unable to comment on this remedy as it was not involved in this aspect of the market either in GB or in other countries.<sup>285</sup> However, Dragon Alfa (CPV) told us that where the supply of both GBS and GGBS were under the control

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<sup>278</sup> [Mittal/HCM response hearing summary](#), paragraph 47.

<sup>279</sup> [Aggregate Industries response to Remedies Notice](#), paragraph 8.3.

<sup>280</sup> [Breedon Aggregates response hearing summary](#), paragraph 26.

<sup>281</sup> [Brett Group response hearing summary](#), paragraph 26.

<sup>282</sup> *ibid*, paragraph 24.

<sup>283</sup> *ibid*, paragraph 26.

<sup>284</sup> [CRH response hearing summary](#), paragraph 21.

<sup>285</sup> [Titan response hearing summary](#), paragraph 19.

of a limited number of firms, it was unlikely that this situation would be beneficial to the 'overall market', and that 'competition issues' were likely to arise from this.<sup>286</sup>

3.285 Finally, the OFT told us that there might be scope for Hanson to divest some, or all, of its GGBS plants to independent operators, and that this might serve to increase the 'visibility' of GBS prices upstream, as well as expose GGBS to some, albeit likely limited, competition from GGBS imports.<sup>287</sup>

#### *Our views*

3.286 Having considered these views, and given that GGBS is both an input into cement production and a substitute for cement in the production of RMX and other downstream uses of cement,<sup>288</sup> we took the view that a remedy that was effective in generating competition to supply GGBS would address a number of aspects of the AECs and their resulting consumer detriment that we have provisionally found:

- (a) First, the remedy would directly address the underlying causes of the lack of competition in the GGBS supply chain that we have provisionally found gives rise to the AEC in GGBS and the GGBS-related AEC. We would expect a more competitive market for GGBS to reduce prices of GGBS, thereby addressing the resulting customer detriment of high GGBS prices and its consequential effect on the price of blended cement and other downstream products in which GGBS is a component.
- (b) Secondly, we would expect that an effective GGBS remedy would have an indirect effect on cement prices by increasing the competitive constraint of GGBS on the price of cement given that GGBS is a partial substitute for cement. This in turn could reduce the extent of the consumer detriment arising from the GGBS-related AEC and the Coordination AEC in the GB cement markets, to some

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<sup>286</sup> [CPV response hearing summary](#), paragraph 26.

<sup>287</sup> [OFT response to Remedies Notice](#), paragraph 25.

<sup>288</sup> Addendum to PFs, paragraph 85(a).

degree, by constraining the cement price that is possible to achieve through coordination.

(c) Thirdly, an effective GGBS remedy has some potential also to indirectly address the Coordination AEC to some degree, by making coordination harder to sustain in the GB cement markets. For example, a stronger constraint from GGBS pricing might reduce the potential gains from coordination, which could in turn affect the balance of incentives facing GB cement producers between competition and coordination and/or make it more difficult to sustain a coordinated outcome.

3.287 In addition, Lafarge Tarmac told us that there was a substantial GBS stockpile that was currently available, which stood at [less than 1] Mt as at the end of FY12, which it forecast would double to [X] Mt by the end of FY13. Hanson estimated its current GBS stockpile at [less than 1] Mt, but considered this to be an ‘absolute maximum’, and that this figure was likely to be much lower at [X] Mt due to age and quality issues (see Appendix 6, Annex I). We are still exploring with both parties the usability of the stockpiled GBS for grinding into GGBS. In any case, we would expect any incentives to ‘stockpile’ GBS or GGBS to reduce substantially in a more competitive environment, increasing their available supply and putting downward pressure on prices.

3.288 We had regard to each of the above effects set out in paragraph 3.286 above and how each element of this remedy would contribute to remedying the AECs and their resulting customer detriment that we provisionally found when we considered the components of the remedy and its detailed design (paragraphs 3.289 to 3.464).

*The rationale for each element of the remedy*

3.289 We considered what interventions would be necessary to achieve a more competitive operation of the GGBS supply chain and hence address the AECs we provisionally found.

3.290 In our Addendum to PFs, we provisionally found that Hanson has the ability to exercise significant market power in the supply of GGBS in GB, and stated that Hanson's market power is derived primarily from the fact that Hanson is the sole producer of GGBS in GB, which in turn arises because.<sup>289</sup>

- (a) Lafarge Tarmac is the sole producer of GBS in GB by virtue of it: (i) owning all the GBS plants currently used in GB for producing GBS; and (ii) having entered into, and maintained, the exclusive BFS agreements it has with the GB steel producers;
- (b) Hanson owns all the GGBS plants currently used in GB for the production of GGBS, with Hanson's position being reinforced and secured because Hanson and Lafarge Tarmac have entered into, and maintained, exclusive GBS agreements with each other, which grant Hanson exclusive rights to use all of the GBS produced in GB for the production of GGBS; and
- (c) Hanson and Lafarge Tarmac are both active as two of the Top 3 cement producers, which further contributes to their incentives to keep their exclusive arrangements in place and to maintain high prices of GGBS, given the effects that high GGBS prices have on cement prices.

3.291 We also stated in our Addendum to PFs that Hanson's ability and incentive to exercise significant market power in the supply of GGBS is likely to result in: (a) prices of

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<sup>289</sup> *ibid*, paragraphs 89 & 90.

GGBS in excess of what we would expect in a well-functioning market; and (b) prices in the GB cement markets being higher than they would otherwise be.<sup>290</sup>

3.292 We therefore considered the various elements that should form part of this remedy that would address the AEC in GGBS and the GGBS-related AEC in the GB cement markets. As part of such a remedy we considered the following:

(a) Facilitating new entry into the GGBS market through the divestiture by Hanson of its GGBS plants (see paragraphs 3.293 to 3.303), thereby addressing both:

- (i) Hanson's ownership of all of the GGBS plants in GB, which is underpinned by the GBS agreements and contributes to Hanson's significant market power in GGBS (see paragraph 3.290(b) above); and
- (ii) Hanson's extensive participation in both the GB cement markets and the GGBS supply chain, which gives Hanson the incentive to keep its exclusive arrangements with Lafarge Tarmac in place and to maintain high prices of GGBS (see paragraph 3.290(c) above). A GGBS plant divestiture by Hanson to a purchaser(s) that is independent of the GB cement producers would weaken the structural link that currently exists between the GB cement markets and the GGBS supply chain that contributes to Hanson's significant market power, and address the structural feature in the GB cement markets that contributes to the AECs we provisionally found.

(b) The implications for the current GBS agreements of implementing such GGBS plant divestitures (see paragraphs 3.304 to 3.309).

(c) Whether there was a need to intervene further at the upstream level of GBS production (see paragraphs 3.310 to 3.331).

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<sup>290</sup> *ibid*, paragraph 91.

*Need for downstream GGBS remedy*

- 3.293 We first considered the need for a remedy concerning the downstream level of GGBS production. In relation to a remedy focusing only on the downstream level of the GGBS supply chain, we identified two possible concerns, namely:
- (a) concerns surrounding the ability of a new entrant to source GBS cost effectively given the existence of the exclusive long-term GBS agreements between Hanson and Lafarge Tarmac, the sole producer of GBS in GB; and
  - (b) that other than Hanson, only the GB cement producers currently have the potential capability to grind GBS into GGBS, subject to the appropriate modifications being made to their existing plant and equipment. We considered that a GB cement producer that entered into GGBS production would be likely to face similar incentives to those of Hanson, to maintain high prices of GGBS, given their effects on cement prices (see paragraph 3.290(c) above).
- 3.294 We take these concerns into account when we consider a stand-alone downstream remedy below.
- 3.295 At present, Hanson owns all of the GGBS plants in GB. Therefore, any scope for increased competition to supply GGBS would need to come from:
- (a) a GB cement producer modifying and adapting an existing clinker grinding mill to grind GBS into GGBS;
  - (b) a party (but not necessarily a GB cement producer) investing in the construction of a new GGBS plant; or
  - (c) a purchaser(s) of a divested GGBS plant(s) from Hanson.
- 3.296 In relation to the first two forms of entry into GGBS production, given that Hanson has exclusive long-term supply agreements to source all the GBS produced in GB, any new entrant into GGBS production would not be able to source GBS from

domestic sources of supply. However, in relation to the first form of entry, whereby a GB cement producer modifies and adapts its existing clinker grinding mill for GGBS production, if we assumed that a GB cement producer could source GBS cost effectively (eg in the event of the effective cessation of the GBS agreements as set out in the next section), it would have two possible options:

- (a) to use its clinker grinding mill (subject to some modifications) to grind both clinker and GBS together (co-grinding) to produce pre-blended cement; and/or
- (b) to use a spare clinker grinding mill (subject to some modifications) as a dedicated GBS grinding mill (ie effectively converting a clinker grinding mill into a GGBS plant).

3.297 Based on our assessment in Appendix 6, Annex A, we found that the GB cement producers would have the ability either to co-grind or convert their existing clinker grinding mills to grind GBS into GGBS, subject to additional investment, ranging from £[redacted] million (Cemex) to £[redacted] million (Lafarge Tarmac) per clinker grinding mill. We were told that this conversion could take between [redacted] months (Cemex) and [redacted] months (Lafarge Tarmac) to complete.

3.298 We first considered whether the GB cement producers would have the incentive to invest in modifying their clinker grinding mills to co-grind and produce pre-blended cement (see Appendix 6, Annex D). Based on our assessment, we found that:

- (a) given that average pre-blended cement prices were lower than average CEM I prices, a GB cement producer when faced with a choice of utilizing its grinding mill capacity to produce either CEM I or pre-blended cement, would be more likely to produce CEM I at the expense of co-grinding than the reverse;
- (b) there may be considerable inertia in relation to the uptake of pre-blended cement arising from: (i) GB cement producers deciding to co-grind, as mentioned above; and/or (ii) downstream cement customers deciding to purchase pre-blended

cement, given that ‘self-blending’ to produce the desired blended cement in their concrete mix is predominantly the current industry practice in GB rather than purchasing pre-blended cement; and

(c) given the different ‘optimal fineness’ for each of ground GBS and ground clinker, co-grinding may result in clinker being excessively ground and also require greater power consumption. Therefore there may be strong practical and financial considerations why GBS should be ground separately from clinker, and blended separately with CEM I cement at a blending station to produce pre-blended cement or self-blended by downstream concrete producers at their own plants.

3.299 For the reasons given above, we considered it likely that the other GB cement producers would have limited incentives to co-grind (see Appendix 6, Annex D), and that their entry into GGBS production, should they be incentivized to do so, would be more likely through investing into, and modifying, one of their spare clinker grinding mills for dedicated GBS grinding, though this would also require a relatively significant investment. However, we note that no other GB cement producer has to date entered into GGBS production in GB. Moreover, even if a GB cement producer decided to enter into GGBS production in GB and import GBS from a supplier other than Lafarge Tarmac, this would still not address the structural link between the GB cement markets and GGBS market (and the incentives to which this gives rise to maintain high GGBS prices) that represents one of the underlying causes to our AEC in GGBS and the GGBS-related AEC.

3.300 Given these concerns relating to the distortions in competition arising from the structural link between the GB cement and GGBS markets, we considered the second form of entry, whereby a new entrant, and not necessarily a GB cement producer, might enter into GGBS production through the construction of a new GGBS plant. Hanson told us that this option would first involve obtaining the relevant planning

permissions, and then a further [x] to [x] months to construct the plant. According to Hanson's own estimate of the gross replacement cost for each of its three active GGBS plants (including freehold land, silos and road infrastructure), the figures were: £[x] million for its Port Talbot GGBS plant (with production capacity of around [x]); £[x] million for its Scunthorpe GGBS plant ([x]); and £[x] million for its Purfleet plant ([x]). Given the timescale and significant costs of constructing a new GGBS plant, we judged that de novo entry was less likely in the short to medium term than a GB cement producer converting its existing clinker grinding mill for co-grinding or dedicated GBS grinding. Moreover, given that Hanson has exclusive rights to all of the GBS produced in GB through its GBS agreements with Lafarge Tarmac, the sole producer of GBS in GB, any new entrant would be required to source its GBS from non-domestic sources.

3.301 In relation to this requirement of a de novo entrant to source all of its GBS from imports, we noted that Hanson's Port Talbot and Scunthorpe GGBS plants are each located next to one of Lafarge Tarmac's GBS plants. We therefore considered it likely that this would provide Hanson's GGBS plants with a significant advantage in relation to both their costs of sourcing GBS, and their ability to source a more secure and guaranteed level of GBS supply, over any potential new entrant whose production facilities did not share the same benefits of co-location with a source of GBS supply. We explore this area further in paragraphs 3.365 to 3.379 below, when we consider the likely approach of divested GGBS plants to sourcing GBS.

3.302 Based on our above assessment, we concluded that:

- (a) Hanson benefited from significant incumbency advantages as the only GB-based supplier of GGBS and having been so over a significant period of time;
- (b) Hanson benefited from the advantages associated with owning all of the GGBS plants in GB, in particular the advantages associated with GGBS plants being co-

located with their respective sources of GBS supply, ie given that there can only be three GBS plants in GB (ie one for each GB steelworks), Hanson owns the three GGBS plants (two active and one mothballed) that are co-located, or located in close proximity to these GBS plants; and

(c) Hanson would remain as the only GGBS producer until its exclusive GBS agreements expire in 2029, given the costs and risks faced by a potential new entrant in relation to investing in new facilities and commencing its own GGBS operations.

3.303 For the reasons stated above, we concluded that a divestiture of GGBS plants by Hanson was necessary to have a sufficient impact on competition by increasing the number of GB-based GGBS producers with access to a secure and cost-effective source of GBS. This would address directly and at source one of the underlying causes of Hanson's significant market power, ie its ownership of all of the GGBS plants in GB. We further concluded that a divestiture of a GGBS plant(s) to another GB cement producer would undermine the effectiveness and competitive impact of our remedy and fail to address the structural link between the GB cement and GGBS markets and the resulting incentives that this would create, given that a purchaser of a GGBS plant(s) that is also a GB cement producer would likely face similar incentives to those of Hanson to maintain high GGBS prices. Therefore, we concluded that a GGBS plant divestiture by Hanson should be made to a purchaser that is independent of the GB cement producers.

*The impact of GGBS plant divestitures on the GBS agreements*

3.304 We considered the implications of a GGBS plant divestiture remedy on the current GBS agreements between Hanson and Lafarge Tarmac.

3.305 In Appendix 6, Annex N, Figure 1, we illustrate how the current GBS agreements govern Lafarge Tarmac's supply of GBS to Hanson. There are three separate agreements that comprise the GBS agreements, each of them between Lafarge Tarmac and Hanson. This illustration shows that:<sup>291</sup> [✂].

3.306 We noted in Appendix 6, Annex N, Figure 1, that since Hanson's Teesport GGBS plant is mothballed and Lafarge Tarmac's Llanwern GBS plant is closed, the actual supply of GBS followed a different pattern to that set out in their respective GBS supply agreements, ie the Teesside GBS plant currently supplies the Purfleet GGBS plant. This is made possible given Hanson's ownership of all GGBS plants in GB.

3.307 Based on the above, there may be some scope to divest either the Scunthorpe GGBS plant or the mothballed Teesport GGBS plant along with their respective existing GBS supply agreement through novation, subject to addressing any potential issues that could arise from these GGBS plants' competing claims for the supply of GBS from either the Scunthorpe or Teesside GBS plants. However, a divestiture of the Purfleet, Port Talbot or the mothballed Llanwern GGBS plant, is likely to be more complicated and risky given that their supply of GBS is governed by a single GBS agreement and the potential competing claims of three GGBS plants for GBS from a single GBS plant, ie the Port Talbot GBS plant.

3.308 Whilst we considered above the possibility of novating some, or all, of the GBS supply agreements as part of our GGBS plant divestiture remedy, we concluded that the maintenance of these GBS agreements in their current form, would undermine the effectiveness of our remedy for the following reasons:

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<sup>291</sup> In relation to Appendix 6, Annex N, Figure 1, Hanson informed us that its North East Slag Cement Ltd was renamed Civil and Marine (Holdings) Ltd; and that the contractual obligations of Civil and Marine Slag Cement Ltd had passed to Civil and Marine Ltd as part of a hive-up in 2007. In our view, these changes do not affect the substance or operation of these agreements.

- (a) First, should all of the GBS agreements be maintained and assuming that the relevant GBS supply agreement could be novated to a purchaser of a GGBS plant(s), the new entrant would be prevented by the terms of its GBS supply agreement from pursuing any opportunity to gain a competitive advantage from sourcing GBS from alternative suppliers.
- (b) Secondly, since the GBS agreements in their current form govern the supply of GBS for only the existing GGBS plants, these agreements would contractually prevent any new GGBS plant, eg if one was to be built in future, from being able to source GBS from a GBS plant based in GB, or at least until the expiration of the GBS agreements in 2029. Therefore, maintaining such agreements would preclude any new entrant from being able to source domestically produced GBS, which in turn would act as a significant barrier to entry into GGBS production.
- (c) Thirdly, given that the price of GBS which Lafarge Tarmac receives from Hanson is currently set under the GBS agreements as a percentage of Hanson's selling price of GGBS, the GBS agreements distort the upstream market for GBS by preventing the effective operation of market forces to determine the price of GBS, a key raw material input and cost into GGBS production.
- (d) Finally, in relation to one particular GBS supply agreement, ie the agreement between Lafarge Tarmac's Cambrian Stone Ltd and Hanson's Civil and Marine Slag Cement Ltd, Hanson must consult with Lafarge Tarmac on the terms of any bid or tender to supply GGBS, before it can offer a price to a customer that could result in a significant reduction in the price of GGBS for the year, which in turn would reduce the price Lafarge Tarmac receives for GBS given that its GBS prices are based on a percentage of Hanson's GGBS selling prices. We concluded that such provisions, whether enforced or not, and whilst limited to this particular GBS supply agreement, would enable the owner of the Port Talbot GBS plant to know the pricing intentions of the owner of the Purfleet or Port Talbot GGBS plants (or the Llanwern GGBS plant should it be reactivated).

3.309 We concluded that the exclusivity under the GBS agreements, together with the sole ownership of GGBS and GBS plants by Hanson and Lafarge Tarmac respectively, effectively precluded any possibility of new entry into GGBS production in GB. We therefore concluded that the effective cessation of the existing GBS agreements between Hanson and Lafarge Tarmac would be a likely and necessary consequence of any GGBS plant divestitures.

*Need for an upstream GBS remedy*

3.310 We considered whether, in addition to the divestiture of one or more GGBS plants and the consequential effective cessation of the GBS agreements—so as to allow competitive supply of GGBS—there was also a need for a remedy measure in relation to the upstream level of the GGBS supply chain, namely the production of GBS, in order to ensure that our remedy addressed effectively both the AEC in GGBS and the GGBS-related AEC.

3.311 In our consideration of the need for a remedy at the downstream level of the GGBS supply chain, we looked at:

- (a) Lafarge Tarmac's current incentives that flow from its extensive participation in both the GGBS supply chain and in the GB cement markets as one of the Top 3 cement producers;
- (b) Lafarge Tarmac's additional strategic incentives arising from the consequential effective cessation of the GBS agreements following the implementation of any GGBS plant divestitures; and
- (c) the barriers to entry that result from Lafarge Tarmac's ownership of all of the GBS plants in GB and its BFS agreements with the GB steel producers.

- *Lafarge Tarmac's current incentives arising from the structural link between the GB cement and GGBS markets*

3.312 As stated in our Addendum to PFs, we found that Lafarge Tarmac both: (a) contributes to Hanson's ability to exercise market power (by virtue of Lafarge Tarmac having entered into and maintained long-term exclusive agreements with the GB steel producers and with Hanson); and (b) benefits from Hanson's ability to exercise market power because of the impact that high GGBS prices have on GBS prices and cement prices (since Lafarge Tarmac is active both in the GBS supply chain and in GB cement production).<sup>292</sup> We stated that as a GB cement producer, Lafarge Tarmac has similar incentives to those of Hanson to maintain high GGBS prices,<sup>293</sup> and given the beneficial effect of high GGBS prices on the profitability of Lafarge Tarmac's cement operations, Lafarge Tarmac has limited incentives to seek to introduce more competition in the supply of GGBS, eg by attempting to renegotiate the terms of its GBS agreements with Hanson.<sup>294</sup>

3.313 We noted that, if we took no additional action other than the divestiture of GGBS plants together with the consequential cessation of the GBS agreements, the structural link between the GB cement and GGBS markets that arises from Lafarge Tarmac's continued involvement in the GGBS supply chain as the sole producer of GBS in GB would remain unaltered, and Lafarge Tarmac's incentives to maintain high GGBS prices would remain unchanged.

3.314 In the context of Lafarge Tarmac's incentives, the relative size of Lafarge Tarmac's GB cement operations with its GBS operations is a relevant consideration. Lafarge Tarmac is the largest cement producer in GB by both the number of cement plants it owns and by cement production capacity. In FY12, Lafarge's GB cement operations sold around [§] Mt of cement and generated gross revenues and EBITDA of around

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<sup>292</sup> Addendum to PFs, paragraph 91.

<sup>293</sup> *ibid*, paragraph 80.

<sup>294</sup> *ibid*, paragraph 81.

£[X] million and £[X] million respectively.<sup>295</sup> In contrast, its GBS operations sold just over [X] Mt of GBS in FY12 and generated gross revenues and EBITDA of around £[X] million and £[X] million respectively.

3.315 Given this, we judged it reasonable to conclude that when faced with a choice between preserving the financial performance of either its cement operations or its GBS operations at the expense of the other, Lafarge Tarmac would be more incentivized to preserve the financial performance of its cement operations.

3.316 Lafarge Tarmac also appeared to take the view that a potential conflict of interest existed between its GBS and cement operations, when it argued that one of the reasons why GB steel producers should operate its GBS plants was because they would not face 'conflicting incentives' in increasing GBS production volumes (and in turn GGBS) since they were not active in cement production, and therefore would not be affected in the same way as a cement producer if GGBS displaced CEM I cement. It added that a steel producer would also not be concerned that the price of GGBS would impact its ability to sell CEM I cement. Lafarge Tarmac subsequently added that this conflict of interest was 'far more relevant' at the downstream GGBS level, where Hanson was selling both GGBS and cement to the same customer base. It explained that GBS was only an intermediate product, which could not directly substitute CEM I unless ground by Hanson.

3.317 Whilst any divestiture of GGBS plants or the consequential effective cessation of the GBS agreements would not alter Lafarge Tarmac's incentives to maintain high GGBS prices, we consider below their impact on Lafarge Tarmac's ability to exercise market

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<sup>295</sup> Lafarge Tarmac told us that the figures presented above included contributions from non-grey cement. It provided pro-forma figures for FY12 for the Lafarge Tarmac business, ie excluding the Hope plant but including the Tunstead plant. These pro-forma FY12 figures showed that Lafarge Tarmac's grey cement (only) operations sold around [X] Mt of cement, and generated gross revenues and EBITDA of around £[X] million and £[X] million. We note that even with Lafarge Tarmac's pro-forma FY12 figures, these would not change the substance of, or the conclusions we reached from, our analysis comparing Lafarge Tarmac's cement and GBS operations.

power to maintain high GGBS prices, eg through setting the price of the primary input into GGBS above competitive levels and/or restricting the supply of GBS for grinding into GGBS.

- o *Lafarge Tarmac's additional strategic incentives arising from the consequential effective cessation of the GBS agreements*

3.318 In our Addendum to PFs, we stated that Lafarge Tarmac's ability to exercise market power in the supply of GBS is currently restricted by the terms under which it produces GBS, for the following reasons:<sup>296</sup>

- (a) the process of steel production, whereby the supply of BFS that is processed to produce GBS is determined by the iron and steel production decisions at the steelworks;
- (b) Lafarge Tarmac's obligations under the GBS agreements, where it is obliged to maximize the production of GBS and ensure its adequate supply to Hanson, which restrict Lafarge Tarmac's ability to influence GBS volumes; and
- (c) furthermore, under the GBS agreements, the price paid by Hanson to Lafarge Tarmac for its GBS is determined as a percentage of achieved prices for GGBS, which restricts Lafarge Tarmac ability to influence the prices of GBS and GGBS.

3.319 However, in our Addendum to PFs, we found that whilst the GBS agreements currently limit Lafarge Tarmac ability to influence GBS and GGBS prices, the GBS agreements have the effect of aligning Lafarge Tarmac's and Hanson's incentives, through: (a) the contractual prohibition on Lafarge Tarmac making GBS available to any third party for GGBS production in the UK; and (b) through the contractual provision under which Lafarge Tarmac obtains a price for GBS from Hanson which is proportional to the price of GGBS achieved by Hanson.<sup>297</sup>

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<sup>296</sup> Addendum to PFs, paragraph 78.

<sup>297</sup> *ibid*, paragraph 79.

3.320 Following the effective cessation of its GBS agreements, which we had concluded above would be likely to form a necessary consequence of any divestiture of GGBS plants under this remedy, these constraints could be removed, thereby giving Lafarge Tarmac the ability to exercise market power in GBS, unless specific intervention was made at the level of GBS supply. We considered that, absent the GBS agreements, given Lafarge Tarmac's extensive participation in both the GGBS supply chain and the GB cement markets as one of the Top 3 cement producers, Lafarge Tarmac would have an overriding incentive to protect its interests in the GB cement markets and also have the ability to act on its incentive by exploiting its market power in a manner that was not previously made possible by the GBS agreements.

3.321 Therefore, following any GGBS plant divestitures and the consequential effective cessation of its GBS agreements, we considered that Lafarge Tarmac would have both the incentive and ability to exploit its position as sole producer of GBS to maintain high GBS prices in order to increase GGBS production costs and reduce the competitive constraint of GGBS prices on cement prices. Even if Lafarge Tarmac did pursue a strategy of growth for its GBS operations, as the only producer of GBS in GB and as a GB cement producer with facilities that can be converted to grind GBS into GGBS, we considered it likely under this scenario that Lafarge Tarmac would be incentivized to modify its own existing clinker grinding mills to grind GBS into GGBS, and pursue a strategy to supply more GBS internally to grind into GGBS for its own internal and external sales, thereby restricting the supply of GBS to any other GGBS producer. We considered this to be a likely scenario given that Lafarge and Tarmac combined accounted for a relatively significant proportion ([X] per cent) of Hanson's FY11 GGBS sales (see Appendix 6, Annex B, Table 1).

3.322 Therefore, given Lafarge Tarmac's incentives and ability described above under a scenario involving the consequential cessation of the GBS agreements, the AECs

and resulting customer detriment that we have identified would not be removed. Instead, the market power in GGBS currently exercised by Hanson downstream would simply be moved up the GGBS supply chain and exercised by Lafarge Tarmac in the supply of GBS. Given that GBS accounts for around [X] per cent of the variable costs of GGBS production and is the main raw input into GGBS production, failing to address this likely outcome may result in our remedies having only a limited effect on the AEC in GGBS and the GGBS-related AEC.

- *Barriers to entry arising from Lafarge Tarmac's sole ownership of GBS plants and the BFS agreements*

3.323 We noted that absent a remedy at the upstream level of the GGBS supply chain, Lafarge Tarmac would still operate all three GBS plants within GB,<sup>298</sup> and its position as the sole producer and supplier of GBS in GB would continue to be reinforced and secured by the existence of its exclusive long-term BFS agreements with the GB steel producers. In addition, since the structural link between the GB cement and GGBS markets would be maintained through Lafarge Tarmac's extensive participation in both GB cement production and at a critical level of the GGBS supply chain, its resulting incentives to maintain high GGBS prices would remain unaffected by any GGBS plant divestitures or the effective cessation of the GBS agreements.

3.324 We explored the competitive constraints that Lafarge Tarmac might face under this scenario and considered whether Lafarge Tarmac would face an effective competitive constraint from imported GBS. In our Addendum to PFs, we noted that a fair valuation report prepared by a third party for Hanson in the context of Hanson's acquisition of the GGBS operations (Civil and Marine (Holdings) Ltd) in 2006, placed value on the BFS agreements on the basis that GBS could only be imported in small quantities and at higher cost than purchasing from Tarmac (now Lafarge Tarmac),

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<sup>298</sup> We note that given that a GBS plant must be located on the steelworks to process BFS at source, there would be no possibility of a new entrant into GBS production absent a new entrant into GB steel production.

and therefore that the GBS used at that time by Civil and Marine and supplied by Tarmac could not be easily replaced at an equivalent cost. The report also stated that the BFS agreements provided Civil and Marine ‘with a significant cost advantage’.<sup>299</sup> This view was consistent with our own assessment in Appendix 6, Annex C, where we concluded that GBS imports generally faced a significant shipping cost penalty. This was a general disadvantage for importing GBS and was a particular disadvantage for any importers seeking to supply GBS competitively to the Port Talbot and Scunthorpe GGBS plants especially given their close proximities to their respective local sources of GBS. We found the cost disadvantage for importers seeking to supply the Purfleet GGBS plant was less significant, as it was not located next to a local source of GBS and hence incurred some additional costs associated with transporting GBS from elsewhere in GB (eg the Teesside GBS plant). We concluded that GBS imports would only exercise a limited competitive constraint on Lafarge Tarmac’s ability to exercise market power (eg by restricting GBS volumes or setting higher prices) under this scenario, particularly in relation to the GGBS plants situated close to their local GBS plants.

3.325 We concluded that Lafarge Tarmac was likely to enjoy market power by virtue of there being no alternatives to GBS in the production of GGBS, and its control over domestic GBS supply through ownership of all of the GBS plants in GB, which was secured and reinforced through its entry into, and maintenance of, a series of exclusive long-term BFS agreements with all of the GB steel producers.

○ *Our conclusions on the need for a downstream GBS remedy*

3.326 Based on our above assessment, we concluded that the divestiture of GGBS plants by Hanson and the consequential effective cessation of the GBS agreements would not affect the structural link between the GB cement and GGBS markets that had

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<sup>299</sup> Addendum to PFs, paragraph 59.

been created as a result of Lafarge Tarmac's extensive participation in both the GB cement markets and in the GGBS supply chain, and therefore would not affect Lafarge Tarmac's incentives to maintain high GGBS prices, ie given their effect on cement prices.

3.327 To the extent that Lafarge Tarmac's ability to exploit its market position had been constrained by the GBS agreements, this constraint would be removed by the effective cessation of these agreements necessary to implement an effective GGBS plant divestiture. For example, absent these GBS agreements, whilst Lafarge Tarmac would be released from its obligation to supply GBS only to Hanson and be able to supply GBS to the open market and set its own prices (since the price of GBS would no longer be set as a percentage of Hanson's GGBS selling prices), as both a GB cement producer and the only GBS producer, we concluded that this would now give Lafarge Tarmac the ability to act on its incentives to preserve the financial performance of its cement options by restricting GBS volumes sold to the open market and set higher prices. We would normally expect any profit-maximizing firm to seek to exploit any such opportunity, and saw no particular reason why Lafarge Tarmac would act otherwise.

3.328 We therefore concluded that we would not find a remedy that maintained Lafarge Tarmac's position as the sole GB producer of GBS to be an effective measure for the following reasons:

(a) Absent a remedy at the upstream level of GBS production, the structural link between the GB cement and GGBS markets would continue to exist through Lafarge Tarmac's position as both one of the Top 3 GB cement producers and the only GBS producer in GB. This would give Lafarge Tarmac the incentive to exploit its market position by restricting GBS volumes and offering customers higher GBS prices in order to reduce the competitiveness of GGBS relative to

cement. Absent its GBS agreements, Lafarge Tarmac would be empowered to exercise its market power and act on its incentives.

- (b) Even if Lafarge Tarmac decided to pursue a strategy of growth for its GBS operations, we considered that it would be incentivized under this scenario to invest in modifying its existing clinker grinding mill(s) to enable it to grind GBS itself to produce GGBS for its own internal and external sales, rather than to sell GBS to any other GGBS producer.
- (c) Lafarge Tarmac would be able to set GBS prices and volumes with limited competitive constraints from GBS imports, particularly in relation to the GBS sales made to the GGBS plants situated close to its GBS plants, ie the Port Talbot, Scunthorpe and Teesport GGBS plants.
- (d) Given the relative significance of GBS prices as a proportion of GGBS production costs, the absence of a remedy at the upstream level of GBS supply would result in Lafarge Tarmac retaining significant influence over the final price of GGBS, and the relative price competitiveness of GGBS relative to cement.

3.329 We considered that one of the remedy measures we could take to achieve this would be to require Lafarge Tarmac to divest one or more of its GBS plants, thereby restricting Lafarge Tarmac's ability to exercise market power by creating diversity of supply at the upstream level. Furthermore, a divestiture of a GBS plant(s) to a purchaser(s) that is independent of the GB cement producers would reduce the extent and impact of the structural link between the GB cement markets and the GGBS supply chain arising from Lafarge Tarmac's extensive participation in both markets, and address Lafarge Tarmac's incentives that arise from this structural link. Competition between GBS plants could operate directly—if individual customers switched between GBS plants—or indirectly, through competition at the GGBS level.

3.330 We also considered as a possible remedy alternative to GBS plant divestitures an option of putting in place some form of price control mechanism to constrain Lafarge Tarmac's ability and/or incentives to maintain high GBS prices. However, we recognized that a behavioural remedy would also bring with it a number of potential risks, eg in relation to the specification of such, measures to prevent circumvention, as well as costs of monitoring and enforcing the remedy. For example, a behavioural remedy that addressed Lafarge Tarmac's ability to set higher GBS prices would likely require some form of ongoing monitoring, which may require further interventions by the appropriate enforcement authority.

3.331 We are therefore not minded to pursue a behavioural remedy as an alternative to a GBS plant divestiture remedy, and provisionally concluded that our remedy to increase competition in the GGBS supply chain should also involve one or more divestitures from Lafarge Tarmac's GBS operations to facilitate the creation of at least one new entrant that is independent of the GB cement producers with the ability to source its own BFS and produce GBS for sale in competition with Lafarge Tarmac. This would also result in ending of the current situation in which Lafarge Tarmac holds exclusive agreements with both of the GB steel producers.

*Our conclusions on the key components of this remedy*

3.332 In summary, we concluded that the following measures would be necessary for our remedy to be effective:

(a) *Downstream GGBS remedy:* a divestiture of GGBS plants by Hanson to purchasers that are independent of the GB cement producers.

(b) *Effective cessation of GBS agreements as part of GGBS plant divestitures:*

GGBS plant divestitures would result in the effective cessation of the GBS agreements in their current form to ensure that Hanson no longer had the exclusive right to supply GB-produced GGBS.

(c) *Upstream GBS remedy*: a divestiture of GBS plants by Lafarge Tarmac to purchasers that are independent of the GB cement producers, directed at Lafarge Tarmac's contribution to the AEC in GGBS and GGBS-related AEC, that addressing both: (i) the structural link between the GB cement markets and the GGBS supply chain markets, and its resulting incentives for Lafarge Tarmac; and (ii) Lafarge Tarmac's incentive and now ability to exploit its market power as a consequence of the downstream GGBS remedy and the cessation of the GBS agreements.

3.333 The creation of more than one GGBS producer downstream that is independent of the GB cement producers, will, or will be likely to, result in a greater choice for customers, typically RMX and other concrete producers, to source GGBS, and result in a new entrant into GGBS production that would be incentivized to compete vigorously to enhance the performance of its own GGBS operations without facing a conflicting incentive to limit the competitive constraint provided by its GGBS operations on cement prices in order to preserve prices and profitability in the GB cement markets.

3.334 We have concluded that a consequence of the divestiture of GGBS and GBS plants under this remedy would be the effective cessation of the exclusive long-term GBS agreements between Hanson and Lafarge Tarmac. We also considered a remedy involving only the termination of the GBS agreements without a GGBS or GBS plant divestiture. However, we provisionally concluded that such a remedy would: (a) not address Hanson's incumbency advantages in GGBS and Lafarge Tarmac's incumbency advantages in GBS, which also arise as a consequence of their respective ownership of all the assets used for GGBS and GBS production; (b) not have an impact on the structural link between the GB cement and GGBS markets, and therefore Hanson's and Lafarge Tarmac's incentives in relation to GGBS would remain unaltered, so long as all the assets used in GGBS and GBS production remained

under Hanson's and Lafarge Tarmac's respective ownership; (c) still preclude new entry into either GGBS or GBS production; and (d) remove the possibility that Hanson's and Lafarge Tarmac's respective market positions might be effectively challenged, so long as their incumbency advantages remain unchanged. We therefore concluded that the effective cessation of the GBS agreements was not on its own a sufficient solution and that GGBS and GBS plant divestitures were necessary components of this remedy.

3.335 The divestiture of GBS plants by Lafarge Tarmac to a purchaser(s) independent of the GB cement producers would also create an effective competitive constraint on Lafarge Tarmac's ability to exploit market power in GBS supply, the essential raw material input into GGBS production. It would also address our concerns relating to the structural link between the GB cement and GGBS markets that arise from Lafarge Tarmac's extensive participation in both GB cement and GBS production.

3.336 We now consider the detailed specification and scope of each of the measures.

#### *Other design issues*

3.337 In considering the design of the different measures that form part of this remedy, our assessment is set out as follows:

(a) *Specification of the GGBS remedy*: where we set out the criteria by which a suitable GGBS plant divestiture package might be designed, and identify and address possible composition risks<sup>300</sup> (see paragraphs 3.338 to 3.412);

(b) *Specification of the GBS remedy*: where we set out the criteria by which a suitable GBS plant divestiture package might be designed (see paragraphs 3.413 to 3.440); and

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<sup>300</sup> Composition risks are risks that the scope of the divestiture package may be too constrained or not appropriately configured to attract suitable purchasers or may not allow a purchaser to operate as an effective competitor in the market.

(c) *Purchaser suitability*: where we identify and consider purchaser risks,<sup>301</sup> and set out our assessment and conclusions on the availability of suitable purchasers and the criteria for purchaser suitability (see paragraphs 3.441 to 3.464).

#### *Specification of the GGBS remedy*

3.338 In determining the scope of the GGBS plant divestiture remedy, we addressed the following areas which we considered relevant to our design of an effective divestiture package:

- (a) continuity of supply risks concerning production of GBS (paragraphs 3.339 to 3.364);
- (b) likely approach of divested GGBS plants to sourcing GBS (paragraphs 3.365 to 3.379);
- (c) the distribution capabilities of GGBS plants (paragraphs 3.381 to 3.384);
- (d) assessment of the suitability of each GGBS plant as a basis for divestiture (paragraphs 3.385 to 3.409); and
- (e) the number of GGBS plants to be divested (paragraphs 3.410 and 3.411).

- *GGBS remedy: continuity of supply risks concerning production of GBS*

3.339 One of the key reasons highlighted by Hanson for the need for GBS supply exclusivity was the risk that GBS supply might be disrupted at one or more of the three GB steelworks. Hanson told us that a long-term exclusive contract was required because of the uncertainty of steel production and the likelihood that the associated availability of GBS from relevant plants would cease or be suspended, eg when the Teesside steelworks closed Hanson was obligated to mothball its Teesside GGBS plant.<sup>302</sup> It also told us that there was still a need for exclusivity due to the uncertain future of the

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<sup>301</sup> Purchaser risks are risks that a suitable purchaser is not available or that the divesting party (or parties) will dispose to a weak or otherwise inappropriate purchaser.

<sup>302</sup> [Provisional findings](#), Appendix 7.6, paragraph 32.

steel industry, customers needed security of supply to know that if one plant was no longer operating then it could still purchase GGBS.

3.340 Hanson added that there was no direct contractual relationship between it and the steelworks that guaranteed any supply of BFS or GBS. It considered that the absence of this guarantee explained the ‘extreme risks and fragility’ of its GGBS operations. It also told us that the production of BFS for granulation was incidental to the steelworks’ process and that its GBS agreements merely facilitated the demands of the steel industry in this respect by providing the service to take away and re-process the by-product which would otherwise constitute waste. It added that production and capacity decisions by the steel producers were taken according to their iron and steel strategy, and that this (and consequently the availability of GBS) was something over which Hanson had no control, creating very significant risk at the GGBS level of the industry.

3.341 By contrast, SSI told us that, in its view, the agreement between Lafarge Tarmac and Hanson afforded the kind of security that very few businesses had.<sup>303</sup>

3.342 In assessing the risks of discontinuity of GBS supply, we considered below the nature of this risk and the likelihood of this risk arising.

- *(a) Nature of the supply risks concerning GBS*

3.343 First, in relation to the nature of this risk, the production of GBS relies on the production of BFS, a by-product of the iron blast furnace (blast furnace) that is located at an integrated steelworks, where there may be more than one blast furnace. The molten BFS can either be tapped off from the blast furnace into a granulator (or pelletiser<sup>304</sup>),

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<sup>303</sup> SSI response hearing summary, paragraph 36.

<sup>304</sup> SSI told us that whilst GBS was sandy and had similar consistency, pelletite could be considered as a less consistent version of GBS, comprising of a mix of small granules, half-inch stones and clusters. It added that it understood pelletite to be used

which quenches the BFS with water, also known as water-cooling, to produce GBS (or pellite), or allowed to drop into a pit and air-cooled, which can then be further processed to produce a type of aggregate, air-cooled slag. Whilst the GBS grinding activities can take place away from the steelworks, the process of water-cooling the BFS must take place at source, and therefore a granulator (or pelletiser) is bolted on to the blast furnace and effectively forms an integral part of the blast furnace.

3.344 Therefore, when assessing the continuity of supply risks concerning GBS, it is necessary to consider the continuity of supply risks concerning BFS, ie the risks that either the blast furnace ceases to operate or a steelworks ceases production altogether. We assess these risks below.

3.345 In Appendix 6, Annex G, Table 2, we compared annual BFS production by each steelworks over the period FY10 to FY12, against the BFS production capacity of their respective blast furnaces. Based on our calculation of the BFS capacity utilization rates, only the Scunthorpe steelworks produced BFS by operating at full capacity, whilst BFS capacity utilization at the Port Talbot steelworks was at [redacted] and [redacted] per cent in FY10 and FY11 respectively, before falling to [redacted] per cent in FY12. In relation to the Teesside steelworks, BFS capacity utilization was [redacted] per cent in FY10, [redacted] in FY11 and [redacted] per cent in FY12. Whilst these figures show that BFS production can be subject to significant swings from year-to-year, we would also note that there are a number of reasons why historic levels of BFS production may not be indicative of future levels of BFS production:

(a) Tata told us that [redacted].<sup>305</sup> We would expect the [redacted].

(b) SSI told us that the Teesside steelworks was mothballed in March 2010,<sup>306</sup> for reasons which are discussed below, and only resumed production in April 2012

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primarily for cement replacement in the manufacture of concrete, and that concrete produced with pellite had greater consistency and also had the aesthetic advantage of producing a white finish (SSI response hearing summary, paragraph 29).

<sup>305</sup> Tata Steel response to Remedies Notice, p2, paragraph c).

under its ownership. It also told us that since reopening, production was ramped up, and that it was now achieving record production figures.<sup>307</sup>

3.346 Therefore, given the forward-looking nature of an assessment of remedies, although we noted the scope for variability in BFS production volumes, we placed limited weight on the changes in BFS production volumes seen over the last three years, as a guide to levels and variability of future BFS production.

○ *(b) Likelihood of the supply risks concerning GBS*

3.347 We considered the likelihood of BFS supply being disrupted. This is an aspect of the supply chain that is under the control of the GB steel producers and therefore beyond the control of Lafarge Tarmac and Hanson that both operate further downstream along the GGBS supply chain. An assessment of the risks concerning the continuity of BFS or GBS supply is effectively an assessment of the risks concerning the continuity of GB steel production and of which of the three GB steelworks would continue to operate into the future.

3.348 Looking first at the overall levels of production, since 1971, annual UK demand for steel declined by 35 per cent from around 16 to 10 Mt in 2011. Of this 10 Mt of demand in 2011, 45 per cent (4.7 Mt) was met by UK production whilst the remainder was met by imported steel. UK steel producers also exported 4.6 Mt of steel. Since 2007 when UK production was 14 Mt, production has declined year-on-year, down to 9.5 Mt in 2011, with the sharpest drop in 2008 when production fell from 13.5 Mt in the previous year to 10.1 Mt (see Appendix 6, Annex M).

3.349 We asked each of the GB steel producers about the risks concerning their steel production activities.

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<sup>306</sup> [SSI response hearing summary](#), paragraph 2.

<sup>307</sup> [ibid](#), paragraph 4.

3.350 We first considered, in general terms, the risk of BFS production being disrupted at a particular steelworks, eg for engineering or commercial reasons.

3.351 Tata told us that [redacted].<sup>308</sup> [redacted] continuity of BFS supply may necessitate that a buyer acquires and operates multiple sources of GBS.<sup>309</sup> However, Tata also told us that it [redacted]<sup>310,311</sup> and that its blast furnaces operated constantly all year round and that there was no seasonality to its production runs.<sup>312</sup> It also told us that [redacted].<sup>313</sup> It added that a key element of its operations was the reliability and availability of its machinery and equipment of which the blast furnace operations were core, and told us that if a blast furnace stopped, then ‘everything stopped’.<sup>314</sup>

3.352 SSI told us that there should be no concerns regarding continuity of supply of BFS, as the blast furnace operations, being continuous, would constantly generate slag.<sup>315</sup> It added that it would normally expect to operate a blast furnace continuously over its operating life (approximately 15 years depending on the quality of any relining of the blast furnace). It told us that switching off a blast furnace would result in causing the inner lining of a blast furnace to crack, and therefore BFS production could not simply be switched on or off. It also told us that when a blast furnace required relining, it could take around three months, but this could be up to six months depending on the availability of labour and whether a blast furnace was also being upgraded as part of its relining.<sup>316</sup>

3.353 SSI told us that whilst there could be monthly or quarterly volatility in steel demand for some product sectors, it did not consider the steel markets to be very volatile in

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<sup>308</sup> [Tata Steel response to Remedies Notice](#), p2, paragraph c).

<sup>309</sup> [ibid](#), p3, paragraph b).

<sup>310</sup> The relining of a blast furnace involves replacement of the materials that line the inside wall of a blast furnace hearth. Such works would commence once the blast furnace concerned ceases production and has cooled.

<sup>311</sup> [Tata Steel response hearing summary](#), paragraph 11.

<sup>312</sup> [ibid](#), paragraph 16.

<sup>313</sup> [ibid](#), paragraph 23.

<sup>314</sup> [ibid](#), paragraph 10.

<sup>315</sup> [SSI response to Remedies Notice](#), p2, paragraph B.

<sup>316</sup> [SSI response hearing summary](#), paragraph 18.

the medium-term. For example, it told us that car manufacturers were highly operationally geared and therefore would try to maximize car production even when there were low levels of demand and this provided the steel industry with some stability.<sup>317</sup>

3.354 We considered the risk profile of each steelworks in GB:

(a) SSI told us that steel was a globally traded commodity that could be shipped around the world relatively easily and cheaply. It told us that the market drivers for steel could affect individual steelworks in different ways, eg given that its Teesside steelworks exported virtually all of its production, its demand and prices were driven by the Thai and South-East Asian economies. It added that the demand cycle in South-East Asia, which was dependent on demand from China, might be different from, and counter-cyclical to, demand in the UK.<sup>318</sup>

(b) Tata told us that its Port Talbot works produced and supplied steel, which was used for example, in the automotive industry,<sup>319</sup> whilst its Scunthorpe works predominantly produced 'long products', eg rail sections and beams.<sup>320</sup>

3.355 In SSI's view, determining the relative risk profile of each steelworks was largely an academic one, eg since SSI's Teesside steelworks was effectively a single product company, this could be regarded as increasing its risk profile, but the fact that it produced a 'homogenous' product could reduce its risk profile as it meant that there would always be an outlet for its product since it faced no 'geographic boundaries' and its product could be shipped around the world fairly cheaply and easily.<sup>321</sup>

3.356 SSI told us that it would be difficult to predict the outlook for the GB steel industry, as steel was traded worldwide and subject to the dynamics of global supply and

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<sup>317</sup> [ibid](#), paragraph 13.

<sup>318</sup> [ibid](#), paragraph 11.

<sup>319</sup> [Tata Steel response hearing summary](#), paragraph 4.

<sup>320</sup> [ibid](#), paragraph 5.

<sup>321</sup> [SSI response hearing summary](#), paragraph 11.

demand.<sup>322</sup> It added that outlook for SSI depended on the buoyancy of the global construction industry, as well as demand in South-East Asia. Since it considered there to be very few trade barriers left in the world, an increase in demand in one part of the world, could result in a shortage in other parts of the world, thus a ‘booming’ economy in one place would help steel industries elsewhere by absorbing their excess production.

3.357 We considered the position of the Teesside steelworks and sought to understand the primary reason behind its closure in 2010 and assess whether its risk profile has changed under SSI’s ownership.

3.358 SSI told us that the Teesside steelworks was eventually mothballed in March 2010 following the withdrawal in 2009 of a major long-term offtake contract that accounted for virtually all of the steelworks’ output, and ‘significantly prejudiced’ its future viability. It told us that negotiations between Tata and SSI commenced in late 2010,<sup>323</sup> which concluded with SSI acquiring the Teesside steelworks whilst Tata retained its co-located beam mill activities that used the steel slab produced from the steelworks.<sup>324</sup> It told us that following some initial delays, it commenced production at the Teesside steelworks in April 2012.<sup>325</sup>

3.359 SSI explained to us the rationale for its acquisition of the Teesside steelworks. It told us that prior to its acquisition of the Teesside steelworks, it had operated entirely downstream from any steel production activities, owning rolling mills to process the steel slab into more manufactured products that could be used by the car and white goods industry. It told us that the acquisition of the Teesside steelworks represented a vertical integration into the upstream production of steel. It added that the Teesside

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<sup>322</sup> *ibid*, paragraph 12.

<sup>323</sup> *ibid*, paragraph 2.

<sup>324</sup> *ibid*, paragraph 3.

<sup>325</sup> *ibid*, paragraph 4.

steelworks operated a different business model from that operated under Tata ownership, and that under its ownership, the Teesside steelworks had greater future visibility of volumes from its operations, and that it expected volumes to stay at this level for the foreseeable future. The fact that SSI substantially guarantees the downstream demand for the Teesside steelworks represents, in our view, a fundamental difference in the risk profile of the Teesside steelworks under SSI's ownership compared with Tata's ownership.

3.360 Tata considered that it [redacted].<sup>326,327</sup> It also told us that it had invested heavily in the business, and considered Tata Group as an owner and parent to have been extremely supportive.<sup>328</sup>

3.361 Ultimately, SSI told us that any decision to close its steelworks would be a financial one. It added that it had not considered how far the price of steel should drop, or the maximum level of losses that could be sustained before closure might be considered. However, it told us that it would struggle to come up with a realistic scenario whereby its Teesside steelworks would not be able to sell its output to the market.<sup>329</sup>

3.362 We also found no evidence to suggest that GB steel production would be scaled back.

3.363 Following commencement of production at the Teesside steelworks in April 2012, SSI told us that production was ramped up, and that it was currently achieving record production levels.<sup>330</sup> It estimated that it would produce 3.2 Mt of steel slab during 2013.<sup>331</sup> It told us that almost all of its production was exported, predominantly sup-

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<sup>326</sup> [Tata Steel response hearing summary](#), paragraph 8.

<sup>327</sup> [ibid](#), paragraph 11.

<sup>328</sup> [ibid](#), paragraph 10.

<sup>329</sup> [SSI response hearing summary](#), paragraph 14.

<sup>330</sup> [ibid](#), paragraph 4.

<sup>331</sup> [ibid](#), paragraph 6.

plying SSI's own downstream operations in Thailand and in South-East Asia, but also externally, [redacted].<sup>332</sup> It also told us that whilst its current run-rate would produce around 3.2 Mt of steel a year, it intended to invest in de-bottlenecking production that would increase annual production to 4.2 Mt.<sup>333</sup>

3.364 We recognized that the outlook for the UK steel industry was intricately tied to the outlook of the global steel industry and the industries that ultimately drive the demand for steel. However, we considered that any lack of visibility in relation to the global outlook for steel was consistent with the view that despite difficult current market conditions, the GB steel producers have not indicated any intention to scale back their production. We also considered that the recent acquisition by SSI of the Teesside steelworks could be regarded as an indication of investor confidence in the UK steel industry, which together with the significant investments recently made by both Tata and SSI suggested a far more positive outlook for the UK steel industry than that painted by Hanson. We were inclined to place significant weight of the views and actions of the GB steel producers in forming our own view about the outlook for the UK steel industry. This evidence suggested that, looking ahead, the risks of major discontinuity of GBS supply were relatively modest.

- *GGBS remedy: likely approach of divested GGBS plants to sourcing GBS*

3.365 We next considered what approach might be taken by owners of each of the three active GGBS plants if one or more of these plants were to be divested. As part of this, we considered the extent to which individual GGBS plants would be able to source GBS from multiple GBS plants. We judged this to be a relevant consideration given the current configuration of GBS and GGBS plants and their locations across GB. Appendix 6, Annex E, Figure 1, is a map of GBS and GGBS sites, which shows

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<sup>332</sup> [ibid](#), paragraph 7.

<sup>333</sup> [ibid](#), paragraph 16.

GGBS plants that are co-located with a GBS plant at both the Port Talbot and Scunthorpe steelworks. Hanson confirmed to us that its Port Talbot and Scunthorpe GGBS plants were respectively located within the Port Talbot and Scunthorpe steelworks, whilst its mothballed Teesport GGBS plant was located very close to the Teesside steelworks.<sup>334</sup>

3.366 Table 3.1 below shows the estimated maximum GGBS that could be produced from the GBS produced at each GBS plant, assuming that: (a) the GBS plants and steelworks were operating at full capacity; and (b) [redacted] per cent of BFS volumes was processed into GBS at the Port Talbot GBS plant; [redacted] per cent at the Scunthorpe GBS plant; and [redacted] per cent at the Teesside GBS plant, with the balance of BFS volumes used to produce air-cooled slag instead of GBS (see Appendix 6, Annex G, Table 1). Based on this, we compared the maximum GGBS production figure possible under this scenario, with the GGBS production capacity of each of Hanson's GGBS plants.

TABLE 3.1 GGBS production based on less than 100 per cent conversion of BFS into GBS\*

| GBS plant*                    | GBS        | GGBS equivalent† | kt          |            |            |
|-------------------------------|------------|------------------|-------------|------------|------------|
|                               |            |                  | GGBS plant  | GGBS       | Difference |
| Port Talbot ([redacted]% GBS) | [redacted] | [redacted]       | Port Talbot | [redacted] | [redacted] |
| Scunthorpe ([redacted]% GBS)  | [redacted] | [redacted]       | Scunthorpe  | [redacted] | [redacted] |
| Teesside ([redacted]% GBS)    | [redacted] | [redacted]       | Purfleet    | [redacted] | [redacted] |
|                               | [redacted] | [redacted]       |             | [redacted] | [redacted] |

Source: Lafarge Tarmac's and Hanson's response to GGBS questions.

\*Based on Appendix 6, Annex G, Table 1, we assumed that [redacted] per cent of BFS was processed into GBS at the Port Talbot GBS plant; [redacted] per cent at the Scunthorpe GBS plant; and [redacted] per cent at the Teesside GBS plant. Tata later told us that the conversion rate of BFS into GBS at the Port Talbot GBS plant was around [redacted] to [redacted] per cent.

†The GGBS equivalent was based on Hanson's assumption that GGBS conversion reduces GBS tonnage by a factor of 10 per cent, eg 1,000 kt of GBS can be ground to produce around 900 kt of GGBS.

3.367 Based on the analysis in Table 3.1 above, we took the view that:

- (a) The Port Talbot GGBS plant would be able to source all of its GBS requirements from the co-located GBS plant. In this event, if it produced to its maximum capacity, the Port Talbot GBS plant would generate an annual surplus of GBS that would be roughly equivalent to around [redacted] of GGBS. Tata later told us that the

<sup>334</sup> Provisional findings, Appendix 7.6, paragraph 27.

conversion rate from BFS into GBS was between [X] and [X] per cent, higher than the [X] per cent that we had assumed. This would have the effect of increasing the GBS surplus available to sell after the GBS requirement of the Port Talbot GGBS plant had been fully met.

(b) The Scunthorpe GGBS plant would be able to source around [X] per cent of its GBS requirements from its co-located GBS plant, but would need to secure around [X] of GGBS equivalent volumes of GBS from another source to reach full capacity.

(c) The Purfleet GGBS plant would not be able to source all of its GBS from the Teesside GBS plant. Even if the Purfleet GGBS plant sourced all the GBS produced by the Teesside GBS plant, it would still require a further [X] of GGBS equivalent volumes of GBS (around [X] per cent of its requirement) to reach full capacity.

3.368 However, the need for the Scunthorpe GGBS plant to source around [X] of GGBS equivalent volumes of GBS from a supplier other than the Scunthorpe GBS plant disappears if the Scunthorpe GBS plant decided to increase the proportion of GBS produced from BFS from [X] per cent to [X] per cent. In Table 3.2 below, we show how the figures in Table 3.1 above change if each GBS plant processed 100 per cent of its respective BFS into GBS.

TABLE 3.2 GGBS production based on full conversion of BFS into GBS

| <i>GBS plant</i> | <i>GBS</i> | <i>GGBS equivalent*</i> | <i>GBS plant</i> | <i>GGBS</i> | <i>Difference</i> |
|------------------|------------|-------------------------|------------------|-------------|-------------------|
| Port Talbot†     | [X]        | [X]                     | Port Talbot†     | [X]         | [X]               |
| Scunthorpe†      | [X]        | [X]                     | Scunthorpe†      | [X]         | [X]               |
| Teesside         | [X]        | [X]                     | Purfleet         | [X]         | [X]               |
|                  | [X]        | [X]                     |                  | [X]         | [X]               |

Source: Lafarge Tarmac's and Hanson's response to GGBS questions.

\*The GGBS equivalent was based on Hanson's assumption that GGBS conversion reduces GBS tonnage by a factor of 10 per cent, eg 1,000 kt of GBS can be ground to produce around 900 kt of GGBS.

†The GBS and GGBS plants at Port Talbot and Scunthorpe are co-located at their respective steelworks.

3.369 Based on Table 3.2 above:

- (a) The Port Talbot GBS plant could produce up to around [X] of GBS, or a GGBS equivalent of around [X] (based on Hanson's assumption that GGBS conversion reduced GBS tonnage by a factor of 10 per cent). However, the co-located Port Talbot GGBS plant only has grinding capacity to produce around [X]. If we assumed that the Port Talbot GGBS plant sourced all of its GBS from its co-located Port Talbot GBS plant, this would result in an estimated [X] of GBS (or [X] of equivalent GGBS volumes) that would be surplus to the Port Talbot GGBS plant's requirements.
- (b) The Scunthorpe GBS plant could produce up to around [X] of GGBS equivalent volumes, whilst the Scunthorpe GGBS plant has capacity to produce around [X] of GGBS. This would result in an estimated [X] of GBS (or [X] of equivalent GGBS volumes) that would be surplus to the Scunthorpe GGBS plant's requirements.
- (c) The Teesside GBS plant could produce up to around [X] of GGBS equivalent volumes. However, since our analysis above suggests that the Port Talbot and Scunthorpe GGBS plants would be able to source all of their GBS requirements from their respective co-located GBS plants, the only other GGBS plant left to supply would be the Purfleet GGBS plant.
- (d) The Purfleet GGBS plant has capacity to produce around [X] of GGBS equivalent volumes. It would be able to produce [X] of GGBS if it purchased all of the GBS volumes produced by the Teesside GBS plant. It would therefore only need to produce around [X] of GGBS to reach capacity. However, our analysis suggests that there would be around [X] and [X] of surplus GGBS equivalent volumes from the Port Talbot and Scunthorpe GBS plants respectively, of which the Purfleet GGBS plant would only require [X], leaving still a surplus of around [X] of surplus GGBS equivalent volumes.

- 3.370 We would expect that a GBS plant when faced with a choice of producing between GBS and air-cooled slag would favour the production and sale of the higher-value GBS over air-cooled slag, and therefore we would expect that under this scenario, the figures may trend towards those set out in Table 3.2 above, ie close to 100 per cent conversion of BFS into GBS.
- 3.371 We asked Hanson whether its active GGBS plants that were located at a steelworks (ie at Port Talbot and Scunthorpe) sourced all of their GBS from their nearest GBS plant. Hanson confirmed that this was currently the case, but added that if there was a problem with a blast furnace or a lack of stock, then GBS would be transferred from another site. It also told us that on occasion, there was a need to transfer GBS between GGBS plants for quality reasons, eg it told us that the GBS currently produced [redacted] and was blended with higher quality material (such as that from the [redacted] steelworks, or from Mittal Ghent—a steelworks owned by ArcelorMittal in Belgium—which was of even better quality). It added that this material was transported to the Purfleet GGBS plant for blending with other materials. By contrast, SSI told us [redacted] the chemical composition of the GBS produced at the Teesside steelworks to be the best compared with GBS produced elsewhere.<sup>335</sup>
- 3.372 Based on this analysis, we took the view that, in the event of a divestiture of one or more GGBS plants it was likely that the owner of the Port Talbot GGBS plant would seek to source all of its GBS requirement from its co-located GBS plant; the Scunthorpe GGBS plant would be able to secure most, if not all, of its GBS requirement from the collocated GBS plant; and any GBS surplus from the Port Talbot GBS plant, and the entire GBS volumes from the Teesside GBS plant could be used predominantly to supply the Purfleet GGBS plant, or address any GBS shortfalls at the Scunthorpe GGBS plant.

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<sup>335</sup> SSI response hearing summary, paragraph 27.

3.373 This expectation would not be dissimilar from the current logistical arrangements between Lafarge Tarmac's GBS plants and Hanson's GGBS plants, where in Appendix 6, Annex I, Table 2, between FY10 and FY12:

(a) the Port Talbot GBS plant supplied GBS to both the Port Talbot and Purfleet GGBS plants;

(b) the Scunthorpe GBS plant supplied all of the GBS requirement of the Scunthorpe GGBS plant; and

(c) the Teesside GBS plant supplied all of its GBS volumes to the Purfleet GGBS plant.

3.374 There is some uncertainty as to whether, in the event of a divestiture of one or more of the GGBS plants (and absent the exclusive GBS agreements), the Purfleet GGBS plant would continue to source its GBS requirement from the Port Talbot or Teesside GBS plants. In Appendix 6, Annex C, Table 1, we found that based on the landed prices of GBS at the Purfleet GGBS plant, it was able to source GBS somewhat more cheaply from Mittal Ghent (Belgium) at £[redacted] per tonne than from either the Port Talbot or Teesside GBS plants at £[redacted] and £[redacted] respectively. By contrast, based on our analysis in Appendix 6, Annex C, we would not expect imported GBS to be a competitive source of supply for the Port Talbot and Scunthorpe GGBS plants, given the close proximity of their respective local GBS plants. Should the Purfleet GGBS plant source most, if not all, of its GBS requirements from imported GBS, this would result in the loss of a significant outlet for the Port Talbot GBS plant and particularly the Teesside GBS plant.

3.375 Based on our assessment, we concluded that the implications on the scope of our GGBS plant divestiture remedy, would be that:

(a) A 'captive supply chain' effectively exists between the GBS plant and GGBS plant at the Scunthorpe steelworks. Therefore, if each of these plants was sold to an

independent operator, the GBS plant would be most likely to supply all of its output to the co-located GGBS plant and would be unlikely to supply GBS to the open market to any material extent.

- (b) The Port Talbot GGBS plant would be able to source its entire GBS requirement from the co-located GBS plant. The Port Talbot GBS plant would be able to supply both the Port Talbot GGBS plant, and between around [REDACTED] and [REDACTED] of GBS to the open market (based on our estimates).
- (c) The Teesside GBS plant would be able to supply GGBS equivalent volumes of around [REDACTED] to the open market.
- (d) The Purfleet GGBS plant has capacity to produce [REDACTED] of GGBS, and would have the ability to source GBS from a number of sources, including the Port Talbot and Teesside GBS plants, as well as from GBS imports.

3.376 Based on the above, we concluded that divestiture of the Scunthorpe and Port Talbot GGBS plants faced relatively few risks in terms of access to GBS, given the ability of both plants to maximize GGBS production entirely from GBS sourced from their respective co-located GBS plants. We noted that the Scunthorpe GGBS plant might also be able to source GBS from the Teesside GBS plant given its relative proximity to the Teesside steelworks, in the event of any disruption in its local GBS supply.

3.377 The situation in relation to the Purfleet GGBS plant is somewhat more complex. It is not co-located with a GBS plant and currently takes GBS from several sources, both within and outside GB. It appears able to source GBS somewhat more cheaply from imports than from domestic sources. However, subject to the terms of any divestiture, it would still be able to continue to source GBS from the Teesside and Port Talbot GBS plants. Hanson told us that the [REDACTED].<sup>336</sup> We [REDACTED] considered the Purfleet GGBS

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<sup>336</sup> [Hanson response hearing summary](#), 23 July 2013, paragraph 31.

plant's key attraction to be its location, and its proximity to the markets in the South-East.

3.378 We took the view that, given the range of GBS supply options available to it, along with its strategic advantages, a divestiture of the Purfleet GGBS plant could also result in an effective and independent competitor.

3.379 However, we noted that the diversity of its supply options might make a divestiture of the Purfleet GGBS plant more complex to implement and might also have knock-on effects elsewhere in the supply chain. For example, should the Purfleet GGBS plant decide to switch all of its GBS supply to imports, this would remove the main outlet for the GBS produced by the Teesside GBS plant which does not have a co-located GGBS plant, (and would impact to a lesser extent the Port Talbot GBS plant). To manage this risk, a number of options might be explored by the owner of the Teesside GBS plant, for example:

- (a) The owner of the Purfleet GGBS plant might enter into an offtake agreement to purchase GBS from the Teesside GBS plant.
- (b) The owner of the Teesside GBS plant might seek an alternative outlet, including the possible construction of a new GGBS plant, which might be co-located at the Teesside steelworks, or possibly seek to negotiate the reactivation of the nearby mothballed Teesport GGBS plant.
- (c) The operator of the Teesside GBS plant might also acquire the Purfleet GGBS plant to ensure an outlet for its GBS volumes. An alternative structure could involve the operator of the Teesside GBS plant and the operator of the Purfleet GGBS plant entering into a JV.

3.380 We note that the above options assumed that only the three active GGBS plants were operational, and did not fully take into account Hanson's two mothballed GGBS

plants at Teesport and Llanwern. We explore this issue in further detail when we consider the suitability of each GGBS plant as a basis for divestiture in paragraphs 3.385 to 3.409 below.

- *GGBS remedy: the distribution capabilities of a GGBS plant*

3.381 The distribution capabilities of a GGBS plant operator can determine its geographic reach and ability to serve a wider geographic customer base, and therefore represents an important aspect of its ability to compete and a key element to the effectiveness of any GGBS plant divestiture remedy.

3.382 In Appendix 6, Annex J, Table 1, we set out the distribution capabilities available to each of Hanson's GGBS plants, which shows that:

(a) All of Hanson's GGBS plants have access to road transport. Hanson told us that once GGBS had been created, it was hauled by bulk tanker to consumers, the majority of which were RMX producers including independents as well as the main cement producers. It told us that it operated a single logistics fleet which serviced both its cement and GGBS deliveries, which currently comprised over [redacted] vehicles, around [redacted] of which were owned and the remainder were either committed third-party arrangements or spot hires. In Appendix 6, Annex J, Table 2, we show that both the Purfleet and Scunthorpe GGBS plants dispatched all of their GGBS volumes by road.

(b) None of Hanson's GGBS plants are rail-linked. However, Hanson told us that it would be possible, subject to major investments in a rail link for the Port Talbot, Purfleet and Scunthorpe GGBS plants should this be necessary.

(c) Only the Port Talbot GGBS plant currently had the capability to export GGBS, which it did using its wharf. Hanson told us that during FY12 the Port Talbot GGBS plant exported around [redacted] and [redacted] to its depots at Glasgow and Teignmouth respectively (see also the map in Appendix 6, Annex E, Figure 1). In

Appendix 6, Annex J, Table 2, we show that between FY10 and FY12, around [X] per cent of GGBS volumes that were dispatched from the Port Talbot GGBS plant was by road, with the rest by ship. It added that significant investment would be required to enable its other GGBS plants to be able to export GGBS.

3.383 As mentioned above, Hanson owns a depot at Glasgow and Teignmouth which during FY12 received all of their GGBS deliveries by ship from the Port Talbot GGBS plant, the only plant with the capability to export GGBS. In Appendix 6, Annex J, Table 3, we set out the GGBS volumes despatched through these depots, where over the last three years from FY10 to FY12, the Glasgow depot (with a storage facility of around 10 kt of GGBS<sup>337</sup>) accounted for between [X] and [X] per cent of total GGBS volumes handled through its depots, with the Teignmouth depot accounting for the balance.

3.384 Based on the above, we provisionally concluded that:

- (a) Each GGBS plant divestiture should include the assets and operations required for it to compete on a stand-alone basis including, subject to the purchaser's requirements, its own vehicle fleet.
- (b) A divestiture of the Port Talbot GGBS plant, as the only GGBS plant with the capability to ship GGBS, should be accompanied by the divestiture of both the Glasgow and Teignmouth depots which receive GGBS shipments from the Port Talbot GGBS plant.

- *GGBS remedy: assessment of suitability of each GGBS plant as a basis for divestiture*

3.385 Drawing on the analysis in paragraphs 3.339 to 3.384 above, we considered the overall merits of each of the GGBS plants owned by Hanson as the basis for a dives-

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<sup>337</sup> Provisional findings, Appendix 7.6, paragraph 28.

titute remedy. In this assessment, we looked at a range of factors including: its likely sources of GBS if it were operated independently of the other GGBS plants; any other strategic advantages or disadvantages of the GGBS plant; any practical issues associated with separating the GGBS plant from other aspects of Hanson's business, and the financial performance of each GGBS plant. Taken together these factors are relevant both to the likelihood of achieving an effective disposal and of the purchaser of the divested plant being able to compete effectively against other GGBS and cement producers.

3.386 We looked first at each of the active GGBS plants, namely the Port Talbot, Scunthorpe and Purfleet GGBS plants, as divestiture of an active facility might normally be expected to carry fewer divestiture risks. We then considered whether either of the non-active GGBS plants (at Teesport and Llanwern) could form the basis of an effective GGBS divestiture remedy.

- *(a) Assessment of the Port Talbot GGBS plant as a suitable basis for divestiture*

3.387 In terms of access to GBS, the Port Talbot GGBS plant benefits from being co-located with a GBS plant with significantly higher GBS production capacity than it could grind. This would provide a solid and secure basis for competition and could also provide any owner of the Port Talbot GGBS plant the ability to expand GGBS production capacity in the future.

3.388 We also noted that the Port Talbot GGBS plant is the only GGBS plant currently capable of shipping GGBS, which it currently does within GB to its Glasgow and Teignmouth depots (see Appendix 6, Annex J). This represents an additional strategic advantage of this plant, were it to be operated in competition with other GGBS producers. We were not aware of any specific issues associated with separating this plant from other parts of Hanson's business.

3.389 In terms of its financial performance, between FY10 and FY12, GGBS production volumes at the Port Talbot GGBS plant decreased from around [redacted] to around [redacted], whilst its sales volumes were only around [redacted] and [redacted] respectively. Gross revenues increased from £[redacted] million to £[redacted] million, with unit gross revenue (a proxy for the average delivered price) increasing from £[redacted] to £[redacted] over the period. Both its EBITDA margin increased from [redacted] to [redacted] per cent, and its unit EBITDA increased from £[redacted] to £[redacted] (see Appendix 6, Annex L, Tables 1 and 2).

3.390 We concluded that the Port Talbot GGBS plant could form a suitable basis for a GGBS plant divestiture.

- *(b) Assessment of the Scunthorpe GGBS plant as a suitable basis for divestiture*

3.391 The Scunthorpe GGBS plant is co-located with its local source of GBS, from which the Scunthorpe GGBS plant would be able to source most, if not all, of its GBS requirement even when operating at full capacity. The extent to which the Scunthorpe GGBS plant might require GBS from alternative sources would depend on the proportion of BFS processed into GBS compared to air-cooled slag. We considered that when faced with a genuine choice of producing either GBS or air-cooled slag, a GBS plant would have a stronger financial incentive to produce GBS, the higher valued product given its use in GGBS.

3.392 We also considered the potential separation issues should the Scunthorpe GGBS plant be divested. In relation to the Scunthorpe GGBS plant, Hanson told us [redacted].<sup>338</sup> This JV, Calumite Ltd, was 51 per cent owned by Hanson<sup>339</sup> and 49 per cent owned by a US firm, [redacted]. Hanson told us that Calumite Ltd was a single site operation that was co-located at its Scunthorpe GGBS plant site, and sourced GBS from Lafarge Tarmac through its existing GBS agreement, to produce 'Calumite Slag' which was

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<sup>338</sup> [Hanson response hearing summary](#), 23 July 2013, paragraph 31.

<sup>339</sup> Provisional findings, Table 3.5.

used in the glass manufacturing industry. It added that this application was the only other use for GBS in the UK. It also told us that all costs for [REDACTED].

3.393 Based on Calumite Ltd's business activity, it was unclear how Hanson's GGBS operation contributed to the JV, other than by way of providing a site for its plant, and securing the JV's supply of GBS under its GBS agreement. If the Scunthorpe GGBS plant was to be divested, we would propose the inclusion of a provision that permitted the Calumite Ltd JV to continue to operate on the Scunthorpe GGBS plant site.

3.394 Should the Scunthorpe GGBS plant be divested, we would have some concerns in relation to Hanson's ability as a shareholder in the Calumite Ltd JV to continue to access the Scunthorpe GGBS plant site should it retain its JV, eg we would be concerned that Hanson did not influence the operation of the GGBS plant in any way should it be divested, and that Hanson did not find out about the GGBS plant's operations and activities. We would therefore require Hanson to provide us with satisfactory undertakings that ensure that the operation of this JV does not compromise the ability of the Scunthorpe GGBS plant to compete independently from Hanson, eg through appropriate information barriers or confidentiality undertakings.

3.395 By way of financial background, GGBS production volumes at the Scunthorpe GGBS plant decreased from around [REDACTED] in FY10 to around [REDACTED] in FY12. Sales volumes were [REDACTED] and [REDACTED] respectively. Gross revenues decreased from £[REDACTED] million to £[REDACTED] million, with unit gross revenue increasing from £[REDACTED] to £[REDACTED] over the period. Whilst its EBITDA margin declined slightly from [REDACTED] to [REDACTED] per cent, its unit EBITDA remained broadly flat at £[REDACTED] (see Annex L, Tables 1 and 2).

3.396 Subject to Hanson addressing our concerns in relation to the Calumite Ltd JV with satisfactory undertakings, we concluded that the Scunthorpe GGBS plant could form a suitable basis for a GGBS plant divestiture.

o *(c) Assessment of the Purfleet GGBS plant as a suitable basis for divestiture*

3.397 At present the Purfleet GGBS plant takes GBS from the Port Talbot and Teesside GBS plants, as well as from imports. Hanson told us that in comparison to the GBS supplied directly from a GBS plant co-located at a steelworks, the GBS sourced from Port Talbot and Teesside, as well as from imports represented three different sources of logistics costs for the Purfleet GGBS plant, [REDACTED]. Hanson also told us that its Purfleet GGBS plant was located on the River Thames and had a wharf and therefore could receive bulk deliveries of GBS.<sup>340</sup>

3.398 Based on Appendix 6, Annex C, Table 1, we found that the Purfleet GGBS plant could source GBS somewhat more cheaply from imports than it could from Lafarge Tarmac's Port Talbot and Teesside GBS plants. We noted that Hanson also told us that its GBS agreement with Lafarge Tarmac imposed a cap on how much GGBS it could import,<sup>341</sup> which Lafarge Tarmac confirmed was up to 200 kt of GBS from third parties for processing at Hanson's Purfleet GGBS plant. Lafarge Tarmac also told us that Hanson could source GBS from third parties where it could not supply sufficient GBS of such quality to meet Hanson's requirements. To the extent that this cap was removed or loosened as part of any divestiture, Hanson or any other owner of the Purfleet GGBS plant might be able to import a greater proportion of its GBS requirements from imports. Based on the price of imports Hanson provided in relation to the GBS it imported from Belgium, increasing the amount of GBS sourced from imports might remove some of the logistical cost disadvantages cited earlier by Hanson.

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<sup>340</sup> Provisional findings, Appendix 7.6, paragraph 27.

<sup>341</sup> [Hanson response hearing summary](#), paragraph 16.

- 3.399 Whilst the Purfleet GGBS plant is not co-located with a GBS plant, Hanson told us that [redacted].<sup>342</sup> It told us that GBS had to be imported by ship from the Teesside and Port Talbot sites, and that it was also dependent on the GBS imported from Europe in order to allow GGBS production from its Purfleet GGBS plant.
- 3.400 We noted that the Purfleet GGBS plant was Hanson's only GGBS plant that was covered under Phase III of the EU ETS. Hanson told us that the ETS primarily covered the Purfleet GGBS plant's combustion activities in relation to slag drying for the production of GGBS. Its other GGBS plants were opted out from Phase III of the ETS under the 'smaller emitter' opt-out scheme, which set target emission levels without any trading of carbon allowances being permitted. A relevant consideration would be the future costs of being part of the ETS going forwards, as the percentage of its free benchmark allocation of carbon allowances reduces over time. However, since 2013 represents the first year of ETS Phase III, and given that the Purfleet GGBS plant was not part of the ETS during its previous trading phases, it would be difficult to assess the expected future impact of the Purfleet GGBS plant's participation in the ETS. However, given that carbon allowances currently trade below €5, together with the acknowledgement by the European Commission of the existence of a 'structural surplus' of carbon allowances under the ETS, which is expected to continue to depress carbon allowance prices, we did not expect any absolute financial impact to be significant. For completeness, we also noted that Lafarge Tarmac told us that none of its GBS plants were covered by the ETS.
- 3.401 We concluded that whilst the Purfleet GGBS plant was not co-located with a GBS plant, it had the advantage of being able to source GBS imports more cheaply (an advantage that we found was not shared by Hanson's other GGBS plants), and had a strategic advantage in terms of its location, which enabled it to service the attrac-

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<sup>342</sup> [ibid](#), 23 July 2013, paragraph 31.

tive London market and the markets in the South-East in relation to GGBS. These factors could increase its potential attractiveness as a divestiture package, though the relative complexity of its GBS supply arrangements and the current dependence on [X] could complicate any divestiture process.

3.402 By way of financial background, between FY10 and FY12, GGBS production volumes at the Purfleet GGBS plant increased from around [X] to around [X], with sales volumes of [X] and [X] respectively. Its gross revenues increased from £[X] million to £[X] million, with unit gross revenue increasing from £[X] to £[X] over the period. Its EBITDA margin fell from [X] to [X] per cent, and its unit EBITDA fell from £[X] to £[X] (see Appendix 6, Annex L, Tables 1 and 2).

3.403 We concluded that there were some advantages that would make the Purfleet GGBS plant a suitable basis for divestiture, in particular it is the largest GGBS plant by production capacity at close to [X], and also has direct and close access to the markets in London and the South-East. However, there may be more divestiture risks associated with the Purfleet GGBS plant than for the other two active GGBS plants, in particular given that it is not co-located with its local GBS source as is the case for the other two active GGBS plants.

o *(d) Assessment of non-active GGBS plants as a suitable basis for divestiture*

3.404 In our assessment above to decide which of the GGBS plants would form part of an effective and suitable divestiture package, we had worked on the assumption that Hanson would not reactivate the mothballed Teesport and Llanwern GGBS plants, and therefore excluded these GGBS plants as possible plants for divestiture. In relation to these two GGBS plants:

(a) Hanson told us that it had to date sought to maintain the Teesport GGBS plant to retain the option of reopening it at some point in future. It also told us that whilst

the Teesport GGBS plant had been mothballed since 2010, it could be fully operational again in around [REDACTED] months.

(b) [REDACTED] the Llanwern GGBS plant has remained mothballed since the permanent closure of the Llanwern steelworks back in 2002,<sup>343</sup> and could possibly be re-activated, Hanson told us that its Llanwern GGBS plant was co-located on Tata's land, [REDACTED].<sup>344</sup>

3.405 We also note that SSI told us that it was important that mothballed GGBS plants were also included in the divestiture process and that the new owners of those mothballed GGBS plants were encouraged to compete.<sup>345</sup>

3.406 We sought confirmation from Tata of its intentions and development plans for its land on which Hanson's Teesport and Llanwern GGBS plants were located:

(a) In relation to its land at Teesside (the site of the Teesport GGBS plant), Tata told us that [REDACTED].

(b) In relation to its land at Llanwern (the site of the Llanwern GGBS plant), Tata told us that [REDACTED].

3.407 [REDACTED], we considered that we should also take into account the mothballed GGBS plants, [REDACTED]. In relation to each of Hanson's two mothballed GGBS plants:

(a) The Teesport GGBS plant has GGBS production capacity of around [REDACTED], and therefore could absorb a significant proportion of the [REDACTED] of GGBS equivalent volumes produced by the Teesside GBS plant. This would help to address the risk that the Purfleet GGBS plant decides to switch most, or all, of its GBS supply to imports, leaving the Teesside GBS plant without a sufficient outlet for its GBS production.

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<sup>343</sup> Provisional findings, Appendix 7.6, paragraph 27.

<sup>344</sup> Hanson response hearing summary, 23 July 2013, paragraph 24.

<sup>345</sup> SSI response to Remedies Notice, p2, paragraph C.

(b) We did not consider the Llanwern GGBS plant to be a suitable basis for divestiture on the basis that similar to the Purfleet GGBS plant, it does not have a co-located supply of GBS, ie the Llanwern steelworks was closed in 2002. Instead, the Llanwern GGBS plant would likely source GBS from the Port Talbot GBS plant, where the Port Talbot GBS plant was generating a surplus, or from other GBS producers. However, we considered that once reactivated these GBS supply issues would make the Llanwern GGBS plant vulnerable as a viable and effective GGBS producer on a stand-alone basis, and therefore would likely be unattractive to potential purchasers. Instead, the fact that the Port Talbot, Scunthorpe and potentially the Teesport GGBS plants, each have a co-located source of GBS, would make them more attractive as a divestiture when compared with the Llanwern GGBS plant.

3.408 We would generally expect there to be higher divestiture risks in relation to a mothballed GGBS plant than an active one, in particular, it would lack any historic track record of performance, and be without an established supply arrangement for GBS. Whilst we considered this to be the case for the Llanwern GGBS plant, in our view, these risks were lower for the Teesport GGBS plant, which once reactivated, would be able to source its GBS from the nearby (though not co-located) Teesside GBS plant. We would therefore consider the mothballed Teesport plant as a suitable basis for divestiture subject to Hanson being able to reactivate the Teesport GGBS plant within our proposed divestiture period, and subject to confirmation of its viability as a going concern, including a satisfactory renewal of its land lease with Tata. We would prefer such divestiture risks to be avoided, and therefore we would favour the divestiture of an active GGBS plant than a mothballed one.

- *(e) Our conclusions on the suitability of each GGBS plant for divestiture*

3.409 Based on our assessment above, we concluded that each of Hanson's three active GGBS plants, in its own way, could represent a suitable plant for divestiture, although we noted that the GBS supply and separation issues involving the Purfleet GGBS plant made this somewhat more complex to implement than a divestiture of the Port Talbot or Scunthorpe GGBS plant. Divestiture of a currently mothballed GGBS plant appeared to involve higher divestiture risks. We would therefore consider the Teesport GGBS plant as a possible basis for an effective remedy, subject to Hanson addressing our concerns mentioned above.

- *GGBS remedy: the number of GGBS plants to be divested*

3.410 In deciding how many GGBS plants should be divested for an effective remedy, we first noted our earlier conclusions that GB cement producers would neither be incentivized to co-grind nor to convert their existing clinker grinding mills for grinding GBS into GGBS. We therefore took the view that increased competition in GGBS was likely to come from the divested GGBS operations and considered the impact on competition of requiring one or two GGBS plant divestitures.

3.411 In terms of the structure of the GGBS market, we assessed the impact of various divestiture scenarios on active GGBS production capacity. We note that should the Teesport GGBS plant be reactivated and subject to confirmation of its viability as a going concern, then the Teesport GGBS plant's capacity should also be taken into account. However, we have assumed for the purpose of this analysis that only the active GGBS plants are potential divestitures. Based on Appendix 6, Annex F, Table 4, the share of GGBS production capacity accounted for by the Port Talbot, Scunthorpe and Purfleet GGBS plants was [15–25], [25–35] and [45–55] per cent respectively. A divestiture of the largest GGBS plant by capacity, ie the Purfleet GGBS plant, would result in the creation of one new GGBS producer with capacity of [45–55] per cent,

with Hanson retaining [45–55] per cent. Conversely, a divestiture of the smallest GGBS plant, ie the Port Talbot GGBS plant, would result in the creation of an independent producer with [20–30] per cent capacity share, whilst Hanson would retain a [70–80] per cent share. If Hanson were to divest both its Port Talbot and Scunthorpe GGBS plants, this would result in [45–55] per cent of production capacity being under independent ownership, with Hanson retaining [45–55] per cent. In our view, the divestiture of one of the two smallest GGBS plants, ie either the Port Talbot or Scunthorpe GGBS plant, would result in an insufficient reduction in Hanson’s overall share of capacity, given that it would still retain close to [75–85] per cent of GB capacity.

3.412 We concluded that a divestiture of one GGBS plant alone would be insufficient to address Hanson’s market power in GGBS and the GGBS-related AEC and AEC in GGBS that result from it, as it would leave Hanson in a position in which it owned over half of GGBS grinding capacity and faced only one domestic GGBS competitor. Divestiture of two GGBS plants would, in our view be sufficient to create a more competitive environment in GGBS. As concluded earlier, we found that each GGBS plant represented a suitable divestiture in its own way, and that Hanson may wish to retain a smaller GGBS plant, for its value to its wider business. We therefore also propose that Hanson should be able to decide which of its GGBS plants to retain. As mentioned above, should Hanson decide to divest its Teesport GGBS plant, this should be subject to Hanson reactivating the plant within our proposed divestiture period, as well as providing confirmation of its viability as a going concern.

#### *Specification of the GBS remedy*

3.413 We now turn to our assessment of the specification of the GBS plant divestiture remedy. Given the close supply relationship that exists between the upstream and downstream levels of the GGBS supply chain, some of the design issues which we

assessed earlier as part of our consideration of the downstream GGBS remedy also apply in our consideration of the upstream GBS remedy, in particular, the issue concerning the continuity of BFS, and ultimately, GBS supply.

3.414 We address the following areas which we considered relevant to our design of an effective GBS plant divestiture package:

- (a) addressing BFS supply risks (paragraph 3.415);
- (b) distribution capabilities of the GBS plants (paragraphs 3.416 to 3.420);
- (c) feasibility of multiple operators at a steelworks (paragraphs 3.421 to 3.424);
- (d) assessment of suitability of each GBS plant for divestiture (paragraphs 3.425 to 3.436); and
- (e) deciding the number of GBS plants to divest (paragraphs 3.437 to 3.440).

- *GBS remedy: addressing BFS supply risks*

3.415 We had considered the risk of BFS supply risks as part of our assessment of the GBS supply risks above, when we considered design issues in relation to the downstream GGBS remedy.

- *GBS remedy: distribution capabilities of the GBS plants*

3.416 Based on Appendix 6, Annex I, Tables 1 and 2, where we set out the distribution capabilities of each GBS plant, we found that:

- (a) The Port Talbot GBS plant had access to rail, sea and road transport, and that these distribution facilities were available onsite. Lafarge Tarmac told us that its Port Talbot GBS plant was currently distributing GBS by road to Hanson's Port Talbot GGBS plant and by ship to Hanson's Purfleet GGBS plant, as well as to [✂].
- (b) The Scunthorpe GBS plant had onsite facilities to transport GBS by rail and road, but was within reach of facilities to transport GBS by sea. Lafarge Tarmac told us

that all of its GBS volumes from the Scunthorpe GBS plant were currently being transported by road to Hanson's Scunthorpe GGBS plant. It added that the GBS produced was moved 1 km by road to Hanson's GGBS plant or stockyard.

(c) The Teesside GBS plant only had onsite facilities to transport GBS by road, but it was within reach of offsite facilities to transport GBS by rail and sea. Lafarge Tarmac told us that it was currently using a third party's slag jetty around 5 miles away from its site in order to ship its GBS to Hanson's Purfleet GGBS plant. It added that whilst there was an onsite jetty, it was in need of major repairs. SSI told us that whilst Lafarge Tarmac's GBS operations did not have a direct rail connection, it could consider offering its steelworks' rail connection for use by the GBS plant.<sup>346</sup>

3.417 We noted that rail transport was not used by any of the GBS plants, notwithstanding the availability of facilities nearby to distribute GBS by rail, in particular at the Port Talbot GBS plant where such facilities are available onsite. However, we considered that the co-location of the GBS and GGBS plants at the Port Talbot and Scunthorpe steelworks meant that GBS was primarily transported by road to the co-located GGBS plant. Where GBS is distributed over longer distances, this arises predominantly because the Purfleet GGBS plant does not have a co-located GBS plant, and because the Teesside GBS plant does not have a co-located GGBS plant since the Teesport GGBS plant is currently mothballed. In relation to the GBS that is transported from the Port Talbot GBS plant to the Purfleet GGBS plant, we found earlier that this was largely due to GBS production significantly exceeding the amount required by the Port Talbot GGBS plant.

3.418 Whilst Hanson told us that GGBS was always a blended material, eg all GGBS produced by the Purfleet GGBS plant was a 'carefully managed chemical blend'

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<sup>346</sup> SSI response hearing summary, paragraph 34.

between the three GBS materials produced by Mittal Ghent (ArcelorMittal), and the Port Talbot and Teesside works, in our view, this blending between different GBS sources did not appear to take place at either Hanson's Port Talbot or Scunthorpe GGBS plants. However, Hanson told us that the GGBS produced at the Port Talbot and Scunthorpe GGBS plants was 'generally always a blended product', although the chemical blends at those two sites involved blending between different GBS materials from each respective site, and that the blend and its age and chemical constitution had to be carefully managed to ensure the due cementitious reactivity and properties. It added that if there was an issue in the future with the quality at these GGBS plants, then Hanson would then have to consider blending further between sites and sources.

3.419 We considered that distribution capabilities were more relevant to some GBS plants than for others—eg we concluded earlier that there was an effective 'captive supply chain' between the GBS and GGBS plants at the Scunthorpe steelworks. In this case, distribution capabilities are less of a relevant consideration, than for the Port Talbot GBS plant, where GBS production exceeds the GBS requirement of its co-located GGBS plant. Distribution capabilities are perhaps most important for the Teesside GBS plant, which does not have an active co-located GGBS plant, and therefore its GBS volumes would need to travel further for processing. However, we note that other than road transport, the Teesside GBS plant does not have onsite facilities to transport its GBS by rail or sea, eg as mentioned above, in order to ship its GBS to the Purfleet GGBS plant, GBS needed to be transported for 5 miles by road to the jetty.

3.420 We concluded that in relation to the three GBS plants, the Port Talbot GBS plant had the greatest choice of onsite distribution facilities, the Scunthorpe plant had the least requirement for such facilities, whilst the Teesside GBS plant lacked the onsite distri-

bution capabilities that might be expected given that it requires all of its volumes to be transported offsite.

- *GBS remedy: feasibility of multiple operators at a steelworks*

3.421 Given that there may be more than one granulator (that processes BFS into GBS) at a steelworks, we considered the feasibility of multiple operators of granulators at each steelworks. This might increase competition in the supply of GBS where a 'captive supply chain' exists between a GBS and GGBS plant.

3.422 However, we considered that this may not be practicable for the following reasons:

- (a) from the perspective of an operator of one granulator, it would be reliant on a single blast furnace and would be more exposed to the risk of having its BFS supply disrupted, compared with an operator of two granulators at the same steelworks; and
- (b) this arrangement would likely face significant resistance from both GB steel producers given security, health and safety and practicality issues, eg negotiating with two separate operators at one steelworks.

3.423 We also noted that Tata told us that [REDACTED].<sup>347</sup>

3.424 We therefore concluded that it would be more practical for all granulators at a single steelworks to be divested to a single party rather than on a 'granulator by granulator' basis.

- *GBS remedy: assessment of suitability of each GBS plant for divestiture*

3.425 We considered the suitability of each GBS plant for divestiture. We considered both a GBS plant's ability to increase competition in the supply of GBS, and its ability to

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<sup>347</sup> [Tata Steel response hearing summary](#), paragraph 28.

operate independently and on a stand-alone basis. In addressing our concerns in relation to Lafarge Tarmac's continuing participation within the GBS supply chain, we considered that even if a GBS plant divestiture could not on its own increase competition in the supply of GBS, its ability to operate on a stand-alone basis, would mean that its divestiture would contribute to addressing our concerns arising from Lafarge Tarmac's ownership of the GBS plant.

- *(a) Assessment of the Port Talbot GBS plant as a suitable plant divestiture*

3.426 In relation to the Port Talbot GBS plant, we noted that this plant was selling its GBS to the Port Talbot and Purfleet GGBS plants, as well as to [REDACTED].

3.427 By way of financial background, GBS sales volumes at the Port Talbot GBS plant increased from around [REDACTED] in FY10 to [REDACTED] in FY12. Over this same period, gross revenues increased from £[REDACTED] million to £[REDACTED] million, representing a broadly stable unit gross revenue figure of around £[REDACTED]. EBITDA margin declined from [REDACTED] to [REDACTED] per cent over the period, as did unit EBITDA from around £[REDACTED] to £[REDACTED] (see Appendix 6, Annex K, Tables 1 and 2).

3.428 We concluded that the Port Talbot GBS plant represented a suitable plant for divestiture, given that it would have the ability to sell a significant proportion of its volumes to the co-located GGBS plant, and was well placed to sell GBS to the open market using its onsite rail and shipping facilities.

- *(b) Assessment of the Scunthorpe GBS plant as a suitable plant divestiture*

3.429 Based on our earlier assessment, we concluded that the Scunthorpe GBS plant would effectively supply most, if not all, of its output to its co-located GGBS plant.

3.430 We also note that Tata told us that whilst [REDACTED].<sup>348</sup>

3.431 By way of financial information, GBS sales volumes at the Scunthorpe GBS plant decreased from around [REDACTED] in FY10 to [REDACTED] in FY12. Gross revenues fell from £[REDACTED] million to £[REDACTED] million over the period, whilst unit gross revenue increased from £[REDACTED] to £[REDACTED]. EBITDA margin declined slightly from [REDACTED] to [REDACTED] per cent over the period, and unit EBITDA remained broadly stable at around £[REDACTED] (see Appendix 6, Annex K, Tables 1 and 2).

3.432 We concluded that the Scunthorpe GBS plant could form the basis of an effective divestiture remedy. We considered that its ability to supply GBS to the open market would be limited, but given its 'captive supply chain' with its co-located GGBS plant, we considered that this would give it a guaranteed outlet for its volumes and therefore would likely be viable as a stand-alone GBS plant operation.

o *(c) Assessment of the Teesside GBS plant as a suitable plant divestiture*

3.433 During the period from FY10 to FY12, the Teesside steelworks did not operate for the whole of FY11, and operated part year during FY10 and FY12 (see Appendix 6, Annex K, Tables 1 and 2). The Teesside steelworks reopened in April 2012, and since then, its new owner SSI, has been ramping up production. We considered that the Teesside steelworks had the greatest potential to increase BFS volumes beyond current levels, from a current run-rate level of 0.9 Mt (see Appendix 6, Annex F, Table 4) to 1.3 Mt of BFS, ie if it manages to increase its annual steel production from 3.2 Mt to its target of 4.2 Mt).

3.434 We note that Lafarge Tarmac told us that it was aware that SSI had recently invested in the Teesside steelworks that would increase iron production to 3.5 Mt of hot metal

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<sup>348</sup> [ibid](#), paragraph 26.

each year, and that this would give rise to annual GGBS equivalent volumes of between 0.6 and 0.8 Mt.

3.435 However, we considered the Teesside GBS plant faced the greatest risk in terms of having an outlet for its GBS, since both the Port Talbot and Scunthorpe GGBS plants are likely to source most, if not all, of their GBS requirements from their respective co-located GBS plants. This therefore leaves the Purfleet GGBS plant as the Teesside GBS plant's primary outlet. However, we also found that the Purfleet GGBS plant could source GBS imports somewhat cheaper than it could from domestic sources. This created a risk that, absent a long-term supply agreement or investment in onsite grinding capacity that the Teesside GBS plant would not find an outlet for its GBS volumes. Furthermore, we also found that the Teesside GBS plant had limited onsite distribution facilities, and would therefore need to reach offsite facilities to transport its GBS by rail or ship.

3.436 Therefore, we concluded that divestiture of the Teesside GBS plant appeared to represent a higher risk unless one or more of the measures discussed in paragraph 3.378 were also implemented to address this risk, which included a scenario involving the possible reactivation of the currently mothballed Teesport GGBS plant.

- *GBS remedy: deciding the number of GBS plants to divest*

3.437 In deciding the question of the number of GBS plant divestitures, we first looked at the GBS production capacity of each GBS plant. In Appendix 6, Annex F, Table 4, we noted that GBS production capacity figures of each GBS plant were broadly in line with the BFS production capacity figures of its respective steelworks.

3.438 A divestiture of the smallest GBS plant, the Scunthorpe GBS plant, would result in a new entrant with a [20–30] per cent share in both GBS and BFS capacity, and leave

the incumbent, Lafarge Tarmac, with a [70–80] per cent share. A divestiture of the largest GBS plant, either the Port Talbot or Teesside GBS plant, would give the new entrant a [35–45] per cent share of GBS capacity, and leave Lafarge Tarmac with a [55–65] per cent share. Based on this, a divestiture of one GBS plant would still leave Lafarge Tarmac with at least a [55–65] per cent share of GBS production capacity in GB.

3.439 We also considered the views of parties on the stand-alone viability of a GBS plant:

- (a) Lafarge Tarmac told us that it would be possible for three separate and independent firms to each operate a GBS plant (subject to the longevity of the steelworks operations themselves). It added that any uncertainty associated with the future longevity of steelworks could be overcome by structuring this remedy through a lease linked to the life of the steelworks, thereby eliminating the third party operators' requirements to undertake a significant capital outlay.
- (b) Tata, however, told us that it believed that 'common ownership' of GBS plant sites was necessary in order to support a viable GBS supplier in the marketplace.<sup>349</sup> It also told us that in light of the potential environmental and cost implications on the steel industry and to Tata, it was very important that any supplier of GBS had the stability of access to multiple sites so that it could fulfil both its obligations in the supply of GBS, and to the clearing and granulation of BFS.<sup>350</sup>
- (c) Breedon Aggregates considered that it would be better to divest all GBS plants to one firm in order to limit the risk of a company acquiring one GBS plant and the local steelworks then closing down, which would result in the GBS plant having no supply of BFS. For this reason, it told us that a divestiture of a single GBS plant might be unattractive to buyers.<sup>351</sup>

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<sup>349</sup> [Tata Steel response to Remedies Notice](#), p3, paragraph b).

<sup>350</sup> [ibid](#), p3, paragraph b).

<sup>351</sup> [Breedon Aggregates response hearing summary](#), paragraph 25.

(d) The OFT told us that there might be risks with requiring the GBS plants to be under separate ownership, and that the sale of two or three GBS plants to a single buyer might ensure a better change of continuity of supply in the event that operations ceased temporarily or permanently at one of the steelworks. However, it added that if all GBS plants were sold to a single buyer, then it would result in ‘ownership of a total monopoly merely being transferred from one enterprise to another without the prospect of opening up the market to competition’.

3.440 In order to create an effective constraint on Lafarge Tarmac, we considered that given there are only three GBS plants, a divestiture can only involve one or two GBS plants. Given our concern in relation to the possibility that Lafarge Tarmac would enjoy market power, if its obligations under its current contractual arrangements with Hanson were no longer present, combined with its incentives as a GB cement producer to weaken the competitive constraint on cement prices from GGBS, we concluded that two GBS plants should be divested to introduce two new GBS producers. Given the additional risks associated with divestiture of the Teesside GBS plant, our preference would be for divestiture of the Port Talbot or Scunthorpe GBS plants, though we would be open to divestiture of the Teesside GBS plant if the additional risks associated with such a divestiture could be effectively managed.

#### *Assessment of purchaser suitability*

3.441 In addressing purchaser risks, we considered both the availability of suitable purchasers, and the purchaser suitability criteria. While we do not need to identify and approve an acquirer during this investigation, we would wish to be satisfied that suitable purchasers were likely to be forthcoming. We first considered the views of parties in relation to purchaser availability.

- *Purchaser availability*

3.442 Breedon Aggregates told us that it would be interested in acquiring GGBS production capacity subject to price and the long-term security of supplies from the steel industry.<sup>352</sup>

3.443 MI told us that it might be interested in purchasing divested GGBS assets subject to the acquisition price. It added that it would be more attractive to acquire both GBS and GGBS plants as it would provide it with more control over its cost base.<sup>353</sup>

3.444 In relation to the availability of purchasers for only the GBS plants, Lafarge Tarmac believed that the GB steel producers were the most likely purchasers of the GBS plants on the basis that they were integral to their operations.<sup>354</sup> It also told us that potentially some of the existing GB cement producers such as HCM or Cemex might be interested in acquiring any divested grinding facilities from third parties.<sup>355</sup>

3.445 However, Tata told us that the proposal to buy the GBS operations from Lafarge Tarmac was not a very attractive one, [REDACTED]. It added that from its perspective, removing the surety of the current contract would not be an attractive option.<sup>356</sup> [REDACTED]<sup>357</sup>

3.446 The following parties expressed no interest in any GBS or GGBS plant divestiture:

(a) CRH told us that it was not involved with GBS or GGBS production elsewhere,

and it was [REDACTED].<sup>358</sup>

(b) CPV, which operates Dragon Alfa, [REDACTED].<sup>359</sup>

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<sup>352</sup> [ibid](#), paragraph 27.

<sup>353</sup> [Mittal/HCM response hearing summary](#), paragraph 46.

<sup>354</sup> [Lafarge Tarmac response hearing summary](#), paragraph 34.

<sup>355</sup> [ibid](#), paragraph 35.

<sup>356</sup> [Tata Steel response hearing summary](#), paragraph 32.

<sup>357</sup> [ibid](#), paragraph 35.

<sup>358</sup> [CRH response hearing summary](#), paragraph 21.

<sup>359</sup> [CPV response hearing summary](#), paragraph 29.

3.447 In relation to the availability of purchasers for a GGBS or GBS plant divestiture package, whilst we received limited expressions of interest from the parties we spoke to, we considered that there would likely be interested bidders through a wider and more extensive market-testing process, in particular for a GGBS plant from integrated aggregates and concrete producers that may benefit from having its own source of GGBS as a cement replacement. At this stage, we would not preclude the existence of potential purchasers operating outside the GB construction sector, as well as the existence of possible financial buyers, eg private equity firms.

3.448 The nature of the pool of potential purchasers for GBS plant divestitures is harder to predict, although vertical integration (eg by ‘upstream’ steel producers or ‘down-stream’ GGBS producers) could represent an attractive business model.

- *Purchaser suitability*
  - (a) *GGBS plant purchaser suitability*

3.449 A number of parties commented about the characteristics of a suitable purchaser of a GGBS plant:

- (a) Breedon Aggregates considered that a buyer of a GGBS plant that was independent of any of the GB cement producers would likely compete ‘vigorously’ against the GB cement producers.<sup>360</sup>
- (b) Aggregate Industries told us that [REDACTED] there appeared to be a captive supply chain between GBS and GGBS.<sup>361</sup>
- (c) MI told us that it would be more attractive to acquire both GBS and GGBS activities as it would provide it with more control over its cost base.<sup>362</sup>
- (d) Tata told us that it [REDACTED].<sup>363</sup>

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<sup>360</sup> [Breedon Aggregates response hearing summary](#), paragraph 26.

<sup>361</sup> [Aggregate Industries response hearing summary](#), paragraph 32.

<sup>362</sup> [Mittal/HCM response hearing summary](#), paragraph 46.

<sup>363</sup> [Tata Steel response to Remedies Notice](#), p3, paragraph d).

(e) SSI told us that a separation of production at the upstream and downstream levels would enhance competition, and that common ownership would restrict competition for both the sale and purchase of materials, much as the exclusive agreements did at present.<sup>364</sup> It also told us that if a GGBS plant was sold to one of the GB cement producers there was a strong likelihood that the AEC would continue, albeit in a slightly different form. It therefore considered that a buyer should be a genuinely new entrant that was independent of the existing Majors.<sup>365</sup> It added that separating the ownership of the GBS plants from the buyers of GBS would assist in increasing competition.<sup>366</sup>

o *(b) GBS plant purchaser suitability*

3.450 A number of parties commented about the characteristics of a suitable purchaser of a GBS plant.

3.451 SSI told us that a GBS plant was so integral to the blast furnace operation, that no third party, ie a non-blast furnace operator, would be suitable as an owner.<sup>367</sup> For operational reasons, it told us that ownership of the GBS plants sat best with the relevant blast furnace owner.<sup>368</sup> It added that it had been [REDACTED].<sup>369</sup> SSI also considered that operators of GGBS plants should be independent of the operators of GBS plants.<sup>370</sup>

3.452 Tata explained that when it entered the BFS agreements [REDACTED].<sup>371</sup> Therefore, in relation to a suitable purchaser, it told us that:<sup>372</sup>

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<sup>364</sup> SSI response to Remedies Notice, p2, paragraph D.

<sup>365</sup> *ibid*, p3, paragraph E(ii).

<sup>366</sup> *ibid*, p2, paragraph B.

<sup>367</sup> *ibid*, p2, paragraph E(i).

<sup>368</sup> *ibid*, p2, paragraph B.

<sup>369</sup> *ibid*, p2.

<sup>370</sup> *ibid*, p3, paragraph E(ii).

<sup>371</sup> Tata Steel response hearing summary, paragraph 15.

<sup>372</sup> *ibid*, paragraph 34.

- (a) it was primarily concerned with the removal of the BFS, and therefore it was important that the right party with the right knowledge base and the capital commitment took on that role from Lafarge Tarmac; and
- (b) whoever took over this responsibility from Lafarge Tarmac would need to be independent of the steel market given the production data that flowed through.

3.453 In relation to Tata's final point above, [REDACTED].

3.454 However, in relation to the independence of an operator of GBS from the GB cement producers, Tata told us that it was not important that Lafarge Tarmac was active in the downstream GGBS markets [REDACTED].<sup>373</sup>

3.455 Tata added that a buyer should demonstrate a long-term commitment to the acquired business, and that the CC should request undertakings from the buyer that it would not divest the assets within a five-year period, unless the other buyer could satisfy the same purchaser criteria that were applied at the time of the initial divestiture.<sup>374</sup>

3.456 Tata also told us that [REDACTED].<sup>375</sup>

3.457 Tata explained that it had the [REDACTED].<sup>376</sup> It also told us that it should be able to 'scrutinise and approve any proposed new incumbent', and that following any divestiture, [REDACTED].<sup>377</sup>

3.458 In relation to Lafarge Tarmac's proposal concerning the GB steel producers being the most appropriate purchasers of their respective co-located GBS plants, we considered there to be merit in this argument.

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<sup>373</sup> [ibid](#), paragraph 36.

<sup>374</sup> [Tata Steel response to Remedies Notice](#), p4, paragraph (iv).

<sup>375</sup> [ibid](#), p2.

<sup>376</sup> [ibid](#), p4.

<sup>377</sup> [ibid](#), p4.

3.459 Whilst noting that Tata was not attracted by this possibility, though SSI was in favour, we considered that a purchase of the GBS plants by the GB steel producers may be a workable option for the following reasons:

- (a) GBS plants are located on a steel producers' own sites;
- (b) granulation involves processing the by-product of the steel production process;
- (c) steel producers are independent of the GB cement markets;
- (d) it would result in two GBS suppliers: Tata and SSI;
- (e) any risks concerning continuity of BFS supply would be effectively internalized by the steel producers; and
- (f) GBS production would likely continue given that: (i) BFS removal is an essential part of the iron and steel production process; (ii) there are environmental benefits from granulation compared with air-cooling BFS; and (iii) there is a downstream market for an end-product of GBS, ie GGBS, which is a higher value product than air-cooled slag.

- *(c) Our conclusions on GBS and GGBS plant purchaser suitability*

3.460 Our guidance indicates that the CC would expect suitable purchasers to:<sup>378</sup>

- (a) be independent of any divesting party or any related party;
- (b) have appropriate expertise, commitment and financial resources to operate and develop the divestiture business as an effective competitor; and
- (c) not itself create further competition or regulatory concerns.

3.461 As mentioned earlier, in order to reduce the extent and impact of the structural link between the GB cement markets and the GGBS supply chain arising from Hanson's and Lafarge Tarmac's extensive participation in both markets, and address their incentives that arise from this structural link, we concluded that a key criterion in relation to achieving an effective remedy should be that a buyer of a GGBS or GBS

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<sup>378</sup> The Guidelines, [Annex B](#), paragraph 17.

plant must be fully independent of the GB cement producers. In this regard, such a purchaser would not face the conflicting incentives that a GB cement producer would otherwise face, ie given the impact of high GGBS prices on prices and profitability in the GB cement markets. We therefore concluded that no GB cement producer could be a purchaser of either a GGBS or GBS plant.

3.462 Based on our guidance and the views of parties mentioned above, we concluded that the suitability criteria for a purchaser of either a GGBS or GBS plant would be based on the same lines of reasoning. We therefore concluded that a suitability criteria for either a GGBS or GBS plant would be as follows:

- (a) to ensure full independence from the divesting party and to prevent any future competition concerns, a suitable purchaser must not be one of the GB cement producers; and
- (b) in relation to a purchaser having the necessary expertise, commitment and financial resources, whilst a purchaser with some experience in the construction and heavy building materials industry may be suitable, we would not rule out other possible purchasers that may be appropriately qualified to operating a divested operation.

3.463 In relation to whether a steel producer would be a suitable purchaser of the GBS plant co-located at its steelworks, we concluded that this was likely to be acceptable, provided that the steel producer could demonstrate that it met the CC's general criteria. However, we could not compel a steel producer to purchase the operations.

3.464 Whilst our preference would be for the divestiture of GGBS plants and GBS plants to be made to more than one purchaser, we would be prepared to consider a solution where a single purchaser was permitted to acquire: (a) both GGBS plants; (b) both GBS plants; or (c) up to two GGBS and two GBS plants. Since a GB cement

producer would not be permitted to acquire a GGBS or GBS plant, in order to avoid circumvention of this requirement, we propose the following measures:

- (a) Since we have not fully ruled out the possibility that GB cement producers might in future enter into GGBS production themselves, we would place a time limit on the ability of a GGBS purchaser to sell its acquired GGBS plant to a GB cement producer. We propose that any purchaser of a divested GGBS plant would be required to give an undertaking not to sell the plant to a GB cement producer either for a period of ten years or without consent from the CC (or the CMA from 1 April 2014).
- (b) We would be more concerned about a GB cement producer owning a key raw material input into GGBS production. Therefore, we propose that any purchaser of a divested GBS plant should be required to give an undertaking not to sell the plant to a GB cement producer without the CC's consent (or the CMA's consent from 1 April 2014).

### *Implementation of remedy measure*

3.465 We consider the implementation of the various aspects of our proposed remedy, in particular we discuss the implementation of some of our proposals and conclusions, as well as how we aim to achieve a timely divestiture in relation to our GBS and GGBS plant divestiture remedies. We also consider how a divestiture package might be protected until completion of its sale.

### *Achieving a timely divestiture*

3.466 In relation to ensuring a timely divestiture process, we asked parties what timescale should be allowed for the implementation of any divestiture; and whether a divestiture trustee should be appointed.

3.467 Hanson considered that any divestiture would take a significant amount of time.<sup>379</sup> It told us that one complication in relation to a divestiture process would be the number of parties involved [REDACTED]. It added that any transaction would require a potential buyer to conduct a significant amount of due diligence to assess [REDACTED]. It considered that these aspects would considerably add to the period of negotiation required for any divestiture process.<sup>380</sup>

3.468 Lafarge Tarmac told us that the 'swiftest' means of transferring ownership of its GBS operations was to sell its GBS operations to the GB steel producers. It added that the GB steel producers had the option, but not the obligation, to purchase the GBS plants at net book value. It added that it expected the steel producers to be supportive of this proposal, and suggested that the steel producers could form JVs with third parties to run the GBS operations. It added that if the steel producers were not interested in carrying out the GBS operations, then it considered it possible to bring in a third party operator. It told us that any uncertainty associated with the future longevity of steelworks could be overcome by structuring this remedy through a lease linked to the life of the steelworks, thereby eliminating the third party operators' requirements to undertake a significant capital outlay.

3.469 Tata told us that if a divestiture of a GBS plant or a GGBS plant was required, it should complete at the 'earliest possible opportunity', but if not, within six months, which it considered to be the 'standard model' operated by the CC.<sup>381</sup> It also told us that [REDACTED].<sup>382</sup>

3.470 We considered that the longer the divestiture period, the greater the asset risk, in particular given the incentives of Hanson and Lafarge Tarmac to act in the interests

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<sup>379</sup> [Hanson response hearing summary](#), 23 July 2013, paragraph 32.

<sup>380</sup> [ibid](#), 2 July 2013, paragraph 50.

<sup>381</sup> [Tata Steel response to Remedies Notice](#), p5.

<sup>382</sup> [ibid](#), p3.

of their respective cement operations at the expense of their respective GGBS and GBS operations.

3.471 We therefore provisionally decided that from the date of signing the final undertakings, or the issuance of an Order (whichever may be applicable), the divestiture period should not exceed: (a) [redacted] months for the GGBS plant divestitures; and (b) [redacted] months for the GBS plant divestitures.

3.472 We would also require both Hanson and Lafarge Tarmac to provide the CC with periodic updates on the progress of their respective divestiture processes against a timetable to be agreed with the CC.

3.473 We will reserve the right to appoint a divestiture trustee should divestitures not be implemented within the maximum divestiture period; or if we reasonably expect that the divestiture period would likely exceed the relevant maximum divestiture period.

*Protecting the divestiture package*

3.474 SSI told us that a speedy process would be the most acceptable way of achieving our remedy objectives, and that a speedy process seemed to be expected by the industry players.<sup>383</sup> It added that if a speedy process could be achieved, trusteeship or other arrangements should be unnecessary, and a divestiture trustee should not be unnecessary if the CC's decisions were implemented promptly.<sup>384</sup>

3.475 Tata told us that [redacted].<sup>385</sup>

3.476 Tata also told us that [redacted].<sup>386</sup>

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<sup>383</sup> SSI response to Remedies Notice, p3.

<sup>384</sup> *ibid*, p3.

<sup>385</sup> Tata Steel response to Remedies Notice, p5.

3.477 Given that both Hanson and Lafarge Tarmac are GB cement producers, we considered that they would have the incentive to degrade the performance of their respective GGBS and GBS operations to weaken any future competitive constraint that GGBS might exert on cement going forwards.

3.478 We therefore provisionally decided that a monitoring trustee should be appointed as soon as reasonably practicable following the publication of our final report, who will be charged with ensuring the protection of the package of assets that will form part of any divestiture.

3.479 As part of its engagement, the monitoring trustee should have oversight of both the GGBS and GBS operations, given the integrated nature of the current supply arrangements, in particular monitoring the allocation of GBS volumes across the GGBS plants, and provide a monthly report to the CC on the financial performance of each GGBS plant and GBS plant subject to divestiture benchmarked against the performance of the divesting parties' remaining plants.

*Review of supply arrangements*

3.480 Given that the plant divestitures required under this remedy are likely to involve the effective cessation of the current exclusive long-term agreements between Hanson and Lafarge Tarmac, as part of our oversight of the divestiture process, we reserve the right to review any supply agreements governing the supply of GBS and GGBS to ensure that these do not compromise the effective implementation of this remedy.

3.481 We note that SSI told us that [redacted].<sup>387</sup>

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<sup>386</sup> [ibid](#), p5.

<sup>387</sup> [SSI response to Remedies Notice](#), pp1 & 2.

3.482 We considered that [✂] we would be open to the possibility of implementing a GBS plant divestiture remedy involving the acquisition by the GB steel producers of their respective GBS operations, with third parties independent of the GB cement producers, entering into medium-term off-take agreements (of up to five years) with the respective steel producer to purchase all of their GBS to sell to GGBS plants.

#### **4. Remedy measures not included in our proposed package of remedies**

4.1 We considered a number of other remedy options that we have provisionally decided not to include in our proposed package of remedies. These include options set out in our Remedies Notice, as well as proposals or suggestions from various parties.

These are:

- *Option X1*: RMX plant divestitures by one or more of the Top 3 cement producers (paragraphs 4.4 to 4.35).
- *Option X2*: the creation of a national cement buying group (paragraphs 4.36 to 4.60).
- *Option X3*: recommendations on the publication of ETS emissions data (paragraphs 4.61 to 4.77).
- *Option X4*: divestitures of stand-alone grinding stations (paragraphs 4.78 to 4.92).
- *Option X5*: information barriers between cement and RMX operations (paragraphs 4.93 to 4.97).
- *Option X6*: mandatory competitive tendering on cement cross-sales (paragraphs 4.98 to 4.105).

4.2 In our Remedies Notice,<sup>388</sup> we set out our reasons why we were not minded to pursue remedies concerning: (a) the divestiture of cement import terminals; (b) restrictions on cross-sales of cement between the Top 3 cement producers; and (c) a code of conduct governing the behaviour of the GB cement producers. We received

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<sup>388</sup> Remedies Notice, paragraphs 99–111.

limited responses and comments in relation to these remedy options, and found no compelling arguments or reason to overturn our initial reasons for not pursuing these remedy options. We therefore we do not revisit these arguments here.

- 4.3 For each of the remedy options listed in paragraph 4.1 above, we set out a description of the remedy option and the views of parties on the remedy option concerned, before setting out our reasons for not taking the remedy option forward.

### ***Option X1: Divestiture of RMX plants by Top 3 cement producers***

#### *Option X1: Description of remedy option*

- 4.4 In our Remedies Notice, we proposed a remedy option involving the divestiture of RMX plants by one or more of the Top 3 cement producers to independent purchasers.<sup>389</sup> We stated that as part of our consideration of this remedy, we would have regard to the size of the ‘addressable market’ that would result from the implementation of this remedy.<sup>390</sup>
- 4.5 We note that this RMX plant divestiture remedy represents a separate and different remedy from the RMX plant divestitures required under our proposed cement plant divestiture remedy (see Figure 3.1 above), both in their respective aims and purpose.

#### *Option X1: Views of parties*

- 4.6 Some of the arguments from parties who did not consider this remedy to be effective in addressing the Coordination AEC were based on the view that the size of the addressable market was already substantial, and therefore a remedy that increased this market would not be effective. Other arguments centred on the low barriers to entry into RMX production, and on our provisional finding that we had not found an AEC in the RMX markets.

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<sup>389</sup> *ibid*, paragraphs 31–34.

<sup>390</sup> We defined the ‘addressable market’ as GB cement sales to customers that were independent of the GB cement producers.

- 4.7 Hanson considered that the addressable market was sufficiently large, and that increasing this further would only have a ‘marginal effect’.<sup>391</sup> It explained that any new RMX competitor that was created as a result of this remedy would simply be viewed as another customer and would not affect the dynamics of the cement customer base.<sup>392</sup> It added that any RMX plants that were divested would most likely be purchased by established RMX operators other than the Top 3 cement producers, and given the ‘nature’ of the tendering process, this remedy would be unlikely to have any ‘material effect’ on cement prices.<sup>393</sup> In relation to the impact of this remedy on reducing cross-sales, it told us that it was now almost completely internally self-supplied in cement.<sup>394</sup>
- 4.8 Hanson also suggested that some of its aggregates sites were reliant on vertical integration and told us that if it were to divest any RMX plants, this might also lead to it to close or mothball some of its aggregates sites, as they would lose the stability and structure provided by having vertically integrated aggregates and RMX operations.<sup>395</sup> It told us that RMX plant divestitures, this time by both Hanson and Cemex, would result in HCM emerging as the ‘undisputed leader’ in RMX, even if HCM did not acquire any of the divested plants. It told us that this could potentially threaten the current competitiveness that existed in the RMX market.<sup>396</sup>
- 4.9 Cemex told us that the GB cement producers were already focused on competing for independent customers, and that competition for these customers had not been affected by the presence of vertically integrated RMX divisions.<sup>397</sup> It told us that the size of the addressable market was already ‘significant’ and estimated that at around

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<sup>391</sup> [Hanson response hearing summary](#), paragraph 26.

<sup>392</sup> *ibid*, paragraph 27.

<sup>393</sup> *ibid*, paragraph 22.

<sup>394</sup> *ibid*, paragraph 29.

<sup>395</sup> *ibid*, paragraph 23.

<sup>396</sup> *ibid*, paragraph 24.

<sup>397</sup> [Cemex response to Remedies Notice](#), paragraph 2.23.

4.5 Mt, it accounted for around half of all GB cement production.<sup>398</sup> In a further submission, Cemex asserted that the addressable market for independent cement producers was not restricted to supplying fixed RMX plants and noted that ‘in recent years, there has been a drift away from fixed RMX plants to volumetric trucks and precast concrete’. It also did not find that vertical integration or the size of the addressable market acted as a barrier to entry or expansion for cement importers, and that according to our own provisional findings, it appeared that barriers already existed in other forms, eg that importers faced an intrinsic cost disadvantage relative to the GB cement producers.<sup>399</sup>

4.10 In relation to the impact of this remedy on reducing cross-sales, Cemex considered that whilst in theory, a reduction in cross-sales might lead to ‘lesser transparency’, the amount of cross-sales had already reduced in recent years, and that [✂].<sup>400</sup> It also told us that in relation to the impact of this remedy on countervailing buyer power, it could require a very large number of RMX plants to a single buyer to increase any countervailing buyer power, but argued that even this would not increase its buyer power as customers purchased at job-site level, and therefore a buyer of a large number of divested plants would not have greater buyer power than what each individual plant currently could achieve on its own.<sup>401</sup>

4.11 In a later submission, Cemex observed that ‘Hanson notes that where possible it strategically matches its RMX sites to its aggregates sites’ and told us that ‘Cemex follows a similar strategy and any divestment of RMX sites by Cemex would adversely affect its aggregates business’. It also told us that if the CC were to require Cemex and Hanson to reduce their levels of vertical integration by divesting RMX plants, this would have the unintended consequence of making Cemex, Hanson and

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<sup>398</sup> [ibid](#), paragraph 5.28.

<sup>399</sup> [ibid](#), paragraph 2.23.

<sup>400</sup> [ibid](#), paragraph 2.23.

<sup>401</sup> [ibid](#), paragraph 2.23.

Lafarge *more* symmetrical. It added that ‘the risks posed by Cemex, Hanson and Lafarge each having a similar level of vertical integration was expressly recognised by the CC in its assessment of the Lafarge/Tarmac merger’.

4.12 Lafarge Tarmac argued that whilst the remedy might be workable in theory, there were a number of issues in relation to its implementation. It told us that whilst having a larger addressable market would allow for more cement to be sold externally, this might not be achievable given that there were unlikely to be any buyers that would acquire a large number of RMX plants.<sup>402</sup> It added that whilst barriers to entry into RMX production were low and smaller operators could set up local operations, they could not necessarily buy a large number of RMX plants in one go, or have the expertise and nationwide coverage to be able to compete effectively.<sup>403</sup> It also pointed out that its own level of vertical integration was low at around 15 per cent, and that it was much higher in the rest of the market.<sup>404</sup>

4.13 MI told us that given the low barriers to entry into RMX production, there were already a significant number of small independent RMX operators.<sup>405</sup> It told us that a divestiture of stand-alone RMX plants might not be an effective remedy in itself and that in any event, it might not be attractive to potential purchasers.<sup>406</sup> It added that should the remedy be implemented, it would mean that a ‘significant’ number of RMX plants would have to be divested in order to generate sufficient ‘buying power’ in relation to cement.<sup>407</sup>

4.14 In relation to the size of the addressable market, Aggregate Industries estimated that around 40 per cent of cement was already sold to independent customers. It told us

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<sup>402</sup> [Lafarge Tarmac response hearing summary](#), paragraph 26.

<sup>403</sup> [ibid](#), paragraph 27.

<sup>404</sup> [ibid](#), paragraph 25.

<sup>405</sup> [MI and HCM response hearing summary](#), paragraph 29.

<sup>406</sup> [ibid](#), paragraph 30.

<sup>407</sup> [ibid](#), paragraph 28.

that whilst it seemed apparent that the Top 3 cement producers had ‘sufficient’ cement capacity to run their RMX operations, the RMX operations themselves were struggling with profitability.<sup>408</sup> It therefore considered that HCM’s entry into the GB cement markets and [REDACTED] would [REDACTED] be effective in increasing competition in the GB cement markets, and that it was not necessary to divest any RMX plants as part of our package of remedies.<sup>409</sup> It added that since the RMX market was already very competitive, if through the implementation of this remedy, a large number of RMX plants led to an ‘additional competitive dynamic’, then this could lead to the possibility of ‘bankruptcies’ in the RMX sector.<sup>410</sup>

- 4.15 In relation to the views of the independent operators, some believed that this remedy could be effective, whilst others were uncertain as to its effectiveness or whether it would be beneficial to their business.
- 4.16 Titan suggested that the GB cement producers that were required to make the RMX plant divestitures would probably compete against the independent RMX producers in order to make up for their loss of volumes resulting from their divestitures.<sup>411</sup> It told us that RMX plant divestitures could potentially have a ‘positive effect’ on its cement import business depending on where the plants were located, and depending on the number of plants being divested.<sup>412</sup> [REDACTED]<sup>413</sup>
- 4.17 CRH told us that should this remedy increase the number of independent RMX producers, then in principle this could benefit companies like CRH as it would have more

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<sup>408</sup> [Aggregate Industries response hearing summary](#), paragraph 18.

<sup>409</sup> [Aggregate Industries response to Remedies Notice](#), paragraph 3.2.

<sup>410</sup> [Aggregate Industries response hearing summary](#), paragraph 18.

<sup>411</sup> [Titan response hearing summary](#), paragraph 14.

<sup>412</sup> *ibid*, paragraph 14.

<sup>413</sup> *ibid*, paragraph 15.

customers to compete for. However, it was unsure as to who would be able to buy enough RMX plants to make this remedy viable.<sup>414</sup>

4.18 Dragon Alfa (CPV) told us that having more RMX plants under independent ownership might benefit some participants in the market, but that it would not particularly benefit its business, as it tended not to supply the large RMX plants owned by the GB cement producers.<sup>415</sup> It considered it unlikely that its import operations would gain additional cement business if a medium-tier independent such as Brett Group or Breedon Aggregates owned more RMX plants, since it believed that they would continue to source cement from the GB cement producers.<sup>416</sup>

4.19 Breedon Aggregates told us that it would be difficult to predict the impact of this remedy. Whilst it considered that limiting the amount of internal cement sales or cross-sales made by the Top 3 cement producers would likely have the consequence of making them compete harder for external customers,<sup>417</sup> it told us that careful consideration would be needed in relation to what level of vertical integration should be targeted. It added that it might be necessary for different producers to have different levels of vertical integration.<sup>418</sup>

4.20 Breedon Aggregates also considered that reducing the level of internal cement sales that the Top 3 cement producers could make, would likely result in the scaling back of their RMX capability, and that this could lead to a more profitable RMX sector, since the price of RMX may currently be suppressed because the major cement players took profit upstream in their cement businesses which made it difficult for independent RMX firms to be profitable.<sup>419</sup> Conversely, however, it also considered

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<sup>414</sup> [CRH response hearing summary](#), paragraph 15.

<sup>415</sup> [CPV response hearing summary](#), paragraph 14.

<sup>416</sup> *ibid.*, paragraph 15.

<sup>417</sup> [Breedon Aggregates response hearing summary](#), paragraph 12.

<sup>418</sup> *ibid.*, paragraph 14.

<sup>419</sup> *ibid.*, paragraph 12.

that this remedy might result in buyers of the divested RMX plants scaling back capacity if they ‘discovered that it was a challenging business’ and therefore did not ‘work hard at keeping their RMX businesses going’.<sup>420</sup>

4.21 The OFT told us that RMX plant divestitures would probably have to be at such a level so as to increase the size of the addressable market such that there would be a ‘real increase in overall competition’ for the supply of cement through encouraging more suppliers to compete for the business and make better use of their plants. Finally, the International Small Business Association (ISBA) told us that it considered a ‘break-up of the present level of dominance and vertical integration’ would be a ‘prerequisite’ to open up the ‘various construction materials markets’.<sup>421</sup>

4.22 In relation to whether there would be any potential interest in acquiring any divested RMX plants, [REDACTED] expressed an interest, albeit conditional to some extent.

4.23 Breedon Aggregates told us that RMX production required a lot of overheads and was a high-volume, low-margin business, and that it would only be interested in RMX plants that were situated near its aggregates facilities, [REDACTED].<sup>422</sup>

4.24 Brett Group told us that it would be interested in acquiring a number of divested RMX plants subject to having the necessary management capacity and the location of the plants being divested in relation to its aggregates facilities and the addressable market. [REDACTED] In this way, it added that its business could purchase cement competitively, and could add value to [REDACTED] its [REDACTED] aggregates.<sup>423</sup>

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<sup>420</sup> [ibid](#), paragraph 16.

<sup>421</sup> [ISBA response to provisional findings and Remedies Notice](#), p3.

<sup>422</sup> [Breedon Aggregates response hearing summary](#), paragraph 15.

<sup>423</sup> [Brett Group response hearing summary](#), paragraph 14.

- 4.25 Aggregate Industries told us that [REDACTED], and suggested that ideal buyers would be those seeking to operate RMX plants as a stand-alone operation without also operating a cement plant.<sup>424</sup>
- 4.26 Titan told us [REDACTED].<sup>425</sup> It added that the risk for a cement importer that acquired an RMX business was that, in doing so, it was effectively signalling to its current customers that it was now also a competitor. Therefore, it told us that any potential buyer of RMX plants which also supplied cement would have to evaluate the potential harm that such integration might cause by alienating its existing customers. [REDACTED]<sup>426</sup>
- 4.27 CRH told us that it was [REDACTED]. It considered that there were low barriers to entry into the RMX market, and in its experience, whenever the RMX market became very profitable, there would be a flood of entrants and the price of RMX and the returns on it would decrease.<sup>427</sup>
- 4.28 Both Dragon Alfa and its ultimate parent company, CPV, [REDACTED].<sup>428</sup>

*Option X1: Our reasons for not taking the remedy option forward*

- 4.29 While we have identified vertical integration from cement into downstream operations as being a feature contributing to the Coordination AEC, we have provisionally decided not to pursue this remedy for the following reasons.
- 4.30 First, absent an effective measure that increases the number of cement competitors and/or materially reduces the share of the market held by the coordinating group, a remedy targeted solely at reducing the extent of the vertical integration of one or more of the Top 3 cement producers is unlikely to have a sufficiently disruptive

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<sup>424</sup> [Aggregate Industries response hearing summary](#), paragraph 19.

<sup>425</sup> [Titan response hearing summary](#), paragraph 16.

<sup>426</sup> [ibid](#), paragraph 17.

<sup>427</sup> [CRH response hearing summary](#), paragraph 14.

<sup>428</sup> [CPV response hearing summary](#), paragraph 16.

impact on the GB cement markets to remedy the Coordination AEC. It would leave the horizontal structure of the GB cement markets and the identity and positions of the key participants largely unchanged. While some aspects of market transparency would be reduced, others would remain including those that derive from intrinsic features of the market and the horizontal structure of the market.

- 4.31 We note that evidence of coordination has been observed throughout the period covered by our investigation during which there have been some significant changes in vertical integration, suggesting that coordination in the GB cement markets can be resilient to such changes. Similarly, while cement importers may derive some benefit from having a larger number of independent RMX providers to seek to supply, they would continue to face the cost and other disadvantages that represent their main current barrier to expansion.
- 4.32 Secondly, and on balance, once effective measures have been included in our package of remedies that introduce new competitors to the cement and GGBS markets, we did not consider a further divestiture of RMX plants to be necessary in order to achieve a comprehensive solution to the AECs and resulting customer detriment we provisionally found (see paragraph 6.17). Whilst the pattern of vertical integration within the Top 3 cement producers following implementation of our preferred package of remedies might still affect the ability and incentives of GB cement producers to sustain a coordinated outcome, we considered that these effects would be outweighed by the increased competitive constraint that we would expect from a new and substantial competitor in the GB cement markets and a more competitive GGBS supply chain. Given this, it would be disproportionate to require RMX plant divestitures, over and above those necessary to achieve an effective divestiture of either the Cauldon or Tunstead plant (see Figure 3.1 above).

- 4.33 Thirdly, there are a number of practical challenges associated with the specification of this remedy. These include the specification of an appropriate threshold for the scale of any divestitures and the difficulties that may be encountered in finding suitable purchasers willing to acquire a sufficient number of RMX plants to make a material difference to the level of vertical integration and to market outcomes. While not necessarily insurmountable, these challenges further reduced the attractiveness of this as a remedy option.
- 4.34 Based on our assessment above, we concluded that absent the other measures in our package of remedies, a larger independent RMX sector would not sufficiently address either the ability or the incentives of the Top 3 cement producers to sustain a coordinated outcome. Whilst we accepted that there could be potential benefits to competition in the GB cement markets as a result of increasing the size of the addressable market and reducing the level of internal sales among the Top 3 cement producers, we provisionally concluded that the impact of our other measures on the susceptibility of the GB cement markets to coordination would be sufficient to remedy the AECs without the need for further intervention.
- 4.35 We therefore provisionally decided not to take this remedy option further.

### ***Option X2: Creation of a national cement buying group***

#### ***Option X2: Description of remedy option***

- 4.36 In our Remedies Notice, we proposed a remedy to establish a regional or national cement buying group (CBG) which would purchase cement on behalf of independent

RMX and other concrete producers.<sup>429</sup> The potential scope of a CBG's responsibilities was also set out in our Remedies Notice.<sup>430</sup>

4.37 In our provisional findings, we found that:

- the limited impact of countervailing buyer power was one of the factors that contributed to the external sustainability of coordination in the GB cement markets;<sup>431</sup>
- there was some evidence of large customers ([X]) and ([X]) obtaining particularly favourable terms for cement supplies, particularly if they were able credibly to threaten to import large additional quantities of cement instead;<sup>432</sup> and
- the evidence suggested that customers who did not switch were not benefiting from the relatively lower prices of those who did.<sup>433</sup>

4.38 The purpose of this remedy option was to replicate the purchasing power of larger cement customers for smaller independent customers and enable them to benefit from the ability to source cement on better terms than might otherwise be the case should they continue with their individual cement procurement arrangements.

Therefore, a CBG may be able to:

- provide a sufficient competitive constraint on the coordinating group to undermine any coordination;
- destabilize any coordination on market shares through increased switching that would increase volatility in market shares, and given the potentially large volumes involved, increase the incentive to deviate from a coordinated outcome; and
- lower prices through its collective purchasing arrangements and address the customer detriment of higher cement prices.

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<sup>429</sup> Remedies Notice, paragraphs 65–70.

<sup>430</sup> *ibid*, paragraph 68.

<sup>431</sup> Provisional findings, paragraph 8.216.

<sup>432</sup> *ibid*, paragraph 8.214.

<sup>433</sup> *ibid*, paragraph 7.159.

## *Option X2: Views of parties*

4.39 The vast majority of parties (both cement suppliers and customers) were opposed to this remedy, and argued a range of different arguments, in particular the competitive advantage that was derived from individual negotiations, and the unintended consequences that might arise from implementing this remedy.

4.40 In relation to the view that individual procurement of cement was a source of competitive advantage for the participants in the markets downstream from cement production, and perhaps related to this, that RMX producers preferred to operate independently rather than purchase cement collectively:

- Lafarge Tarmac told us that most cement customers believed they could gain competitively by negotiating directly with their cement suppliers, and not be on the same terms as their competitors. In particular, it believed that larger customers would not join a buying group as this would mean that they could not differentiate themselves from their competitors. From its perspective as a cement supplier, it told us that it was working to develop its individual customer relationships and not to be a 'commodity driven company'.<sup>434</sup>
- MI considered that there was no merit in a remedy that established a CBG, since competition that took place downstream from cement production (eg RMX) was based on one competitor getting a better cement price than another. It added that if a CBG was established, this would stifle downstream competition and potentially increase prices to the customer.<sup>435</sup> It also told us that larger downstream operators such as producers of pre-cast concrete would more likely be able to purchase cement more cheaply individually than through a CBG.<sup>436</sup>
- Hanson told us that it believed that cement buying groups could attain a level of purchasing power and that as evidence of this, buying groups already existed

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<sup>434</sup> [Lafarge Tarmac response hearing summary](#), paragraph 37.

<sup>435</sup> [MI and HCM response hearing summary](#), paragraph 31

<sup>436</sup> [ibid](#), paragraph 32.

and were effective in the packed cement business. However, it added that it was possible that independent RMX producers might not always want to cooperate with each other in order to form a buying group, particularly given that they were competing ‘fiercely’ locally in order to win business and to seek to differentiate themselves, which could be subdued if they were all paying the same cement prices.<sup>437</sup>

- Breedon Aggregates told us that it was happy with how it currently purchased cement, and believed that it did not need the leverage that might follow from joining a CBG. It therefore considered a CBG not to be an attractive proposition for its business. However, it added that a CBG might be beneficial for smaller cement customers, in terms of both achieving lower prices and also overcoming credit risk issues. However, it added that small independent customers might not even be paying significantly more for cement than larger customers.<sup>438</sup>
- Brett Group told us that in order to leverage the best cement prices for its business it took a long-term view in relation to building knowledge, relationships and contacts, and that [REDACTED].<sup>439</sup>
- Aggregate Industries told us that it was a large consumer of GB-produced cement, which combined with its cement import capacity, gave it leverage. It added that [REDACTED].<sup>440</sup>
- CRH considered that the ‘independent-minded nature’ of many independent RMX producers would make it difficult for them to work together.<sup>441</sup>

4.41 Cemex told us the creation of CBGs would have some scope to addressing the AEC through the formation of ‘large buyers’ that could exercise their buyer power to drive down prices and increase the incentives of the GB cement producers to deviate from

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<sup>437</sup> [Hanson response hearing summary](#), paragraph 32.

<sup>438</sup> [Breedon Aggregates response hearing summary](#), paragraph 17.

<sup>439</sup> [Brett Group response hearing summary](#), paragraph 15.

<sup>440</sup> [Aggregate Industries response hearing summary](#), paragraph 20

<sup>441</sup> [CRH response hearing summary](#), paragraph 16.

the ‘alleged coordinated agreement’.<sup>442</sup> It explained how the formation of ‘large buyers’ would make demand for cement lumpier and how switching by such customers may be sufficiently large to generate ‘high one-off gains’ from deviating away from the coordinated outcome.<sup>443</sup> It told us that in order for this remedy not to distort the ‘free market’,<sup>444</sup> and to be effective and proportionate, its design should ensure that:<sup>445</sup>

- there was no requirement for a GB cement producer to sell any minimum cement volumes to any CBG;
- all CBG members should be given a choice of purchasing cement outside of their CBG arrangements; and
- there should be no requirement for any GB cement producer to administer or pay for any CBGs.

4.42 Cemex pointed out that a requirement for a GB cement producer to sell a specific proportion of its volumes to a CBG would be disproportionate and would interfere with the producer’s ‘freedom to contract’. The imposition of such a requirement, it argued, would result in a CBG holding GB cement producers ‘to ransom’ in the knowledge that GB cement producers would be required to sell it a certain amount of cement. Cemex told us that this would result in cement being sold below the competitive price.<sup>446</sup> In relation to a requirement for CBG members to source all, or some, of their cement requirements through the CBG, Cemex told us that it would be disproportionate and ‘market distorting’ if CBG members were not given a choice of buying cement outside its CBG arrangements if they wished to do so.<sup>447</sup>

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<sup>442</sup> [Cemex response to Remedies Notice](#), paragraph 4.58.

<sup>443</sup> [ibid](#), paragraph 4.56.

<sup>444</sup> [ibid](#), paragraph 4.53 & footnote 43 to paragraph 4.54.

<sup>445</sup> [ibid](#), paragraph 2.25.

<sup>446</sup> [ibid](#), paragraph 5.48.

<sup>447</sup> [ibid](#), paragraph 5.49.

4.43 However, Cemex recognized the importance of product specification to some purchasers of bulk cement and cited an example whereby a group of RMX producers might want to purchase a specific type of cement that performed in a certain way. It therefore considered that regional or even ‘product-specific’ buying groups would be more effective than a single national buying group.<sup>448</sup> It also believed that there would be ‘technical problems’ associated with a CBG in that when buying bulk cement, RMX producers would need two to three weeks to test the cement in order to understand its particular qualities and how it might perform with different mixtures.<sup>449</sup> However, Cemex did not believe that it would be difficult to establish regional buying groups from an administrative perspective once the ‘technical difficulties’ concerning the product specification of cement had been overcome.<sup>450</sup>

4.44 Other parties were less convinced by the effectiveness of this remedy, and cited their concerns in relation to this remedy, which are set out below.

4.45 Hanson told us that whilst buying groups could attain a level of purchasing power, and indeed they existed for packed cement, there were a number of potential ‘complications’ for a buying group on behalf of RMX producers, which largely revolved around the RMX producers’ need for a ‘variety of materials’, which could sometimes be quite specific and dependent on the nature of the job, as well as the location and structure of their silo capacity. It added that further complications would arise because whilst packed cement was a final product, similar to a commodity, bulk cement was a raw material that was an input into the production of a final product.<sup>451</sup>

4.46 Lafarge Tarmac told us that buying groups already existed for packed cement purchases, eg the ‘National Buying Group’. It argued that if there was a benefit of a

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<sup>448</sup> [Cemex response hearing summary](#), paragraph 32.

<sup>449</sup> [ibid](#), paragraph 30.

<sup>450</sup> [ibid](#), paragraph 33.

<sup>451</sup> [Hanson response hearing summary](#), paragraph 32.

buying group, then there was no barrier preventing independent bulk cement customers from setting one up on their own.<sup>452</sup>

4.47 Aggregate Industries told us that it could not see the benefits of creating a CBG, and believed that the existing tendering arrangements allowed for more ‘bespoke outcomes’ than would otherwise be the case under an ‘auction system’ through the CBGs. It explained that cement was not a commodity and that different types of cement had different applications. It told us that the current tendering process was more efficient because customers could specify precisely the exact product they wanted and what they intended to use it for. It added that consistency, availability and security of supply were also important factors for customers. It therefore considered that if CBGs were beneficial for cement customers, then they would have already been formed.<sup>453</sup>

4.48 Aggregate Industries also told us that this remedy would not be effective at remedying our AEC since buyer power was derived from the availability of a range of ‘outside options’ to customers, and there was little reason to believe that the CBG would lead to lower prices given that the number of ‘distinct suppliers’ active in the GB cement markets remained unchanged. It also told us that a CBG would reduce the ability of cement suppliers to price discriminate and therefore their ability to offer selective price discounts to customers willing to switch their suppliers. Therefore, it considered that a CBG might actually lead to prices increasing for all customers.<sup>454</sup>

4.49 In relation to the views of the cement importers:

- CRH told us that whilst it was possible to form buying groups for builders’ merchants because they bought a wide range of different building products, RMX

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<sup>452</sup> [Lafarge Tarmac response hearing summary](#), paragraph 37.

<sup>453</sup> [Aggregate Industries response hearing summary](#), paragraph 21.

<sup>454</sup> [Aggregate Industries response to Remedies Notice](#), paragraph 4.4.

producers would only need to purchase aggregates and cement. It considered that these differences in their ‘dynamics’ meant that it would be difficult for them to work together.<sup>455</sup>

- Dragon Alfa (CPV) told us that its customers were small, independent operators which the GB cement producers found ‘unattractive to serve’. It told us that the quality of service it provided its customers, eg offering timed deliveries which were attractive to small operators, was just as important as its prices. It was concerned that large buying groups were ‘all about low prices’ and therefore this remedy would not be attractive to its business.<sup>456</sup>

4.50 The following independent cement customers that would potentially be affected and included within this remedy opposed this remedy:

- [A mid-tier aggregates and RMX producer] told us that a remedy that would lead to the creation of a CBG to address any current lack of buying power, would not be necessary as the other remedy options set out in the Remedies Notice would together comprehensively address the Coordination AEC by focusing ‘correctly’ on the structure and behaviour of the GB cement producers, and would also lead to a consequent increase in the relative buyer power of those customers.<sup>457</sup>

Therefore, it considered that the creation of a CBG would not be the ‘least onerous’ remedy option available to address the AEC.<sup>458</sup> It also told us that compulsory membership to the CBG would be ‘highly invasive and interventionist’, and that it was important that cement customers did not ‘suffer disproportionately’ as a result of attempts to ‘rectify the market imbalance’ which was caused at the supplier (rather than the buyer) level of the supply chain.<sup>459</sup> It also told us that the

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<sup>455</sup> [CRH response hearing summary](#), paragraph 16.

<sup>456</sup> [CPV response hearing summary](#), paragraph 17.

<sup>457</sup> Remedies Notice response from [[a mid-tier aggregates and RMX producer](#)], paragraphs 2.1 & 2.2.

<sup>458</sup> [ibid](#), paragraph 2.2.

<sup>459</sup> [ibid](#), paragraph 2.9.

longer the proposed duration of this remedy, the more ‘invasive and burdensome’ the remedy became, and therefore disproportionate and unreasonable.<sup>460</sup>

- Brett Group told us that it was not in favour of this remedy, and that it [§]. It told us that it wanted control over the type of cement it purchased which was driven by a range of criteria, including the customer’s specifications. It therefore needed discretion over which cement supplier to work with.<sup>461</sup>

4.51 We set out below the view of parties in relation to how a CBG might operate and its implementation:

- MI told us that operating a CBG might be ‘problematic’ in relation to smaller members, eg potential issues in relation to their credit ratings, need for different contractual terms and the different product they might require.<sup>462</sup>
- Hanson told us that a CBG might enable it to supply customers that were not otherwise creditworthy. It added that this in turn could lead to more favourable pricing where a poor credit rating would otherwise have negatively impacted the customer.<sup>463</sup>
- Breedon Aggregates considered that if a CBG were to be created, it should be able to provide different specifications of cement to customers as required.<sup>464</sup>
- The OFT told us that a CBG would need to have critical mass to ensure efficiency in the supply chain and pass on its benefits to its members, as well as measurable indicators to evaluate its success. However, it added that it would be difficult to see how the establishment of a CBG could be required given that customers were not the subject of the market investigation or the AEC. It also queried who should be responsible for setting up a CBG should this remedy be implemented.

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<sup>460</sup> [ibid](#), paragraph 2.10.

<sup>461</sup> [Brett Group response hearing summary](#), paragraph 16.

<sup>462</sup> [MI and HCM response hearing summary](#), paragraph 33.

<sup>463</sup> [Hanson response hearing summary](#), paragraph 34.

<sup>464</sup> [Breedon Aggregates response hearing summary](#), paragraph 17.

- Aggregate Industries told us that under this remedy, the prices charged by cement suppliers might need to be monitored in order to demonstrate the effectiveness of the CBG, which would give rise to an ‘impractical administrative burden’ on both cement suppliers and the monitoring authority.<sup>465</sup> It also told us that there were ‘significant practical issues’ that needed to be overcome in implementing this remedy, and was concerned that the remedy was unlikely to be workable in practice. It cited a number of issues concerning the implementation of this remedy, including (among others): how the CBG would design its tender process with cement suppliers to avoid the risk of coordination in such an ‘auction-type arrangement’; how the CBG would protect the commercially sensitive information on its members, including their cement requirements, from ‘anticompetitive disclosure’; and how the costs of any bad debt would be split between its members.<sup>466</sup> Aggregate Industries considered that these practical issues could not be ‘feasibly overcome’.<sup>467</sup>
- [A mid-tier aggregates and RMX producer] told us that the implementation, monitoring and administration requirements of such a buying group or groups would be considerable and disproportionately burdensome to an extent that they would reduce both the effectiveness and practicability of a remedy of this nature.<sup>468</sup>

4.52 In relation to which cement suppliers should be covered by this remedy, Aggregate Industries told us that whilst it imported cement into GB, it should not be included within the scope of this remedy since the AEC did not relate to its conduct, and also given that it was not a GB cement producer, but a cement importer and customer that

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<sup>465</sup> [Aggregate Industries response to Remedies Notice](#), paragraph 4.5.

<sup>466</sup> [ibid](#), paragraph 4.6.

<sup>467</sup> [ibid](#), paragraph 4.7.

<sup>468</sup> Remedies Notice response from [\[a mid-tier aggregates and RMX producer\]](#), paragraph 2.5.

purchased cement primarily for its own downstream use and supplied only very limited cement to third parties.<sup>469</sup>

4.53 Whilst the OFT told us that buying groups could in theory increase buyer power and therefore increase competition among cement suppliers through buyers being able to ‘drive harder bargains’ and being more willing to ‘shop around’, it told us that we should consider the impact of this remedy on the balance between buyer and seller power. It explained that absent this remedy, the implementation of RMX and cement plant divestiture remedies that respectively weakened ‘vertical links’ and reduced concentration, would on their own reduce ‘seller power’. It told us that it would not want to see ‘seller power’ reduced so much that ‘market power’ and any resulting ‘anti-competitive aspects’ were merely transferred from the sellers to the buyers.

4.54 The OFT also told us that the creation of a CBG might be accompanied by competition problems of its own and attract regulatory scrutiny, eg if a condition of CBG membership prohibited or limited CBG members from sourcing their cement outside of their arrangements with the CBG. This view was also echoed by a number of other parties:

- Dragon Alfa (CPV) told us that this remedy could have the unintended consequence of being ‘anti-competitive’. It told us that it had been asked in the past to pay a buying group in order to gain access to its members, and in its experience, buying groups precluded potential customers from considering it as a potential supplier.<sup>470</sup>
- Titan told us that whilst the impact of this remedy could not be known as it would be ‘impossible’ to predict how these buying groups would behave once they were set up, it considered that it would be difficult to justify limiting the GB cement pro-

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<sup>469</sup> [Aggregate Industries response to Remedies Notice](#), paragraph 4.2.

<sup>470</sup> [CPV response hearing summary](#), paragraph 18.

ducers' sales options by requiring them to sell all, or a proportion of their cement volumes, through such buying groups.<sup>471</sup>

- [A mid-tier aggregates and RMX producer] told us that establishing a buying group raised potential 'competition law compliance issues' which would need to be addressed, in particular in relation to pricing and supply terms, but more generally the 'potential competition law sensitivities which can ordinarily arise from buying groups of this kind'.<sup>472</sup>

4.55 Aggregate Industries argued that there might be a number of adverse unintended consequences of this remedy on the functioning of the RMX markets and could facilitate 'coordination by CBG members' by aligning their costs of cement (the principal input into RMX), and creating a forum for discussion of key commercial decisions.<sup>473</sup> [REDACTED]<sup>474</sup>

4.56 Finally, in relation to whether it would be possible for a spot price to be established for cement, whether as part of this remedy or as a separate remedy measure:

- Hanson told us that it had not given much consideration to the use of a spot price for cement, which would provide customers with a benchmark for any negotiations. However, it told us that different members within a CBG could have different requirements, and that the price could depend on an individual customer's requirements, which could often be highly specialized.<sup>475</sup>
- CRH told us that cement was traded differently from most other commodity products, and therefore it considered that it would be difficult to devise a means by which a spot price for cement could be generated. It added that having a spot

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<sup>471</sup> [Titan response hearing summary](#), paragraph 18.

<sup>472</sup> Remedies Notice response from [[a mid-tier aggregates and RMX producer](#)], paragraph 2.7.

<sup>473</sup> [Aggregate Industries response to Remedies Notice](#), paragraph 4.8.

<sup>474</sup> *ibid*, paragraph 4.4.

<sup>475</sup> [Hanson response hearing summary](#), paragraph 33.

price for cement might also lead to unintended consequences, eg spot prices could be manipulated and therefore lead to distortions in competition.<sup>476</sup>

- Breedon Aggregates told us that part of the reason why a spot price for cement did not exist was because prices varied regionally. It believed that if a spot price were to be published, then it would likely result in those paying higher prices to renegotiate, and ultimately, a spot price would simply be a 'common average price'. Based on its experience in the construction materials business, it considered that this average price would serve little purpose as prices were usually individually negotiated on a 'deal-by-deal' basis.<sup>477</sup>
- MI told us that its customers would prefer to deal with HCM face to face, and that it would not be a good idea to publish a spot price for cement.<sup>478</sup>

#### *Option X2: Our reasons for not taking the remedy option forward*

4.57 Based on the views of parties on this remedy, we considered that there were significant technical and practical issues that would arise in relation to both the implementation of this remedy and the operation of a CBG once it was established. We considered that these issues would be highly difficult to resolve and if wrongly specified, would undermine its effectiveness, such that we considered that the risks of incorrectly specifying and implementing this remedy outweighed its benefits.

4.58 The evidence from parties suggested that there were a number of objective commercial reasons why a buying group had not been formed in the past in relation to cement purchases by RMX producers, and these reasons have contributed to our provisional decision why a remedy that created such a buying group for RMX producers may not be practicable or effective. In our view, the most pertinent of these reasons related to the relative importance of the individual product specification of

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<sup>476</sup> [CRH response hearing summary](#), paragraph 17.

<sup>477</sup> [Breedon Aggregates response hearing summary](#), paragraph 18.

<sup>478</sup> [MI and HCM response hearing summary](#), paragraph 36.

cement that was required by RMX producers, which would make it difficult for any buying group to act as a single point of contact to negotiate and procure cement collectively on behalf of all of its members. We considered that this largely explained why such collective buying arrangements were present in relation to bagged cement purchases. Furthermore, related to this issue is the potential lack of an ability of a CBG to switch cement suppliers readily and easily, eg changes in the specification of cement may cause technical problems in terms of quality and consistency of the concrete produced downstream.

4.59 We also found that there was a general consensus from parties that individual negotiation and procurement of cement was perceived by the independent RMX producers as a source of their competitive advantage, and therefore the independent RMX producers, ie the targeted beneficiaries of any CBG, would not themselves see any benefits of collective negotiation and procurement. Furthermore, we considered that this 'culture of independence' among the independent RMX producers may also be one of the contributory factors that had not led to the formation of a buying group that would represent their collective interests through concerted action in their negotiations with their cement suppliers. We considered that this limited appetite from independent RMX producers would suggest that there would likely be considerable resistance from this sector to being required to join a CBG, and reluctance to do so on a voluntary basis.

4.60 For the reasons outlined above, we have provisionally decided not to include this remedy within our proposed package of remedies.

### ***Option X3: Recommendations on the publication of ETS emissions data***

#### *Option X3: Description of remedy option*

- 4.61 In our Remedies Notice, we proposed a remedy to make recommendations to the UK Government and/or European Commission aimed at reducing the ability of the Top 3 cement producers to use actual annual verified carbon emissions data published under the ETS to infer each cement plant's individual production and market shares on an annual basis.<sup>479</sup>
- 4.62 In our provisional findings, we found that whilst ETS emissions data was unlikely to be the primary source of information used for monitoring coordination by the Top 3 cement producers, the availability of this data served as a useful and approximate cross-check on the accuracy of other sources of information, thereby contributing to the overall levels of transparency in the market on individual cement plants' production volumes and costs, particularly variable costs.<sup>480</sup>
- 4.63 We stated in our Remedies Notice that in order for this remedy to be effective in addressing the AEC, it would require a change in how the European Commission reports and presents its published data for GB and we would expect to work closely with the Department for Energy and Climate Change (DECC) and with the Directorate-General for Climate Change of the European Commission (DG Clima) on the potential specification of this remedy. We envisaged that implementation of this remedy option would take the form of recommendations to the European Commission and the UK Government and may include one or more of the following measures:<sup>481</sup>
- an increased delay in the publication of annual verified emissions data (the current time lag for publication of verified carbon emissions data is around three months);

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<sup>479</sup> Remedies Notice, paragraphs 85–87.

<sup>480</sup> Provisional findings, paragraph 8.162.

<sup>481</sup> Remedies Notice, paragraph 87.

- the exclusion of GB cement plants from published verified carbon emissions data;
- the aggregation of all GB cement plants' verified carbon emissions data; and/or
- further aggregation of verified carbon emissions data for GB cement plants with those of other GB ETS sectors.

### *Option X3: Views of parties*

- 4.64 Two of the respondents, Cemex and Hanson were in favour of this remedy. Overall, they each considered that this remedy option would be beneficial in further reducing transparency. Both DECC and DG Clima were opposed to this remedy option on the basis that the public policy benefits heavily outweighed any benefit that might be derived from the remedy. Of the other parties that commented on this remedy proposal, whilst three provided a neutral view, most did not provide any view on this particular remedy option predominantly because they did not utilize the emissions data.
- 4.65 Cemex told us that this remedy option was aimed at reinforcing the reduction in transparency,<sup>482</sup> and considered that it was an effective and proportionate measure which would contribute towards addressing the 'alleged' Coordination AEC.<sup>483</sup>
- 4.66 Hanson considered that this remedy option would be effective and proportionate (subject to an AEC being proven).<sup>484</sup> However, it added that careful consideration and discussion with the European Commission would be necessary given the complexities of environmental regulation.<sup>485</sup>
- 4.67 Lafarge Tarmac told us that it did not propose to comment on this remedy given that it affected the publication of data by the European Commission and was entirely a

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<sup>482</sup> [Cemex response to Remedies Notice](#), paragraph 4.32.

<sup>483</sup> [ibid](#), paragraph 7.1.

<sup>484</sup> [Hanson response to Remedies Notice](#), Annex, paragraph 6.1.

<sup>485</sup> [ibid](#), paragraph 7.6.

matter for that authority. It added that it did not wish to influence the manner in which the European Commission chose to exercise its functions.<sup>486</sup>

- 4.68 DECC told us that the annual ETS emissions data was useful to the cement sector and provided ‘significant public policy benefits from the transparent publication of the data across the EU’, which enabled viewers to track developments across Europe.<sup>487</sup> It told us that even if the publication of ETS data contributed to the AEC in the GB cement market, the benefits obtained from publishing the data outweighed any detrimental effects.<sup>488</sup> DECC also considered that recommendations to aggregate data could set a precedent for other industry sectors which could potentially thwart the ability of the public from assessing how the ETS was delivering emission reductions.<sup>489</sup>
- 4.69 Aside from the public policy concerns, DECC told us that there were also legal and practical issues. It told us that the ETS Directive<sup>490</sup> would have to be amended which would be a lengthy process requiring a qualified majority of member states to amend the Registries Regulation and the agreement of the European Parliament and the Council of the EU in response to a proposal from the European Commission.<sup>491</sup> It considered that a delay in the publication of the data in place of an outright prohibition would be less problematic,<sup>492</sup> although any lag in publication would have to be uniform across all member states. It told us that this would be problematic given that

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<sup>486</sup> Lafarge Tarmac response to Remedies Notice, paragraph 199.

<sup>487</sup> DECC response hearing summary, paragraph 16.

<sup>488</sup> *ibid*, paragraph 2.

<sup>489</sup> DECC response to Remedies Notice, paragraph 4.

<sup>490</sup> Article 15A of the amended ETS Directive states that:

Member States and the Commission shall ensure that all decisions and reports relating to quantity and allocation of allowances and to the monitoring, reporting and verification of emissions are immediately disclosed in an orderly manner ensuring non-discriminatory access. Information covered by professional secrecy may not be disclosed to any other person or authority except by virtue of the applicable laws, regulations or administrative provisions’. In addition, the Registries Regulation 2013 which states that by virtue of Article 109 the Central Administrator shall make available information referred to in annex XIV to members of the public via the EU Transaction Log which is the EU-wide database through which all Registry transactions take place. Article 1(e) of annex XIV specifies that the EU Transaction Log shall provide to the public, ‘the verified emissions figure, along with its corrections for the installation related to the operator holding account for year x shall be displayed from the 1 April onwards of year (x+1).

<sup>491</sup> DECC response to Remedies Notice, paragraph 9.

<sup>492</sup> DECC response hearing summary, paragraph 5.

some member states would not be able to restrict access to the data due to freedom of information legislation.<sup>493</sup>

4.70 DG Clima explained that 'transparency' was a feature that was widely present in environmental legislation due to the policy benefits.<sup>494</sup> It told us that the publication of verified emissions data was also prescribed by legislation.<sup>495</sup> Aside from the public policy benefits, DG Clima told us that the publication of the ETS data facilitated compliance in reducing carbon emissions,<sup>496</sup> and considered that the remedy option was incapable of being implemented because: (a) a delay in publication by the European Commission would not prevent the information being obtained from elsewhere; (b) a publication delay would be disproportionate given that the aim of the remedy was to regulate a very small number of GB cement plants when balanced against the 10,000 installations across the EU which would also be bound by the delay; (c) the application of equal treatment principles would prevent GB cement producers being excluded from the ambit of the legislation; (d) there was significant value in the data which enabled benchmarking; and (e) aggregating cement emissions data with emissions data from other industries would not be desirable as it would not provide useful information on the environmental impact of each industry in isolation.<sup>497</sup>

4.71 There were a number of legal practicability issues raised by DECC and DG Clima. In essence, to give effect to any recommendation made by the CC, legislative amendment would be required on an EU-wide basis as the publication of ETS emissions data is set out in EU legislation:

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<sup>493</sup> DECC response to Remedies Notice, paragraph 3.

<sup>494</sup> Note of meeting with DG Clima, paragraph 2.

<sup>495</sup> [http://ec.europa.eu/clima/policies/ets/documentation\\_en.htm](http://ec.europa.eu/clima/policies/ets/documentation_en.htm); its genesis dates back to the Aarhus Convention on access to information, public participation in decision-making and access to justice in environmental matters (signed 25 June 1998 and implemented in the EU and member states through Directive 2003/4). It further confirmed that the European Court of Justice (Case 524/09 Ville de Lyon v Caisse des dépôts et consignations <http://curia.europa.eu/juris/liste.jsf?language=en&num=C-524/09>), which held that data classified as 'environmental information', such as reports of emissions, had to be published, but certain exemptions applied to 'trading data' relating to emission allowances.

<sup>496</sup> Note of meeting with DG Clima, paragraph 3.

<sup>497</sup> *ibid*, paragraph 7.

- DG Clima indicated that delaying the publication of the ETS emissions data was not desirable in light of the experience from previous practice. It said that in the past, prior to 2006, the data was published with a six-week time lag. However, it told us that as each member state was responsible for collection and therefore had access to the data in advance of publication, some market participants were able to obtain the information in advance of publication, and that this had the consequence of distorting trading in the carbon market.<sup>498</sup> It also told us that it would not be possible to exclude the GB cement producers from the ambit of the legislation, nor apply a different level of aggregation to GB data than other member states' data in light of the equal treatment principles. It added that any attempt to delay the publication of this data would not be practicable given that it was part of the compliance cycle and corresponded with the date when ETS installations must surrender their used carbon allowances and receive their free allocations.<sup>499</sup>
- DECC also referred to these previous problems of delaying publication stating that the process and timing of release of annual ETS data was now well established within the compliance cycle and that any attempt to change this would go against the principle of coordinated release of emissions data and risk adverse effects on the carbon market.<sup>500</sup> It also told us that public access to environmental information such as emission data was granted by other legal instruments which the CC should also take into account.<sup>501</sup>

4.72 Both DG Clima and DECC told us that were significant public policy benefits in transparency achieved through the publication of the ETS emissions data across the EU:

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<sup>498</sup> [ibid](#), paragraph 6.

<sup>499</sup> [ibid](#) paragraph 8.

<sup>500</sup> [DECC response to Remedies Notice](#), paragraph 3.

<sup>501</sup> DECC referred to the Environmental Information Regulations (2004) implementing Directive 2003/4/EC. It also added that the UK cement sector was also covered under the Climate Change Agreements and the CRC Energy Efficiency Scheme which had obligations on publishing emissions data.

- DG Clima told us that transparency was a feature that was widely present in environmental legislation and the publication of emissions data had its genesis in the Aarhus Convention of 1998 that promoted access to information, public participation in decision-making and access to justice in environmental matters.<sup>502</sup> It submitted that the rationale for publishing ETS emissions data was to deliver on the public policy benefits of transparency, enabling the public and third parties to see the effectiveness of the ETS in reaching its policy objectives and further, in achieving the aim of facilitating compliance in reducing carbon emissions.<sup>503</sup>
- DECC told us that publication of ETS emissions data at an installation level assisted the public debate on the effectiveness of carbon reduction efforts by different companies and was in line with the UK's wider transparency agenda. DECC added that it was worried that any change in policy in this sector would have adverse consequences for other sectors.<sup>504</sup>

### *Option X3: Our reasons for not taking the remedy option forward*

4.73 We considered that the recommendations set out in the Remedies Notice under this remedy could each be effective, to some degree, in the limited aim of preventing or making it more difficult for the GB cement producers to cross-check approximately the accuracy of the market share data they observed from other sources such as the published MPA data. However, given the nature of the concern identified, ie the ETS data is used as an approximate 'cross-check' on market data already obtained, such remedial action would only have a marginal impact on the overall level of transparency in this market. We further noted that the GB cement producers needed to make various assumptions in order to utilize the value of this data in conjunction with other industry knowledge.

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<sup>502</sup> [Note of meeting with DG Clima](#), paragraph 2.

<sup>503</sup> *ibid*, paragraph 3.

<sup>504</sup> [DECC response to Remedies Notice](#), paragraph 4.

- 4.74 Based on the comments from DG Clima and DECC, we concluded that there were significant practical issues in implementing this remedy in any of the ways proposed in our Remedies Notice. These practical issues are not confined to the process of amending legislative frameworks but also include the impact any changes would have on the operation of the ETS compliance cycle and the orderly trading of carbon allowances.
- 4.75 These submissions also made it clear that any material changes to the current legislative framework would put at risk some of the policy benefits identified by DG Clima and DECC above. We recognized that there is value in the UK public being able to view the level of emissions arising from particular installations that may directly affect them, a benefit which aggregation and/or the exclusion of GB cement producers from the ambit of the data publication would remove. We considered that such policy costs were relevant both to the proportionality of any recommendation we might make and to the likelihood of any recommendation being taken forward, and hence its effectiveness.
- 4.76 We also had regard to the costs of implementing and enforcing this remedy. Since the remedial action envisaged was in the form of a recommendation, no monitoring or enforcement would fall to the CC (or the CMA from 1 April 2014). We considered that the costs involved in giving effect to any of the proposals under this remedy would be those incurred by the EU institutions in amending the relevant legislative instruments and those arising to each member state from the subsequent adoption of those changes. We considered it likely that such changes would require lengthy debate and negotiation between and within member states and as such were not likely to be easy or timely to implement, if our proposals were agreed. Furthermore, as any changes may have repercussions across a number of legal instruments, both at an EU and domestic level, we took the view that the cost of implementing a recom-

mendation by the CC to amend the manner in which the ETS data was collected and published could be substantial, particularly relative to its likely benefits.

4.77 We have set the objectives of a remedy involving a recommendation to the European Commission against the implementation costs and potentially substantial loss of public policy benefits identified above. We have also considered the limited role played by ETS emissions data in the Coordination AEC, that being, an approximate 'cross-check' on data already derived elsewhere. Taking all of these factors into account, it is our view that the costs involved in the implementation of this recommendation are unlikely to outweigh the benefits and that such a recommendation was very unlikely to be taken forward. Given this, we provisionally decided not to take this remedy option further.

#### ***Option X4: Divestitures of stand-alone grinding stations***

##### *Option X4: Description of remedy option*

4.78 In our provisional findings, we found that building a stand-alone clinker grinding station (stand-alone grinding station) was an alternative model for entry into cement production in GB, whereby clinker would be sourced from elsewhere before being ground at the stand-alone grinding station to produce cement.<sup>505</sup> One party ([REDACTED]) suggested that a divestiture of a stand-alone grinding station may be considered as an alternative to a cement plant divestiture.<sup>506</sup> We explored with the other parties whether this could be regarded as an effective remedy by creating a strong new competitor in the GB cement markets.

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<sup>505</sup> Provisional findings, paragraph 7.52.

<sup>506</sup> [REDACTED]

#### *Option X4: Views of parties*

- 4.79 Cemex considered that a divestiture of its [REDACTED] grinding station would not lead to the creation of an effective competitor in the GB cement markets,<sup>507</sup> [REDACTED].<sup>508,509</sup>
- 4.80 Cemex also told us that [REDACTED].<sup>510,511,512</sup>
- 4.81 Lafarge Tarmac told us that a divestiture of a stand-alone grinding station would attract more potential buyers than a cement plant divestiture. It noted that there would need to be a 'ready supply' of clinker for the operator of the stand-alone grinding station, which could be supplied through imports from countries outside the EU ETS. However, it argued that since imported cement was a 'ready product' that could be placed on to the market whilst clinker needed to be ground into cement, it could not see the benefit of importing clinker over cement. It also told us that the high price of electricity in the UK would also be another disadvantage to any potential buyer of a stand-alone grinding station.<sup>513</sup>
- 4.82 Hanson told us that hypothetically it might be easier to divest a stand-alone grinding station than a cement plant. However, it noted that a stand-alone grinding station would need to be supplied with imported clinker, and that a buyer would more than likely be an established cement producer rather than an independent, ie with the ability to produce its own clinker.<sup>514</sup>

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<sup>507</sup> [Cemex response to Remedies Notice](#), paragraph 5.13.

<sup>508</sup> [ibid](#), paragraph 5.14.

<sup>509</sup> [ibid](#), paragraph 5.13.

<sup>510</sup> [ibid](#), paragraph 5.13.

<sup>511</sup> [ibid](#), paragraph 5.14.

<sup>512</sup> [ibid](#), paragraph 5.13.

<sup>513</sup> [Lafarge Tarmac response hearing summary](#), paragraph 44.

<sup>514</sup> [Hanson response hearing summary](#), paragraph 51.

4.83 MI told us that it would be possible to divest a stand-alone grinding station to a buyer that could then import and grind clinker. However, it did not consider that a grinding mill that formed part of a cement plant should be divested.<sup>515</sup>

4.84 [REDACTED] Aggregate Industries told us that [REDACTED].<sup>516</sup>

4.85 Brett Group told us that [REDACTED].<sup>517</sup>

4.86 Breedon Aggregates told us that it would not be interested in acquiring a stand-alone grinding station as it would need to source its clinker from imports. However, it considered that a stand-alone grinding station might be attractive to an independent that did have access to clinker.<sup>518</sup>

4.87 In relation to the views of the cement importers:

- CRH told us that a divestiture of a grinding station would share the same considerations as for a cement plant divestiture, eg in terms of age, efficiency and location. It noted that since electricity costs were higher in GB than in Spain, it would be likely to be more cost-effective to grind the clinker where electricity was cheaper and then export the cement to GB.<sup>519</sup>
- Dragon Alfa (CPV) told us that it was not aware of the relative cost difference between importing clinker and cement. [REDACTED]<sup>520</sup>
- Titan misinterpreted this remedy proposal as a divestiture of a grinding mill that formed part of a cement plant rather than a stand-alone grinding station, eg the Tilbury grinding station. However, it provided a valid argument which alluded to the value of a grinding station to a cement plant. Titan told us that should a GB

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<sup>515</sup> [MI and HCM response hearing summary](#), paragraph 24.

<sup>516</sup> [Aggregate Industries response hearing summary](#), paragraph 17.

<sup>517</sup> [Brett Group response hearing summary](#), paragraph 29.

<sup>518</sup> [Breedon Aggregates response hearing summary](#), paragraph 30.

<sup>519</sup> [CRH response hearing summary](#), paragraph 12.

<sup>520</sup> [CPV response hearing summary](#), paragraph 31.

cement producer choose to relocate to a more efficient cement plant by closing down its smaller operations, it may wish to retain just its grinding station there in order to continue supplying it with clinker and retain market presence. It added that requiring a divestiture of a grinding mill would be an ‘unwarranted interference’ with a GB cement producer’s legitimate ability to structure its business in a cost-efficient way’.<sup>521</sup>

*Option X4: Our reasons for not taking the remedy option forward*

4.88 We considered whether a divestiture of a stand-alone grinding station would represent an effective alternative to a cement plant divestiture remedy.

4.89 An important concern in relation to a remedy that relied on divestiture of a stand-alone grinding station to act as a competitive constraint on the GB cement producers, related to the ability of its operator to source clinker on economic terms and in sufficient quantities either from domestic sources or from imports:

- We considered that an operator of a stand-alone grinding station that relied on the GB cement producers for its supply of clinker would not be an effective competitive constraint, given the incentive and ability of the GB cement producers to restrict or cease their supply of clinker to their direct competitor in the GB cement markets.
- In our provisional findings, we found that imported clinker would face a similar cost disadvantage to imported cement, and that this was one of the barriers to entry faced by a potential new entrant that sought to enter into GB cement production by building a stand-alone grinding station.<sup>522</sup> Given this intrinsic cost disadvantage faced by the operator of a stand-alone grinding station, we did not

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<sup>521</sup> [Titan response hearing summary](#), paragraph 28.

<sup>522</sup> Provisional findings, paragraph 7.54.

consider that it would be able to compete on an equal footing with the GB cement producers, which produced their own clinker in GB.

4.90 Another important factor limiting the effectiveness and practicability of this remedy concerns the extremely limited universe of possible divestitures. We noted that there were currently three stand-alone grinding stations, where:<sup>523</sup>

- Lafarge Tarmac operates one active grinding station at Barnstone, and has one mothballed grinding station at Westbury; and
- Cemex operates one active grinding station at Tilbury.

4.91 We found that the only stand-alone grinding station capable of producing around 1 Mt of cement (the level of production which we would expect from a divested cement plant) was Cemex's Tilbury grinding station, which Cemex told us had capacity to produce [REDACTED]. We also noted Cemex's comment that [REDACTED].<sup>524,525</sup>

4.92 We provisionally concluded that a divestiture of a stand-alone grinding station would not represent an effective remedy and, in particular, would not be an effective alternative to a cement plant divestiture in our proposed package of remedies. Our primary reason for reaching this view was the intrinsic disadvantage faced by an operator of a stand-alone grinding station in trying to find economic sources for its clinker, compared with the GB cement producers that produced their own clinker to grind. The shortage of potentially suitable facilities to divest was a further practical problem with this remedy. We therefore did not consider this remedy option further.

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<sup>523</sup> Remedies Notice, Appendix A.

<sup>524</sup> Cemex response to Remedies Notice, paragraph 5.13.

<sup>525</sup> *ibid*, paragraph 5.14.

## ***Option X5: Information barriers between cement and RMX operations***

### *Option X5: Description of remedy option*

- 4.93 Cemex proposed a remedy involving the implementation of an ‘information barrier’ or ‘firewall’ between a GB cement producer’s cement and RMX operations in order to prevent the transmission of information between them, and designed to limit the transfer of price information between these two divisions.<sup>526</sup> It told us that this would address our concerns that vertical integration facilitated cement cross-sales which increased price transparency through price announcement letters and transmitting information on realized cement prices, as well as giving GB cement producers additional information about their local markets.<sup>527</sup>
- 4.94 Cemex considered that relatively ‘simple and specific’ information barriers could be put in place to reduce any transparency arising from vertical integration, eg a GB cement producer’s RMX operations could be prohibited from transmitting the following types of information to its upstream cement operations: (a) the price paid for cement purchased from other cement suppliers; (b) cement price announcement letters received from the other GB cement producers; and (c) information received from other GB cement producers on cement prices charged to their other RMX customers, eg during the course of negotiations. In addition, the cement operations could be prohibited from sharing information with its downstream RMX operations concerning the price of cement charged to other RMX producers.<sup>528</sup>

### *Option X5: Views of parties*

- 4.95 Cemex considered that restricting the transfer of internal information between a GB cement producer’s cement and RMX operations was a possible remedy, and added

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<sup>526</sup> *ibid*, paragraph 4.49.

<sup>527</sup> *ibid*, paragraph 4.49.

<sup>528</sup> *ibid*, paragraph 4.50.

that it already had in place such a mechanism under its policy which was to run its businesses as separate entities to a certain extent.<sup>529</sup>

4.96 However, a large number of parties questioned this remedy proposal's effectiveness, including its practicability:

- Lafarge Tarmac told us that 'firewalls' between a GB cement producer's cement and RMX operations would not be a 'viable' remedy and would be difficult to implement. It added that any firewall would need to be 'strong' and therefore this remedy would likely result in a loss of efficiency in terms of management of its different businesses.<sup>530</sup>
- MI told us that it could not see how this remedy proposal could work in practice, or how effective it would be.<sup>531</sup>
- Aggregate Industries told us that its initial impression was that this remedy proposal would not be effective in practice, and would be expensive to administer given the need for separate systems, individuals and parts of buildings. It also had concerns that ultimately these additional costs would be passed through on to customers.<sup>532</sup>
- Brett Group told us that it did not see how this proposal could be practicably implemented. It added that it would be preferable to reduce the number of RMX plants owned by the GB cement producers instead.<sup>533</sup>
- Breedon Aggregates considered that any remedy restricting the flow of information about cement prices within a GB cement producer's internal organization would not be effective.<sup>534</sup>
- CRH did not agree that there should be any information barrier between a GB cement producer's cement and RMX operations, especially in relation to cement

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<sup>529</sup> [Cemex response hearing summary](#), paragraph 37.

<sup>530</sup> [Lafarge Tarmac response hearing summary](#), paragraph 43.

<sup>531</sup> [MI and HCM response hearing summary](#), paragraph 50.

<sup>532</sup> [Aggregate Industries response hearing summary](#), paragraph 36.

<sup>533</sup> [Brett Group response hearing summary](#), paragraph 28.

<sup>534</sup> [Breedon Aggregates response hearing summary](#), paragraph 29.

prices. It told us that its own RMX operations would not be able to make a profit effectively if they did not have access to all of the information concerning their costs.<sup>535</sup>

#### *Option X5: Our reasons for not taking the remedy option forward*

4.97 In light of the comments from third parties, we considered that this remedy would not be workable in practice given the intrinsic difficulty and possible loss of efficiencies that would arise from preventing the flow of information between the GB cement producers' cement and RMX operations. In this context we had regard to the recent drive to increase internal sales that strongly suggested that it would not be possible to prohibit all forms of communication between these two operations. Given that communication, however limited, would reasonably be expected between the cement and RMX operations and take different forms (eg emails and telephone calls), even for internal sales, we did not consider that this remedy was capable of effective monitoring and enforcement. Given this, we did not consider this to be an effective remedy and have provisionally decided not to take this option further.

#### ***Option X6: Mandatory competitive tendering on cement cross-sales***

##### *Option X6: Description of remedy option*

4.98 Hanson proposed a remedy to introduce a mechanism for mandatory competitive tendering when a GB cement producer wished to source cement from third parties. It proposed this as an alternative remedy to any RMX plant divestiture remedy, and told us that this could address our concerns arising from vertical integration in the context of cross-sales facilitating coordination in the GB cement markets.<sup>536</sup> Hanson told us that this had the potential to address the CC's perceived concerns in relation to the size of the addressable market, reduce any perceived transparency between the Top

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<sup>535</sup> [CRH response hearing summary](#), paragraph 23.

<sup>536</sup> [Hanson response hearing summary](#), paragraph 31.

3 cement producers, and restrict the opportunity for such sales to be used as a retaliatory mechanism. It considered that such a remedy would retain the benefits of vertical integration and therefore represented a more effective and proportionate remedy than those proposed by the CC.

*Option X6: Views of parties*

4.99 Cemex considered that a remedy implementing a mechanism for mandatory competitive tendering for a specified quantity of cement for the vertically integrated producers' RMX plants (including HCM's RMX plants) would be more proportionate than a remedy involving RMX plant divestitures. It rejected any suggestion that this remedy would be difficult to monitor.

4.100 CRH told us that from its perspective as a cement importer, it would welcome a requirement for GB cement producers to tender when they needed to buy cement from other suppliers. However, it also had concerns about this proposal as it believed that price would become the 'only consideration' and would displace quality of service and security of supply, which it considered were very important issues for cement producers when sourcing cement from outside their own businesses.<sup>537</sup>

4.101 Another importer, Dragon Alfa (CPV) told us that it had very little involvement with the GB cement producers, and also conducted only a 'small amount of business' with Aggregate Industries. It therefore told us that this proposal would not significantly affect its own business.<sup>538</sup>

4.102 Other parties also did not see this proposal as being necessary or effective:

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<sup>537</sup> [CRH response hearing summary](#), paragraph 22.

<sup>538</sup> [CPV response hearing summary](#), paragraph 30.

- Breedon Aggregates considered that this proposal was unnecessary and likely to be ineffective as it did not believe that cement cross-sales between the GB cement producers contributed to any ‘lessening of competition’.<sup>539</sup>
- Brett Group also told us that it did not see any merit in this remedy option.<sup>540</sup>
- Titan did not consider that this proposal would make the ‘overall’ cement market more competitive. It told us that whilst it might work in theory, in practice the requirement for a GB cement producer to conduct an open tendering process when it needed to buy cement, could alert its competitors to the fact that the producer concerned was struggling to supply its customers through its ‘regular channels’.<sup>541</sup>
- MI told us that the tendering of cement cross-sales could result in another way of signalling to each other.<sup>542</sup>

#### *Option X6: Our reasons for not taking the remedy option forward*

4.103 We received very few comments in relation to this remedy. However, there appeared to be little support for such a remedy in the submissions we did receive. We considered that this remedy would not be effective, as it did not address any of the fundamental causes of the Coordination AEC that we have provisionally found.

4.104 Moreover, we considered there was significant scope for circumvention by the GB cement producers, eg a GB cement producer may decide to issue highly restrictive requirements as part of its tendering process in order to exclude certain suppliers at the outset, and therefore undermine any tendering process. Furthermore, there may be reasons other than price why a third party supplier may have won a tender, and therefore this could reduce the ability of such a remedy to be readily monitored and enforced.

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<sup>539</sup> [Breedon Aggregates response hearing summary](#), paragraph 28.

<sup>540</sup> [Brett Group response hearing summary](#), paragraph 27.

<sup>541</sup> [Titan response hearing summary](#), paragraph 29.

<sup>542</sup> [MI and HCM response hearing summary](#), paragraph 49.

4.105 We therefore considered that this remedy – even if it were capable of effective implementation, monitoring and enforcement – would be unlikely to have a material impact on coordination in the GB cement markets. Moreover, the practical difficulties in enforcing such an obligation may well result in the creation of tender processes only in form, but lacking the substance of a genuine tender for the reasons outlined above. Therefore, we provisionally concluded that we would not pursue this remedy further.

## **5. Assessment of relevant customer benefits**

### ***Relevant customer benefits***

#### *Framework for assessing RCBs*

5.1 In deciding the question of remedies, the CC may also in particular ‘have regard to the effect of any action on any relevant customer benefits of the feature or features of the market concerned’.<sup>543</sup>

5.2 RCBs are defined in the Act and are limited to benefits to relevant customers in the form of.<sup>544</sup>

- (a) lower prices, higher quality or greater choice of goods or services in any market in the UK (whether or not the market to which the feature or features concerned relate); or
- (b) greater innovation in relation to such goods or services.

5.3 The Act provides that a benefit is only an RCB if the CC believes that:

- (a) the benefit has accrued as a result (whether wholly or partly) of the feature or features concerned or may be expected to accrue within a reasonable period of time as a result (whether wholly or partly) of that feature or those features; and

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<sup>543</sup> Section 134(7) of the Act.

<sup>544</sup> Section 134(8)(a) of the Act.

(b) the benefit was, or is, unlikely to accrue without the feature or features concerned.<sup>545</sup>

### *Our assessment and conclusions on RCBs*

- 5.4 In this section, we focus our assessment on the effects of our proposed package of remedies on RCBs, and on the nature and size of any RCBs, and their expected duration, and whether they are likely to be retained if we implement our proposed package of remedies.<sup>546</sup> Each of the remedy measures contained within our package of remedies is set out in Figures 3.1 to 3.4 above.
- 5.5 In our Remedies Notice, we had sought parties' views on the nature, scale and likelihood of any RCBs, and the impact of any possible remedies on any such benefits.<sup>547</sup> Our assessment is based on the submissions and evidence we received from parties in relation to this question. We do not consider here potential RCBs that might be lost if we implemented a remedy option that we are not proposing to take forward, but which would be retained with our proposed package of remedies.
- 5.6 In general, we received very limited evidence from parties that directly highlighted the loss of any potential RCBs arising from the implementation of the remedy options set out in our Remedies Notice. We have, however, included in our assessment a number of submissions from parties, which whilst not directly arguing the case for RCBs, may have alluded to the existence of a potential RCB that might be lost through the implementation of a particular remedy or package of remedies.
- 5.7 Our assessment is set out under the following categories of potential RCBs, based on the various parties' submissions we received:

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<sup>545</sup> Section 134(8)(b) of the Act.

<sup>546</sup> The Guidelines, paragraphs 367–369.

<sup>547</sup> Remedies Notice, paragraphs 114–116.

- (a) *RCBs arising from horizontal market structure*: where we consider the parties' views in relation to potential RCBs arising from a GB cement producer operating a network of cement plants in GB (see paragraphs 5.9 to 5.20);
- (b) *RCBs arising from existing GGBS arrangements*: where we consider any potential RCBs in relation to the current arrangements concerning the supply of GGBS (see paragraphs 5.21 to 5.28);
- (c) *RCBs arising from vertical integration*: where we consider potential RCBs arising from vertical integration, in particular in the context of our cement plant divestiture remedy, where some RMX plant divestitures by Lafarge Tarmac may be required (see paragraphs 5.29 to 5.40);
- (d) *RCBs arising from transparency of market information*: where we consider potential RCBs in relation to our remedy concerning the publication of cement market data (see paragraphs 5.41 to 5.49); and
- (e) *RCBs arising from generic price announcement letters*: where we consider potential RCBs in relation to our remedy to improve the way the GB cement suppliers communicate their price increases to their customers (see paragraphs 5.50 to 5.53).

5.8 For each category of potential RCBs set out above, we first consider the views of parties before setting out our own assessment.

*RCBs arising from horizontal market structure in GB cement production*

5.9 We treated the following arguments from the Top 3 cement producers as arguments that RCBs could be lost through the implementation of a cement plant divestiture remedy:

- (a) Lafarge Tarmac told us that the current industry structure benefited from 'significant' economies of scope and scale, which if altered through any divestiture remedy, would lead to increased production costs and disruption from a forced

sale process, which it considered would well exceed any ‘speculative benefits’ that might accrue in the form of increased competition.<sup>548</sup>

(b) Hanson told us that a divestiture of its cement plant would reduce its operations and footprint as a major GB cement producer, and that this would [X] business that would ultimately increase costs for customers and consumers.<sup>549</sup> It also argued that a cement plant divestiture remedy would risk damaging the main industry participants and/or leading to exit and cessation of GB investment.<sup>550</sup>

(c) Cemex told us that any divestiture remedy would weaken it as a ‘competitive force’ which in turn would weaken overall competition in the industry. It highlighted the fact that it only had two cement plants in GB and should it be required to divest one of these plants, it would no longer be able to compete effectively in the GB cement markets.<sup>551</sup>

5.10 We considered the arguments from the Top 3 cement producers, in particular in relation to whether a divestiture of a cement plant, in particular by Lafarge Tarmac, might result in a loss of any RCBs through the reduction in any efficiencies associated with operating a network of cement plants in GB, eg economies of scale.

5.11 Whilst we considered that such efficiencies might exist, and we examine these in further detail when we consider the costs of implementing our proposed package of remedies in Section 6, for the purposes of assessing whether the loss of such efficiencies could also result in the loss of any RCBs, we need to consider whether these efficiencies have been passed on to cement customers in the form of lower prices in the past, or in the absence of effective remedies could reasonably be expected to be passed on to customers in the future.

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<sup>548</sup> [Lafarge Tarmac response to Remedies Notice](#), paragraph 219.

<sup>549</sup> [Hanson response to Remedies Notice](#), paragraph 3.6.

<sup>550</sup> [ibid](#), paragraph 3.22.

<sup>551</sup> [Cemex response to Remedies Notice](#), paragraph 5.15(c).

- 5.12 In relation to whether such efficiency savings had benefited customers in the form of lower prices, we examined the evidence concerning the past actions of the GB cement producers in relation to their cost-cutting initiatives in response to the economic downturn.
- 5.13 We looked at both margins and prices. However, we placed more weight on the evidence on margins, since there were also significant changes in input costs over the time period for which evidence was available (which was 2007 to 2011 at the time our provisional findings were published), and an analysis of variable profit and EBITDA margins take into account changes in both prices and costs (including variable and fixed costs):
- (a) As set out in our provisional findings, variable profit margins for the period 2007 to 2011 remained relatively stable, and the impact of the sharp downturn in market demand in 2009 did not have a negative impact on the GB cement producers' variable profit margins on their external sales. In fact, three of the four producers experienced increases in their margins at this time.<sup>552</sup> This suggested that any variable cost savings had contributed towards preservation—or even increase—of margins rather than commensurate price reductions for customers.
- (b) In relation to whether fixed cost savings had been passed on to customers, we also found that three of the four GB cement producers' EBITDA margins exhibited stable or increasing trends between 2009 and 2011.<sup>553</sup>
- 5.14 If we considered prices in isolation, it was also not clear from the evidence whether any cost savings had been passed on to customers in the form of lower prices:
- (a) We found that in 2009 (a year when the full 12 months' impact of the market downturn would have been felt), the main reason cited by the GB cement pro-

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<sup>552</sup> Provisional findings, paragraph 7.146.

<sup>553</sup> Provisional findings, Appendix 6.5, paragraph 67.

ducers for the stability or even increase in their variable profit margins in 2009, was that they had cut costs in response to the economic downturn.<sup>554</sup> However, at the same time, the average unit price of bulk CEM I cement (in real terms) charged by each of the four GB cement producers to independent customers increased in 2009 on prior year levels: (a) from £[redacted] to £[redacted] per tonne for Lafarge; (b) from £[redacted] to £[redacted] for Cemex; (c) from £[redacted] to £[redacted] for Hanson; and (d) from £[redacted] to £[redacted] for Tarmac.

(b) On the other hand, we also noted that real prices of bulk CEM I charged to independent customers had declined for each of the four GB cement producers in 2011 and 2012 on their respective prior year levels. However, it is not clear whether these price changes had been the result of the GB cement producers passing on any cost savings to their customers.

(c) Whilst we acknowledge that only a proportion of announced price increases are realized, we noted that, as set out in our provisional findings, all the GB cement producers had continued to seek price increases from their bulk CEM I customers throughout the 2007 to 2012 period,<sup>555</sup> despite any cost savings they were making.

5.15 In the context of cost efficiencies, we further noted that, in a more competitive environment (such as the one we are aiming to create through the implementation of our package of remedies), there will be stronger pressures on the GB cement producers to seek and pass on such efficiencies.

5.16 It is therefore far from clear that, in the absence of vigorous competition in the GB cement markets as a result of the Coordination AEC, any cost savings have been passed on to customers in the form of lower prices. In particular, we found no com-

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<sup>554</sup> Provisional findings, paragraph 8.7.

<sup>555</sup> Provisional findings, Appendix 7.11, Table 1.

elling reason to believe that any efficiency benefits arising from Lafarge Tarmac's ownership of multiple cement plants had in the past been passed on to customers. We also note that we did not receive any further evidence from parties that cost savings, including efficiency benefits, had been passed on to customers. In particular, the Top 3 cement producers' ROCE performance had remained persistently high during a sharp and significant downturn in the GB cement markets, which had enabled them to earn returns in excess of their cost of capital during the past six years (see Appendix 1).

- 5.17 In relation to the question of whether such efficiency savings might reasonably be expected to benefit customers in the future in the form of lower cement prices, we considered that in the absence of effective remedies, Lafarge Tarmac would have little or no incentive to pass on any existing efficiency benefits to customers in the form of lower prices, if the structure of the GB cement markets remained unchanged and the structural susceptibility of these markets to coordination remained largely unaltered. We address the issue of whether our package of remedies could be effective in addressing the Coordination AEC without a cement plant divestiture remedy measure in Section 6 when we consider the effectiveness and proportionality of our proposed package of remedies.
- 5.18 In relation to the risk cited by Hanson that a divestiture of a cement plant might result in exit from the GB cement markets, our assessment of the cement plant divestiture remedy considered the impact of a divestiture on the divesting party, in order to ensure that the divesting party remained an effective competitor in the GB cement markets in the future. We concluded in our assessment that a divestiture of a single cement plant from Lafarge Tarmac would still leave Lafarge Tarmac with a substantial cement operation that could be an effective competitor.

5.19 We therefore concluded that potential efficiency savings that related to the operation of multiple cement plants do not represent an RCB as defined in the Act on the basis that we could not reasonably conclude that any such benefits had in the past been passed on to customers in the form of lower prices, and that the absence of an effective package of remedies (which, in our view, necessarily includes a cement plant divestiture) would not create the incentive for Lafarge Tarmac to start passing on any such benefits to customers in the future.

5.20 We also note that any efficiencies currently arising from the ownership of multiple cement plants in GB could be retained by Hanson and Cemex, and that Lafarge Tarmac would, following the implementation of the cement plant divestiture, still retain three cement plants. We took the view that the most effective means of extracting such efficiencies such that they are passed on to customers would be by way of an effective remedy that addresses the Coordination AEC and introduces greater competition between the GB cement producers.

*RCBs arising from existing GGBS arrangements*

5.21 In relation to the existing GGBS supply chain arrangements, Hanson set out its arguments on the RCBs that arise from them:

- (a) The ability of Hanson to ‘undertake the investment and make the commitment necessary to promote the benefits of GGBS<sup>556</sup> to include GGBS ‘as a cement replacement with a lower environmental burden’ which ‘could not be guaranteed with a new entrant’.<sup>557</sup>
- (b) Retaining a portfolio of GGBS plants [✂].<sup>558</sup>
- (c) The benefits bestowed upon the steel industry from the guaranteed off-take of waste slag (BFS and steel slag).<sup>559</sup>

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<sup>556</sup> [Hanson response to Remedies Notice](#), paragraph 6.39.1.

<sup>557</sup> *ibid*, paragraph 6.39.3.

<sup>558</sup> *ibid*, paragraph 3.69.2.

(d) Hanson's 'unique experience' and 'quality and reliability and security of supply' which a new entrant would not possess.<sup>560</sup>

(e) Hanson considered that a break-up of its GGBS operations would be likely to risk the adverse effects of higher prices as the efficiencies of scale and supply security were lost and buyers then relied on smaller and less efficient operators.<sup>561</sup>

5.22 For each of the above arguments presented by Hanson, we first considered the nature of the possible RCB that might be lost if the existing GGBS supply arrangements were altered. We then considered whether such benefit should be defined as an RCB within the statutory framework and definition.

5.23 In relation to Hanson's ability to invest and commit to promoting the benefits of GGBS, we did not consider this to be an RCB for the reason that it was not necessary for the promotion of GGBS to be conducted either by Hanson or in particular, a single GGBS producer. The implementation of our GGBS remedy measure would create at least two GGBS producers and we could find no compelling reason to suggest that the creation of greater competition in the supply of GGBS would result in the reduction in the investment into, and the promotion of, GGBS as a cementitious material. GGBS is already a well-established and well-known cementitious material and we expect greater competition in the supply of GGBS to enhance innovation and product or service differentiation, in addition to the benefit of lower GGBS prices and higher levels of output than would be the case under existing supply arrangements.

5.24 In relation to Hanson's argument concerning the benefits of retaining a portfolio of GGBS plants, we noted that it argued [redacted]. We first note that Hanson has five GGBS plants in total, of which three are currently active. As we stated in our discussion of

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<sup>559</sup> *ibid*, paragraph 6.39.4.

<sup>560</sup> *ibid*, paragraph 6.39.5.

<sup>561</sup> *ibid*, paragraph 6.40.

the GGBS remedy measure above, we noted the possibility of its mothballed GGBS plants at Teesport and Llanwern to be reactivated, such that Hanson would be able to retain a network of three GGBS plants should it wish to do so following the divestiture of two of its GGBS plants. However, we note that GBS supply considerations may introduce some complexity in relation to how Hanson manages its remaining network of GGBS plants, in particular given the co-location of two active GGBS plants with their respective local GBS plants. Our proposed GGBS plant divestiture remedy would result in Hanson not being able to supply customers with GGBS from two plants, but it would not prevent the new owner or owners of these two divested GGBS plants from supplying these customers with GGBS. Therefore, we expect that the scenario described by Hanson could result in encouraging GGBS customers to source GGBS from multiple providers in order to mitigate any perceived risks in relation to the ability of the GGBS provider to supply GGBS. Similarly, GGBS producers may seek to source their GBS from multiple sources in order to mitigate such perceived risks. We also considered that a greater prevalence among GGBS customers of multi-sourcing their GGBS could encourage GGBS producers to offer keener and more competitive prices. Therefore, we concluded that this argument might highlight a potential cost for Hanson, but its effect on GGBS customers is likely to be neutral or beneficial.

- 5.25 In relation to Hanson's argument that the existing supply arrangements ensured the off-take of waste slag from the GB steel producers, we considered that it was far from clear why this situation would be any different if GGBS and/or GBS production activities were under different ownership. We note that from the steel producers' perspectives, BFS and steel slag removal was the key reason for the GBS plant to operate on the steelworks site, and this activity could be undertaken by a suitable purchaser or existing owner of a GBS plant or plants. In relation to the downstream GGBS markets, we expect that greater competition would stimulate demand for GGBS such

that the upstream demand for GBS would be maintained or even enhanced, and that this in turn would ensure the continued removal of BFS. We therefore concluded that this was not an RCB.

5.26 In relation to Hanson's arguments relating to the 'quality and reliability and security of supply' of GGBS, we first note that with greater competition in the supply of GGBS, we would expect GGBS producers to compete on these areas identified by Hanson, and possibly seek to source GBS from multiple suppliers should this be necessary to ensure continuity of supply. We note, however, that Hanson has a considerable amount of expertise and industry knowledge which may not be available to a new entrant in the short term. However, such a potential disadvantage could be mitigated by retaining key staff within the divested GGBS operation, or recruiting new staff with the relevant experience. Moreover, it is unclear to us how Hanson's 'unique experience' in GGBS could be an RCB in the form of lower prices, higher quality or greater choice of goods or services. In any case, we expect that a new entrant could to some extent replicate Hanson's knowledge over time as it operated a GGBS plant or plants. We have therefore concluded that this was not an RCB that would be lost.

5.27 Finally, we consider Hanson's argument that a break-up of its GGBS operations as a result of our remedies would result in higher prices as efficiencies of scale and supply security were lost. We did not find this argument to be compelling, in particular given that we had found Hanson's returns on its GGBS operations to be considerably in excess of its cost of capital, which implied that prices were higher than in a well-functioning market (see Addendum to PFs, Appendix A). Given the extent of such returns, we did not consider that any alleged scale and network benefits argued by Hanson had been passed on to its GGBS customers in the form of lower prices. Absent effective remedy measures to increase competition in the GGBS supply chain, we did not expect Hanson to begin doing so. We also considered it highly

unlikely that the divestiture of two GGBS plants by Hanson would result in GGBS prices increasing further on the already high levels we have seen. Rather, we expect that greater competition would be more likely to drive prices down towards competitive levels. We therefore did not consider this to constitute an RCB.

- 5.28 We did not identify any substantive comments from other parties that cited any RCBs in relation to our GGBS and GBS remedies. We therefore concluded that we found no RCBs from retaining the existing arrangements concerning GGBS supply.

*RCBs arising from vertical integration*

- 5.29 Whilst we have not proposed to take forward the divestiture of RMX plants as a stand-alone remedy within our package of remedies (see Remedy X1 above), we note that as part of our cement plant divestiture remedy, a purchaser of a cement plant may be permitted to acquire a limited number of RMX plants from Lafarge Tarmac. We therefore focused our RCB assessment on the impact of Lafarge Tarmac divesting some of its RMX plants as part of our cement plant divestiture remedy.
- 5.30 Lafarge Tarmac told us that value-added products in RMX (VAPs), whilst higher in price than conventional RMX products, were in demand and provided significant benefits to customers, since they saved significant costs through reduced build-times or labour requirements, when compared with conventional RMX products, and therefore were a more cost-efficient solution for a customer overall.<sup>562</sup> It added that if Lafarge Tarmac was required to divest its cement or RMX plants, its ability to provide these VAPs to customers throughout the country would be severely limited.<sup>563</sup> It added that one of the main purposes of creating its Lafarge Tarmac JV was to

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<sup>562</sup> Lafarge Tarmac response to provisional findings and Remedies Notice, paragraph 255.

<sup>563</sup> *ibid*, paragraph 256.

improve the geographic footprint of the JV's RMX business in order to allow for the roll-out of Lafarge's VAPs on a nationwide basis.<sup>564</sup>

- 5.31 Hanson told us that vertical integration brought about 'significant efficiencies' that benefited customers, which extended not only in relation to vertical integration of cement into RMX, but also in relation to aggregates into RMX.<sup>565</sup>
- 5.32 We note that any potential efficiency gains arising from vertical integration should be considered in the context of our cement plant divestiture remedy, where only Lafarge Tarmac would be required to divest some of its RMX plants, and not Hanson or Cemex. We note that the primary objective of including Lafarge Tarmac's RMX plants within a cement plant divestiture package is to ensure that its purchaser would be able to compete effectively as a new GB cement producer, and not to address our concerns in relation to vertical integration (see also our discussion on Remedy X1 above). We have therefore proposed to limit the number of RMX plants that a purchaser could acquire by setting an upper limit of a purchaser's downstream cementitious requirement at 15 per cent of its acquired cement plant's production capacity.
- 5.33 We noted that, given that the level of this upper limit was also [REDACTED], a purchaser with no RMX plants that acquired RMX plants from Lafarge Tarmac up to its 15 per cent limit would leave Lafarge Tarmac and the new entrant with [REDACTED] internal cementitious requirement to total production capacity. However, a purchaser that chooses to acquire either the Cauldon or Tunstead plant on a stand-alone basis and therefore does not acquire any RMX plants from Lafarge Tarmac would increase the extent of Lafarge Tarmac's vertical integration. Therefore, Lafarge Tarmac's current level of vertical integration at around 15 per cent broadly represents [REDACTED] of Lafarge Tarmac's vertical integration immediately following the divestiture of its cement plant and any

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<sup>564</sup> *ibid*, paragraph 270.

<sup>565</sup> [Hanson response to Remedies Notice](#), paragraph 5.21.

accompanying RMX plants. Furthermore, Lafarge Tarmac's vertical integration would [REDACTED] if a purchaser of a divested cement plant acquired [REDACTED] RMX plants.

5.34 With this in mind, we note that the loss of any potential RCBs in relation to loss of efficiencies or RMX VAPs would depend on a purchaser's own RMX operations (if any) and its requirement to be vertically integrated downstream. In relation to the level of vertical integration that Lafarge Tarmac would have following the implementation of our cement plant divestiture remedy, we note that its vertical integration level would [REDACTED]. On this basis, we considered that in relative terms, with a smaller network of three cement plants, Lafarge Tarmac could [REDACTED], although in absolute terms, such efficiency savings arising from vertical integration might fall if the amount of internal cement sales also falls in absolute volume terms.

5.35 However, we noted in our provisional findings that none of the GB cement producers was able to quantify the benefits of being vertically integrated,<sup>566</sup> and we have not received any further evidence that would enable us to quantify such benefits. Whilst there might be some efficiency benefits from internally supplying cement, for essentially the same reasons that are set out in paragraph 5.12 above, we considered it unlikely that any such benefits would have been passed on to either internal or external cement customers in the form of lower cement prices.

5.36 Furthermore, given that the number of potential RMX plant divestitures under our cement plant divestiture remedy formed a relatively small part of the overall number of RMX plants that are owned by the GB cement producers and are internally supplied by their respective upstream cement operations, we expect that any benefits that did arise would be limited. We also note that under our proposed package of remedies, there are no restrictions on GB cement producers investing in new RMX

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<sup>566</sup> Provisional findings, paragraph 10.8.

plants, and therefore Lafarge Tarmac could acquire or build new RMX plants should it wish to do so.

5.37 In relation to whether a divestiture of RMX plants by Lafarge Tarmac would result in fewer RMX VAPs being sold to its customers, we considered that this would depend, in part, on whether its customers could buy similar RMX VAPs from Lafarge Tarmac's RMX competitors.

5.38 This point was considered in the final report for the Anglo/Lafarge JV inquiry, which concluded that whilst

proprietary technology and know-how might be used to develop VAPs, these have not prevented some competitors from launching their own VAPs and marketing them to customers with similar properties and benefits.<sup>567</sup> Furthermore, it also found that based on each of the Majors' sales websites for RMX, the list of RMX products which were marketed and sold as VAPs showed that significant overlaps existed in relation to the properties (as described by the Majors on their websites) of some of these VAPs.<sup>568</sup>

5.39 We considered that Lafarge Tarmac's VAPs might provide its customers with overall cost-saving benefits, but we found no evidence to suggest that these benefits could not also be gained from using competing VAPs from other RMX producers. We also expect that a purchaser of Lafarge Tarmac's cement plant that also acquired RMX plants would have the financial incentive to provide not only conventional RMX products, but also VAPs (given the higher price achievable on VAPs).

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<sup>567</sup> A report on the anticipated construction materials joint venture between Anglo American PLC and Lafarge S.A., [Appendix Y](#), paragraph 51.

<sup>568</sup> [ibid](#), [Appendix Y](#), paragraph 44.

5.40 Therefore, we concluded that, whilst Lafarge Tarmac's own VAP offering may not be available to customers of any divested RMX plants, the scale of such losses was likely to be very small given the small number of RMX plants likely to be divested and the availability of alternative and competing VAPs from other suppliers. Any potential harm would be further mitigated by RMX customers who value Lafarge Tarmac's VAP offering to continue their RMX purchases from sites to be retained by Lafarge Tarmac and/or by the purchaser of Lafarge Tarmac's cement plant and RMX plants developing and offering its own VAPs to its customers, as it would have incentives to do so.

*RCBs arising from transparency of market information*

5.41 A number of parties submitted that the publication of cement market data by the MPA and BIS brought benefits to customers, producers, potential entrants and government and industry bodies.

5.42 BIS indicated that the data it published was primarily used for market and economic information by Government and industry bodies, including construction trade associations,<sup>569</sup> and that its own investigations indicated that cement data was a good predictor of construction output.<sup>570</sup> It added that if the data was embargoed for longer than one month, no forecasting model would be able to use it,<sup>571</sup> and that it could not use cement data that was six months old for forecasting construction market performance.<sup>572</sup>

5.43 The MPA considered that restricting access to market data except via a Government source would stifle effective market analysis and innovation.<sup>573</sup> It believed that the

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<sup>569</sup> [BIS response to Remedies Notice](#), paragraph 9.

<sup>570</sup> *ibid*, paragraph 10.

<sup>571</sup> *ibid*, paragraph 11.

<sup>572</sup> [BIS response hearing summary](#), paragraph 2.

<sup>573</sup> [MPA response to Remedies Notice](#), paragraph 1.4.

generation of consistent, managed and transparent data was what the Government was trying to encourage and would relieve the administrative burden from government departments.<sup>574</sup> The MPA told us that through the enquiries it received as a trade association, from a wide range of stakeholders, journalists and the construction industry, there was demand for more data and a sense of where the market was going, in order to inform investment decisions and business planning.<sup>575</sup>

- 5.44 The MPA set out the following ‘pro-competitive benefits’ derived from the published MPA cement and cementitious data, stating that the data:<sup>576</sup>
- (a) provided regular and consistent aggregated historic market data to support efficient business planning in the cement and cementitious industries;
  - (b) assisted potential new entrants to the industry and in the supply chain to assess the market;
  - (c) provided timely data to Government and its various agencies and organizations such as the Bank of England, to help assess UK economic and construction market conditions and activity levels to support policy developments;
  - (d) enabled financial institutions to provide intelligence on UK market conditions and investment opportunities; and
  - (e) helped the UK Government and the EU to assess carbon and other emissions against their targets in order to regulate the EU ETS and to monitor progress on a transition to a low carbon economy.
- 5.45 Cemex also told us that the publication of MPA and BIS data assisted it with planning its cement production volumes.<sup>577</sup>

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<sup>574</sup> [MPA response hearing summary](#), paragraph 11.

<sup>575</sup> *ibid*, paragraph 12.

<sup>576</sup> [MPA response to Remedies Notice](#), paragraph 7.1.

<sup>577</sup> [Cemex response hearing summary](#), paragraph 17.

- 5.46 Hanson told us that a time lag in the publication of MPA and BIS data of three months would not unduly affects its planning but a delay up to six months would be damaging to the industry's ability to allow efficient business and production planning.<sup>578</sup> It was also concerned that restricting regional coverage of data would prevent it from making informed decisions regarding logistics of its regional operations.<sup>579</sup>
- 5.47 Brett Group considered that the publication of cement market data was an important part of its knowledge from a procurement perspective in relation to: [✂].<sup>580</sup>
- 5.48 Based on the above submissions from parties, it is difficult to identify the exact nature of any benefits to customers arising from publication of the cement market data, ie such that it leads to lower prices, higher quality or greater choice of goods or services in any UK market. For example, one possible potential benefit may be that the publication of this data would assist recipients of the data and decision makers to reach better informed decisions, which would in turn save costs.
- 5.49 However, given that our remedy in relation to the MPA and BIS cement market data does not prohibit its publication, but delays its publication from one to three months, we concluded that any benefits of publishing this data were largely retained by our remedy. We also concluded that the change in the time lag for publication of this data would not unduly remove the efficacy of the data. We concluded that, to the extent there was an RCB arising from this data, this RCB would not be materially reduced as a result of introducing our proposed remedy.

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<sup>578</sup> [Hanson response hearing summary](#), paragraph 40.

<sup>579</sup> *ibid*, paragraph 42.

<sup>580</sup> [Brett Group response hearing summary](#), paragraph 20.

*RCBs arising from generic price announcement letters*

5.50 We noted that some parties indicated that there were benefits from sending or receiving generic price announcement letters for cement:

- (a) Aggregate Industries considered that the use of price announcement letters in general was an efficient way of communicating forecast price increases to customers, and added that they enabled customers to plan ahead for increases in prices. Therefore, it believed that price announcement letters gave rise to significant 'relevant customer benefits'.<sup>581</sup>
- (b) Cemex considered that a blanket prohibition on sending generalized price letters to customers would be disproportionate and would create transaction costs for both cement producers and customers.<sup>582</sup>
- (c) Hanson suggested that customers needed to have suitable advance notice of any price increases for business planning purposes (and that the current practice of sending out letters in advance to customers has arisen due to customer requirements).<sup>583</sup>
- (d) CPV (Dragon Alfa) noted that generalized price announcement letters provided an indication of what the GB cement producers wanted to achieve and in turn, what it should be doing with its own prices. It added that it had used the generalized price announcement letters it received in its negotiations with its own customers.<sup>584</sup>
- (e) Brett Group told us that it found generalized cement price announcement letters helpful and it expected to be written to by cement suppliers with regard to prices going forward.<sup>585</sup>

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<sup>581</sup> [Aggregate Industries response to Remedies Notice](#), paragraph 5.2.

<sup>582</sup> [Cemex response to Remedies Notice](#), paragraph 5.8.

<sup>583</sup> [Hanson response to Remedies Notice](#), paragraph 7.10.2.

<sup>584</sup> [CPV \(Dragon Alfa\) response hearing summary](#), paragraph 20.

<sup>585</sup> [Brett Group response hearing summary](#), paragraph 19.

5.51 Lafarge Tarmac told us that price announcement letters were still in demand from customers who used them for budgetary and negotiating purposes, but did not oppose the prohibition of generalized letters. It considered that whilst the prohibition of generalized letters would result in some additional administration costs, it would be of benefit to the industry as it would focus cement companies on negotiating individually with their customers.<sup>586</sup>

5.52 However, the following parties did not believe that generalized letters provided any benefits to customers:

(a) Breedon Aggregates told us that it could not see the ‘customer benefit’ in receiving generalized price announcement letters and would prefer to receive a personalized letter from a particular cement supplier when it was a natural point of the relationship to discuss price rather than receive a generalized price announcement letter along with every other purchaser of cement.<sup>587</sup>

(b) MI (HCM) told us that it could see the ‘customer benefit’ argument of receiving generalized price increase letters but considered the argument rather light.<sup>588</sup>

5.53 Based on the evidence we received, we concluded that any benefits associated with generic price announcement letters could be retained, if not enhanced, if cement customers were to communicate with customers specifically by reference to their own terms and conditions (as permitted by our proposed remedy measure in Figure 3.3 above) rather than simply communicating an aspiration for a market-wide price increase as currently happens. We therefore concluded that the practice of sending generic price announcement letters did not give rise to any RCBs.

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<sup>586</sup> [Lafarge Tarmac response hearing summary](#), paragraph 38.

<sup>587</sup> [Breedon Aggregates response hearing summary](#), paragraph 20.

<sup>588</sup> [MI/HCM response hearing summary](#), paragraph 37.

## *Conclusions on RCBs*

5.54 Having considered a variety of potential RCBs, we concluded that there was no evidence to suggest that the introduction of our proposed package of remedies would result in a material loss of RCBs. We therefore provisionally decided not to alter our proposed package of remedies to take account of RCBs.

## **6. Effectiveness and proportionality of the proposed package of remedies**

6.1 Based on the assessment in Sections 3 to 5 above, we have proposed the following measures to be included within the package of remedies:

- (a) Divestiture of Lafarge Tarmac's Caudon or Tunstead plant (see Figure 3.1 and paragraphs 3.4 to 3.183).
- (b) Two measures aimed at reducing the extent of market transparency (the 'transparency-reduction measures'):
  - (i) Restrictions on the publication of GB cement market data (see Figure 3.2 and paragraphs 3.184 to 3.231).
  - (ii) A prohibition of the practice of issuing generic cement price announcement letters (see Figure 3.3 and paragraphs 3.232 to 3.269).
- (c) Measures to increase competition in the GGBS supply chain (see Figure 3.4 and paragraphs 3.270 to 3.482).

6.2 In the remainder of this document, we set out our provisional views on the following:

- (a) How the package of remedies addresses the AECs and/or resulting customer detriment (paragraphs 6.3 to 6.24).
- (b) Other aspects of the effectiveness of our proposed package of remedies (paragraphs 6.25 to 6.45).
- (c) The proportionality of our proposed package of remedies (paragraphs 6.46 to 6.128).
- (d) Our provisional decision on remedies (paragraphs 7.1 and 7.2).

### ***How the package of remedies addresses the AECs and/or customer detriment***

- 6.3 We discussed the rationale for each element of the proposed package of remedies in Section 3. In paragraphs 6.6 to 6.24, we set out how the elements in the package of remedies work together to remedy the AECs and the resulting customer detriment that we have provisionally found.
- 6.4 We consider first how the elements of the proposed package of remedies would address the Coordination AEC and the customer detriment that arises from that AEC. We then consider how the elements of the package of remedies would address the AEC in GGBS and the GGBS-related AEC in the GB cement markets and the customer detriment that results from these AECs.
- 6.5 As noted in paragraph 1.3, we have published on 8 October 2013 for consultation our Addendum to PFs setting out further evidence and analysis of the market for GGBS and of the implications of the operation of that market for competition in the closely-related GB cement markets. We will consider all responses to this consultation carefully and will take them into consideration, both in relation to our final decision as to whether or not there are features of any relevant market that give rise to an AEC and in relation to the remedies that are necessary to address any AECs that we find.

### ***Addressing the Coordination AEC and resulting customer detriment***

- 6.6 The proposed divestiture of either the Cauldon or Tunstead plant to a new entrant into cement production in GB, along with any RMX and other operations necessary to achieve an effective disposal, is at the heart of the package of remedies that we have provisionally decided to be necessary to address the Coordination AEC. This divestiture would represent a limited but important change that will have a substantial effect on the GB cement markets, creating a new fifth GB cement producer, disrupting

existing patterns of behaviour and significantly reducing the ability and incentive for any group of GB cement producers to sustain a coordinated outcome in future.

6.7 This divestiture would be supported by two measures designed to reduce market transparency: restrictions on the publication of cement market data and a prohibition of the practice of issuing generic cement price announcement letters. While either of these measures would have a relatively limited impact if introduced on its own, they reinforce the impact of structural change, by reducing the effectiveness of two of the mechanisms through which we have provisionally found coordination to be sustained. In this way, these measures help deliver the break with past behaviour that we are seeking to achieve and contribute to preventing the re-establishment of coordination at a future date.

6.8 Taken together, we would expect the proposed divestiture and the measures to reduce market transparency significantly to affect each of the three conditions necessary for coordination to be sustained and thereby disrupt the existing coordination that we have provisionally identified:

- (a) The ability of GB cement producers to reach an understanding and to monitor the terms of coordination will be significantly reduced by the creation of a fifth GB cement producer. The reduction in market transparency and increase in strategic uncertainty that would result from the proposed divestiture would make it more difficult for the Top 3 cement producers to detect changes in each other's behaviour and anticipate the actions of the other market participants, which would now include both the new cement producer and HCM. The changes to the informational environment resulting from the two transparency-reduction measures would reinforce this effect.
- (b) The divestiture of either the Cauldon or Tunstead plant would significantly reduce Lafarge Tarmac's incentives to coordinate with other GB cement producers. The

incentives on other GB cement producers to coordinate are likely to be reduced indirectly as a result of: (i) a reduction in the likelihood that deviations from coordination would be detected; (ii) changes to Lafarge Tarmac's behaviour; and (iii) an increase in the external constraint on any coordinating group.

(c) The external sustainability of coordination would be significantly reduced.

Following the proposed divestiture, we would expect at least two GB cement producers, rather than one (ie HCM) as at present, to stand outside any coordinating group. The proportion of the market supplied by the Top 3 cement producers will be reduced and they will face competition from a wider variety of sources.

6.9 We would expect the measures that we have proposed to increase competition in the GGBS supply chain to disrupt further existing patterns of behaviour, by increasing the strength of the competitive constraint on GB cement producers from GGBS providers. Our proposal to prevent any GB cement producer from acquiring divested GGBS or GBS operations will have the effect of introducing new competitors to these closely-related markets, adding significantly to the increase in strategic uncertainty in the GB cement markets introduced by the other remedies.

*Addressing the AEC in GGBS, the GGBS-related AEC and the resulting customer detriment*

6.10 We have proposed a number of measures to increase competition in the GGBS supply chain. These measures involve divestitures of two GGBS plants by Hanson and two GBS plants by Lafarge Tarmac.

6.11 We expect that these measures will remedy the AEC in GGBS and the GGBS-related AEC in the GB cement markets that we have provisionally found by addressing at source the various market features that give rise to the situation in which Hanson alone has the ability to sell GB-produced GGBS and where the GGBS supply chain is controlled by two of the Top 3 cement providers. We expect the consequence of

introducing this remedy to be a situation in which there are two or more competing suppliers of GGBS, at least one of whom is not a GB cement producer. To ensure the effectiveness of this remedy in addressing the underlying causes of these AECs, and to ensure that the remedy does not simply result in Hanson's current market power being exercised by Lafarge Tarmac one stage further up the supply chain, we have also required divestitures at the GBS level from Lafarge Tarmac.

- 6.12 We expect that the overall impact of these measures will be to put downward pressure on GGBS prices, driving them towards competitive levels. This in turn would address the distortion caused by the current operation of the GGBS supply chain in the GB cement markets and hence would also be expected to reduce the price of cement.
- 6.13 The impact of the interventions that we have proposed in relation to GGBS would be reinforced by the other measures. In particular, we expect that effective remedies to address coordination in the GB cement markets are likely to put downward pressure on cement prices. This in turn would constrain the extent to which it is possible for GGBS prices to exceed competitive levels, given that at current GGBS prices, we have found cement prices to provide a 'ceiling' for GGBS prices. While we do not consider that these other measures aimed at remedying coordination in the GB cement markets would directly address the causes of the AEC in GGBS or the GGBS-related AEC, or be sufficient to remove fully the customer detriment resulting from these AECs, they would nonetheless support the measures to increase competition in the GGBS supply chain and increase the likelihood of a comprehensive and lasting solution to these AECs.

### *Conclusions on how the package of remedies addresses our concerns*

- 6.14 The package of measures that we have proposed contains significant, high impact measures capable of addressing the AECs that we have provisionally identified at their source. While we have identified distinct measures targeted at the causes of the Coordination AEC on the one hand, and the causes of the AEC in GGBS and the GGBS-related AEC on the other hand, the actions proposed to address each of these AECs also contribute to addressing the others.
- 6.15 We considered whether this package of measures could be judged to represent a comprehensive solution to these AECs and the customer detriment that flows from them.
- 6.16 In relation to the Coordination AEC, our analysis of the impact of the remedies on the conditions for coordination in paragraphs 6.8 and 6.9 strongly suggested to us that, by addressing the underlying causes of coordination (including in particular the structural causes), the proposed remedies would reduce the likelihood of future coordination substantially and hence would be an effective solution to this AEC. However, we also considered a number of arguments as to why, nonetheless, coordination might still remain even with these remedies in place.
- 6.17 We noted first that the package of remedies did not include specific measures to address every feature of the GB cement markets that we have provisionally found to contribute to the Coordination AEC. For example, we have provisionally decided not to require the divestiture of RMX plants, or otherwise to reduce materially the extent of vertical integration from cement into downstream RMX operations. Similarly many of the barriers to entry (eg the high costs of building a new cement plant) and some aspects of the market that enhance transparency (eg the nature of buyer–supplier relationships) are not readily capable of change.

- 6.18 We did not consider it necessary, however, to address directly every market feature that leads to the Coordination AEC in order to achieve a comprehensive solution.<sup>589</sup> We took the view that the substantial structural change that we have proposed, taken together with the measures to reduce certain of the more addressable aspects of market transparency along with the reforms proposed to the GGBS supply chain would be sufficient to undermine coordination and thereby generate increased competition without the need for further measures.
- 6.19 We next considered the possibility that the divestiture of one cement plant—and the creation of a single new GB cement producer—might be insufficient to undermine coordination and generate increased competition. In this context, we had regard to our provisional finding that the divestiture of the Hope plant to MI (HCM), taken together with the creation of Lafarge Tarmac was unlikely to be sufficiently market-disrupting to undermine the AEC.<sup>590</sup>
- 6.20 We acknowledged that coordination was still conceivable within a more fragmented market structure. However, we judged that the complexity of achieving effective coordination is likely to increase substantially with the number of major market participants. Unlike the situation giving rise to the entry of HCM, the divestiture that we are proposing will affect the number of GB cement producers, rather than (in effect) replacing Tarmac with HCM, which resulted in no change to the number of GB cement producers. Moreover, the divestiture would have the effect of removing around 1 Mt of production capacity (equivalent to around 10 per cent of market output) from the Top 3 cement producers, placing it in the hands of an independent new competitive force. By way of comparison, the net effect of the divestiture of the Hope plant and the creation of Lafarge Tarmac was the removal of around 0.5 Mt of pro-

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<sup>589</sup> This is consistent with the approach taken in the Guidelines (see [paragraph 332](#)—‘the remedy that is ultimately selected need not directly address every feature identified, if for example, tackling a subset of features directly would be sufficient to generate effective competition and thereby remedy the AEC.’)

<sup>590</sup> Provisional findings, paragraph 8.281.

duction capacity from the Top 3 cement producers (ie around half of the impact of divesting either the Cauldon or Tunstead plant), with no change to the number of GB cement producers. Moreover, to the extent that GGBS is a substitute for cement, placing GGBS capacity in the hands of one or more independent competitors will also indirectly undermine the ability and incentives of GB cement producers to coordinate. We considered that these changes to market structure, taken together with the other measures in our proposed package of remedies, were sufficiently material to reduce the likelihood of coordination without the need for further divestitures.

6.21 Thirdly, we considered whether, by making Lafarge Tarmac more similar to Cemex and Hanson in certain dimensions (eg number of plants, market share and, under certain circumstances, the level of vertical integration) a divestiture of either the Cauldon or Tunstead plant would increase rather than reduce the likelihood of coordination. We noted that, while firms that are relatively symmetric may more easily respond to incentives to reach an understanding with each other, the current asymmetries between the Top 3 cement producers had not prevented coordination from being sustained during the period covered by our investigation. We have seen no evidence that Lafarge's differences from the other GB cement producers, prior to the formation of Lafarge Tarmac, had caused it to compete more vigorously with them. We took the view that the impact of having a larger number of GB cement producers and the entry of a new competitive force was likely to outweigh any potential impact on incentives of the Top 3 cement producers to coordinate that might arise from increased symmetry in certain dimensions.

6.22 While there is inevitably some risk that any package of competition-enhancing measures might not be effective—particularly in the context of a market in which coordination has been present for a significant period of time—we concluded that the

measures we have identified provide a comprehensive solution to the Coordination AEC.

- 6.23 In relation to the AEC in GGBS and the GGBS-related AEC, we took the view, based on our analysis in paragraphs 3.270 to 3.482 and paragraphs 6.10 to 6.13, that our proposed measures would get to the heart of the problems that we have provisionally identified and, should our provisional findings be confirmed in our final report, would represent a comprehensive and effective solution to those AECs. This view is reinforced by our expectation that the GB cement markets will also become more competitive, as a result of the introduction of our proposed package of remedies to the Coordination AEC, increasing the competitive pressures facing GGBS providers.
- 6.24 We concluded that our proposed package of remedies would comprehensively remedy the three AECs we have provisionally identified by tackling their underlying causes. By so doing, we expected that the customer detriment arising from these AECs would also be addressed, as it would no longer be possible to sustain higher cement or GGBS prices in the more competitive environment that we would expect to prevail, if our proposed remedies were put in place.

### ***Other aspects of the effectiveness of the proposed package of remedies***

- 6.25 For the reasons set out above, we have provisionally concluded that this package of remedies will be effective in targeting the underlying causes of the AECs. In evaluating the effectiveness of our package of remedies, we have considered the following further factors:<sup>591</sup>

- (a) the extent to which the remedy measures are capable of effective implementation, monitoring and enforcement;
- (b) the timescale over which the remedy measures will take effect;

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<sup>591</sup> See the Guidelines, paragraphs 334–341.

- (c) consistency with existing and likely future laws and regulations; and
- (d) coherence as a package of remedies.

### *Implementation, monitoring and enforcement*

- 6.26 In developing each of the remedy measures, we have considered how each remedy measure could best be implemented, monitored and enforced.
- 6.27 Our detailed consideration of how each measure could be implemented is set out in our assessment of each option. In summary, we have provisionally concluded that:
- (a) The divestiture of either the Cauldon or Tunstead plant could be implemented by means of either accepting undertakings from Lafarge Tarmac or, if necessary, making an Order requiring Lafarge Tarmac to carry out the divestiture.
  - (b) The restrictions on the publication of GB cement market data could be implemented by means of accepting undertakings from the MPA and introducing an Order constraining the behaviour of the GB cement producers.
  - (c) A prohibition of the practice of issuing generic cement price announcement letters would most effectively be implemented by means of an Order.
  - (d) The measures to increase competition in the GGBS supply chain could be implemented by means of accepting undertakings from Lafarge Tarmac and Hanson to implement the necessary divestitures or, if necessary, making an Order.
- 6.28 Our detailed consideration of the monitoring and enforcement of each measure is set out in set out in our assessment of each option. In summary, we have provisionally concluded that:
- (a) Divestiture of either the Cauldon or Tunstead plant—in line with our normal practice, the CC would oversee the divestiture process with the assistance of a monitoring trustee. Once an effective disposal has been achieved, we do not anticipate a need for further ongoing monitoring.

- (b) Responsibility for monitoring compliance with the restrictions on the publication of GB cement market data would fall to the OFT, or after 1 April 2014, the CMA. In our view the terms of the obligations on the MPA and other parties are clear and capable of being effectively monitored.
- (c) Responsibility for monitoring compliance with the prohibition of the practice of issuing generic cement price announcement letters would again fall to the OFT (or the CMA after 1 April 2014). The terms of these obligations on GB cement suppliers are clear and are capable of being effectively monitored. We would also expect cement customers to report any return to the practice of sending generic price announcement letters.
- (d) The CC would oversee implementation of the divestiture of GGBS and GBS plants, again with the assistance of a monitoring trustee. Once these disposals have been achieved, we would not anticipate a need for further ongoing monitoring.

6.29 We provisionally concluded that each of the measures was capable of effective implementation, monitoring and enforcement. Once the divestitures have been implemented, we would expect ongoing monitoring and compliance costs of the package of remedies to be very small.

*Timescale over which the remedy measures will take effect*

6.30 In evaluating the timescale over which the remedy measures within our proposed package of remedies are likely take effect, we considered:

- (a) the time that it is likely to take to implement the remedy measures following publication of our final report; and
- (b) the time that it is likely to take for the remedy measures, once implemented, to remedy the AECs and the resulting customer detriment.

- 6.31 The implementation of remedies following a CC investigation typically involves two stages. In the first stage, the CC agrees undertakings with the relevant parties or makes an Order. This includes a period of formal public consultation, as specified in Schedule 10 to the Act. In the second stage, the parties subject to any undertakings or Order take the action required by the CC.<sup>592</sup>
- 6.32 For straightforward remedies, the CC expects to make an Order or accept undertakings within around six months of publication of its final report. The implementation of more complex remedies may take longer, though the CC expects to accept undertakings or make an Order within ten months from publication of its final report, other than in exceptional circumstances.<sup>593</sup> Our current view is that it is both realistic and desirable to aim to conclude this first stage of the remedy implementation process within six months of publication of our final report. In any case, we do not anticipate there being any exceptional circumstances that would lead to implementation of our proposed package of remedies taking longer than the timescales set out in our guidance.
- 6.33 Once undertakings have been agreed, or an Order made, the timescale for action to be taken will vary according to the remedy in question. We would expect the two transparency-reduction measures to come into force, either at the same time as the CC accepts undertakings or makes an Order, or very shortly afterwards. Our provisional decisions in relation to the timescale for implementation of the cement plant and GGBS/GBS plant divestitures are set out in paragraphs 3.182 and 3.471. These would allow a period of up to [X] months for Lafarge Tarmac to implement the cement plant divestiture, up to [X] months for Hanson to implement the GGBS plant divestitures and up to [X] months for Lafarge Tarmac to implement the GBS plant

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<sup>592</sup> The action required by the CC may be a one-off action (eg to implement a divestiture) or a continuing commitment (eg to comply with a behavioural remedy).

<sup>593</sup> The Guidelines, [paragraph 89](#). These timescales are consistent with the statutory timescales that will apply to remedy implementation under the CMA.

divestitures. In each case, this divestiture period would run from the date on which the CC accepts final undertakings or makes a final Order as the case may be.

- 6.34 We would therefore expect that implementation of all elements of our remedy package would be achieved within [18 months to three years] of publication of our final report.
- 6.35 Once implemented, we would expect the divestiture of either the Cauldon or Tunstead plant to have an immediate disruptive effect on coordination in the GB cement markets, as the new entrant sought to implement an independent commercial strategy and develop its customer base, and as cement customers benefited from an additional source of GB-produced cement. We would expect the positive impact of this measure to grow over time, as the new entrant developed its competitive capabilities and other GB cement producers sought to adjust their own strategies to the new, more competitive environment. We also expect the transparency-reduction measures to have an immediate effect on competitive conditions within the GB cement markets, though on their own, we would expect their impact to be more modest.
- 6.36 We would similarly expect the measures to increase competition in the GGBS supply chain to result in an immediate change to market structure, once the divestitures have been implemented, and that this would rapidly change the conduct of market participants and result in better outcomes in the cement and GGBS markets. As with the other remedies, we would expect the beneficial impact of these measures to grow over time, as the new entrants put in place their independent commercial strategies and develop their competitive capabilities.

6.37 Overall, we would expect our package of remedies to be in place and to have a substantial beneficial impact on competition and on market outcomes within a relatively short timescale (of around [18 months to three years]) following publication of our final report. We would expect this beneficial impact to grow over time, such that we would expect the full benefits of increased competition to be realized within five years of publication of our final report.

### *Consistency with existing and likely future laws and regulations*

6.38 As part of our consideration of the design of each of the measures in our proposed package of remedies in Section 3, we considered whether any elements of this package would be inconsistent with other relevant laws and regulations applicable to the GB cement markets or related sectors. We did not identify any such inconsistency in relation to any specific measure.

6.39 A number of parties put forward more general arguments about our ability to take action in the light of ongoing or previous earlier investigations under competition law:

(a) Lafarge Tarmac noted that in 2012, the CC required an extensive set of divestiture remedies from Lafarge and Anglo American as a condition of its approval for the creation of Lafarge Tarmac. Lafarge Tarmac submitted that to impose a further divestiture on Lafarge Tarmac now would be disproportionate, unfair, and would breach the legitimate expectations of Lafarge Tarmac's shareholders, Anglo American and Lafarge.<sup>594</sup>

(b) Lafarge Tarmac further submitted that the CC was legally required to acknowledge the limits on its power to order remedies. In this context, Lafarge Tarmac noted that the OFT had taken the step of referring this sector to the CC even though it was aware of the European Commission's ongoing investigation. Without suggesting that there had been any breach, Lafarge Tarmac submitted

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<sup>594</sup> [Lafarge Tarmac response to provisional findings and Remedies Notice](#), paragraph 191c).

that, to the extent that any agreement or practice potentially fell within the scope of Article 101, the CC's powers would necessarily be subject to Article 3 of Council Regulation 1/2003.<sup>595</sup> More generally, in considering the need for any remedies arising from this market investigation reference, including the proportionality of any such remedies, the CC will be cognizant of the ongoing investigation by the European Commission.<sup>596</sup>

(c) Hanson submitted that the BFS and GBS agreements were fully disclosed to and visible to the European Commission at the time it assessed the merger between HeidelbergCement and Hanson. Hanson told us that the European Commission reviewed the arrangements (as recently as in 2007) and had no concerns regarding the arrangements or otherwise requiring remedial actions or any form of undertakings. Rather, the European Commission approved the relevant merger in Phase I.<sup>597</sup> Hanson further submitted that the European Commission merger decision gave HeidelbergCement a legitimate expectation that the interrelationship between Hanson's cement business with both RMX and GGBS did not have an anticompetitive effect. Therefore, it submitted that as there had been no material change in circumstance since this acquisition, it would be disproportionately detrimental to HeidelbergCement and Hanson to order structural remedies.<sup>598</sup>

(d) Hanson also stated that if the agreements were to be analysed under Article 101 (or 102) of the Treaty on the Functioning of the European Union (TFEU), the analysis would take into account the position of GGBS within the wider cementitious products sector. In this regard, Hanson stated that the limited scope for impact on the wider cementitious sector, of which it estimated GGBS production was equivalent to only around 12.5 per cent, would generally be critical to the assessment. Hanson stated that this would suggest no scope for intervention

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<sup>595</sup> Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 (now Articles 101 and 102) of the Treaty.

<sup>596</sup> [Lafarge Tarmac response to provisional findings and Remedies Notice](#), paragraph 5.

<sup>597</sup> [Hanson response to provisional findings](#), paragraph 28.47.

<sup>598</sup> [Hanson's response to Remedies Notice](#), paragraph 4.17.

under TFEU and that it would be perverse of the CC to intervene in the same arrangements, ostensibly applying similar principles of competition analysis.<sup>599</sup>

- 6.40 The submissions in paragraph 6.39(b) to (d) each relate to the interaction between UK and EU competition law, a more detailed assessment of which may be found in Appendix 7. Our views on each of the points raised in paragraph 6.39 are as follows:
- (a) We see no grounds for Lafarge Tarmac's submission that either it or its shareholders has any legitimate expectation that the CC would avoid imposing a divestiture on Lafarge Tarmac, as a result of its earlier decision to accept a divestiture remedy offered by Anglo American and Lafarge as a condition for allowing the Anglo American/Lafarge JV to proceed. The purpose of that divestiture remedy was to prevent a substantial lessening of competition arising as a result of the proposed JV, in particular by preventing the market from becoming more susceptible to coordination (or preventing any existing coordination becoming more effective) than absent the JV. Had Anglo American and Lafarge decided not to proceed with this divestiture, the alternative would have the prohibition of the JV and the continuation of the pre-merger situation. The JV decision did not therefore give rise to any legitimate expectation that no further remedies would be found to be required as a result of the market investigation, as there was nothing in the merger decision to indicate that the operation of GB cement markets absent the JV was that of a well-functioning market.
- (b) We do not agree that the existence of the European Commission's investigation prohibits the CC from proceeding to investigate the markets referred to it by the OFT, or from seeking to remedy the AECs that have provisionally been found. The CC is not aware of any risk of conflict between the CC's findings and the European Commission's investigation. Our focus has been on understanding the functioning of markets and whether the statutory test under the Act has been met.

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<sup>599</sup> *ibid*, paragraph 6.26.

We have kept in touch with the European Commission's investigation and have no reason to believe that we are prohibited from implementing our proposed remedies pending the outcome of the European Commission process.

(c) In our further analysis of GGBS published in the Addendum to PFs, we have taken the analysis contained in the European Commission's decision in relation to HeidelbergCement and Hanson into account in our consideration of the evidence on the operation of the GGBS supply chain.<sup>600</sup> Our view, however, is that the European Commission took the decision in the context of a merger inquiry, strictly assessing: (i) the possible input foreclosure as regards cement producers, RMX producers and other concrete products; and (ii) a possible link between the sales of cement and GGBS ('bundling' effect). Moreover, the European Commission assessed the market in 2007. Consequently, the European Commission's assessment on whether that proposed merger could incentivize the merging parties to foreclose the downstream market cannot be decisive for the CC's current market investigation, which pursues an objective different from that pursued by the European Commission in 2007. We therefore disagreed that Hanson had a legitimate expectation that the CC would not intervene in the event that it found any AEC in relation to the operation of the GGBS supply chain with related consequences for the GB cement markets.

(d) Our competitive assessment indicates that the lack of competition in the GGBS market is likely to have resulted in GGBS and cement prices being higher than they would otherwise be if the GGBS market was a well-functioning market. Taken together with our assessment of Hanson's profitability for the supply of GGBS, this indicates that any claimed benefits arising from the BFS and GBS agreements are unlikely to be received by UK customers. Given this, and the analysis summarized in Appendix 7, our current view is that the CC would not be in breach of its Article 3(2) duty by proceeding with the remedial action set out in

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<sup>600</sup> Addendum to PFs, paragraphs 45–51.

this document. However, the CC will keep under review its need to conduct further analysis of the agreements, and in doing so will take account of parties' views on the issues raised in Appendix 7.

6.41 We concluded that there was no conflict between our proposed package of remedies, or any elements within it, and other relevant laws and regulations applicable to the GB cement markets or related sectors.

#### *Coherence as a package of remedies*

6.42 We considered whether the remedy measures contained within our proposed package of remedies were likely to be mutually reinforcing.

6.43 As set out in paragraphs 6.4 to 6.13, there are important synergies between the elements of the package of remedies. The cement plant divestiture and the transparency reduction measures in the package of remedies work together to address each of the conditions necessary for coordination to be sustained, increasing the likelihood that the package of remedies will result in the necessary change in cement market conduct and outcomes and that this change will be sustained over time. The impact of these measures is reinforced by the measures to increase competition in the GGBS supply chain. More generally, the interrelationships between the operation of the GGBS and cement markets mean that measures that are primarily directed at addressing the Coordination AEC will also support measures that primarily address the AEC in GGBS and the GGBS-related AEC and vice versa. We did not identify any ways in which the objectives of the various elements of the package of remedies could come into conflict.

6.44 We therefore concluded that this represents a coherent package of remedies, whose elements are mutually reinforcing.

### *Conclusions on the effectiveness of the proposed package of remedies*

6.45 We have provisionally concluded that the proposed package of remedies represents a comprehensive and effective solution to the Coordination AEC, the AEC in GGBS and the GGBS-related AEC in the GB cement markets.

### ***The proportionality of the proposed package of remedies***

6.46 Many of the matters that we have discussed in paragraphs 6.1 to 6.45 above relating to the effectiveness of our remedy measures, and our consideration in Section 4 of alternative remedy measures, relate directly to the issue of proportionality.

6.47 In paragraphs 6.58 to 6.127 below, we state four key questions, and our approach to them, that have heavily influenced our approach to remedies. However, in addition to the detailed analysis in those paragraphs, a number of broader considerations have had a pervasive influence on our choice of remedy measures and on our thinking about proportionality.

6.48 We fully acknowledge that some of the measures that we are proposing to take forward—namely the divestiture of either the Cauldon or Tunstead plant, and the measures necessary to increase competition in the GGBS supply chain—are substantial interventions in the operation of these markets and will involve significant disruption to the parties from whom divestitures are sought.

6.49 We considered whether such measures were so onerous that they were inherently disproportionate. We took the view that, where necessary to address a serious competition problem, divestiture remedies can be justified as an outcome of a market investigation and the Act and the CC's guidance clearly contemplate this possibility. Should we decide to include these remedies in our final report, we would seek to

design and implement any divestiture process in such a way as to give the divesting parties the opportunity to earn a fair market value.

6.50 We also gave careful consideration to Lafarge Tarmac's submission that the CC should not penalize one undertaking more than its rivals and, in particular, that a cement plant divestiture remedy targeted at Lafarge Tarmac would have a disproportionate impact on Lafarge Tarmac compared with its rivals.<sup>601</sup> In this context, we similarly considered whether the measures to increase competition in the GGBS supply chain would have a disproportionate impact on Hanson and Lafarge Tarmac.

6.51 Our duties under the Act require us to remedy the AECs and/or resulting customer detriment. It is not the purpose of the market investigation regime or of this investigation to penalize or punish any party. Rather, our aim is to resolve the competition problems that we have identified in the GB cement markets by identifying effective and proportionate solutions to these problems. Against that background, the extent to which our proposed package of measures has a differential impact on the various market participants is determined principally by our fact-based consideration of the specification of the measures contained within it:

(a) Our detailed consideration of the cement plant divestiture remedy is in paragraphs 3.4 to 3.183. Within that section, we considered divestiture of each of the ten GB cement plants as a possible basis for this remedy. Having done this, we identified two plants, both belonging to Lafarge Tarmac which could form the basis of an effective cement plant divestiture remedy. Divestiture of any of the other GB cement plants—including the plants owned by Hanson, Cemex and HCM as well as the other two plants owned by Lafarge Tarmac—would not be similarly effective in addressing the AEC and hence these options have not been pursued.

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<sup>601</sup> [Lafarge Tarmac response to Remedies Notice](#), paragraph 191(a).

(b) We have provisionally decided that the transparency-reduction measures should apply in the same way to all GB cement producers, and in the case of the prohibition on generic price announcement letters to all GB suppliers of cementitious products.

(c) It is inevitable that remedies to increase competition in the GGBS supply chain will have a greater impact on Lafarge Tarmac and Hanson than on other GB cement producers, as only Lafarge Tarmac and Hanson are active in the supply of GBS and GGBS produced within GB.

6.52 The differential impact of our proposed package of remedies on the four GB cement producers is therefore a direct consequence of our overriding duty to remedy the AECs and of the specific circumstances facing us in seeking to carry out this duty. Nor do we consider it unfair or distortionary for Lafarge Tarmac and Hanson to be required to implement additional measures compared with the other GB cement producers. As the largest GB cement producer, Lafarge Tarmac (and previously Lafarge) is the main beneficiary from coordination within the GB cement markets. Similarly, Cemex and HCM are not present in the GGBS supply chain and hence do not benefit directly from the shortcomings of competition in the GGBS supply chain which we are seeking to address. Furthermore, for the reasons summarized in paragraphs 6.93 and 6.118, we would expect Lafarge Tarmac and Hanson to be in a position to achieve a fair value for any divestitures they would be required to make.

6.53 We therefore judged that it would not be inherently disproportionate to require the divestiture of either the Cauldon or Tunstead plant, nor to implement the measures we have proposed to increase competition in the GGBS supply chain. Such steps are not to be taken lightly, however, and in considering whether to take forward these remedies, we gave careful consideration to the significance of the competition problems that we have provisionally identified, the extent to which they were likely to be

'self-correcting' absent effective intervention, and the extent to which they might be addressed by other, less interventionist remedies.

6.54 Based on our assessment as set out in the provisional findings, it is our view that the shortcomings that we have provisionally identified in the operation of the GB cement markets are substantial:

(a) Vigorous rivalry between firms competing independently with one another to win customers' business is at the heart of the competitive process. The substantial body of evidence that we have collected in this investigation clearly indicates that this process has been badly distorted in the GB cement markets, with the three largest producers taking a 'live and let live' approach, coordinating with their rivals rather than seeking to expand their own businesses or to offer better value to their customers. These shortcomings have enabled the GB cement industry to earn profits above their cost of capital during the worst economic downturn for almost a century (see Appendix 1). This level of profitability persisted throughout the six-year period we have considered.

(b) We will pay close regard to the comments we receive on our further analysis of the GGBS supply chain as set out in the Addendum to PFs. Our provisional view, however, remains at this stage that the problems that we have identified as arising in the GGBS supply chain and their effects on the GB cement markets are also significant. The interaction of supplier conduct and other factors has led to a situation in which the supply chain is controlled by two of the Top 3 cement producers, with one provider holding an effective monopoly over the provision of GGBS, itself an important substitute for cement. Our analysis of GGBS profitability—on which we are seeking further comments—suggests there has been substantial overcharging for this product, though this is a provisional view at this stage.

- 6.55 The evidence indicates that the serious problems that we have provisionally identified have been present for at least the whole period over which we have collected detailed evidence, although the extent of coordination has varied over time.
- 6.56 We also consider that these problems are likely to persist absent effective intervention to address their underlying causes. Barriers to entry and expansion in the cement and GGBS markets are high, such that we cannot expect de novo entry, or expansion by smaller players, to undermine coordination in cement or erode significant market power in GGBS over time, as might occur in other markets. These market characteristics also significantly constrain the scope for other forms of remedy—for example, effective market-opening measures are particularly difficult to identify and implement in the presence of high intrinsic barriers to entry.
- 6.57 We have paid close attention to the most recent market developments, in particular the creation of HCM and Lafarge Tarmac in January 2013 and the acquisition by CRH of various import facilities in the first half of this year. We have seen no evidence to suggest that HCM, like Tarmac before it, is doing anything other than pursuing an independent competitive strategy. However, our provisional view remains that HCM's entry into the GB cement markets—which was accompanied by the exit of Tarmac as an independent competitive force, thus resulting in no change to the number of GB cement producers—is insufficient by itself, or in combination with other recent developments, to disrupt long-established patterns of behaviour in the market. We have seen nothing to suggest that Lafarge Tarmac will operate significantly differently from Lafarge or to suggest that the recent acquisitions by CRH will result in importers collectively or individually offering a significantly greater constraint on GB cement producers than in the past.

6.58 Against this background, we evaluated whether our proposed package of remedies would be a proportionate response to the problems we have provisionally found by considering the following key questions:<sup>602</sup>

- (a) Is the package of remedies effective in achieving its aim?
- (b) Is the package of remedies no more onerous than necessary to achieve its aim?
- (c) Is the package of remedies the least onerous if there is a choice?
- (d) Does the package of remedies produce adverse effects which are disproportionate to the aim?

#### *Effective in achieving its aim*

6.59 For the reasons set out in paragraphs 6.3 to 6.45, we provisionally concluded that our proposed package of remedies would be effective in its legitimate aim of remedying the Coordination AEC and the GGBS-related AEC in the GB cement markets, and the AEC in GGBS and the customer detriment that results from them.

#### *No more onerous than necessary*

6.60 In assessing whether the proposed package of remedies is no more onerous than necessary, we considered:

- (a) whether each measure within the proposed package of remedies is required to remedy the AECs that we have provisionally found; and
- (b) whether the design of each remedy measure within the package of remedies is no more onerous than it needs to be.

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<sup>602</sup> The Guidelines, [paragraph 344](#).

*Is each element of the package of remedies needed to achieve a comprehensive solution?*

- 6.61 We considered whether it would be possible to achieve a comprehensive solution to the AECs without implementing all of the measures in our proposed package of remedies.
- 6.62 We considered first, as had been suggested by Cemex, whether the two measures to reduce transparency in our proposed package of remedies would be sufficient, either on their own or in combination with other measures to remedy the AECs.<sup>603</sup>
- 6.63 We did not expect this to be the case for a number of reasons:
- (a) First, the aspects of market transparency that we have been able to address through our proposed package of remedies are not the only aspects of transparency that facilitates coordination. In our provisional findings (see paragraphs 8.162 to 8.164), we identified a number of other important aspects of market transparency that facilitated coordination relating to: intrinsic characteristics of the market (eg the nature of customer-supplier relationships); the structure of the market (eg that it is easier to detect changes in rivals' behaviour if there are fewer rivals); or to aspects that cannot effectively be addressed for legal and/or practical reasons (eg the publication of emissions data under the ETS). Given this, while we consider that there is a benefit in reducing some aspects of market transparency, where this is achievable and at reasonable cost, it is not practicable to eliminate transparency to the extent necessary to undermine the coordination that we have provisionally found.
- (b) Secondly, coordination within the GB cement markets has manifested itself in a particular way, which we have described in our provisional findings. However, given the structural susceptibility of the market to coordination, there is a strong

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<sup>603</sup> [Cemex response to Remedies Notice](#), paragraph 2.5.

risk that coordination would re-establish itself, even if certain market information were no longer available to GB cement producers.

(c) Thirdly, such a remedy would not address our concerns in relation to the GGBS supply chain directly and would rely on an indirect effect via cement prices. Given that the impact of these measures, if introduced without the other elements of the package, on the Coordination AEC would be limited, such an indirect effect is very unlikely to be sufficient to address the AEC in GGBS and the GGBS-related AEC in the GB cement markets.

6.64 We next considered, as suggested by Lafarge Tarmac,<sup>604</sup> whether a combination of the measures to increase competition in the GGBS supply chain with transparency-reduction measures would be sufficient to remedy the AECs without any need for divestiture of a cement plant.

6.65 For the reasons set out in paragraphs 6.10 to 6.13, we took the view that the measures to increase competition in the GGBS supply chain would put downward pressure on GGBS prices and thereby address the GGBS-related AEC in the GB cement markets, as well as addressing the AEC in GGBS.

6.66 However, we were not persuaded that an effective intervention to open up the GGBS supply chain to more competition, while necessary and desirable, would be sufficient to undermine the sustained problems that we have observed as arising from coordination in the GB cement markets. In this context, we noted that the GGBS market is significantly smaller than the GB cement markets, that GGBS is only a partial substitute for cement and concluded that the impact of one or more new GGBS producers on competition in cement was likely to be significantly less disruptive than having a new GB cement producer. Given this, we judged that there was a high risk that

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<sup>604</sup> [Lafarge Tarmac response to provisional findings and Remedies Notice](#), paragraphs 193 & 194.

coordination would remain in the cement market unless we intervened directly in the structure of that market.

- 6.67 Finally, we considered whether a combination of a cement plant divestiture and the transparency-reduction measures would be sufficient to remedy the AECs without any interventions in the GGBS supply chain.
- 6.68 We took the view, for the reasons set out in paragraphs 6.6 to 6.8, that divestiture of either the Cauldon or Tunstead plant when combined with the two measures to reduce transparency would significantly affect each of the three conditions necessary for coordination to be sustained. However, we also took the view, as set out in paragraph 6.9 that the creation of one or more new GGBS producers would add a further significant element of strategic uncertainty to the GB cement markets and hence increase our confidence that the GB cement markets would no longer exhibit the adverse effects of coordination and that these effects would not recur at a later date.
- 6.69 We considered that measures that reduced the extent of coordination in the GB cement markets could also be expected to mitigate the AEC in GGBS and the GGBS-related AEC, in that the downward pressure on cement prices that would result from more competitive cement markets would, in turn, constrain Hanson's ability to exercise market power in GGBS. However, our provisional view of the extent to which GGBS prices are currently above competitive levels suggested to us that a lowering of the price 'ceiling' represented by the price of 'pure' cement (ie CEM I), resulting from reduced coordination, would be insufficient to address fully the AECs resulting from Hanson's market position in GGBS, and that specific action in the GGBS supply chain would be necessary to achieve a comprehensive solution to these AECs.

6.70 We provisionally concluded that all of the measures in our proposed package of remedies were necessary to achieve a comprehensive solution to the three AECs we have provisionally identified.

*Is the design of each remedy measure within the package of remedies no more onerous than it needs to be?*

6.71 Our consideration of the design and implementation of each of the measures is set out in Section 3.

6.72 In reaching our provisional decisions on remedy design, we have sought to avoid imposing costs and restrictions on parties that go beyond what is needed to achieve an effective remedy. For example, we have sought to avoid unnecessary restrictions on the specification of the divestiture packages for cement, GGBS and GBS plants and have given the divesting party a choice of which plants to divest, where this can be achieved without compromising effectiveness. We have sought to strike a similar balance in terms of remedy implementation, for example in determining the period over which a divestiture might be achieved.

6.73 In this way, we have ensured that no measure within the proposed package of remedies is more onerous than it needs to be, in order to address the AECs.

#### *Conclusion*

6.74 We provisionally concluded that our proposed package of remedies was no more onerous than necessary in order to remedy the AECs and resulting customer detriment.

*Least onerous if there is a choice*

- 6.75 If the CC is choosing between two remedy measures which appear to be equally effective, it should choose the remedy measure that imposes the least cost or is least restrictive.
- 6.76 In addition to the measures included in our proposed package of remedies, we also considered a variety of other possible ways of addressing the AECs and/or customer detriment. These included measures that we had put forward ourselves for consideration and measures that were put to us by parties in response to the Remedies Notice.
- 6.77 Our consideration of these alternative measures is set out in Section 4. We found that each of these alternative measures was of limited effectiveness and/or was not needed to remedy the AEC, if the measures in our proposed package of remedies were pursued. We were not able to identify an alternative package of measures that would be less onerous and effective in remedying the AECs. However, we took care to avoid including measures in our proposed package of remedies that did not make a material contribution to remedying the AECs.
- 6.78 We provisionally concluded that, to the limited extent that we have a choice between effective remedies, we have identified the package of remedies that imposes the least cost and is least restrictive.

*Does not produce disadvantages which are disproportionate to the aim*

- 6.79 We considered whether our proposed package of remedies, or any specific measure within it, was likely to produce disadvantages which were disproportionate to the aim of remedying the AECs and the customer detriment resulting from them.

6.80 In reaching a judgement about whether to proceed with a particular remedy, the CC will consider its potential effects—both positive and negative—on those persons most likely to be affected by it. The CC will pay particular regard to the impact of remedies on customers. The CC will also have regard to the impact of remedies on those businesses subject to them and on other affected parties, such as other businesses (eg potential entrants, or firms active in upstream or downstream markets), government and regulatory bodies, the OFT and other monitoring agencies.<sup>605</sup>

*Cement plant divestiture and transparency-reduction measures*

6.81 We consider first those measures which have the primary aim of remedying the Coordination AEC (ie the divestiture of either the Cauldon or Tunstead plant, and the two transparency-reduction measures).

- *Benefits of the remedies*

6.82 We expect that these measures will address several of the underlying causes of the Coordination AEC (see paragraph 6.68) and that, in combination with the proposed measures to increase competition in the GGBS supply chain, will provide a comprehensive solution to the AECs (see paragraphs 6.6 to 6.24).

6.83 By addressing several of the underlying causes of coordination, we would expect these measures to benefit cement customers—including both direct customers (such as concrete producers) and customers further down the supply chain—making a substantial contribution towards eradicating the customer detriment of high cement prices resulting from the Coordination AEC.

6.84 Our revised assessment of the profitability of GB cement producers is set out in Appendix 1. This analysis indicates that over the period 2007 to 2012, the GB

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<sup>605</sup> The Guidelines, [paragraph 348](#).

cement producers earned returns in excess of the cost of capital equivalent to approximately £30 million on average each year (see Appendix 2, Table 1). This analysis provides an indication of the extent of customer detriment that has been experienced during the period over which we have collected our evidence.

6.85 However, we consider that this estimate of customer detriment substantially underestimates the harm to customers that would be avoided by the introduction of effective measures to remedy the Coordination AEC. The period that we have investigated includes a very severe and prolonged economic downturn. When construction demand and the wider economy recovers, we would expect cement prices to rise and the profitability of GB cement producers to increase, given the competitive shortcomings that we have identified in this sector. In this context, we noted that the application of a cost-based estimate of customer detriment, which uses a methodology that is less heavily impacted by the economic cycle than profitability analysis, generated a significantly higher estimate of customer detriment, in the region of £92 million in 2011 (see Appendix 2, paragraphs 10 to 88). As set out in that appendix, there are, however, some reasons why this cost-based estimate is likely to overstate the extent of the customer detriment.

6.86 We took the view that the extent of annual customer benefits that could result from the implementation of effective measures to address the Coordination AEC was likely to lie above the estimate generated by our profitability analysis, but below the estimate derived from our cost-based assessment. We also noted that measures to address coordination in the GB cement markets would reinforce the impact on the GGBS-related AEC and the AEC in GGBS. Given this we considered that a figure of £30 million a year (see paragraph 6.84) would represent a very conservative estimate of the potential benefits associated with implementing the divestiture of Lafarge Tarmac's Cauldon or Tunstead plant and the two transparency-reduction measures.

We therefore also had regard to scenarios where the annual benefit of introducing such remedies was in the region of £45 million or more to reflect the likelihood that the benefits of introducing these measures would be significantly higher in a period of economic growth.<sup>606</sup>

6.87 We do not expect the Coordination AEC to be self-correcting (see paragraph 6.56) and we would expect the beneficial impact of the cement plant divestiture and the transparency-reduction measures to be sustained for at least the expected lifetime of the divested plant. This is because we expect the creation of a new fifth cement producer would irreversibly alter the competitive dynamics of the GB cement markets and that the other measures would help sustain this more competitive environment. This suggested that the benefits of effective intervention would endure and that we should consider benefits and costs of these measures over a period of at least 20 to 30 years.

6.88 Given the timescale over which we expect these measures to come into force and to deliver benefits,<sup>607</sup> we sought to estimate the present value of such benefits. For example, taking a very conservative estimate of annual benefits of £30 million (see paragraph 6.86) and a discount rate (in real terms) of 3.5 per cent, generates a present value of benefits of around £144 million over a 10-year period, £328 million over a 20-year period and around £457 million over a 30-year period. Using the same discount rate and assumptions about the timescale over which the remedies come into force and deliver benefits, annual benefits of £45 million would generate a present value of around £217 million over a 10-year period, £491 million over a 20-year period and around £686 million over a 30-year period.

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<sup>606</sup> See Appendix 8. If the sector moves towards recovery, we consider it reasonable to examine scenarios where the GB cement producers enjoy profit levels that are at least 10 per cent higher than the average earned over 2007–2012. On the basis of the average value of net assets from 2007–2012, this would imply a ROCE of around 13.7 per cent, or 3.7 per cent over our estimated cost of capital; this level of ROCE is within the levels observed in the industry over the last three years (see Appendix 2, Table 1). The extent of excess profit associated with this level of returns would be around £45 million.

<sup>607</sup> See Appendix 8 for a description of our assumptions about the timescale over which benefits come into force and deliver benefits.

- *Costs of the remedies*

- 6.89 Our consideration of the costs of our proposed package of remedies is set out in Appendix 7. This represents our current understanding of the costs associated with each of the remedies within this package of remedies. We both expect and would welcome further submissions on the costs of these remedies, in light of the detailed specification of these measures set out in this provisional decision.
- 6.90 In considering the costs associated with the divestiture of either the Cauldon or Tunstead plant, we distinguished between the one-off costs associated with implementing the divestiture and any ongoing costs or distortions that may recur once the divestiture has been put in place.
- 6.91 We asked Lafarge Tarmac about the costs that its parent companies had incurred when divesting the Hope plant along with a package of other operations (the Hope divestiture package) in January 2013. We considered that this evidence would provide some insight into consideration of the one-off costs of further divestitures.
- 6.92 The one-off costs put forward by Lafarge Tarmac relate principally to: (a) the costs of separating the business and of reconfiguring the remaining network of cement plants; and (b) the costs of effecting the transaction (eg cost of diverted management, and investment bank and legal fees). Lafarge Tarmac submitted that it was difficult to put down an estimate for all the relevant costs, though it gave us an indication that around [redacted] full-time equivalent staff had been involved in the sale and in overseeing the divestiture of the Hope divestiture package, that investment bank fees were around 3 to 5 per cent of sale value and that it had spent around £[redacted] million in creating an IT system for HCM at the time of the divestiture of the Hope divestiture package.

- 6.93 We considered submissions by Lafarge Tarmac that it would face the risk that it would not be able to realize a fair value for any divested business and that this should be taken into account in our assessment of proportionality. We saw no reason why Lafarge Tarmac would not be able to secure a fair value for any operations it was required to divest. It would have a reasonable period of time in which to achieve a divestiture and we would expect a number of bidders to come forward, in light of the relatively uncommon opportunity to enter the GB cement markets as a domestic producer. Such bidders might be cement producers active in other cement markets, or might (like MI in the case of its acquisition of the Hope divestiture package) come from another sector. While the cement market appears to be at the bottom of the economic cycle, we would expect bidders to take a forward-looking view of demand and note that trading conditions may have improved significantly by the time any divestiture takes place.
- 6.94 Based on the above evidence, we concluded that the one-off costs of divesting either the Cauldon or Tunstead plant could be in the region of £10–£20 million.
- 6.95 We next considered whether there would be any ongoing costs associated with the divestiture of either the Cauldon or Tunstead plant. Unlike a behavioural remedy, we would not expect there to be any material ongoing costs of monitoring or enforcing this measure.
- 6.96 However, Lafarge Tarmac submitted that, if it were required to divest one of its cement plants, there would be some ongoing costs to Lafarge Tarmac associated with reduced efficiency of its network operation. These related to the additional costs of purchasing distribution services, raw materials and other inputs that would be associated with the loss of purchasing power by Lafarge Tarmac as a result of operating a smaller network of plants. Lafarge Tarmac estimated these costs at around

£[REDACTED] million a year. Lafarge Tarmac also told us that, following divestiture, it estimated the selling, general and administrative expenses (SG&A) of the remaining network would increase by £[REDACTED] million a year. It gave no support for the figure and it is not clear to us how such an additional ongoing cost could be incurred following divestiture of part of the business.

6.97 Lafarge Tarmac told us that the divestiture would also curtail the opportunity for efficiency savings to be achieved at the divested plant, as it would not be able to benefit from the management and technical expertise of Lafarge Tarmac's network. It estimated the loss associated with these foregone efficiencies savings at around £[REDACTED] million a year, based on the savings it expected to achieve at the Tunstead plant following various reviews carried out after the integration of that plant into Lafarge Tarmac's network. We are not persuaded that the ability to implement efficiency savings at a cement plant would be jeopardized if it were divested from Lafarge Tarmac. This is because the technical and management expertise needed to identify and implement efficiency improvements are available to other parties, either in-house or brought in from outside.

6.98 Lafarge Tarmac also told us that compared with its current costs, a purchaser of a divested cement plant would incur a further £[REDACTED] million a year to operate the divested plant. Lafarge Tarmac broke this cost down into the additional costs of SG&A, additional logistics contracts, raw materials and other inputs and costs of establishing a laboratory facility, though it did not provide any evidence to support these figures. We consider that the materiality of these additional costs will depend on the identity of the purchaser. We also expect that the purchaser of the divested plant will be equally focused on running the plant as efficiently as possible, in the more competitive environment that we expect to result from our remedies. For these reasons, we took the view that the figure provided by Lafarge Tarmac significantly

overestimated the extent of any additional costs that would be incurred by the purchaser of a divested plant.

6.99 Based on our assessment of the above evidence and in light of our consideration of its quality and relevance, we concluded that any ongoing costs associated with divesting either the Cauldon or Tunstead plant were unlikely to exceed around £5 million per year.

6.100 Our consideration of the costs of the two transparency-reduction measures is in Appendix 8, paragraphs 60 to 76. We saw no evidence to suggest that either the upfront or the ongoing costs of these two measures would be material either in overall terms or relative to the beneficial effects of introducing these measures, as part of our proposed package of remedies.

- *Balance of benefits and costs*

6.101 Having evaluated the potential benefits and costs of these measures, we considered whether their potential costs were likely to outweigh the beneficial effects that would flow from their contribution towards addressing the AECs.

6.102 To inform our assessment of this issue, we considered whether introducing these measures would be expected to generate a positive net present value (NPV), based on reasonable assumptions about the magnitude of these effects, the timescale over which they took effect, their duration and the rate at which future effects were discounted. This analysis may be found in Appendix 9.

6.103 This analysis suggests that, based on a conservative estimate of annual benefits of £30 million and based on ongoing costs of separation of £5 million and one-off costs of £10 million, the divestiture of either the Cauldon or Tunstead plant combined with

the introduction of the two transparency-reduction measures could be expected to generate a positive NPV of: £101 million over 10 years; £254 million over 20 years; and £362 million over 30 years. We estimated NPVs under a variety of other scenarios by reference to plausible variations around this base case. If we took our estimate of annual benefits to be £45 million (see paragraph 6.86), these measures could be expected to generate a positive NPV of £174 million over 10 years; £418 million over 20 years; and £591 million over 30 years. Each of the above figures would be lower by around £10 million if we were to base our estimate on the one-off costs of the divestiture being £20 million, which is at the upper end of the range of what we consider the one-off costs are likely to be. The NPV of the net benefits of introducing these measures was both positive and substantial in all of the scenarios we considered.

6.104 In light of this analysis and our overall appreciation of the impact of these measures, we provisionally concluded that, over the timescale for which we expect these measures to be effective, the beneficial effects of introducing these measures are likely to outweigh their costs significantly.

*Measures to increase competition in the GGBS supply chain*

6.105 We next considered the potential effects of those measures on our proposed package of remedies which have the primary aim of increasing competition in the GGBS supply chain.

- *Benefits*

6.106 We expect these measures to address the key underlying causes of the AEC in GGBS and the GGBS-related AEC, and that, in combination with the other measures in our proposed package of remedies, they will provide a comprehensive solution to the three AECs we have provisionally identified (see paragraphs 6.6 to 6.24). In so

doing, we expect these measures to benefit cement customers by making a substantial contribution towards eradicating the customer detriment of higher cement and GGBS prices resulting from the AECs.

6.107 To quantify the extent of the distortions arising in the GGBS supply chain, we conducted an assessment of the profitability of GBS and GGBS. This assessment is set out in our Addendum to PFs.

6.108 Based on this analysis, our current view is that the extent of overcharging for GGBS over the six years from 2007 to 2012 has been of the order of £15–£20 million on average per year. We note that we have not had the opportunity to consider parties' views on this analysis, so these estimates are provisional at this stage. We expect high GGBS prices to feed through into high cement prices through substitution effects (because GGBS is a partial substitute to cement) and component effects (because GGBS is used as a component of pre-blended cements (in particular, CEM III) and can also be blended with pure cement (CEM I) at downstream RMX/concrete product production sites). Subject to our assessment of any comments we receive on this analysis, we consider that our estimate of overcharging for GGBS substantially underestimates the harm to customers that would be avoided by the introduction of effective measures to remedy the AEC in GGBS and the GGBS-related AEC, given that it is based on profitability figures which will have been affected by the very severe and prolonged economic downturn during the period that we have investigated (see our similar point in relation to our estimate of customer detriment in relation to the Coordination AEC in paragraph 6.86 above).

6.109 We therefore took our provisional estimate of overcharging for GGBS to represent a very conservative indication of the extent of the potential benefits to GGBS and cement customers of increasing competition in the GGBS supply chain. We also

noted that measures to increase competition in the GGBS supply chain would reinforce the impact of the other measures in our proposed package of remedies, further reducing the likelihood that coordination could be sustained in the GB cement markets following implementation of our proposed package of remedies.

6.110 We do not expect the AEC in GGBS or the GGBS-related AEC to be self-correcting (see paragraph 6.56). We would expect these adverse effects to endure at the least until the end of the current contractual arrangements in 2029. Given the extent of Hanson's incumbency advantages in GGBS and the possibility of extending these arrangements, the scope for such adverse effects could easily endure beyond 2029, absent effective intervention. We would also expect the beneficial impact of measures to increase competition in the GGBS supply chain to be sustained, given that these measures result in a fundamental change to the operation of this market, bringing an element of rivalry to the GGBS supply chain that is currently absent. This suggested that the benefits of effective intervention would endure until at least 2029 and that we should consider the benefits and costs of these measures over a similar period of at least 15 years.

6.111 Given the timescale over which we expect these measures to deliver benefits, we sought to estimate the present value of such benefits. For example, taking a very conservative estimate of annual benefits of £15–£20 million and a discount rate (in real terms) of 3.5 per cent generates a present value of benefits of around £178–£238 million over a 15-year period. Using the same discount rate, annual benefits of £15–£20 million would generate a present value of £129–£172 million over a 10-year period, £221–£294 million over a 20-year period and £286–£381 million over a 30-year period.

- *Costs*

6.112 Our consideration of the costs of our proposed package of remedies is set out in Appendix 8. This represents our current understanding of the costs associated with each of the remedies within this package of remedies. We both expect and would welcome further submissions on the costs of these remedies, in light of the detailed specification of these measures set out in our provisional decision on remedies. This is particularly the case in relation to these measures for which there is not a recent precedent, like the divestiture of the Hope divestiture package, on which we could draw for evidence.

6.113 In considering the costs associated with the measures that we have proposed to open up the GGBS supply chain to greater competition, we distinguished between the one-off costs associated with implementing the remedies and any ongoing costs or distortions that may recur once the divestiture has been put in place.

6.114 In terms of one-off costs, we would expect Hanson and Lafarge Tarmac to incur some costs associated with separating out the divested operations from the rest of their respective businesses. While there are likely to be some elements of complexity associated with the separation process, for example as regards establishing new legal arrangements for supply agreements for the businesses to be divested, our understanding is that the extent of integration between Lafarge Tarmac's individual GBS sites, and between Hanson's individual GGBS sites is relatively limited. This is likely to limit the extent of separation costs. There would also be a cost associated with implementing the divestitures.

6.115 Overall, we would not expect the one-off costs associated with implementing this remedy to be in excess of £10–£20 million.

- 6.116 We considered submissions by Hanson that it would not be able to realize a fair value for any divested business and that this should be taken into account in our assessment of proportionality.
- 6.117 We thought that it was possible that Hanson might receive less for the divested operations than it paid for them on acquiring the Civil & Marine business in 2006, because the divested businesses would have to compete in a more competitive environment than that which prevailed when Hanson made its acquisition. We did not consider that this was a relevant cost for our assessment, as the creation of such an environment was a necessary consequence and benefit of our proposed remedy.<sup>608</sup>
- 6.118 We saw no reason why Hanson or Lafarge Tarmac would not be able to secure a fair value for any operations they were required to divest, as the divesting parties would have a reasonable period of time in which to achieve their respective divestitures. While we have provisionally decided that none of the GB cement producers should be permitted to acquire a divested GGBS or GBS plant, we would expect a sufficient number of bidders to come forward, given the opportunities presented by such a divestiture. Such bidders might include steel producers, cement producers active in other geographic markets or GB aggregates or concrete producers, or come from outside the construction sector.
- 6.119 We next considered whether there would be any ongoing costs associated with these measures. Unlike a behavioural remedy, we would not expect there to be any material ongoing costs of monitoring or enforcing this measure.

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<sup>608</sup> This approach is consistent with the Guidelines, [paragraph 353](#), which states that 'where businesses have been found to be earning profits persistently in excess of their cost of capital as a direct result of a feature of the market, and are likely to continue to do so in the absence of intervention, the CC will not usually give any significant weight to the anticipated reduction of such profits as a negative effect of a remedy.'

- 6.120 However, various parties submitted arguments that there would be significant on-going costs or reductions in efficiency associated with these measures. Our consideration of these submissions is in Appendix 8, paragraphs 77 to 114.
- 6.121 In particular, Hanson submitted that there were significant benefits associated with its current exclusive ability to supply GB-produced GGBS and its ability to meet demand for GGBS from any of the plants that it currently operated. We were not persuaded by these submissions, and considered that the potential benefits to GGBS customers of security of supply and willingness of GGBS producers to invest in GGBS facilities could be delivered just as well by more competitive supply arrangements.
- 6.122 We also noted [REDACTED]. We judged that these risks were capable of being effectively managed through the implementation process, including the CC's oversight of purchaser suitability.
- 6.123 We provisionally concluded that, through careful remedy implementation and design, these measures could be put in place without giving rise to significant ongoing costs.
- *Balance of benefits and costs*
- 6.124 Having evaluated the potential benefits and costs of these measures, we considered whether their potential costs were likely to be disproportionate to the beneficial effects that would flow from the measures' contribution to remedying the AECs.
- 6.125 We noted that our very conservative estimate of the expected annual benefits of these measures (of the order of £15–£20 million—see paragraph 6.108) was likely to be of a similar order of magnitude or larger than the one-off cost of introducing them (unlikely to be in excess of £10–£20 million—see paragraph 6.115). Given this, and our expectation that the beneficial impact of these remedies would endure for at least

15 years and that the remedies could be put in place without significant ongoing costs, it was clear to us that the benefits of these measures would significantly outweigh the costs and would do so within a relatively short period of their implementation. Given this, we did not consider it necessary to conduct a more sophisticated NPV analysis.

6.126 In light of this analysis and our overall appreciation of the impact of these measures, we provisionally concluded that, over the timescale for which we expect these measures to be effective, the beneficial effects of introducing these measures are likely to outweigh significantly their costs.

*Conclusions on whether the proposed package of remedies produces adverse effects which are disproportionate to the aim*

6.127 In paragraphs 6.81 to 6.126, we have considered separately the effects of those measures which have the primary aim of remedying the Coordination AEC and those which have the primary aim of increasing competition in the GGBS supply chain. In both cases we conclude that the beneficial effects of introducing these measures are likely to outweigh significantly their costs. We have also noted the synergies between the two sets of measures, which are mutually reinforcing in their beneficial effects (see paragraphs 6.42 to 6.44). Given this, we concluded that neither the package of remedies that we propose to take forward, nor any specific measure within this package of remedies, is likely to produce disadvantages which are disproportionate to the aim of remedying the AECs and the adverse effects resulting from them.

*Conclusions on the proportionality of the package of remedies*

6.128 We provisionally concluded that our proposed package of remedies represented a proportionate solution to the AECs and the resulting customer detriment.

## **7. Provisional decision on remedies**

7.1 We have provisionally decided that we should introduce the package of remedies summarized in paragraph 6.1.

7.2 In our judgement, this represents as comprehensive a solution as is reasonable and practicable to the AECs and resulting customer detriment that we have provisionally found.