

LAFARGE TARMAC

RESPONSE BY LAFARGE TARMAC TO THE COMPETITION COMMISSION'S
PROVISIONAL FINDINGS AND NOTICE OF POSSIBLE REMEDIES IN
CONNECTION WITH ITS MARKET INVESTIGATION INTO THE SUPPLY OF
AGGREGATES, CEMENT AND READY-MIX CONCRETE

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1. This Response is submitted by Lafarge Tarmac (“**LT**”) in response to the Competition Commission’s (“**CC**”) Provisional Findings (“**PFs**”) and Notice of Possible Remedies (the “**Remedies Notice**”) in connection with its market investigation into the supply in GB of aggregates, cement and ready-mix concrete (the “**MIR**”).
2. In its PFs, the CC provisionally concludes “*that there was a combination of structural and conduct features that gave rise to an [adverse effect on competition] in the GB bulk and bagged cement markets.*”¹ LT refutes this provisional conclusion and sets out in this Response the serious legal, economic and factual errors that LT believes invalidate the CC’s analysis.
3. First, LT submits that the CC has failed to have appropriate regard to the significant market developments that have occurred in the GB cement markets since the beginning of 2013, and the impact that these changes are likely to have on the structure and dynamic of the relevant markets going forward:
 - **LT itself is a new competitive force.** The completion of the merger of the UK operations of Lafarge and Tarmac with effect from 7 January 2013 has established LT as a new competitive force. It is neither sufficient nor appropriate for the CC simply to assert that LT can be expected to maintain the strategies adopted by one of its predecessor companies (*i.e.*, by Lafarge UK) prior to the merger. LT is a newly-formed entity with two equal shareholders, one of which (*i.e.*, Anglo American) is accepted by the CC as having been outside any coordinating group prior to the merger. The board of LT comprises an equal number of individuals from both parent companies together with an independent chairman. The board’s mandate is to prepare LT for a possible IPO within two to three years. Its commercial strategy will therefore be determined having primary regard to this medium-term objective. LT is therefore a new entity, with a new management structure, new incentives and new priorities.
 - **HCM is a new entrant.** The creation of LT was conditioned by the CC on the sale by the merging parties of the Hope cement plant previously operated by Lafarge UK together with 177 ready-mix concrete (“**RMX**”) plants and a number of aggregates quarries to a purchaser approved by the CC. The sale of this package of assets to Mittal Investments was similarly completed on 7 January, 2013. As of that date, Hope Construction Materials (“**HCM**”) has operated as an independent GB cement producer. Its impact on the GB cement market has been profound and immediate, as was intended by the CC

¹ PFs, at paragraph 12.3.

in requiring its creation: between January and May 2013, HCM accounted for [REDACTED]% of bulk independent volume lost by LT to competing suppliers; by contrast, Lafarge's losses of bulk independent volume to Tarmac never exceeded [REDACTED]% in the four years from 2009 to 2012. The creation of HCM therefore does far more than simply recreate the competitive constraint represented by Tarmac pre-merger; it establishes a new, independent producer that is not simply a net purchaser of cement (as was Tarmac pre-merger), but that is a major supplier of cement to external customers.

- **CRH has significantly expanded its GB operations.** The Irish cement producer, CRH, has also signalled its intention significantly to expand its GB sales presence through its acquisition of Southern Cement in February 2013, and the subsequent acquisition of the import terminals of Dudman for a reported consideration of £25 million. Having committed significant funds to this investment, CRH will be keen to utilise these import facilities to generate a return in addition to the future value of EU credits. LT estimates that [REDACTED]mt of cement must be exported from Ireland to retain carbon credits.² With [REDACTED]mt of capacity, CRH has a total HAL value of £[REDACTED] million rising to £[REDACTED] million,³ thereby providing CRH with a strong incentive to export to GB.

4. Second, LT submits that the factual assessment conducted by the CC, and the conclusions provisionally drawn from it, is misleading and, at times, contrived. By way of example only:

- **Profitability.** The CC's analysis is based around a core finding that the profitability of the GB cement industry in general, and of Lafarge specifically, is in excess of its WACC. LT has instructed an independent expert, Professor Chris Higson of London Business School, objectively to review the CC's profitability assessment from an accounting perspective. His report is included at **Annex 1** to this Response. Professor Higson concludes that "*In my professional opinion, the CC has no reasonable basis to infer a finding of industry excess profitability on the basis of the information that I have reviewed.*"
- **Margins.** The CC queries the ability of Lafarge to maintain margins and pricing during a recessionary period characterised by significantly reduced demand. In particular, the CC dismisses the view that the main reason for the stability of variable profit margins in 2009 was that GB cement producers had cut costs in response to the economic downturn. However, the CC is examining the wrong period. 2007 was a boom year. Prices *did* fall substantially during the downturn. The downturn in cement started in the second half of 2008 and the largest annual fall in demand occurred in 2009. From their peak in Q1 2009, which was caused by the sharp rise in underlying variable costs, Lafarge's prices *did* fall sharply in 2009, falling further in real terms in 2010 and 2011, and continued to fall in 2012 and 2013 (January to

² Total cement capacity in Ireland exceeds [REDACTED]MT, while domestic demand is just [REDACTED]MT.

³ [REDACTED].

April). Moreover, the recession induced Lafarge to engage in substantial cost cutting measures (both fixed and variable costs). Lafarge also reduced cement capacity substantially (by [X%] in 2008 and by [X%] in 2009) with closures of its two least efficient plants, Northfleet and Westbury, in 2008 and 2009.

- **Market shares.** The CC argues that Lafarge, Hanson and Cemex coordinated on shares of GB cement sales made by the GB cement producers between 2007 and 2011. Yet Lafarge demonstrably lost over 10 percentage points of production share over 2001-2011,⁴ which can hardly be described as “stable.”⁵
 - Lafarge’s production share fell from 54% in 2001 to 46% in 2007.⁶
 - For the 2007-2011 period on which the CC focuses, Lafarge’s production share dropped from 46% in 2007 to 40% in 2009 (*i.e.*, by 6 percentage points in just two years).
 - In 2011, Lafarge’s production share was 43%.

As regards the “*mechanism to re-establish stable market shares*,” LT notes that the CC itself acknowledges that it has not identified a mechanism by which Lafarge, Cemex and Hanson have identified the benchmark shares that they wish to sustain (“*an accepted share of sales*,” as the CC puts it).⁷ Where the members of a coordinating group have inconsistent share aspirations, coordination will not be stable, yet given the variation in Lafarge’s share, it is hard to see how either Lafarge, Cemex or Hanson could be certain about the accepted share level on which to focus. The CC has not identified the “*accepted share of sales*” on which Lafarge was supposedly coordinating: would it be the 54% of production share it had in 2001, the 41% of all GB sales share it had in 2007, or the 36% of all GB sales share it had in 2009?

5. Third, the CC fails to have proper regard to the limitations on its decision-making that necessarily result both from its Final Report only months earlier approving the creation of LT (the “**Merger Review**”), and from the existence of a parallel antitrust investigation by the European Commission whose scope similarly includes conduct in the supply of cementitious products in GB.

⁴ See Appendix 7.1, Table 1 to the PFs.

⁵ Similarly, Lafarge estimates that its share of all GB cement sales fell from 41% in 2007 to 36% in 2009, and was 38% in 2011, which is difficult to describe as “stable”.

⁶ See Appendix 7.1, Table 1 to the PFs.

⁷ Section 8, footnote 161: “*We have not found evidence to explain how the accepted shares of sales for each coordinating firm are initially arrived at. We did not consider that the focal point for coordination was capacity nor that the accepted shares of sales for each coordinating firm were mechanistically derived from each firm’s capacity. An understanding on accepted shares of sales may have been reached before the period of time covered by our investigation. Although our investigation has focused on the period since 2007, there was evidence from both the internal documents and the other quantitative sources of information and data available to us that coordination was taking place prior to 2007 as well. However, we have not sought to identify the precise date coordination started.*”

- **The CC is a single administrative body.** According to the PFs,⁸ it is “*important to note that the CC members of the Group responsible for taking decisions in this market investigation are different from those responsible for taking decisions in the Anglo-Lafarge JV inquiry.*” This apparent attempt by the current inquiry Group to distance itself from the conclusions reached in the Merger Review is fallacious. The CC is a single statutory body that, in accordance with standard administrative law principles, is under a duty to behave consistently. Moreover, the statutory foundations of the CC in the Competition Act 1998 (“CA98”) expressly recognise that “*anything done by or in relation to a group in, or in connection with, the performance of functions to be performed by the group is to have the same effect as if done by or in relation to the Commission.*”⁹ An undertaking subject to investigation may rightly expect consistency in decision-making and approach between Groups carrying out the CC’s functions.

- **LT may legitimately expect that the CC will behave consistently with its conclusions in the Merger Review.** The CC notes correctly in its PFs that the statutory questions to be addressed in the MIR are different from those considered in the Merger Review. While this is plainly true, it is nonetheless incumbent on the CC to act consistently, and to explain clearly the reasons for any material divergence in its approach or assessment. Following the Merger Review, Anglo American and Lafarge gave careful consideration to the conditions for approval imposed by the CC, and the extent to which those conditions permitted the synergy benefits on which the transaction was premised to be achieved. In choosing to proceed with the creation of LT, and to accept the very significant structural divestments that were required by the CC, both parties placed express reliance on the analysis set out in the CC’s Final Report. It is not therefore open for the CC now to seek to distance itself from conclusions and analysis that it reached just months earlier. By way of example only, the CC’s suggestion that the “*cement market might become subject to some form of coordination involving HCM*” through “*HCM developing a shared understanding with other GB cement producers*”¹⁰ is neither factually supported nor tenable; if there were a reasonable prospect of any such coordination, then the CC would have been legally required to prohibit the creation of LT; it did not do so.

- **The CC is legally required to acknowledge the limits on its power to order remedies.** Finally, LT notes that the timing of the MIR places the CC in an invidious position: it is required by statute to report on the reference within a two year period, yet many of the market developments that are identified in this Response may not have produced their full and permanent effects within this period. The Office of Fair Trading (the “OFT”) also took the unusual step of referring this sector to the CC even though it was aware of the European Commission’s on-going investigation. The CC has however

⁸ At footnote 11.

⁹ CA98, Schedule 7 at paragraph 20(1).

¹⁰ At paragraph 8.266(c).

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acknowledged, in its Press Release announcing publication of the PFs, that it “has not found that a breach of either the Chapter I prohibition of the Competition Act 1998 or of Article 101 TFEU has taken place. Those jurisdictions are not within the CC’s remit.”¹¹ Without suggesting that there has been any breach, 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. More generally, in considering the need for any remedies arising from this MIR, including the proportionality of any such remedies, the CC will be cognizant of the on-going investigation by the European Commission.

¹¹ Notes for Editors, at paragraph 3.

PART 1 - COMMENTS ON THE CC'S PROCEDURE TO DATE

6. LT considers that the procedures adopted by the CC during the course of the MIR have failed to respect the legitimate rights of defence of LT, and significantly undermine its ability to respond fully to key aspects of the arguments advanced by the CC in its PFs.
- (a) **Inability for LT to review large parts of the PFs.** LT received an embargoed copy of the PFs in the late evening of Monday 20 May, 2013. Large parts of the data and evidence on which the CC seeks to rely were redacted from the PFs received by LT, and have been made available to LT's external advisers only through a data room (to which LT, including its internal legal counsel, have been refused access). Under the CC's data room rules, LT's external advisers may produce a report of not more than 40 pages based on the contents of the data room, only the "gist" of which may be shared with LT. It has not therefore been possible to discuss the material included within the data room, and hence large parts of the PFs, with LT. In particular, LT has been excluded from the opportunity to understand the content of third party documents relied upon by the CC, to comment on the circumstances or events described in that correspondence, or otherwise to challenge the CC's interpretation of individual third party documents, or the conclusions drawn by the CC from those documents. This refusal of access represents a blatant failure to respect the general principle of equality of arms.
- (b) **No access to potentially exculpatory documents.** The data room contained 10 files of allegedly "inculpatory" documents (including those submitted by LT itself) on which the CC seeks to place reliance. LT requested, but was refused access to, any other potentially "exculpatory" documents obtained by the CC during the course of its investigation notwithstanding that the CC's own Working Paper summarizing its review of internal documents acknowledges that "[m]any of the documents provide evidence of price competition between the GB cement Majors or between the GB cement Majors and importers"¹² but that the CC has "not sought to summarize that body of documents."¹³ LT has therefore been provided with no opportunity to consider the context, weighting or explanation of the documents on which the CC seeks to rely. The CC justifies the decision to exclude exculpatory documents from the data room "primarily because each party to the inquiry is in possession of its own exculpatory material and is able to make submissions about, and produce evidence of, its independent competitive behaviour. That material is also commercially sensitive. The documents the Commission relies on in support of its finding are in a different position because they reflect interdependent behaviour. We consider that because of our findings the benefit to parties in seeing evidence of interdependent behaviour by other

¹² CC Working Paper summarizing CC review of internal documents (cement), at paragraph 4.

¹³ *Ibid*, at paragraph 4.

parties outweighs the commercial sensitivity of those documents."¹⁴ Accordingly, the CC's position appears to boil down to the stance that it is fair for commercial confidentiality in documents to be overridden provided the documents in question potentially serve to inculcate, but not when they potentially serve to exculpate. Such a stance is incompatible with basic principles of natural justice.

- (c) **No access to underlying economic data.** The CC has denied LT (and its advisers) access to any of the underlying economic data that would allow it to test the sensitivity of assumptions made by the CC. The CC's data room contained no economic data other than that included within the chapters of and appendices to its PFs. According to the CC, "*the purpose of the data room is to allow greater understanding of the Commission's findings in cement (rather than, for example, additional sensitivity testing of our analysis that you mention)*" with the result that "*the economic evidence in the data room will be limited to the results of the Commission's analyses.*"¹⁵ According to the CC's Remedies Notice, the CC is considering divestiture remedies that would potentially amount to a serious interference in the fundamental property rights of LT and others. Given the nature and scale of the remedies that are being contemplated, it seems axiomatic that LT's economic experts (at the very least) should be granted access to all of the underlying data on which the conclusion that such remedies may be appropriate are supposedly based. It is neither appropriate nor fair for the CC to seek in this case to shield its detailed analyses (on which many of its conclusions rest) from full scrutiny.
7. These procedural failings by the CC fundamentally undermine LT's ability properly to exercise its rights of defence in responding to the PFs and the Remedies Notice. LT invites the CC once again to consider if and how these failings may be rectified.
8. Finally, the CC's proposal to impose a divestment remedy in this case represents a breach of the legitimate expectations of Anglo American and Lafarge, the shareholders of LT, and runs against the principle of legal certainty. Through the Merger Review, the CC last year required the divestment by Anglo American and Lafarge of a significant set of assets to create a fourth player with substantial RMX interests (HCM). The CC is now proposing a further divestment focussing on LT that aims to create a fifth player in a market that features an entirely different balance of vertical integration to that which it required in the Merger Review. As well as being inconsistent, implementation of this proposal would breach the legitimate expectations of Anglo American and Lafarge from the Merger Review that the divestments they agreed to last year to ensure effective competition in the GB cement markets, would not be closely followed with a further divestment order through the CC's MIR.

¹⁴ Email of 24 May 2013 from CC to Kirkland & Ellis.

¹⁵ *Ibid.*

PART 2 - THE CC'S HISTORIC ANALYSIS IS FLAWED

A. MARKET OUTCOMES

9. The CC identifies a number of market outcomes that it considers demonstrate that competition in the GB cement markets is not working effectively. However, closer scrutiny of these outcomes and the CC's analysis indicates not only that the observed behaviour is consistent with non-coordinated behaviour, but also that the CC has downplayed substantially or even ignored critical evidence. The following sections discuss the CC's evidence on:
 - (a) market shares;
 - (b) pricing, margins and spare capacity;
 - (c) profitability; and
 - (d) switching and credible threats to switch.
10. The market outcomes relied on by the CC, when fairly assessed, do not support the CC's theory of coordination.
 - (a) **Market shares**
 - (i) *Shares of GB cement sales are not stable*
11. The documents referred to in the Annexes and in the main body of the PFs and apparently relied upon by the CC simply do not, on a fair reading, provide any evidential corroboration for the CC's thesis that there has been a persistent (and is a persisting) tacit understanding between the majors that they should each retain stable market shares in the cement market. In this regard, the CC conflates evidence of certain of the majors targeting market shares as a competitive strategy (which is one thing) with a supposed understanding between them that their market shares should be stable (which is quite another). The confidential documents do evidence certain of the majors variously seeking to maintain increase, or regain, market share by way of competitive activity (*i.e.*, undercutting rivals). However, had there been a tacit understanding that their market shares were to remain stable then one would expect to see very different documents - in particular, one would see (a) the majors referring to such an understanding; (b) no evidence of the majors having to fight for market share against each other; and (c) evidence of the majors voluntarily ceding market share to each other in certain instances. One sees no evidence of such conduct. Moreover, as noted elsewhere, the significant variations in the market shares as between the three majors over the last ten years is quite inconsistent with any such understanding.
12. In its PFs, the CC argues that Lafarge, Hanson and Cemex coordinated on shares of GB cement sales made by the GB cement producers between 2007 and 2011. The CC

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also contends that coordination was taking place prior to 2007.¹⁶ The CC has placed substantial weight on the stability of shares of the supply of cement in GB by GB cement producers as evidence to support its theory of coordination. However, shares are not stable. Lafarge has lost over 10 percentage points of production share over the period 2001-2011.¹⁷

13. Lafarge's production share fell from 54% in 2001 to 46% in 2007.¹⁸ Lafarge's share clearly cannot be described as stable. This indicates that the alleged terms of coordination were not being adhered to prior to 2007 and must call into doubt the CC's contention that coordination was taking place prior to 2007.
14. Production shares are not stable *within* the alleged coordinating group. [✂]
15. For the 2007-2011 period on which the CC focuses, Lafarge's production share dropped from 46% in 2007 to 40% in 2009 (*i.e.*, by 6 percentage points in just two years). In 2011, Lafarge's production share was 43%. Again, it is not possible to describe this as "*stable*."¹⁹ In turn, it is hard to support the view that the alleged terms of coordination were maintained.
16. [✂]. The CC itself acknowledges greater variability in shares in this segment.²⁰
17. [✂]
18. As regards the "*mechanism to re-establish stable market shares*," LT notes that the CC itself acknowledges that it has not identified a mechanism by which Lafarge, Cemex and Hanson have identified the benchmark shares that they wish to sustain ("*an accepted share of sales*," as the CC puts it).²¹ Where the members of a coordinating group have inconsistent share aspirations, coordination will not be stable, yet given the variation in Lafarge's share, it is hard to see how either Lafarge, Cemex or Hanson could be certain about the accepted share level on which to focus. The CC has not identified the "*accepted share of sales*" on which Lafarge was

¹⁶ Section 8, footnote 161.

¹⁷ See Appendix 7.1, Table 1 to the PFs.

¹⁸ See Appendix 7.1, Table 1 to the PFs.

¹⁹ Similarly, Lafarge estimates that its share of all GB cement sales fell from 41% in 2007 to 36% in 2009, and was 38% in 2011, which is difficult to describe as "stable".

²⁰ See paragraph 7.14(a) of section 7 of the PFs: "We looked at market shares based on sales volumes of bulk CEM I, volumes of bulk CEM I sold to external customers and volumes of bulk CEM I sold to independent customers and found more variation in these market shares."

²¹ Section 8, footnote 161: "*We have not found evidence to explain how the accepted shares of sales for each coordinating firm are initially arrived at. We did not consider that the focal point for coordination was capacity nor that the accepted shares of sales for each coordinating firm were mechanistically derived from each firm's capacity. An understanding on accepted shares of sales may have been reached before the period of time covered by our investigation. Although our investigation has focused on the period since 2007, there was evidence from both the internal documents and the other quantitative sources of information and data available to us that coordination was taking place prior to 2007 as well. However, we have not sought to identify the precise date coordination started.*"

supposedly coordinating: would it be the 54% of production share it had in 2001, the 41% of all GB sales share it had in 2007, or the 36% of all GB sales share it had in 2009?

19. Finally, it is important to emphasise that the CC has explicitly ruled out both capacity coordination and capacity shares as a focal point for coordination.²² However, the CC acknowledges that production capacity *determines* cement market shares and indicates that cement market shares are closely aligned to shares of capacity.²³ In sum, the CC's approach is contradictory: it contends that coordination takes place on GB shares of cement sales while ruling out coordination on the main factor that determines those shares.²⁴

(ii) *No benchmark for determining behaviour in a "well-functioning market"*

20. The CC argues that the 34% decline in demand for cement from 2007 to 2009 should cause a greater volatility in share in a "*well-functioning market*."²⁵ However, the CC does not identify the degree of volatility that it expects to observe in a "*well-functioning market*"; the CC states only that it would expect to see more volatility than occurred. LT notes the following.

21. First, economic theories typically predict that, in a non-coordinated market, prices would fall after a large demand reduction.²⁶ This is consistent with observed market outcomes. The decline in demand hit hardest in 2009. While prices peaked in Q1 2009, this is explained by underlying cost increases. Indeed, the CC identifies that Lafarge's overall average price changes tracked variable costs changes very closely.²⁷ Thereafter, Lafarge's bulk CEM I prices to independents fell, with substantial falls having occurred by the end of 2009. Prices then continued to fall in real terms; compared to 2009, Lafarge's prices fell in 2010, fell further in 2011 and continued to fall in 2012 and in 2013 (year-to-April).²⁸ Lafarge's bagged cement prices to

²² Section 8, footnote 202: "*However, as set out in the footnote to paragraph 8.164, we did not consider that the focal point for coordination was capacity nor that the accepted shares of sales for each coordinating firm were mechanistically derived from each firm's capacity.*"

²³ "*In the case of the GB cement markets, the reason for the asymmetries in cement market shares is likely to be largely due to differences in production capacities*" (8.238). "*We note from Table 8.2 above that the GB producers' production shares are very similar to their capacity shares...*" (8.239).

²⁴ This point was explained to the CC in several Lafarge submissions, for example section 2.5 of Lafarge's response to the CC's Updated Issues Statement published 26 November 2012.

²⁵ Section 8, paragraph 8.3(c).

²⁶ To the extent that the CC does not consider the GB cement market to be characterised exactly by a Cournot market, we note the CC's statement on the use of theoretical models of price leadership: "*While we agree that this literature does not apply directly to the cement market, we also note that academic papers do not generally reflect the circumstances of specific real-life markets, but can nonetheless provide some insights on certain aspects of, and behaviours observed in, real-life markets.*" The CC should then, by its own logic, acknowledge that when market shares do not vary dramatically, this does not imply that coordination is at hand.

²⁷ See Figure 14 of Appendix 6.5 of the PFs [⌘].

²⁸ Appendix 7.8 to the PFs, Table 1 (annual average prices of bulk CEM I to independents, in real terms) and Table 2 (annual average prices of bagged cement to independents, in real terms).

independents have also fallen in real terms from 2009 to 2010 and from 2010 to 2011. Lafarge's bagged cement prices to independents increased slightly in real terms from 2011 to 2012 (£[REDACTED] compared to £[REDACTED]), but fell substantially from 2012 to 2013 (year to April) from £[REDACTED] to £[REDACTED].

22. Similarly, Cemex and Hanson's [REDACTED].²⁹
23. Second, economic theory does *not* predict that a decline in demand would necessarily give rise to a large variation in market share. The CC contends that cement players have similar variable costs. In this situation, standard textbook models of non-coordinated oligopolistic behaviour demonstrate how a decline in demand will not have a material impact on market share.³⁰
24. Third, in any event, there is important evidence of substantial share variation as regards supply of bulk cement to independent producers and substantial share variation by region:
- The CC acknowledges that coordination to supply large buyers is more difficult. For example, AI and Tarmac pre-2013 have large demands and a credible threat to self supply. Further, bagged customers source cement on a national basis often with long term contracts.³¹ The customer base for bagged cement is also concentrated with the top 5 customers accounting for around [REDACTED]% of bagged sales for Lafarge. The critical area, therefore, where one would expect to observe higher prices if successful coordination were taking place, is the supply of bulk cement to independent RMX and concrete producers, *i.e.*, non-majors who do not have their own source of cement supply. However, LT notes that the evidence on market shares indicates this to be a well-functioning segment with Lafarge estimating that it lost 8 percentage points of share of bulk independent customers between 2007 and 2009 (and as noted above the CC's own calculations show that [REDACTED] (and as noted above and switching and credible threat data demonstrating competitive activity (see paragraphs 38-42 below).³² Further, importers are important suppliers to this segment, having grown their share from 13% to 18% over 2007-2010 (Lafarge estimates) and with substantial scope, in particular from Ireland, to grow further (as discussed further below).
 - The slump in demand was not spread evenly across GB. Based upon regional cement data sourced from the MPA it can be seen that compared to 2007 regional demand levels there is substantial variation in demand movements across regions. For example demand in the South East fell over 25% compared to 2007 levels but in 2012 was 21% lower than 2007 levels. By

²⁹ Appendix 7.8 to the PFs, Table 1 and Table 2.

³⁰ For example, in a textbook Cournot model, if firms have the same cost function then their market shares will be stable even if there are substantial demand shocks. The Cournot model is one of non-coordinated behaviour. Stable market shares are not, therefore, probative of coordination.

³¹ See paragraphs 8.189 and 8.214 of section 8 of the PFs.

³² [REDACTED]

contrast, demand in Yorkshire & Humberside is 49% lower in 2012 compared to 2007 and is 44% lower in the North West over the same time period. It is therefore informative to consider variations in regional shares. LT has submitted evidence to demonstrate substantial volatility in regional shares,³³ this appears to be acknowledged by the CC. Moreover, an examination of regional shares highlights that importers play a substantial role in the supply of grey cement:

- In the East of England region, a single importer (name not revealed by the CC) had [REDACTED].³⁴
 - In the South West region, a single importer (name not revealed by the CC) had [REDACTED].³⁵
 - In the North West region, [REDACTED].³⁶
 - LT has previously submitted evidence to the CC highlighting large volatility in regional market shares of bulk cement supplied to independents.³⁷ For example, Lafarge estimates that in the Yorkshire & Humberside region its share fell by [REDACTED] percentage points between 2007-2010. Similarly, Lafarge estimates that in Wales Hanson lost nearly [REDACTED] percentage points over the same period, with Morrissey's share increasing by [REDACTED] percentage points. Further, Lafarge estimates that in the South East region Lafarge lost [REDACTED] percentage points of share over 2007-2010 (but a range in share of nearly [REDACTED] percentage points) while Cemex gained over [REDACTED] percentage points of share (but a range of over [REDACTED] percentage points).
- The CC acknowledges that shares to the independent segment and on a regional basis are more variable.³⁸ However, the CC does not consider fully the implication of this finding – namely that considerable share volatility (consistent with competition) is observed in the segment that should be the one most harmed by coordination.

(b) Pricing, margins and spare capacity

³³ See for example “Annex to Assessing Competition in the Supply of Bulk Cement: An Economic Response to the Competition Commission’s Proposed Theory of Tacit Coordination”, dated 27 January 2012, section 5.

³⁴ Table 8 of Appendix 7.1 to the PFs.

³⁵ Table 18 of Appendix 7.1 to the PFs.

³⁶ Table 12 of Appendix 7.1 to the PFs.

³⁷ See for example “Annex to Assessing Competition in the Supply of Bulk Cement: An Economic Response to the Competition Commission’s Proposed Theory of Tacit Coordination”, dated 27 January 2012, section 5.

³⁸ Appendix 7.1 to the PFs, paragraph 4. See also paragraph 7.14(a) of section 7 of the PFs

25. The CC states that “[i]n a well-functioning market, faced with a demand slump, significant excess capacity and high fixed costs, [the CC] would expect significant erosion of margins as market participants competed with each other on price to maintain volumes.”³⁹ The CC goes on to argue that the observed stability in margins cannot be explained only by the fact that supply contracted when demand dropped.
26. The CC dismisses the view that the main reason for the stability of variable profit margins in 2009 was that GB cement producers had cut costs in response to the economic downturn on the basis that “[the CC] did not see strong evidence that these efficiencies had been competed away and passed on (through lower prices) to cement buyers”.⁴⁰ Regarding pass through, the CC emphasises that “[i]n real terms, average bulk and bagged cement prices had increased between 2007 and 2011 (up 4 per cent overall for bulk cement and 7 per cent overall for bagged cement, albeit there were some year-on-year reductions in average prices during the period).”⁴¹
27. However, the CC is examining the wrong period. 2007 was a boom year. Prices *did* fall substantially during the downturn. The downturn in cement started in the second half of 2008 and the largest annual fall in demand occurred in 2009. From their peak in Q1 2009, which was caused by the peak in underlying variable costs, Lafarge’s prices *did* fall sharply in 2009, falling further in real terms in 2010 and 2011, and continued to fall in 2012 and 2013 (January to April). Moreover, the recession induced Lafarge to engage in substantial cost cutting measures (both fixed and variable costs – see section 1(e) of Lafarge’s response to the CC’s Updated Issues Statement). Lafarge also reduced cement capacity substantially (by [X] % in 2008 and by [X] % in 2009, resulting in a capacity reduction of [X] % from 2007 to 2009) with closures of its two least efficient plants, Northfleet and Westbury, in 2008/2009.
28. In 2007 Lafarge faced difficulties in supplying the market due to a combination of unprecedented levels of high market demand and a fatality and explosion at two of its largest plants, Northfleet and Hope. As a consequence, Lafarge was unable to build up its stocks in preparation for the seasonal increase in demand. This increased Lafarge’s production, logistics and import costs, particularly since supply was, at the time, globally tight (reflecting the buoyant economic conditions) such that demand required imports of clinker from as far afield as China.
29. While Lafarge retained some spare cement capacity in 2009-2011, this was primarily held at Dunbar, its least efficient plant. Indeed, Lafarge’s other three cement plants at Aberthaw, Cauldon and Hope in 2011 each operated with a cement utilisation rate of [X] % or greater.⁴² Furthermore, LT considers that the CC has focused upon an incorrect measure of capacity, namely clinker capacity, in assessing the degree of

³⁹ Section 8, paragraph 8.3(a).

⁴⁰ Section 8, paragraph 8.7.

⁴¹ Section 8, paragraph 8.7.

⁴² See for example the slide pack presented to Members during Lafarge’s Second Hearing, and Lafarge’s comments on the CC’s putback working paper “Lafarge coordinated effects Appendix 1”, paragraph 10.

spare capacity in the GB cement industry.⁴³ The relevant consideration is *which of clinker or cement capacity binds first* for a given cement producer. The CC states that the main constraint on cement production is “*likely to be kiln capacity rather than grinding capacity*”.⁴⁴ However, this is *not* the case for Lafarge, as Lafarge has already explained to the CC.⁴⁵ Lafarge’s clinker and grinding capacity differ with the result that utilisation rates will differ significantly when assessed on a clinker basis compared to a cement basis. This can be seen readily by comparing the spare capacity on a cement basis and a clinker basis for Lafarge’s cement plants in 2011 (see Table 1). Table 1 shows that, for Lafarge, cement capacity is the constraint which binds first, rather than clinker capacity, and therefore for Lafarge cement capacity is the relevant metric when assessing utilisation and spare capacity.

30. Indeed, in 2011 Lafarge had spare nominal cement capacity of only [REDACTED]kt at Aberthaw, less than [REDACTED]kt at Cauldron and approximately 120kt at Hope. Lafarge’s only significant spare capacity was at Dunbar. Moreover, Table 1 shows that, when examining utilisation rates, Lafarge’s cement utilisation in 2011 was [85-95]%, which compares to [70-80]% on a clinker basis. The CC’s claim that the main constraint on cement production is “*likely to be kiln capacity rather than grinding capacity*” does not therefore apply to Lafarge and is misleading.

Table 1: Lafarge Cement and Clinker Spare Capacity 2011

	Clinker spare capacity (kt)	Clinker utilisation (%)	Cement spare capacity (kt)	Cement utilisation (%)
Aberthaw	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Cauldron	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Dunbar	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Hope	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
TOTAL	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Source: Appendix 7.2 to the PFs, Table 9.

31. In short, it is not appropriate to characterise Lafarge as operating with substantial spare capacity compared to historical levels. Not only did the reduction of capacity help Lafarge to address the supply-demand imbalance, it also allowed Lafarge to aggregate its production at its more efficient plants (Hope and Cauldron).
32. These facts undermine the CC’s basis for rejecting cost savings and capacity closures as an explanation for the observed pattern in margins for Lafarge.
33. Finally, the CC’s “*stable margin test*” is not probative of coordination:

⁴³ Appendix 7.2, paragraphs 6-8.

⁴⁴ Appendix 7.2, paragraph 7.

⁴⁵ Lafarge’s response to the CC’s putback working paper “Lafarge coordinated effects Appendix 1”.

- Stable margins may be observed in a non-coordinated market when demand decreases substantially; this may occur for example where costs fall sufficiently as demand falls (as textbook economic models demonstrate).⁴⁶ Indeed, Lafarge’s cost reductions (including closing its least efficient plants) were a unilateral response to the recession and helped to stabilise Lafarge’s margins.⁴⁷ As noted above, Figure 14 of Appendix 6.5 shows that the CC’s estimate of Lafarge’s net revenue per tonne and variable cost per tonne moved in line over 2007-2011. Figure 14 (Lafarge only) is presented below.⁴⁸

Figure 1: Lafarge average price (external sales) verses variable costs (rebased to 100 in 2007): £/tonne

[✂]

- Stable margins may be observed in non-coordinated markets where capacity is reduced sufficiently to redress the supply demand balance. The CC acknowledges that capacity decisions were *not* coordinated.⁴⁹ As noted above, Lafarge reduced its capacity by the same amount as the fall in GB demand for cement.
 - If the CC rejects either of these explanations for margins, it is faced with a puzzle, namely that even a monopolist (*i.e.*, even *perfectly coordinating* firms) would reduce their margins during a slump. So the failure to observe a fall in margins would imply that coordination must have *strengthened* during 2009. However, the CC rejects this explanation, describing 2009 as a period when coordination was *less effective*.⁵⁰
34. In summary, the CC has neither an evidential nor a theoretical basis to assert that the observed pattern in margins is indicative of coordination.

⁴⁶ See for example the economic models in the Appendix to “*Annex to Assessing the Likely Impact of the Proposed JV on Competition in the Supply of Bulk Cement: An Economic Analysis of the Provisional Findings*”, dated 12 March 2012. In this Appendix we showed that a recession could entail: a parallel shift inwards in inverse demand (a fall in the intercept) without impacting on percentage margins; a pivot inwards in inverse demand (an increase in the slope parameter), leading to higher percentage and absolute margins; a fall in the intercept of the inverse demand curve and an increase in the slope parameter, giving rise to higher percentage margins and, in some cases, higher absolute margins.

⁴⁷ See for example Lafarge’s response to the CC’s Updated Issues Statement, section 1(e) and Annex 3.

⁴⁸ Sourced from CC putback working paper “Lafarge cost structure and profit margins part 2”, Chart 14.

⁴⁹ Section 8, footnote 161: “*We have not found evidence to explain how the accepted shares of sales for each coordinating firm are initially arrived at. We did not consider that the focal point for coordination was capacity nor that the accepted shares of sales for each coordinating firm were mechanistically derived from each firm’s capacity. An understanding on accepted shares of sales may have been reached before the period of time covered by our investigation. Although our investigation has focused on the period since 2007, there was evidence from both the internal documents and the other quantitative sources of information and data available to us that coordination was taking place prior to 2007 as well. However, we have not sought to identify the precise date coordination started.*”

⁵⁰ The CC states: “*We found that there were some indications that 2009 was a period of time when coordination in the GB cement markets might have been less successful, possibly as a result of a large internalization of cement purchases by one of the Majors at that time and/or the significant slump in demand in 2008/09*” (8.227).

(c) **Excess profitability**

35. The CC articulates a concern about the absolute level of profitability across firms and the increasing profitability trend across firms since the demand slump (including in particular the CC considered that the profitability of three out of four cement producers had risen to levels beyond those at the start of the review period despite the continued adverse trading conditions).
36. Yet the CC's approach to profitability is misconceived and the CC has not addressed the major concerns that LT has with its approach. In fact, minor but entirely reasonable sensitivity tests of the CC's approach demonstrate how the CC has no basis to conclude that industry profits are excessive. This analysis is set out in detail in **Section B** below and in LT's response to the CC's working paper on cement profitability (dated 23 April 2013). The following headline points (substantiated in Section B below) remain pertinent:
- The CC's results are not robust to small but entirely reasonable sensitivity tests.
 - The CC's approach produces results for Lafarge that are quite clearly not credible and which in turn determine the overall result for the industry (see letter submitted to the CC on 23 April 2013).
 - The profitability of individual cement producers does not indicate coordination.
 - The CC ignores the costs of assets from the balance sheet while including revenues generated from them.
 - The CC applies an approach inconsistent with another ongoing CC market investigation.
 - The CC has assumed the existence of market power by assuming intangible assets reflect capitalised market power.
 - The CC fails to acknowledge decreases in real prices. LT's bulk CEM I and bagged cement prices to independents have continued to fall in real terms over 2012 and 2013 (January to April). Lafarge's bulk CEM I prices to independents have fallen from £[⌘] in 2011 to £[⌘] in 2013 (for LT). Similarly, Lafarge's bagged prices to independents moved from £[⌘] in 2011 to £[⌘] in 2013.
37. The evidence leads logically to the inference that GB cement producers did not earn excessive profits over the period 2007-2011. It is also clear that the downturn in demand did impact substantially on profitability in 2008 and 2009 and the subsequent recovery is driven by the CC's limited view of the assets required to serve the market effectively, aggressive depreciation assumptions, substantial cost savings made by Lafarge and the higher value of returns achieved by Lafarge from the sale of innovative products and processes (*e.g.*, VAPs).

(d) **Switching and credible threats to switch**

38. The CC acknowledges that the end of 2008 and all of 2009 were periods with relatively high levels of customer switching and that customers switching from 2009 onwards achieved lower prices after switching on average (8.226 (e)-(f)).⁵¹ The CC acknowledges that when switching occurs this is tantamount to a deviation from the asserted terms of coordination.⁵²
39. The CC also contends that customers that did not switch (whether or not they threatened to switch) did not on average achieve large price reductions and that switching and threats to switch have not been sufficient to erode the margins and profitability of the GB cement producers (8.178). However, as noted above, a fair reading of the evidence does not indicate that profits are excessive. Margins are therefore not excessive and so not at a level where one should expect credible threats to switch (or actual switching) to erode them substantially. Notwithstanding the above, analysis performed by the CC shows that customers [REDACTED]
40. Furthermore, prices (both bulk CEM I to independents and bagged cement to independents) fell in 2010 and 2011 in real terms during a period when the CC considers switching to be relatively low. If this price reduction was driven by actual switching then this indicates that switching was greater than the CC has measured; alternatively, if the CC is correct that switching is low, then it must be that credible threats to switch are sufficient to deliver lower prices. In that regard, LT notes the following:
- The CC has substantially understated switching by computing switching of independent customers as a percentage of *total* volumes (that include volumes supplied internally as well as volumes supplied to other majors) as opposed to presenting switching as a percentage of independent sales (*i.e.*, the base of independent volumes for which cement suppliers compete).⁵³ When measured properly, switching in the independent segment is substantial. Specifically, when presenting losses of independent customers as a proportion of bulk delivered cement sold to non-majors, Lafarge's losses represented over [REDACTED]% of relevant external sales over 2008-2010 (*i.e.*, the period for which the CC has full data⁵⁴), and represented [REDACTED]% of relevant external sales in 2009. Similarly, when presenting wins of independent customers as a proportion of bulk delivered cement sold to non-majors, Lafarge's losses represented [REDACTED]% of relevant external sales over 2008-2010, and represented [REDACTED]% of relevant

⁵¹ The CC states that switchers did not obtain lower prices on average prior to 2009. However, this is likely to be explained by a combination of the substantial rise in production costs as well as the strength of demand and relative shortage of supply in 2007 and the first half of 2008. As noted above, the CC found that Lafarge's average prices closely track the movements in Lafarge's variable cost, as shown in Figure 14 of Appendix 6.5 to the PFs.

⁵² Section 8, footnote 174: "*This does not necessarily mean that deviation by targeting of individual customers of competitors is rare. We saw some evidence of a degree of switching of customers between GB cement producers, and such switching was higher at some times than at others.*"

⁵³ Paragraph 8.178.

⁵⁴ See paragraph 14 of Appendix 7.9.

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external sales in 2009. This suggests that Lafarge's churn of bulk independent customers represented around [X]% of relevant external sales over 2008-2010 (*i.e.*, a rate at which it would turnover its customer base in just over [X] years) and represented nearly [X]% in 2009 (*i.e.*, a very high rate at which it would turnover its customer base in just [X] years);⁵⁵

- Credible threats to switch have been downplayed by the CC. Lafarge submitted important evidence on customers having credible threats to switch. During the course of the Merger Review, Lafarge collected evidence on credible threats to switch by bulk non-major customers over 2010-2011. Lafarge found that the simple average price reduction in order to successfully retain customers was £[X] over affected volumes of [X]kt.⁵⁶ In other words, the volumes associated with customers actively threatening to switch were greater than the volumes covered by actual switching from Lafarge.⁵⁷ LT has repeated this exercise and found that the simple average price reduction in order successfully to retain bulk independent customers following a threat to switch to HCM was £[X] over affected volumes of [X]kt over January-April 2013 (see Annex 2 for further details). This further demonstrates the significant competitive activity generated by HCM's presence in the market even where no switching occurs.
41. The CC also states that “*despite some years exhibiting relatively high switching, market shares had tended to remain stable*” (8.178). This is not correct. As explained above, market shares were not stable whether considered for GB production as a whole or sales to the independent segment.
42. Finally, to the extent that it is correct that some customers suffer higher prices because they do not switch, this does not imply that coordination is the cause. Indeed, alternative explanations include:
- The customer is not concerned about the price paid, *e.g.*, considering it to be reasonable given the delivery cost and size of the order. The CC notes that there were relatively few customer complaints, for example.⁵⁸
 - The customer is unwilling to shop around (in which case it is customer behaviour, as opposed to coordination, that caused higher prices). It may also reflect that the customer is happy with the service and product quality provided by Lafarge.

⁵⁵ Results obtained by adjusting the figures shown in Table 13 and Table 15 of Appendix 7.9 to the PFs.

⁵⁶ See Lafarge's response to Updated Issues Statement, section 2.

⁵⁷ See Annex 2 of Lafarge's response to the CC's Updated Issues Statement.

⁵⁸ See footnote 204 of section 8 of the PFs: “*We did not receive many submissions from bulk or bagged cement customers complaining about cement prices or other aspects of the supply of cement—although there were a small number.*”

- Superior levels of service and quality produce customer loyalty. Customers are not willing to sacrifice consistently high service and quality for the risks of switching.

(e) **Recent developments**

43. The CC has focused its analysis on and sourced its evidence for coordination from the period 2007-2011. However, it is important to note that switching levels have increased substantially in 2013, in large part due to increased competition from HCM. LT has suffered substantial losses in both the bulk and bagged segments and prices for independents have continued to fall in real terms in both bulk and bagged cement.

- Focusing on bulk independent cement customers, switching levels have increased very substantially from 2011 to 2013 (year-to-May). Indeed, Lafarge's total losses of bulk independent customers was [REDACTED]kt in 2011 for the year as a whole, which compares to [REDACTED]kt in 2013 for January-May.⁵⁹
- On the assumption that LT's total annual sales of cement to bulk non-majors in GB are approximately [REDACTED]mt (*i.e.*, in line with previous years), LT's losses in this segment for just January-May 2013 would represent approximately [REDACTED]% of such sales.⁶⁰
- The majority of LT's losses of bulk independents in 2013 to date have been to HCM, which accounts for [REDACTED]% of LT's losses of these customers. By contrast, Lafarge's losses of bulk independents to Tarmac never exceeded [REDACTED]% over 2009-2012.
- Furthermore, and as noted above, evidence on LT's successful retentions of bulk independent customers in 2013 shows that, following the threat to switch to HCM, the simple average price reduction in order to successfully retain these bulk independent customers was £[REDACTED] over affected volumes of [REDACTED]kt over January-April 2013 (see **Annex 2** for further details).⁶¹ This further demonstrates the significant competitive activity generated by HCM's presence in the market even where no switching occurs.
- Switching levels have also substantially increased for bagged (independent) customers in 2013 to date: LT's losses increased from [REDACTED] in 2011 to over [REDACTED]kt in 2013 (January to May). The vast majority of LT's bagged losses have been to [REDACTED], which accounted for [REDACTED]% of LT's losses in 2013. [REDACTED] has won two large bagged customers from LT this year: [REDACTED] ([REDACTED]kt) and [REDACTED] ([REDACTED]kt).
- Lafarge's bulk CEM I and bagged cement prices to independents have continued to fall in real terms over 2012 and 2013 (January to April, for LT).

⁵⁹ Lafarge's total losses of bulk independent customers was [REDACTED]kt in 2012 for the year as a whole.

⁶⁰ The equivalent percentage for 2012 would have been around [REDACTED]%.

⁶¹ This will have increased in May 2013 since a £[REDACTED]/t reduction in price was negotiated by TBP on the existing [REDACTED]kt and included an increase in LT's sales volumes to TBP of [REDACTED]kt.

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Lafarge's bulk CEM I prices to independents have fallen from £[REDACTED] in 2011 to £[REDACTED] in 2013 (for LT). Similarly, Lafarge's bagged prices to independents moved from £[REDACTED] in 2011 to £[REDACTED] in 2013 (for LT).

44. Further recent developments, discussed in detail below, include the substantially greater scope for competition by CRH, an importer with numerous terminals providing GB coverage, low costs of exporting to GB, substantial spare capacity (as acknowledged by the CC) and an intention to expand (as evidenced by its recent acquisition of Dudman's import terminals and Southern Cement's import terminal).

(f) **Conclusion on market outcomes**

45. For the reasons set out above, the historic market outcomes relied on by the CC do not support the CC's view that the cement market is coordinated. As explained in Part 3, this view is compounded when recent developments are considered, including the key competitive constraint placed by HCM.

B. PROFITABILITY IN CEMENT

46. The CC is concerned about the absolute level of profitability across GB cement firms and the increasing profitability trend across firms since the demand slump. Yet the CC's approach to profitability is misconceived and the CC has not properly addressed the concerns that LT has with its approach. Moreover, minor but entirely reasonable sensitivity tests of the CC's approach demonstrate that the CC has no basis to conclude that GB cement industry profits have been excessive over 2007-2011.

(a) **The CC's results are not robust to reasonable sensitivity tests**

47. The CC's central result that industry ROCE exceeded a WACC of 10% over 2007-2011 is very sensitive to small changes in the assumptions adopted. LT notes in particular that the CC has itself considered two small sensitivities as part of its analysis, the first being to assume a MEA value in 1 January 2007 prices of £200m instead of £170m, and the second being to assume an asset depreciation rate of 2.5% instead of 3.5%.⁶²
48. Using the information provided by the CC in its data room, LT's economic advisers have combined these two alternative assumptions to provide what they consider to be a reasonable sensitivity test (particularly given the extreme starting point adopted by the CC).^{63, 64} On this basis, GB cement producers' profitability on a continuing cost

⁶² See paragraph 8 of Appendix 7.7 of the PFs.

⁶³ Using the unredacted versions of Tables 13(a) through 13(d) in Appendix 7.7 of the PFs made available to us in the CC's data room, it has been possible to reverse engineer (using a spreadsheet model) to within 1 decimal place the CC's GB cement industry average profitability results on a continuing cost basis over 2007-2011, and the results of both of the CC's own profitability sensitivity results described in paragraphs 15-16 of Appendix 7.7 of the PFs. We therefore consider that our replication of the CC's profitability results is accurate such that our own sensitivity results from combining a £200m MEA asset value and a 2.5% depreciation rate are reliable.

⁶⁴ See letter submitted to the CC on 23 April 2013 for additional evidence that the CC's central estimated MEA value of £170m is too low and the CC's central estimate of a depreciation rate of 3.5% is too aggressive.

of supply basis reduces to [REDACTED]% over the 2007-2011 period on a continuing cost basis, a ROCE which is comparable to the CC's central WACC level of 10% and comfortably within the CC's WACC range of 8.2-11.5%. Moreover, on a full cost of supply basis, ROCE falls to [REDACTED]%, which is below the CC's WACC range.

49. LT concludes from this that the CC's finding that GB cement industry ROCE exceeded a WACC of 10% over 2007-2011 is not robust, and that alternative reasonable assumptions show that industry ROCE was in fact at a WACC of 10%, demonstrating that the cement industry was not earning excess profits.⁶⁵

(b) **The CC's results are not conservative**

50. The CC suggests that its cement profitability results are conservative in that they may overstate asset bases because "*[the CC has] not adjusted asset values for the higher operating costs undoubtedly associated with some older and less well-located plants... This, however, does mean that, to the extent that these adjustments could justifiably have been made, certain firms' profits will be under-stated and capital employed overstated. These firms' ROCEs will therefore be understated.*"⁶⁶
51. However, the analysis submitted to the CC as part of LT's response to the cement profitability working paper clearly demonstrated that older plants cannot be assumed to have higher operating costs. For example, Lafarge Cauldon (22 years old as of 1 January 2007) was found to be significantly more efficient than Tarmac Tunstead (3 years old as of 1 January 2007) and that Hope (37 years old as of 1 January 2007) was equally as efficient as Tunstead. This is confirmed by the CC's analysis of cost structures of GB cement plants (Figure 12 of Appendix 6.5 to the PFs) [REDACTED]
52. Furthermore, the CC's claim that less well-located plants would have "*undoubtedly*" higher operating costs is not supported by the CC's results in Figure 12 of Appendix 6.5. [REDACTED] The second part of the CC's claim must also therefore be rejected.
53. Moreover, LT reiterates that the CC's assumption of an MEA value in 1 January 2007 prices of £170m is too low. For example, the engineering estimate for Tarmac's K2 (i.e. an additional kiln at Tunstead with a capacity of 1mtpa of cement) feasibility study shows a £[REDACTED]m capital cost in 2010 1st quarter prices – this is a highly relevant benchmark, being an additional kiln at a brownfield, rail-linked cement plant. The implication for the profitability assessment of using this estimate (assuming a MEA value of £[REDACTED] in 2007 i.e. the £[REDACTED]m value adjusted for inflation) would be to reduce Lafarge's profitability on a continuing cost basis to [REDACTED]%, a reduction of [REDACTED] percentage points compared to the CC's central scenario.⁶⁷

⁶⁵ Notwithstanding the above, we consider that the CC has not justified its assumption of a 3.5% depreciation rate. Indeed the CC's principle justification appears to be "because it did not appear to result in an unrealistically high MEA value for older assets" (Appendix 7.7 para 114. However, we consider that the 3.5% rate results in unrealistically low MEA values for older assets, and is the key driver of the CC's calculation that Lafarge earned a ROCE of approximately 30% over 2007-2011.

⁶⁶ See Appendix 7.7, paragraph 9.

⁶⁷ In addition, the cost of developing the cement works at Tunstead is substantially in excess of the £170m in 2007 terms. [REDACTED].

54. Similarly, the capital expenditure request made in September 2008 by LCUK to Lafarge Group for developing the Medway cement plant was approximately £[REDACTED]m, equivalent to £[REDACTED]m in 2007 prices. The implication for the profitability assessment of using this estimate would be to reduce Lafarge's profitability on a continuing cost basis to [REDACTED]%, a reduction of [REDACTED] percentage points compared to the CC's central scenario.

55. In sum, the CC's claim that older plants are less efficient plants cannot therefore be considered accurate and even if it were then the CC's claim that its profitability results are conservative is, to say the least, a large overstatement.

(c) The CC's approach produces results for Lafarge that are quite clearly not credible and which in turn determine the overall result for the industry

56. The CC's central scenario produces a profitability figure for Lafarge over the 2007-2011 period of nearly [REDACTED]% on a continuing cost of supply basis. LT considers that such profitability is unrealistic, is in stark contrast to Lafarge's own internal day-to-day business measure of profitability (which, for the period concerned, indicated cement returns below the WACC), and is in contrast to independent analysts' measures of profitability.⁶⁸

57. The CC's unrealistic ROCE result is largely driven by the CC's methodology, which calculates that firms with older plants, such as Lafarge, are substantially more profitable than firms with newer plants. For example, by changing the assumed depreciation rate for Lafarge from 3.5% to 0%, then under the CC's methodology Lafarge's average profitability over 2007-2011 falls by approximately [REDACTED] percentage points.

58. Given that Lafarge is the largest clinker producer in GB, with a portfolio of older plants, and therefore accounts for the greatest weight when the CC calculates average profitability across all GB producers, the CC's methodology leads to ROCE being overstated for GB producers as a whole.⁶⁹ Indeed, by changing the assumed depreciation rate for each cement firm from 3.5% to 0% then, under the CC's methodology, GB industry profitability falls from 13.3% on a continuing cost basis to [REDACTED]%, which is lower than the CC's central WACC estimate.⁷⁰

(d) The profitability of individual cement producers does not indicate coordination

59. As noted above, using the unredacted version of Appendix 7.7 of the PFs and a spreadsheet model created in the CC's data room, it can be seen that the CC's industry

⁶⁸ See Lafarge Tarmac's response to the CC's cement profitability working paper.

⁶⁹ The CC appears to recognise this weakness in its approach in paragraph 12 of Appendix 7.7: "each of the individual cement producer's results may be influenced to a significant extent by the weighted average age of its cement plant portfolio with Lafarge at one extreme owning a portfolio of older plants and Tarmac owning a single almost brand new plant at the other extreme".

⁷⁰ [REDACTED]

profitability calculations are driven by the (substantially inflated) ROCE estimated by the CC for Lafarge.

60. The implication is that even if one were to take the CC's estimates at face value, Cemex and Hanson would [REDACTED]⁷¹ and thus not likely to be engaged in coordination. However, if Cemex and Hanson are not coordinating, then Lafarge cannot be either.⁷²
61. Put another way, even under the CC's inflated measure of profitability, Hanson and Cemex appear to [REDACTED]. Since there is no reason to expect Hanson and Cemex to be substantially less efficient than Lafarge, the prices that they charge and margins they earn are presumptively at the competitive level.
62. The CC cannot have its cake and eat it – it seeks to argue that Hanson and Cemex [REDACTED] because they are more inefficient than Lafarge; however, the CC then relies on Lafarge's assets being the least efficient in the industry (due to their age) in order to come to a finding of excessive profits. Such an approach is inconsistent and wholly unsatisfactory.

(e) **The CC ignores the costs of assets from the asset base while including revenues generated from them**

63. The CC's methodology excludes from the MEA the value of revenue-generating cement assets both co-located and not co-located with clinker production (which are substantial for Lafarge and would apparently also be substantial for Cemex and Hanson), but appears to make no adjustment to revenues which are based upon overall sales of cement (as opposed to clinker).
64. For example, using the information provided in the data room, it can be seen that the CC's methodology [REDACTED].⁷³
65. Similarly, the CC's approach excludes any investments in clinker and cement import terminals, which represent substantial investments for Lafarge. The CC's justification for this approach is that its "*MEA benchmark relates to the production and distribution of cement in GB and not a model assuming importation from outside GB as a back-up in the event of plant production problems*" (Appendix 7.7 paragraph 46). Even if the CC is correct in characterising Lafarge's investments in import terminals as "back-up", it would not be appropriate for the CC to exclude these investments from Lafarge's asset base on the basis that Lafarge's past commercial actions do not fit with the CC's own theoretical model for cement activity in GB.⁷⁴ Indeed, the fact

⁷¹ [REDACTED]

⁷² The CC also estimates that Cemex, Hanson and Lafarge have similar cost structures and so the difference in profitability is *not* likely to be explained by differences in efficiency. See paragraph 8.234 of section 8 of the PFs: "Our analysis of the cost structures of the GB cement producers (see paragraph 7.134) showed that these *were broadly similar, particularly those of [REDACTED], [REDACTED] and [REDACTED]. We therefore do not consider further whether differences in efficiencies of the GB cement producers may adversely affect incentives to coordinate*".

⁷³ See also paragraph 188 of Appendix 7.7 of the PFs.

⁷⁴ Similarly, the CC assumes that future entry into the cement industry would only occur on an existing brownfield cement site, and therefore rules out new entry on a greenfield site such as at Medway in

that Lafarge has undertaken different actions indicates that the CC's model is inappropriate, and moreover unfairly penalises LT for having invested in its cement asset base by increased import capacity rather than clinker production capacity.

66. In response to LT's submission that the CC has ignored Lafarge's investment in blending depots from the asset base, the PFs state that "*investment in depots should be considered as part of the MEA*" (paragraph 47 of Appendix 7.7).⁷⁵ However, LT's submission referred to blending depots rather than distribution depots; the investment in blending facilities at existing depots by Lafarge over 2007-2011 allowed Lafarge to produce CEM II/III at these facilities. These investments would represent investments over and above the MEA assumed by the CC.⁷⁶
67. Moreover, the CC's estimated cost of the MEA is understated because Irish Cement's Platin investment, one of the two examples used by the CC to inform its estimated MEA value, did not involve investment in distribution depots, and Platin does not make use of distribution depots to distribute its cement products. The CC's cost estimate for Platin would not therefore include the additional costs of building depots and creating a distribution network which the CC claims should be "*part of the MEA.*"
68. Similarly, the CC has inappropriately interpreted LT's submission concerning Lafarge's investment in plastic packing facilities over 2007-2011.⁷⁷ At footnote 66 of Appendix 7.7 the CC states that Lafarge's substantial investments "*may be an example of a development in the MEA during the period of review*" and the CC therefore chooses to exclude these investments from Lafarge's asset base. However, the CC's assumed £170m cost of its MEA in January 2007 is based upon specific examples of investments in cement assets between 2004-2009 (paragraph 57 of Appendix 7.7), none of which possessed plastic packing facilities. Lafarge's investment therefore clearly represents an investment over and above the MEA envisaged by the CC and points to Lafarge's asset base being undervalued and its profitability overstated. If the CC now considers that plastic packing represents a development in the MEA then the CC should revise upwards its estimated cost of the MEA. In other words, the CC's results partly reflect a product mix effect where Lafarge has increased the proportion of its sales which are bagged cement (a higher value product than bulk cement) over the 2007-2011 period, which has had the effect of increasing average revenues per tonne; the investments undertaken to achieve

Kent, where for example Lafarge Tarmac holds planning permission. Lafarge Tarmac estimates that greenfield entry would cost at least £[£]m for a cement facility capable of producing 1mt of clinker, which contrasts sharply with the CC's assumed £170m cost of a MEA as at 1 January 2007. The CC's view on future entry into the GB cement industry is therefore a key driver of its profitability results, and is contingent upon existing GB cement sites having sufficient reserves of limestone to justify investment in a new plant.

⁷⁵ See Lafarge Tarmac response to the CC's cement profitability working paper.

⁷⁶ For example, the CC uses Tarmac's Tunstead plant to inform its view on a MEA, yet we understand that Tunstead was (and is) only capable of producing a CEM I cement or a CEM II cement with limestone as an addition. Tunstead does not have grinding facilities to grind slag to produce GGBS in order to produce CEM II/III, and nor does it have silos for storage of PFA or connections to create a CEM II/III PFA-based cement product.

⁷⁷ See Lafarge Tarmac response to the CC's cement profitability working paper.

greater bagged cement sales are not reflected in the CC's asset base, with the result that profitability is overstated.

69. This can be seen clearly in the chart below which shows the adjusted MEA, gross revenue and EBITDA for Lafarge in 2011 split by site.⁷⁸ The chart shows that the site category "Other" accounts for 0% of the MEA value of Lafarge in 2011 and yet counted for [10-15]% of gross revenues and [25-30]% of EBITDA in 2011.⁷⁹ Importantly, the "Other" category includes revenue and cost items to which the CC appears to attribute no value in the asset base in its profitability analysis: head office, Barnstone cement works, ash operations, cement resales, Lafarge Medway (unopened site), Weardale (Closed Site), Northfleet import terminal and the following depots not assigned to one specific cement works: Exing, Goole, Havant, Colbrook. The chart below therefore demonstrates that the CC excludes from the MEA the value of revenue-generating assets, but appears to make no adjustment to revenues or profits (despite these excluded items accounting for [25-30]% of EBITDA in 2011) which are based upon overall sales of cement.⁸⁰

Figure 2: CC's gross revenue, EBITDA and MEA breakdown by category (£ millions): 2011
[✂]

70. If the income and cost streams for these "Other" assets are excluded, the impact is to reduce Lafarge's ROCE on a continuing cost basis to [✂]%, a reduction of [✂] percentage points compared to the CC's central scenario.
71. Furthermore, the CC has inappropriately responded to LT's submission of evidence that £[✂]m of investment was undertaken at Lafarge Hope over 2005-2012.⁸¹ LT submitted that because the investments over an eight year period substantially exceeded the CC's assumed normalised asset value for the entire plant and machinery at Lafarge Hope in 2007 (£[✂]m), the CC's depreciation profile was likely to be unrealistically high. At paragraph 143 of Appendix 7.7, the CC responds that "*so long as our depreciation profile/implicit asset life assumptions were reasonable and we identified any investment in assets during the period of review which extended the capability of the cement works beyond the MEA as at 1 January 2007, then we would not omit expenditure which boosted the efficiency and life of assets*". However, the CC has misunderstood LT's argument. The fact that the amount of capital expenditure is so high in relation to the asserted value of the asset in 2007 indicates not only that the asset was substantially *undervalued* by the CC in 2007 but also that assets are not likely to depreciate as rapidly as the CC assumed, due to the substantial

⁷⁸ See Lafarge's response to Part of the CC's FQ for the underlying data. Sites included the network of depots and blenders associated with particular cement plants, with Hope for example including the Hope cement works plus the following: Liskeard & Manchester Depots and Dewsbury, Theale & West Thurrock blenders. Adjusted MEA refers to the 2011 normalised real MEA values at the start of 2011 pro-rated to sum to the CC's nominal plant and machinery AICC asset base figure for 2011.

⁷⁹ Note that in 2011 Northfleet and Westbury had zero revenues but had small amounts of costs (mainly logistics costs) associated with them which resulted in a negative EBITDA. Northfleet and Westbury are not presented in the chart above.

⁸⁰ See Lafarge's response to Part of the CC's FQ for the underlying data and explanations.

⁸¹ See Lafarge Tarmac response to the CC's cement profitability working paper.

expenditure on them to maintain their useful lives. This view is also supported by other evidence submitted to the CC that suggests that the CC's depreciation profile for Lafarge Hope is not appropriate, and that the implicit asset life assumption for Lafarge Hope is incorrect (see letter submitted to the CC on 23 April 2013).

72. In recent years, Lafarge invested capital in Hope to secure the life of the plant (including the kilns) at a *minimum* until the existing 21 years of permitted reserves are exhausted. This is incontrovertible evidence that the CC has substantially underestimated the asset life of Hope. For example, in 2013 Lafarge Hope would be 43 years old under the CC's methodology, providing the plant with 7 years of useful life against a benchmark of 50 years. LT considers that this is unrealistic and moreover would not reflect the expectations of the new entrant, Mittal Investments, surrounding Hope's useful life. Specifically, LT submits that without any additional development capital expenditure by HCM (i.e. only normal maintenance expenditure is performed) that Hope will be capable of producing cement for at least as long as the life expectancy of consented reserves of limestone at the site, which is 21 years.⁸² This suggests that the 3.5% depreciation rate assumed by the CC is too high.
73. In addition, the CC's normalised asset value for cement plants as of 1 January 2007 are approximately [X]% lower for Aberthaw, Cauldon and Dunbar than the fair value (FV) estimates reported by KPMG at the time of the completion of the JV between Lafarge and Tarmac on 7 January 2013, further suggesting that the depreciation profile adopted by the CC is unrealistically high.⁸³ The CC wrongly dismisses its submission on the fair value assessment evidence by stating that the calculations were done on a different basis to the CC's MEA methodology.⁸⁴ This is discussed in detail in Section C of the Expert Report of Professor Chris Higson, which accompanies this submission. Even if this were the case, the magnitude of the difference between the fair value estimates and the CC's value assessments for LT's cement plants (between [X]% and [X]% lower than the fair value estimates) casts considerable doubt on the CC's methodology.

(f) The CC applies an approach inconsistent with another ongoing CC market investigation

74. Further, and as noted in LT's response to the CC's cement profitability working paper, the CC has also performed a profitability analysis in its ongoing private healthcare market investigation, which compares the ROCE against the WACC for seven private hospital operators in the UK. The methodology employed to estimate the MEA of a hospital building in the private healthcare investigation differs from that employed in the CC's aggregates, cement and ready-mix concrete market investigation in an important respect.
75. Specifically, the CC did not depreciate the MEA of a hospital building in estimating the relevant capital employed in the private healthcare market investigation, which the

⁸² Lafarge Tarmac considers that an exception to this life expectancy would be if unforeseen new regulation alters the commercial viability of the Hope cement plant.

⁸³ See Lafarge Tarmac's response to the CC's cement profitability working paper.

⁸⁴ See paragraph 122, Appendix 7.7.

CC justifies on the basis that the useful economic life of a hospital building that is appropriately maintained was significantly in excess of 50 years, and that private hospital operators had high levels of recurring expenditure on the refurbishment of their hospitals, which was expected to extend the life of hospital buildings significantly. As noted in LT's response to the CC's cement profitability working paper, the factors relied upon by the CC in the healthcare investigation to justify an undepreciated approach equally apply to the cement investigation. For example, the CC states that much [REDACTED].⁸⁵

(g) The CC's concern over an upturn in profitability in 2010 and 2011 is unfounded

76. The CC notes that all the GB cement producers experienced a dip in economic profitability in 2008 and/or 2009 but asserts that profitability rose thereafter, causing the CC concern. However, Lafarge's revenue per tonne fell from 2009 to 2010 (£[REDACTED] to £[REDACTED]) and was stable from 2010 to 2011, while its costs (excluding depreciation) per tonne reduced from 2009 to 2010 (£[REDACTED] to £[REDACTED]) and 2010 to 2011 (£[REDACTED] to £[REDACTED]). The CC's results therefore show that Lafarge's increase in cash profits (on a continuing costs of supply basis) per tonne over 2009 to 2011 was driven by *falling costs* rather than increasing revenue per tonne. The CC's calculated increase in Lafarge's ROCE from 2009 to 2011 (from [REDACTED]% to [REDACTED]% to [REDACTED]%) is then further substantially influenced by declines in the asset base which are driven entirely by the CC's assumption of a 3.5% depreciation rate.

77. In sum, the CC's concerns over its modelled upturn in profitability in 2010 and 2011 are unfounded, since the upturn for Lafarge is driven by lower costs per tonne, the CC's assumed depreciation profile and the CC's inclusion of inappropriate revenues.

(h) The CC has assumed the existence of market power by assuming intangible assets reflect capitalised market power

78. The CC's approach to intangibles is circular. It excludes goodwill from the asset base claiming that this may reflect capitalised market power as opposed to genuine intangible assets, yet its exclusion *determines* the finding of excess profits.⁸⁶ [REDACTED] This is addressed in further detail in Section D of the Expert Report of Professor Chris Higson, which accompanies this submission.

(i) Conclusion on profitability

79. In short, minor but entirely reasonable sensitivity tests of the CC's approach demonstrate that the CC has no basis to conclude that GB cement industry profits have been excessive over 2007-2011. Furthermore, a fair reading of the evidence shows that the CC's industry profitability results are principally driven by the unrealistic profitability results the CC calculates for Lafarge, which in turn is a function of the CC's depreciation rate assumption of 3.5%. Even if one were to take

⁸⁵ Footnote 52, Appendix 7.7.

⁸⁶ See Appendix 4.1 paragraph 128: "Lastly, but not least, the level of purchased goodwill will potentially reflect the capitalization of future super-normal profits, and therefore an asset which would be inappropriate to include within capital employed when assessing the level of underlying profitability."

the CC's estimates at face value, Cemex and Hanson would not be earning excess profits and thus not likely to be engaged in coordination. However, if Cemex and Hanson are not coordinating, then Lafarge cannot be either.

80. The CC has estimated consumer detriment using the results of its profitability analysis. Specifically, the CC takes the difference between the return on capital employed (based on a continuing cost of supply basis) less its central estimate of firm's cost of capital as a measure of excess returns, and multiplies this by the industry's total net assets as modelled by the CC.⁸⁷
81. As noted above, minor but entirely reasonable sensitivity tests of the CC's approach demonstrate that the CC has no basis to conclude that GB cement industry profits have been excessive over 2007-2011. [✂]

C. DISTINGUISHING COORDINATION FROM COMPETITION

82. The CC deals with evidence of competitive behaviour not by ruling out coordination but rather by claiming that some competition is consistent with coordination. Indeed, the CC refers on numerous occasions to this view.⁸⁸ Working from the assumption that the cement market is coordinated, the CC misinterprets a significant body of evidence of actual competition, as a punishment mechanism. This represents a manifest error of assessment.

(a) Market outcomes

83. In favour of coordination taking place despite evidence of competition, the CC states:

“We [the CC] noted that evidence on market outcomes (see paragraphs 8.3 to 8.11) was consistent with coordination in the GB cement markets taking place throughout the period 2007 to 2011 (although it may have been more and less successful at different times—see paragraph 8.230).” (8.176).

84. However, the market outcomes to which the CC refers are those discussed in **Section A** above where it was explained that all of them could be explained by non-coordinated behaviour.
85. Further, it is instructive to consider the CC's evidence on coordination being “*more and less successful*”. This evidence is set out in the PFs at paragraphs 8.227-8.230. First, the CC asserts that the loss in Lafarge's share was not due to the breakdown of coordination but due to Lafarge's role in the coordinating group as the player that concedes its share to importers and Tarmac so as to ensure that coordination with Cemex and Hanson does not break down. However, it is inconsistent to assert on the one hand that the terms of coordination are to maintain market shares and on the other that volatility in Lafarge's share was due to Lafarge not pursuing a strategy of maintaining share but instead an entirely different strategy of losing share to sustain coordination.

⁸⁷ See paragraph 8.272 of section 8 of the PFs.

⁸⁸ The critical paragraph is 8.176 to which the CC refers on at least thirteen occasions in Section 8.

86. Second, the CC goes on to explain that there was an increase in the intensity of competition in 2009 and that 2009 was a “*boundary*” in the sense that prices started to fall, having risen prior to that point. However, the CC rejects the view that this could be genuine competition on the basis that these changes do not appear to have had any lasting impact on the GB cement producers’ returns or variable profit margins.⁸⁹ In other words, the CC relies very heavily on its margin and profitability assessment in taking the view that coordination took place in 2009 and beyond. However, as set out in **Section A**, those market outcomes, when fairly assessed, do not support the view that coordination exists.

(b) **Price discrimination and switching**

87. The CC also seeks to explain its view that competition and coordination coexist throughout the period with the following statement:

“A degree of customer switching between GB producers is compatible with coordination. If there is some competition between GB suppliers (for example, for the most profitable customers), such competition will not undermine any overall coordination on share of sales—and will be constrained in magnitude—if there is a mechanism to re-establish stable market shares and to punish deviations (which we consider to be the case—see paragraph 8.218). Further, such ‘competition within bounds’ does not result in cheaper prices for all customers, due to the ability of cement suppliers to price discriminate (see paragraph 8.4).”

88. However, as set out in paragraphs 38-42 above, the switching evidence presented by the CC does not justify the CC’s coordination finding; rather, it demonstrates non-coordinated behaviour driving a reduction in real prices for bulk CEM I to independents since 2009 which continued into 2013 for Lafarge. Moreover, the existence of customers that do not switch does not imply coordination.
89. Further, as regards the “*mechanism to re-establish stable market shares*,” the CC itself acknowledges that it has not identified a mechanism by which Lafarge, Cemex and Hanson have identified the benchmark shares that they wish to sustain (“*an accepted share of sales*,” as the CC puts it).⁹⁰ Where the members of the putative coordinating group have inconsistent share aspirations, coordination will not be stable, yet given the variation in Lafarge’s share, neither Lafarge, Cemex nor Hanson could possibly have known the accepted share level on which to focus.

⁸⁹ See paragraphs 8.227-8.228: “...Nevertheless, we found that there were some indications that 2009 was a period of time when coordination in the GB cement markets might have been less successful, possibly as a result of a large internalization of cement purchases by one of the Majors at that time and/or the significant slump in demand in 2008/09. These indications included: the sudden reduction in Lafarge’s market share from 2008 to 2009 (subsequently partially recovered); the dip in economic profitability experienced by all GB producers in 2008 and/or 2009; higher price dispersion; and higher levels of customer switching. The year 2009 also appears to have marked a boundary between the pre-2009 period when the GB producers were able to achieve large increases in average prices of cement and the subsequent period when they were not. However, these changes do not appear to have had any lasting impact on the GB cement producers’ returns or variable profit margins” (footnotes omitted).

⁹⁰ Section 8, footnote 161.

90. The scope to punish deviations is also addressed below. Two points are noted here. First, if tit-for-tat was a punishment strategy supposed to achieve stable market shares, it failed. Second, the CC's evidence to support the existence of tit-for-tat behaviour cannot distinguish such behaviour from normal competition. However, the CC appears to consider that tit-for-tat behaviour is ongoing throughout 2007-2011 and beyond. If tit-for-tat behaviour is continuous then deviation is continuous as well – in other words, competition is taking place; cement suppliers are winning volumes from each other on a regular basis.
91. Finally, the CC suggests that there may be competition for the “*most profitable customers*” and (by implication) coordination with respect to the least profitable customers, with the latter not gaining from competition to supply the former because prices are negotiated on a customer by customer basis. However, if there is competition for a certain group of customers because they are currently the most profitable, such customers presumably become less profitable to serve (due to competition) while other customers for which there is less competition become more profitable. In other words, the most profitable customers may change over time such that the competition will impact on the whole of the market and destabilise coordination.

(c) **Absence of customer complaints**

92. The CC states: “*We did not receive many submissions from bulk or bagged cement customers complaining about cement prices or other aspects of the supply of cement—although there were a small number.*”⁹¹
93. The CC puts forward two reasons why customer complaints might not arise.
94. First, the CC acknowledges that there is evidence that large customers obtain particularly favourable terms for cement supplies.
95. Second, in an attempt to downplay the relative absence of complaints, the CC asserts that intermediate customers (that use cement as an input, or, in the case of bagged customers sell on to consumers) would care more for *relative* prices (*i.e.*, the price they pay compared to that paid by their rivals) than absolute prices. However, this explanation is not convincing. Prices are highly dispersed and are not observed in the market (as the CC acknowledges). Therefore, it is implausible that a RMX purchaser, a concrete block producer or a builders’ merchant would know the prices paid by its rivals, and the CC has not demonstrated otherwise. In turn, the CC has no basis to argue that customer complaints were absent because customers were content that their input prices were in line with their rivals’ input prices.⁹²

(d) **Independent RMX producers have not lost share**

⁹¹ Section 8, footnote 204.

⁹² In addition, textbook economic models indicate (the intuitive point) that generally firms would prefer to receive lower input prices than higher prices, *irrespective* of the prices their rivals are charged. In technical terms, profit functions typically are decreasing in own costs.

96. The CC states that the impact of coordination is to raise prices for any consumer of cement products. However, it is clear that the sale of bulk cement to independent RMX producers is the principal segment of interest for the CC. In particular the proposed remedies focus on increasing competition in the supply of bulk cement to independents. However, it is not at all clear that such producers need any assistance from the CC. Their share has grown substantially vis-à-vis RMX sites owned by the majors, despite the recession. In turn, this is consistent with the view that their input prices are not coordinated.

(e) **Conclusion on competition versus coordination**

97. The CC claims that some competition is consistent with coordination. Ultimately, in coming to this view, the CC relies on its interpretation of market outcomes. Yet these outcomes do not substantiate the existence of coordination and therefore an inference of competition must be drawn.

D. ASSESSMENT OF THE SCOPE FOR COORDINATION

98. In this section LT comments on the CC's provisional findings on the mechanism for coordination.

(a) **The ability to reach an understanding and monitor the terms of coordination**

(i) *Coordination on GB shares of cement sales*

99. As regards the ability to reach an understanding and monitor the terms of coordination, the CC concludes at paragraph 8.218:

“coordination on shares of GB cement sales made by the GB cement producers as well as on customer allocations between Lafarge, Cemex and Hanson, with no coordination directly on prices as these are individually negotiated.”

100. LT has already shown that market shares are not stable. This undermines the CC's theory of coordination (see section 2.1 above). Indeed, the CC itself acknowledges that it has not identified a mechanism by which Lafarge, Cemex and Hanson have identified the benchmark share levels that they wish to sustain. Furthermore, LT is surprised at the mention of customer allocations – this is not mentioned anywhere else in section 7 or section 8 of the CC's PFs. LT disputes any allegation of customer allocation in the strongest terms.

101. LT has also shown that switching rates for independents are relatively high when properly measured and that prices had fallen in real terms since their peak in Q1 2009 (associated with the peak in Lafarge's variable costs) and that this fall has continued in 2012 and 2013 (year to April). The CC's attempt to justify the coexistence of competition and coordination ultimately boils down to relying heavily on its “*market outcomes*” which are consistent with competitive behaviour; the CC in particular places undue weight on its demonstrably misconceived margin and profitability analysis.

(ii) *Lafarge's role in the alleged coordinating group*

102. The CC contends that the loss in Lafarge's share was not due to the breakdown of coordination but due to Lafarge's role in the coordinating group as the largest player that concedes its share to importers and Tarmac to ensure that coordination with Cemex and Hanson did not break down.⁹³ However, it is inconsistent to assert on the one hand that the terms of coordination are to maintain market shares and on the other that volatility in Lafarge's share was due to Lafarge not pursuing a strategy of maintaining share but instead an entirely different strategy of *losing* share to sustain coordination. This is discussed further in paragraphs 124–137 below.

(iii) *Price increase letters, price parallelism and price leadership*

103. The CC considers there this is:

“signalling of desired direction of prices of cement through price announcement letters (which facilitates price leadership and price following, and softens customer resistance to price increases); with Lafarge often acting as the leader in setting the levels of announced price increases” (8.218)

104. However, Lafarge has submitted substantial evidence that substantiates the fact that price announcement letters are unlikely to dampen price competition:⁹⁴

- price increase announcements are not an effective directional signal of how prices will move (for example, LT showed that average prices have fallen in recent years, despite an announced price increase);
- price increase announcements do not provide a meaningful indicator for how any individual customer price would change (for example, LT showed that the dispersion of realised price changes following the implementation of a price announcement is widely and non-systematically dispersed);
- price increase announcements have no commitment power – actual prices and price changes are not observed so it is not possible to monitor whether prices in reality increased by the amount announced;
- price increase announcements are unlikely to soften customer resistance to price changes (and the CC asserts this, without providing evidence to support the view). Customers are generally sophisticated and broadly aware of cost pressures on Lafarge and thus unlikely to be duped (by Lafarge announcing a very high price increase) that the market is short of supply or that Lafarge faces greater cost pressures than is truly the case. Indeed, the CC's finding that on average Lafarge's price changes move closely in line with changes in Lafarge's variable cost (see Figure 14 of Appendix 6.5 shown above) is consistent with this, as is the fact that prices often fall when price rises are announced.

⁹³ At paragraph 8.247.

⁹⁴ See for example “Annex to Assessing Competition in the Supply of Bulk Cement: An Economic Response to the Competition Commission's Proposed Theory of Tacit Coordination”, Annex 7, dated 27 January 2012.

105. The CC asserts that there is price parallelism in the sense that *average* prices for CEM I are positively correlated and that this might have value as a signal of future intentions.⁹⁵ This cannot be the case. The fact that there are literally hundreds of different prices charged means that there is no price parallelism – there are simply too many prices. The CC has taken an average of hundreds of prices and correlated this with an average of hundreds of prices for Hanson and Cemex and found that these averages move in a similar direction. This is hardly surprising – as the CC itself has found, variable costs are similar for the cement majors and changes in the average price of Lafarge cement closely follow changes in the price of Lafarge’s variable costs. If other majors also change prices in line with cost changes, then price parallelism will emerge. Indeed, Figure 14 of Appendix 6.5 shows that [✂]. In other words, correlation of average price movements is most likely to be driven by the overall correlation in variable cost changes.⁹⁶
106. Finally, the CC asserts that Lafarge was the price leader. However:
- Lafarge was the leader on only 5 occasions out of 9 (7.173) – this does not suggest an understanding whereby Cemex and Hanson wait for Lafarge to announce a price increase and then follow. In 2010 and 2012, for example, it is clear that Lafarge is not the leader (Table 1, Appendix 7.11);
 - Price increase announcements are usually determined by Lafarge months before the actual announcement date (which, if true for other majors, reduces the scope for following);
 - The prices that Lafarge (and presumably Cemex and Hanson) charge to their customers are customer and site specific and the very large majority are *not observable* to others in the alleged coordinating group. It is not possible to monitor whether one player actually increases prices by the amount stated in the price increase letter or whether a rival follows the lead of a “*leader*”. This undermines the credibility of the theory of price leadership, as demonstrated by the facts stated above (namely that actual price changes typically do not match closely announced price changes).
107. Finally, as a matter of economic theory, the CC cites three articles which emphasise the role of price leadership in facilitating coordination.⁹⁷ Their relevance to the case in hand is discussed in turn.

⁹⁵ Footnote 163: “*We agreed that the observation of price parallelism, by itself, was not direct evidence of coordination. However, in a market with high levels of price dispersion and where prices are individually negotiated, we thought that the price parallelism observed was evidence that price announcement letters served some purpose in signalling future price intentions resulting in alignment in changes in average prices of the GB cement producers over time.*”

⁹⁶ The CC argues that announced price increases were realized more successfully in 2008. However, during this period variable costs of producing cement rose sharply throughout the year. A price increase announcement in with line sharp cost increases (that are known by customers to have occurred due to well publicised rises in the costs of producing cement) is more likely to be adhered to than a price announcement that is not based on cost increases (since customers are not likely to be duped by false claims about cost rises).

⁹⁷ See paragraph 8.13 of section 8 of the PFs.

108. In Mourariev and Rey's model firms set their strategies (price or quantity) sequentially. The authors contrast the collusive equilibria obtained from this game with outcomes from a game in which firms move simultaneously. The authors find that leadership facilitates collusion, with the intuition being that deviations by the leader can be more immediately punished which reduces the leader's incentive to deviate. However, the key assumption of the model is that actual prices are set by the leader and follower(s) and these prices are publicly observable. This contrasts sharply with the form of leadership considered by the CC in which price increase announcements are the focal point of leadership. Notwithstanding the fact that Lafarge has been the leader on only 5 out of 9 occasions considered by the CC, the critical feature of the GB cement market is that having announced a price increase, prices that Lafarge (and presumably Cemex and Hanson) charge to their customers are customer specific and the very large majority are not observable to others in the alleged coordinating group. Consequently it is not possible to monitor whether one player actually increases prices by the amount stated in the price increase letter or whether a rival follows the lead of a "leader". This undermines the applicability of Mourariev and Rey's theory of price leadership to the case at hand.
109. Similarly, Harrington's model assumes that leadership involves the setting of actual prices, with price increases being at least matched by followers. As is the case with Mourariev and Rey's model, the fact that in the GB cement industry "leadership" occurs through price increase announcements with actual prices being privately negotiated with customers undermines the applicability of Harrington's model to the case at hand.
110. Finally, Ganslandt, Persson and Vasconcelos (2012) assume that when there is an indivisible cost to coordination that "medium" asymmetries between coordinating firms facilitate coordination by balancing the smaller firm's incentives to stay in the coordinating group against the need to cover the cartel leader's indivisible coordination cost.⁹⁸ However, the key assumptions underpinning the model's outcomes are again not valid for the GB cement industry.
111. In particular, the assumption of indivisible costs plays an important role in the model, which begs the following question: in which situations would this cost be large? Ganslandt, Persson and Vasconcelos suggest that where there is a threat of a potential entrant destabilising an agreement, a member of the coordinating group ("most probably, a large one") may prevent entry by *buying out* the potential entrant. However, the CC implicitly rules out potential entry into cement production due to its conclusion that there are high barriers to entry (8.162 and 8.209) which suggests that this indivisible cost of coordination does not apply to the GB cement industry.

⁹⁸

Specifically, the authors argue that with an indivisible cost of coordination that firms do not collude when asymmetries are small, firms do collude when asymmetries are moderate, and firms do not collude when asymmetries are large. Their reasoning is that if firms are very asymmetric then the smallest firm in the coordinating agreement has a strong incentive to deviate from the conduct (it has the highest potential to steal the business of its rivals). On the other hand, firms must be partly asymmetric otherwise the largest firm (the ring leader) would lack the incentive to cover the assumed indivisible cost of collusion. Put another way, an indivisible cost of collusion introduces an additional constraint that must be met for collusion to be sustainable.

112. Moreover, to the extent that the CC would consider entry/expansion by importers to be a threat capable of destabilising an agreement, buying out potential entrants to stabilise coordination would potentially give rise to a *higher* share for Lafarge not a lower share. Since Lafarge’s share declined over the period, the theoretical papers cited by the CC – to the extent that they are relevant at all – are consistent with the view that Lafarge was not coordinating and, importantly, *inconsistent* with the CC’s assertion (8.247) that Lafarge has “an incentive to take a greater proportion of any costs of coordination, such as the costs of accommodating the growth of the competitive fringe (in terms of market share loss)”.

(b) **Internal stability**

(i) *Deviations are not deterred*

113. The CC asserts that deviations from the terms of coordination are more likely to occur at a relatively small scale by approaching individual customers of other cement suppliers in the coordinating group and that “*a tit-for-tat strategy of punishment would be sufficient to deter deviations in many cases*” (8.192). However, the CC acknowledges that deviation is not rare and that it occurs whenever customers switch.⁹⁹ Indeed, switching (and attempts to induce customers to switch) occur on a monthly basis. This means that tit-for-tat punishment does not deter deviation.

(ii) *Evidence on tit-for-tat behaviour is consistent with ongoing competition*

114. The CC puts forward several analyses which it claims indicate tit-for-tat punishment occurring. However, none of these establish that tit-for-tat punishment is effective.

115. First, and fundamentally, market shares are not stable (see **Section A** above), proving either that the majors are not attempting to coordinate, or that the putative punishment mechanism does not work. Either way, there is no successful coordination.

116. Second, tit-for-tat behaviour in this context means that if Supplier A wins a certain volume from Supplier B, then Supplier B wins the same back from Supplier A.¹⁰⁰ It is immediately apparent that if such behaviour were effective, relative market shares would be stable (since any gain will always be exactly offset by a loss).

117. Third, the CC argues that if the share of one GB producer reduced in one month, it would increase by a similar amount in the following two months, claiming that this was “*consistent with the existence of a mechanism to rebalance market shares through matching of wins and losses*”. However, this does not demonstrate coordination (as Lafarge has already pointed out to the CC - see Lafarge’s response to the CC’s cement customer switching working paper contained in an email from Felicity Deane to Robin Kunduchaudhuri on 27 February 2013):

- If the CC were correct that wins and losses matched, market shares would be stable (but they are not). Indeed, LT notes statements by the CC that indicate that wins and losses do not balance out: “*With respect to switches between the*

⁹⁹ Section 8, footnote 174.

¹⁰⁰ At paragraph 8.218 f(i).

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*Top 3, we do not observe an obvious systematic pattern, such as matching of wins and losses between two suppliers, when examining annual data”.*¹⁰¹

- Regular wins and losses are consistent with competitive behaviour (in fact, there is no reason to expect this to be more indicative of coordination than competition). The correlation “*test*” therefore cannot distinguish between competition and punishment, as is straightforward to demonstrate.¹⁰²
118. Fourth, the CC states that it finds “*some positive and statistically significant correlations of wins and losses among the Top 3 suppliers*” (emphasis added). The CC contends that this “*was consistent with GB cement producers often reacting to the loss of a customer to another cement producer by targeting customers of that same cement producer, ie tit-for-tat behaviour*” (8.199). However, once again, this does not demonstrate coordination:
- The observed outcomes are consistent with competitive behaviour and do not demonstrate targeting. Intuitively, in a concentrated market with only 3 large players, the CC’s test will fail to distinguish between targeted responses and non-targeted responses. It is quite likely that when Supplier A gains volumes from Supplier B, any attempt by Supplier B to regain or expand upon its previous position will appear as if Supplier A has been somewhat targeted even if Supplier B wins volumes equally from Suppliers B and C.¹⁰³
 - In any event, the CC has been selective in its reporting of the correlation coefficients. For example, the results presented in Appendix 7.9 of the PFs shows that a large portion of the correlation coefficients reported are [⌘]
119. The CC has partially acknowledged that in a competitive market firms would compete to recover volumes when they had experienced a loss. However, the CC contends that firms would not simply recover share in a competitive market but expand share. The CC also contends that in a competitive market volumes would be recovered from the

¹⁰¹ Appendix 7.9, paragraph 61. Further, during the CC’s investigation into the JV between Lafarge and Tarmac, its PFs highlighted evidence from Cemex that gains and losses did not balance out, a feature which is not consistent with retaliatory behaviour in the market (Appendix O, para. 51(e)). Moreover, while the JV investigation PFs summarised evidence from Cemex that its gains and losses from/to each major “*could be indicative of some retaliatory strategies*”, but observed that “*there is not such a relationship between Cemex gains and losses to/from Hanson*”.

¹⁰² Consider a simple example. There are three firms, A, B and C; all start off by producing 100 units. They move sequentially and always increase output to try to expand volumes above the starting point of 100 units. However, due to inelastic demand, this is possible only through stealing customers from their rivals. A moves first, winning 10 units from B and 10 from C. B then seeks to increase its volumes above 100; it wins 10 from A and 10 from C. Finally, C reacts, again wishing to increase its volumes above 100, which it does by winning 15 from A and 15 from B. Thereafter, each move, they win 20 units (10 from each of the other players). In this situation, there is no targeting. However, each time a firm wins volumes, it more or less loses the same amount within the next two periods so “negative autocorrelation” of market share is observed.

¹⁰³ Consider the example in the footnote above. There will be a positive correlation between A’s wins from B and A’s subsequent losses to B (and likewise for B and C, and A and C). Note further that in this example, suppliers do not simply defend their share, they are constantly seeking to gain a share that exceeds their starting point of 33%.

market as a whole, and not targeted (8.201). However, the CC fails to acknowledge the following points:

- In order to recover share, a Top 3 Supplier must have lost share in the first place. Another Top 3 Supplier must have sought to *gain* share.
- The CC's correlation tests fail to distinguish between targeted recovery and recovery from the market (as explained above).
- The CC notes that there is documentary evidence that Lafarge, Cemex and Hanson do indeed seek to win share.¹⁰⁴ As noted above, the CC deemed it inappropriate to include exculpatory evidence in the data room and so LT has been hampered from reviewing the documentary evidence on this point.

(iii) *Inferences from Hanson repatriation are not correct*

120. The CC appears to take the view that Lafarge punished Hanson for deviating from the terms of coordination, so as to punish Hanson and rebalance market shares. However, if that is the case, Lafarge has not been successful in rebalancing share; its production share fell from 54% in 2001 to 46% in 2007 and for the 2007-2011 period on which the CC focuses, Lafarge's production share dropped from 46% in 2007 to 40% in 2009 (*i.e.*, by 6 percentage points in just two years) and in 2011 Lafarge's production share was 43%.¹⁰⁵
121. Moreover, the PFs do not take into account the fact that, following Hanson's repatriation, the volume available from the largest customers in GB was disproportionately supplied by Hanson. Winning large volumes quickly in order to operate at high capacity utilisation levels inevitably meant winning a very substantial amount from Hanson.
122. In particular, LT has provided evidence to the CC which shows that Lafarge sought to win or retain volumes from eighteen out of the largest twenty cement customers in 2009.¹⁰⁶ Of the two customers Lafarge did not approach in 2009, one was considered a low probability of winning and the other was in fact supplied externally 100% by Hanson. That is to say, if Lafarge was genuinely targeting Hanson's customers in 2009 then Lafarge would have approached this customer to win volumes. Therefore a finding that Lafarge disproportionately targeted Hanson in 2009 can in fact be explained by Lafarge rationally seeking to win the largest customers available in order to swiftly improve its capacity utilisation in 2009, and it so happened that Hanson disproportionately supplied such customers in 2008.
123. Moreover, Lafarge had no realistic alternative but to seek to recover volumes in order to avoid the potential closure of a cement plant. In seeking to recover volumes swiftly

¹⁰⁴ At paragraph 8.113a.

¹⁰⁵ Alternatively, Lafarge estimates that its share of all GB cement sales fell from [§] in 2007 to [§] in 2009, and was [§] in 2011.

¹⁰⁶ See "*Submission by Lafarge Tarmac in relation to the CC's allegation of coordination between cement producers in GB in the aggregates, cement and RMX market investigation*".

Lafarge rationally sought to win business from the largest customers available, which inevitably meant winning a very substantial amount from Hanson.

(c) **Effect on incentives to coordinate arising from vertical integration**

124. The CC argues that the asymmetries in the market do not undermine coordination (despite the view that asymmetries are typically thought to make coordination less likely), claiming that they might even enhance coordination. However, the CC's claims reveal a number of inconsistencies in its approach.

(i) *Lafarge's loss of market share to Tarmac and importers*

125. The CC asserts that the loss in Lafarge's share was not due to the breakdown of coordination, but due to Lafarge's role in the coordinating group as the largest player that concedes its share to importers and Tarmac so as to ensure that coordination with Cemex and Hanson does not break down.¹⁰⁷ As noted above, it is inconsistent to assert on the one hand that the terms of coordination are to maintain market shares and on the other that volatility in Lafarge's share was due to Lafarge not pursuing a strategy of maintaining share but instead an entirely different strategy of *losing* share to sustain coordination.

126. Moreover, Lafarge has lost share consistently since 2001; so even if Lafarge were seeking to lose share in the short term to stabilise share in the long term, there is no evidence to suggest that this policy has worked, or would work in the future.

(ii) *Vertical integration and incentives to punish*

127. The CC claims that where a supplier has relatively high external sales then it is more exposed to losing external sales and thus hurt more by a punishment strategy. The CC goes on to state that:

"...This means that differences in vertical integration generate differences in incentives to coordinate. The greater the level of external sales, the more a firm will have to lose during a retaliation phase because it cannot rely as much on guaranteed internal sales. In addition, a firm in such a position is also likely to be more affected by deviations by others. At the other extreme, a firm which consumes all its cement in its own downstream operations can only be punished through downstream prices. As explained in Appendix 8.5, this is likely to be a less immediate and effective punishment mechanism."
(8.244)

128. However, the CC's claims are inconsistent with its theory of retaliation. The theory of retaliation is small scale tit-for-tat rebalancing of market shares and not a large scale price war (see paragraphs 8.69 and 8.115 of section 8 of the PFs). For example, if a deviating firm wins 10kt of cement and subsequently loses 10kt as a result of a tit-

¹⁰⁷ At paragraph 8.247.

for-tat retaliation, there is no reason to expect that a larger firm is hurt more than a smaller firm in terms of profit.¹⁰⁸

129. Moreover, the CC's approach is inconsistent with the structural remedy required in the Merger Review. In that inquiry, the CC required the JV to divest RMX sites in order to increase the JV's exposure to the external market, to ensure that the level was similar to the pre-merger level of Lafarge. However, according to the logic set out by the CC in the quote above, the CC should *not* have required that divestment because the more that the JV had internal sales, the less effective any punishment of the JV would be, as it could rely more in its internal sales. In turn, if it was harder to punish the JV from deviating and more attractive for the JV to deviate, then coordination would become less stable.
130. Finally we note that this emphasis on the importance on stability in the external channel is not supported by evidence on market shares. As explained above, the CC acknowledges greater variability in share as regards sales to independents.¹⁰⁹

(iii) *VAPs*

131. The CC has not considered the scope for important asymmetries to undermine coordination. Lafarge has explained that its different downstream focus in the RMX sector is an asymmetry that may undermine coordination.
132. LT has on previous occasions outlined the objective of the JV to increase its focus on value-added products ("**VAPs**"), and indeed Lafarge's focus prior to the JV was also on increasing its sales of VAPs.¹¹⁰ Through this increased focus on VAPs, LT will have different incentives in the RMX and cement market to other cement and independent RMX producers. VAPs give LT a strong incentive to source cement internally in order to control the cement product specifications for use in its VAPs. LT's VAPs also provide it with a differentiated position in the RMX market in relation to other GB RMX producers, while bringing substantially greater choice and cost saving opportunities to downstream RMX customers.¹¹¹

(iv) *Barriers to entry and expansion for importers*

133. The CC considers that vertical integration might limit the size of the "*addressable market*" thereby limiting opportunities for importers to enter and expand. The

¹⁰⁸ The issue of whether the larger firm has more or less internal sales impacts on the share of total profit generated from the external sector; however the relevant question is whether *absolute* profit is increased by coordinating as opposed to competing and not whether that profit is generated disproportionately from internal or external sales.

¹⁰⁹ See paragraph 7.14(a) of section 7 of the PFs: "We looked at market shares based on sales volumes of bulk CEM I, volumes of bulk CEM I sold to external customers and volumes of bulk CEM I sold to independent customers and found more variation in these market shares."

¹¹⁰ See Lafarge's Overview Submission in response to the CC's Statement of Issues, 27 April 2012.

¹¹¹ A full description of Lafarge's VAP product range was included in Lafarge's Overview Submission in response to the CC's Statement of Issues, 27 April 2012 at Annex 4.

addressable market is defined as bulk cement sales by GB producers to non-majors.¹¹² However, there is no evidence to suggest that importers have found it difficult to enter and expand their supply to the independent sector. LT estimates importer share in that sector to have increased from 13% in 2007 to 18% in 2010.¹¹³ Furthermore, 6 new import terminals have opened since 2007 with CRH well set to expand further.¹¹⁴

134. If the size of the addressable market were an issue for importers, the fact that the addressable market shrunk by over 1mt between 2007 and 2009 (LT estimate) should have had a marked impact on importers, forcing them out of this segment. On the contrary, they grew their share by over 6pp over this period and in fact LT estimates they slightly increased the volumes sold to that segment.

(v) *Cross-sales*

135. The CC states that cross-sales may increase price transparency through the level of the price that is agreed (PFs, 8.219b). However, the CC acknowledges that there is *no coordination on price* (PFs, 8.164). There is no single price level on which coordination could take place. The CC merely asserts that the price level might act as some type of signal for what price should be charged (despite the absence of price coordination).

- LT provides detailed evidence (at **Annex 2**) that cross-sales do not provide a signalling device and/or increase transparency. In areas where Lafarge supplies either Cemex or Hanson, the cross supply price is not systematically related to the price that Lafarge charges its own nearby RMX outlets. Neither does the price that Lafarge charges to a given Cemex or Hanson site provide an indication of the price paid by independent RMX outlets supplied by Lafarge that are located near the Cemex or Hanson site in question. Cemex and Hanson could not infer from the price that they pay Lafarge either the price that Lafarge charges itself or the price paid by independent RMX sites served by Lafarge in the same local area. Cross-sales do not, therefore, act as a signalling device or increase transparency.
- In contrast to the above detailed assessment, the CC's main evidence would appear to be its claim that there is price parallelism in the sense that *average* prices of Lafarge, Cemex and Hanson moved in a similar direction. However, LT disagrees with the CC that such parallelism could act as a meaningful signal of future pricing intentions. The fact that there are literally hundreds of different prices charged means that there is no price parallelism – there are simply too many prices.¹¹⁵ The existence of correlation of average prices

¹¹² Remedies notice, footnote 18; PFs, at paragraph 7.74

¹¹³ See for example Table 1 of “Assessing Competition in the Supply of Bulk Cement: An Economic Response to the Competition Commission’s Proposed Theory of Tacit Coordination”, dated 27 January 2012.

¹¹⁴ Section 7, at paragraph 7.62.

¹¹⁵ The CC has taken an average of hundreds of prices and correlated this with an average of hundreds of prices for Hanson and Cemex and found that these *averages* move in a similar direction. This is hardly surprising – as the CC itself has found, variable costs are similar for the cement majors and changes in the average price of Lafarge cement closely follow changes in the price of Lafarge’s variable costs. If

gives no meaningful information on what any future *individual* price to an independent should be; moreover, such a price to an independent is not observable and could not be monitored. As the CC itself recognises, “*as prices for cement are agreed following confidential bilateral negotiations, the prices at which such cross-sales are made do not provide precise information on prices paid by other cement customers.*”¹¹⁶

- The CC also speculates that there may be “*potential signalling of the desired level of prices for cement through members of the coordinating group accepting higher prices for cross-sales than might otherwise be the case (thereby signalling that the prices they charge to their own downstream operations, and to their customers, are also high—otherwise they would not be willing to pay high prices to other cement suppliers)*” (PFs, 8.218c, footnote omitted). However, typically, where a cement supplier A requires cement from cement supplier B, it is precisely because the former requires cement to be delivered to a location that is very costly to supply (given the location of cement supplier A’s plants). Therefore, a willingness of cement supplier A to pay an above-average price would most likely reflect the fact that its fallback option of self-supply to, say, the RMX site in question is relatively weak. In any event, as explained in Annex 2, there is no systematic relationship between the cross sale price to a Cemex or Hanson site and the price that Lafarge charges to other nearby RMX sites (i.e. there is no signalling).
- Moreover, where cross-sales take place for logistical reasons, the cross sale is likely to be restricted to a particular geography or set of geographies. The price of these cross-sales would not therefore provide information on pricing more generally **in GB**, which the CC considers to be the relevant market (though as substantiated in Annex 2, not even a local signal is provided).
- In addition, we note that even on the basis of average GB prices, the CC’s analysis in Appendix 7.13 shows that there is no obvious signal provided to other majors from the prices of cross-sales. [⌘]

136. We note further that there is limited evidence, at least in recent years, that cross-sales are a material feature that underpins coordination.

- The CC acknowledges: “*Some aspects of this mechanism for coordination (such as the scope for transparency and punishment of deviation through cross-sales) may not have been in operation for all of the last five years as a result of significant changes in the market during this period*” (PFs, 8.221, emphasis added). This is confirmed by the CC’s analysis of cross-sales over 2007-2011 which shows that cross-sales between [⌘] The CC’s contention that cross-sales provide a means for GB cement producers to re-balance shares of sales (by increasing or reducing cross-sales when necessary) and to signal

other majors also change prices in line with cost changes, then price parallelism will emerge. In other words, correlation of average price movements is most likely to be driven by the overall correlation in variable cost change.

¹¹⁶ PFs, at paragraph 7.13(a).

that deviations have been detected through small-scale internalisation or changes in the terms of cross-sales is essentially speculative: “*Whilst there is, in our view, direct evidence of many aspects of this mechanism for coordination taking place (for example, tit-for-tat retaliation and monitoring of shares), there is less direct evidence for some other aspects (for example, cross-sales being used to re-establish shares of sales when these changed)...*” (PFs, paragraph 8.220, emphasis added).

(vi) *Absence of academic support for the theory of coordination*

137. Finally, not only is there an absence of empirical evidence for the CC’s claims that vertical integration may strengthen the scope for coordination, the CC cites just one piece of academic literature on how vertical integration may facilitate coordination (Appendix 8.5, paragraph 20). However, it is straightforward to show that the cited model is not relevant to the case in hand. The model referred to by the CC (Nocke and White, 2007), investigates the impact of vertical mergers on upstream firms’ ability to collude when selling to downstream firms in a repeated game. The paper finds that vertical mergers give rise to an “outlets effect”: vertical integration by an upstream firm reduces the number of downstream firms that rivals can sell to when deviating which acts to reduce rivals’ profits from cheating which in turn facilitates collusion. The paper also finds that vertical mergers result in an opposing “punishment effect”: the non-cooperative equilibrium (because downstream firms may earn positive profits in the non-cooperative equilibrium of the model) is a less harsh punishment of a vertically merged firm than of a stand-alone upstream firm which gives the integrated firm greater incentives to cheat. The authors find that the net result of these effects in an unintegrated industry is to facilitate upstream collusion, at least with respect to initial vertical integration.
138. However, the model cited assumes that upstream firms are not capacity constrained, and therefore deviation by an upstream firm involves undercutting the prices of its rivals and stealing all of its rivals’ business. By construction, vertical integration will therefore reduce the potential gains from deviation. However, in the case of the supply of GB produced cement, the CC considers deviation and punishment to be small scale as opposed to a market wide effect, i.e. inconsistent with the theoretical article it cites. In any case, market wide deviation or punishment is not possible in the GB cement industry and not affected by vertical integration. The available market net of internal sales made by Cemex, Hanson and Lafarge exceeds the spare capacity of each of Cemex, Hanson and Lafarge.¹¹⁷

(d) **External constraints**

¹¹⁷ In 2011 Lafarge estimates that the demand for cement by firms integrated with one of Lafarge, Cemex or Hanson was approximately [REDACTED]kt which compares to overall demand for cement of approximately [REDACTED]kt. Consequently the move to vertical integration for Lafarge, Cemex and Hanson has reduced the “available market” from [REDACTED]kt to [REDACTED]kt. [REDACTED]. Therefore, if one of the alleged coordinating group were to deviate from the alleged coordinating agreement the additional cement which could be sold is not affected by the move to a vertically integrated industry. Put another way, because the maximum amount of additional cement which could be sold by Cemex, Hanson or Lafarge deviating is substantially less than the “available market” under both an unintegrated market and an integrated market, the “outlets effect” in the model cited by the CC does not apply, and therefore the model’s conclusions do not apply to the GB cement industry.

139. In this section we briefly show that the CC has downplayed the historic importance of external constraints. As explained in Part III, the importance of these constraints has recently increased dramatically, and is expected to continue to do so.
140. The CC acknowledges the growth in share for importers and that GB producers consider importers to be an important threat. However, the CC dismisses the current competitive threat of imports as insufficient to disrupt coordination. However, the CC does not appropriately take into account the importance of importers on the external market, notably their supply to the independent channel where their share has grown substantially over the 2007-2011 period as explained in section A above.
141. Further, the CC must consider the critical near term development that has considerable scope to shock the GB cement market, namely the impact of imports from Ireland into GB, for example by CRH. This is discussed in detail in Part III below.

(e) **Conclusion on the mechanism for coordination**

142. A careful assessment of the main elements of the CC's asserted mechanism for coordination highlights the serious shortcomings and manifest errors of assessment in the CC's PFs. The CC's claim that Lafarge's exposure to the external market is a feature that strengthens coordination is misconceived and inconsistent with the CC's approach during the Merger Review. The available evidence does not support the view that Lafarge is a price leader and demonstrates that price increase announcements do not have a systematic impact on actual prices charged. The CC's claim that tit-for-tat behaviour is persistent in fact demonstrates that deviation is continuous, *i.e.*, that cement suppliers compete to win sales from each other on a monthly basis. The CC should have no material concern about the degree of vertical integration in the cement industry, including as regards cross-sales – these are relatively rare and it can be substantiated that cross-sales do not provide transparency or a signalling mechanism.

**PART 3 – RECENT DEVELOPMENTS MAKE
COORDINATED EFFECTS EVEN LESS LIKELY**

143. The CC has failed to properly consider the importance of five critical, recent developments:
- The combination of the Lafarge and Tarmac GB businesses to create a full-function joint venture, LT, held 50:50 by Lafarge SA and Anglo American Plc;
 - The creation of a new independent cement player in Hope Construction Materials;
 - The acquisition by CRH of Dudman’s import terminals and Southern Cement;
 - The critical near-term increase in imports from Ireland; and
 - The decision by Cemex to cease issuing uniform bulk price increase letters.
144. Each of these is considered in turn below.
- (a) **Creation of Lafarge Tarmac**
145. The CC states in the PFs that “*we expect Lafarge Tarmac to follow broadly similar competitive strategies in cement to those pursued by Lafarge prior to 2013, at least in terms of all the key factors that contribute to the mechanism of coordination we have described.*”¹¹⁸
146. The CC has provided no analysis for this conclusion except for noting that LT’s employees will be taken from the two businesses. On the contrary, LT is a new competitive force in GB. As an entity held 50:50 by each of Lafarge SA and Anglo American Plc, LT will be accountable to two major shareholders, one of which the CC clearly considers was outside the purported coordinating group of GB cement producers.
147. Second, the management structure of LT has dramatically changed. The board is new and is headed by an independent, non-executive Chairman. This Chairman is associated with neither Lafarge SA nor Anglo American Plc. There is therefore no basis on which to conclude that the LT is likely to align itself with any position adopted previously by either company.
148. Third, LT is independently managed and employees are incentivised by reference LT’s performance (and not that of its shareholders). “No return” restrictions apply to employees which restricts them from returning to either Lafarge SA or Anglo American Plc. This binds employees to the success of LT, not its shareholders, and their rewards are contingent upon success of LT.

¹¹⁸ At paragraph 8.265.

149. Moreover, LT has on previous occasions outlined its objective to increase sales of value-added products (“VAPs”).¹¹⁹ Through this increased focus on VAPs, LT has different incentives in the RMX and cement market to other cement and independent RMX producers. LT’s VAPs have given it a differentiated position in the RMX market in relation to other UK producers, while bringing substantially greater choice and cost saving opportunities to downstream RMX customers. One focus of LT, that of making VAPs available to customers on a wider geographic basis, will also result in a divergence in incentives. LT will target customers with a “*value in use*” proposition which will differentiate it from other competitive offers. The investment in this differentiation is an important part of LT’s market positioning.¹²⁰
150. In sum, LT is a strong new competitor that combines the staff and assets of Lafarge UK with the staff and assets of Tarmac. The CC cannot simply assume how this new entity will behave on the market, without evidence. Indeed, all of the evidence cited by the CC to support its provisional AEC finding pre-dates the creation of LT. The CC cannot substantiate its position that there is coordination in a market when it has collected no evidence that relates to the current behaviour of the largest player in that market.

(b) Creation of HCM

151. The CC dismisses the importance of HCM as a possible competitive constraint on the putative coordinating group. The CC says that “*in relation to HCM, we have no experience of its past competitive behaviour on which to form any expectation of its future strategy*” but after assessing three possible scenarios the CC apparently later concludes (without any reasoning or evaluation) that “*the replacement of Tarmac... by HCM... was [not] likely to be sufficiently market disrupting on its own materially to reduce our concerns about coordination in the GB cement markets.*”¹²¹
152. The three possible scenarios that the CC considered were as follows:¹²²
153. First, the CC asserts that HCM would behave similarly to Tarmac prior to the JV with Lafarge, but with additional cement capacity. In this case, the CC considers that HCM would act independently of LT, Cemex and Hanson but largely as a price follower. The CC states that HCM’s single plant and fixed capacity means that the CC’s concerns about coordination would be unlikely to be reduced to any greater degree.
154. Second, the CC considers that “*HCM might pursue a more proactive competitive strategy than Tarmac did prior to 2013. This might involve, for example, vigorous price competition, widespread attempts to encourage customer switching or investment in new capacity.*”

¹¹⁹ See Lafarge’s Overview Submission in response to the CC’s Statement of Issues, 27 April 2012.

¹²⁰ A full description of Lafarge’s VAP product range was included in Lafarge’s Overview Submission in response to the CC’s Statement of Issues, 27 April 2012 at Annex 4.

¹²¹ PFs, at paragraph 8.281.

¹²² PFs, at paragraph 8.266.

155. Third, the CC claims that HCM might join the alleged coordinating group, in which case the CC's concerns about coordination "*would be unlikely to be reduced and could increase*".
156. The CC then concludes that "*at this stage, it is not possible to say which of these scenarios is likely to prevail.*"¹²³ It does not seem possible to square this 'agnostic' conclusion with the later conclusion (cited above) that the creation of HCM was 'not likely' to create sufficient market disruption to eliminate the supposed coordination. However, LT considers that the second scenario above is plainly the most likely, as the following sections explain.
157. **HCM is not likely to join the putative coordinating group.** For Anglo American and Lafarge to secure conditional clearance for the creation of the JV from the CC, the CC had to satisfy itself that there was not likely to be a substantial lessening of competition. The CC did not consider that Tarmac was part of the coordinating group in the Merger Review. It follows that the third scenario above, in which HCM joins the alleged coordinating group, must be ruled out. If the CC had concluded that this scenario was likely, it could not have conditionally cleared the JV since it would not have met the legal test to allow the creation of the JV.
158. The 2013 market structure is not likely to give rise to more harmful coordination than the CC considers to have existed in 2007-2011. The CC must therefore focus on the likelihood of the first or second scenarios.
159. **Tarmac's behaviour was governed by its position as a net purchaser of cement - HCM is a net seller of cement and consequently behaves differently.** HCM pursues a proactive competitive strategy, competing more aggressively than Tarmac did prior to 2013. The first scenario is one in which HCM acts similarly to Tarmac (pre-2013) as a price follower. It is important therefore to understand why Tarmac behaved in that way. As the CC is aware Tarmac has been operating at full capacity in recent years.¹²⁴ In essence, Tarmac produced to supply itself. Its internal needs exceeded the amount that it could produce. For that reason, selling a kilo tonne of cement on the external market meant purchasing the same amount from a major or an importer. There was a large opportunity cost of selling cement on the external market and so Tarmac would sell only where it received a sufficiently high margin to compensate for having to purchase more cement. As a result, Tarmac was not a disruptive force on the external market. Indeed, LT estimates that Tarmac's share of sales to independents (whether bulk or bagged) was below 4% over the period 2007 to 2011.
160. Tarmac did not compete materially with Lafarge. In 2011, for example, an assessment of Lafarge's wins and losses of bulk independent customers demonstrates that Tarmac accounted for just [X] % of Lafarge's losses. In contrast, HCM already competes with LT to a substantially greater degree in 2013. Over the first five months

¹²³ PFs, at paragraph 8.367.

¹²⁴ Provisional Findings on the Anglo American / Lafarge JV, Appendix K, para. 57(b): "*Since 2009, capacity utilization has generally reduced. Lafarge, Hanson and Cemex are currently operating with substantial excess capacity. Tarmac is still operating close to full capacity at present.*"

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of 2013, for example, Lafarge has lost [REDACTED]kt of bulk independent business (compared with [REDACTED]kt in the entirety of 2011), with [REDACTED]% of such losses being to HCM.

161. HCM, however, has a significantly greater share of the market in cement production and capacity than did Tarmac. Moreover, unlike Tarmac pre-2013, HCM is a significant net seller. Its internal requirements are expected to be approximately [REDACTED]mtpa (including the West Thurrock supply agreement) compared to its capacity of [REDACTED]mtpa, with a potential for increased cement capacity subject to HCM's choice of blending. LT expects that HCM's capacity for external sales will increase to [REDACTED]kt per annum (an increase of [REDACTED]kt relative to Tarmac) once the West Thurrock supply agreement expires. Moreover, in the critical area of sales of bulk cement to independents, pre-JV Tarmac supplied approximately 100kt to non-major customers in each year 2007-2010. The increment to capacity to supply bulk independents would therefore be an increase of [REDACTED]kt relative to Tarmac, an amount which exceeds Cemex's entire annual supply of cement to bulk independents in each year over 2007-2011.
162. Based on [REDACTED]Mm³ of RMX, HCM's cementitious demand is approximately [REDACTED]kt. With access to slag, at a substitution rate of 35% this is equivalent to [REDACTED]kt of CEM I. With a transitional supply agreement to West Thurrock terminating in August 2015, HCM will ultimately have [REDACTED]kt of internal demand, leaving [REDACTED]kt of cement available to sell externally increasing to [REDACTED]kt in August 2015.
163. Finally, HCM has substantially greater capacity than did Tarmac. As noted above, the capacity of Hope is 1.5mtpa compared to 1.0mtpa at Tunstead.
164. The CC must therefore rule out the first scenario in which HCM behaves like Tarmac pre-2013. It would not be appropriate for the CC to speculate that HCM might, after an initial flurry of competitive activity, revert to becoming a price follower. This is because structurally HCM is not a net purchaser; further, HCM has greater capacity and greater spare capacity to supply the external market than was available to Tarmac – its long term incentives are therefore fundamentally different to those of Tarmac pre-2013.
165. Consequently, only the **second** of the CC's scenarios is likely, that is, the scenario in which HCM competes aggressively. Indeed, that is entirely consistent with the available evidence. There is no basis to expect that this is a sudden flurry of competitive activity that will die out. HCM will not become a relatively passive competitor as was Tarmac pre-2013; rather, its structure is fundamentally different and far more suited to competing aggressively on the external market. Strong competition from HCM should be expected to continue in the future.
166. The CC must explain why, in the light of this evidence, it should ignore the competitive constraint imposed by HCM.

(c) Acquisition by CRH of Dudman's Cement Import Assets

167. The increased competition from HCM must also be viewed and evaluated in light of the increased competition from importers. The increasing and vigorous competition from importers is reflected in their increased market share in recent years. It is also amply reflected in many of the contemporaneous documents provided to the CC in the clearest of terms – in particular, see the 2010-2012 internal documents of the majors cited in the confidential Annex to section 8 of the PFs.
168. In this regard, one significant recent event that is bound to increase this source of competition yet further is the acquisition by CRH of Dudman, including its import terminals, providing access to a large facility through which it can import significant volumes of cement. Given CRH's existing levels of high excess capacity and low levels of demand in Ireland, this investment provides CRH with an opportunity to improve its business performance and utilisation levels by selling cement into GB. As is outlined further below, there is strong evidence to show that CRH is very likely to direct its production volumes to the GB market. The fact that CRH has made a very substantial investment (reportedly of around £25million by acquiring Dudman indicates that it will need to use these facilities to produce a return on that investment by increasing sales of cement. Now that CRH has the ability through this investment to import cement into GB on a large scale, it will be able to act on its pre-existing incentives to import into GB, as is outlined further below.

(d) Imports from Ireland

169. The CC acknowledges the growth in share for importers and that GB producers consider importers to be an important threat.¹²⁵ However, the CC dismisses the current competitive threat of imports as insufficient to disrupt coordination. While LT disagrees with the CC's assessment even as regards the period under consideration by the CC, the CC must reevaluate this factor in light of recent developments and in conjunction with other factors (including in particular the recent evidence of HCM's conduct). The impact of imports from Ireland into GB, for example by CRH, is a critical near-term development that has considerable scope to shock the GB cement market.
170. CRH in particular is likely to represent a significant competitor. The Irish cement producer now operates the Premier Cement import terminal (having invested some €200 million in upgrading part of its Platin cement plant) and has recently purchased Dudman Group's import terminals in GB and Southern Cement's import terminal in GB, resulting in the entry of a vertically integrated cement importer with five or more import terminals, which we understand provides CRH with national coverage. Having committed significant funds to this investment (reported to be in the order of £25 million), CRH will be keen to utilise these import facilities to generate a return in addition to the future value of EU credits. As noted above, LT estimates that 1mt of cement must be exported from Ireland to retain carbon credits.¹²⁶ With [X]mt of

¹²⁵ PFs, at paragraph 7.63.

¹²⁶ Total cement capacity in Ireland exceeds [X]MT, while domestic demand is just [X]MT.

capacity, CRH has a total HAL value of £[REDACTED] million rising to £[REDACTED] million,¹²⁷ thereby providing CRH with a strong incentive to export to GB.

171. Having considered the impact of the EU ETS rules on incentives to increase production in Ireland, the CC states that:

“it therefore seems plausible that CRH will have an incentive to increase its output to bridge the gap between its 2011 output and 50 per cent of its HAL thresholds. This potential increased production corresponds to just over 500 kt of cement relative to 2011 output. However, it is unclear whether CRH would be able to sell all of that additional output in GB given the cost disadvantage it would continue to face compared with GB producers.” (Appendix 7.5, paragraph 149)

172. LT notes that 500kt from CRH alone is a substantial amount, equal to around half the annual output of a large cement plant, and the equivalent of Cemex’s entire annual supply of cement to bulk independents in each year over 2007-2011. Moreover, while the CC asserts that there is much uncertainty as to where Irish suppliers would deliver their cement, this is not substantiated by the facts; almost all of imports from Ireland have been destined for GB since 2002 (as the CC has identified in Figure 5 of Appendix 7.5). It therefore seems very likely that most of the 500kt would be destined for GB.
173. Further, it is not apparent that CRH would operate at a substantial cost disadvantage to GB producers. [REDACTED]. LT estimates that this FOB cost would already incorporate a large upstream cement margin for CRH, in the order of £[REDACTED] per tonne of cement, assuming that Premier is supplied with cement by Platin, one of the most modern and efficient cement plants in Europe.¹²⁸ LT estimates that CRH’s FOB cost on a marginal cost basis would be around £[REDACTED] per tonne. Assuming freight of £[REDACTED] per tonne, port dues of £[REDACTED] per tonne and freight to customer of £[REDACTED] per tonne, CRH’s delivered cost of cement to GB customers would be £[REDACTED] per tonne. Moreover, given that Premier Cement, Dudman Group and Southern Cement are all now vertically integrated with CRH, LT estimates this would provide CRH with effective GB coverage through imports.
174. The CC estimates that the impact of the EU ETS rules may give CRH an incentive to increase its output to bridge the gap between its 2011 output and 50 per cent of its HAL thresholds. By bridging this gap, the value of the additional excess allowances received when a threshold is met is effectively a lump sum subsidy which is determined by the market price of carbon allowances. Under the £15 carbon allowance price per tonne envisaged by the CC, CRH would receive an effective per-tonne subsidy of £17 to £20 on the additional cement it is incentivised to produce due to the partial cessation rule (Appendix 7.5 para 145). Reflecting the £17 to £20 subsidy into CRH’s cost, its delivered price per tonne on a marginal cost basis would be £21 to £24 per tonne. Adopting the same marginal cost analysis for GB cement

¹²⁷ Total HAL value of £[REDACTED] is based on CO2 at £[REDACTED]/tonne; £[REDACTED] million is based on CO2 reaching £[REDACTED]/tonne.

¹²⁸ See Irish Cement Platin brochure available at the following link: <http://www.irishcement.ie/wp-content/uploads/2010/06/Platin-Brochure.pdf>.

plants, [REDACTED] On this like-for-like basis (i.e. comparing importers and GB producers on a variable cost basis) it can be seen that the CC's finding that CRH may well have an incentive to produce an extra 500kt relative to its 2011 output is all the more credible since CRH would in fact face a cost advantage compared to GB producers.

175. Finally, LT disagrees with the CC's claim that any additional volumes imported by CRH would not result in a net increase in imported volumes to GB. The CC stated: "*We note that CRH has purchased the Southern Cement import terminal in February 2013 (see paragraph 2) and may therefore be expected to increase its exports into GB without the total volume of imports into GB increasing*".¹²⁹ However, LT estimates that Southern Cement's cement sales were at most [REDACTED]ktpa over the 2007-2011 period, which is small compared to the CC's estimated 500kt of additional cement from CRH alone (Appendix 7.5, paragraph 149) relative to 2011 output. The CC's speculation in footnote 31 is therefore unlikely to hold.

(e) **Cemex price announcement letters**

176. The CC notes that "*Cemex made a number of significant changes to its pricing strategy with effect from 1 January 2013.*"¹³⁰ Without providing any analysis whatsoever, the CC concludes that "[t]he scope for these changes to disrupt the patterns in price announcements that we observed is unclear."¹³¹
177. Since the CC is considering imposing a remedy that would prohibit LT from sending these letters, it is incumbent upon the CC to at least consider any available evidence which might show whether Cemex's new strategy has had any impact on the scope of conditions for coordination. Without any investigation, the CC cannot claim to be imposing a remedy that is a proportionate response to the AEC identified.

(f) **Conclusion on recent market developments**

178. The impact of these recent developments in conjunction will have a marked impact on competition in the supply cement in GB and should fundamentally undermine the CC's concerns about coordination.
179. Indeed, the importance of these developments is already apparent from market data from the first half of this year, as switching levels have increased substantially in large part due to increased competition from HCM. LT has suffered substantial losses in the bulk and bagged segments and prices for independents have continued to fall in real terms in both bulk and bagged cement.
- Focusing on bulk independent cement customers, switching levels have increased very substantially from 2011 to 2013 (year-to-May). Indeed, Lafarge's total losses of bulk independent customers was [REDACTED]kt in 2011 for the year as a whole, which compares to [REDACTED]kt in 2013 for January-May.

¹²⁹ Footnote 31, appendix 7.5.

¹³⁰ PFs, at paragraph 7.178.

¹³¹ PFs, at paragraph 7.178.

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- On the assumption that LT's total annual sales of cement to bulk non-majors in GB are approximately 1mt (*i.e.*, in line with previous years), LT's losses in this segment for just January-May 2013 would represent approximately [X]% of such sales.
 - The majority of LT's losses of bulk independents in 2013 to date have been to HCM, which accounts for [X]% of LT's losses of these customers. By contrast, Lafarge's losses of bulk independents to Tarmac never exceeded [X]% over 2009-2012.
 - Furthermore, as noted above, evidence on LT's successful retentions of bulk independent customers in 2013 shows that following the threat to switch to HCM, the simple average price reduction in order to successfully retain these bulk independent customers was £[X] over affected volumes of [X]kt over January-April 2013 (see Annex 3 for further details). This further demonstrates the significant competitive activity generated by HCM's presence in the market even where no switching occurs.
 - Switching levels have also substantially increased for bagged (independent) customers in 2013 to date: LT's losses increased from [X] in 2011 to over [X]kt in 2013 (January to May). The vast majority of LT's bagged losses have been to [X], which accounted for [X]% of LT's losses in 2013. [X] has won two large bagged customers from LT this year: [X] ([X]kt) and [X] ([X]kt).
 - LT's bulk CEM I and bagged cement prices to independents have continued to fall in real terms over 2012 and 2013 (January to April). Lafarge's bulk CEM I prices to independents have fallen from £[X] in 2011 to £[X] in 2013 (for LT). Similarly, Lafarge's bagged prices to independents moved from £[X] in 2011 to £[X] in 2013.
180. In the light of this evidence, the CC cannot merely assume that recent developments will not have an impact on the market in reaching its provisional AEC finding, and certainly cannot impose a divestment remedy without a full assessment of their consequences.

PART 4 - REMEDIES RESPONSE

181. In this part, LT sets out below some observations on the remedy options put forward by the CC in its Remedies Notice. These observations are without prejudice to LT's arguments in Parts 1-3, and do not in any way concede acceptance of the CC's preliminary AEC finding.

A. Relationship between the MIR Regime and EU Law

182. In its Remedies Notice, the CC observes that, where it finds that there is an AEC, it has a duty under section 134(4) of the Enterprise Act 2002 (the "**Act**") to decide whether it should take action, or recommend action by others, to remedy, mitigate or prevent the AEC or any resulting detrimental effects on consumers.

183. The CC's Revised Guidelines for Market Investigations of April 2013 (the "**CC Guidelines**") also acknowledge (although the Remedies Notice does not) that the CC's power to take action under section 134(1) may be limited by EU law, and in particular by the provisions of Article 3 of Council Regulation 1/2003. The CC Guidelines note that:

*"In the context of a market investigation these provisions do not affect the exercise by the CC of its powers of investigation, but may be relevant at the remedies stage (i.e., the CC would have to consider whether it was limited or prevented from taking remedial action)."*¹³²

184. The CC does not, at any point in its PFs or in the Remedies Notice, consider the potential relevance of its Article 3 obligations. A number of considerations are nonetheless relevant:

- First, Article 3(1) imposes an obligation on Member State competition authorities, when applying national competition law to "*agreements, decisions by associations of undertakings or concerted practices within the meaning of Article 101(1) of the Treaty,*" also to "*apply Article 101 of the Treaty to such agreements, decisions or concerted practices.*"
- It is clear that the UK market investigations regime is "*national competition law*" within the meaning of Article 3(1); section 134 (1) of the Act requires the CC to "*decide whether any feature, or combination of features, of each relevant market prevents, restricts or distorts competition in connection with the supply or acquisition of goods in the United Kingdom or a part of the United Kingdom*" (emphasis added). This has, moreover, been expressly acknowledged by the former Chairman of the CC, Peter Freeman: "*[i]t is hard to deny*

¹³² CC Guidelines, at footnote 5.

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*that Part 4 of the Enterprise Act is ‘national competition law’ within the meaning of Article 3 of Regulation 1/2003.”*¹³³

- It is equally clear that the CC has no power to apply Article 101 of the Treaty as required by Article 3. Within the United Kingdom, only the OFT and certain sectoral regulators have been designated for the purposes of Article 35 of Regulation 1/2003 with responsibility for the application of Articles 101 and 102 of the Treaty on European Union.¹³⁴
 - The CC is nonetheless clearly a national competition authority within the scope of the Regulation and, as a UK public authority, cannot ignore the requirements of the Regulation without putting the UK at risk of breaching its obligations under Article 4(3) (ex Article 10) of the Treaty on European Union.
 - Second, the decision by the OFT to make the present reference to the CC was made notwithstanding the existence of a parallel investigation under Article 101 by the European Commission. According to the European Commission’s decision of 10 December 2010 to open antitrust proceedings, “[t]he Commission intends to investigate in particular possible import/export restrictions, market sharing and price coordination in the markets for cement and related products. ... The products concerned are, in addition to cement, cement-based products (e.g. ready mix concrete) and other materials used to produce cement-based products (e.g. clinker, aggregates, blast-furnace slag, granulated blast-furnace slag, ground granulated blast-furnace slag, fly ash).”¹³⁵ That investigation is currently ongoing.
 - Third, it should be noted that the identification of an agreement or concerted practice for the purposes of Article 3 is distinct from any consideration of whether the identified agreement or practice infringes Article 101(1), *i.e.*, whether the object or effect of that agreement or practice is to prevent, restrict or distort competition in a relevant market to an appreciable extent.
185. In the present case, the OFT took the unusual step of referring this sector to the CC even though it was aware of the European Commission’s on-going investigation. The CC has however acknowledged, in its Press Release announcing publication of the PFs, that it “*has not found that a breach of either the Chapter I prohibition of the Competition Act 1998 or of Article 101 TFEU has taken place. Those jurisdictions are not within the CC’s remit.*”¹³⁶ Without suggesting that there has been any breach, to the extent that any agreement or practice potentially fell within the scope of Article

¹³³ Lord Fletcher Lecture, *UK Competition Law after Modernization*, 15 March 2005, at page 12.

¹³⁴ SI 2004/1261, The Competition Act 1998 and Other Enactments (Amendment) Regulations 2004, Article 3(1).

¹³⁵ IP/10/1696, “*Commission opens antitrust proceedings against a number of cement manufacturers,*” 10 December 2010.

¹³⁶ Notes for Editors, at paragraph 3.

101, the CC's powers would necessarily be subject to Article 3 of Council Regulation 1/2003. More generally, in considering the need for any remedies arising from this MIR, including the proportionality of any such remedies, the CC will be cognizant of the on-going investigation by the European Commission.

B. Legal Framework and Summary

186. Section 138 of the Enterprise Act 2002 provides that, where the CC has identified an AEC, it should take such action “*as it considers to be reasonable and practicable...having regard to the need to achieve as comprehensive a solution as is reasonable and practicable to the AEC and any detrimental effects on customers.*” In determining what is reasonable and practicable, and in light of the protection of property rights enshrined in the Human Rights Act 1998, the Competition Appeal Tribunal (the “CAT”) has made clear that any remedies:

*“(1) must be effective to achieve the legitimate aim in question (appropriate), (2) must be no more onerous than is required to achieve that aim (necessary), (3) must be the least onerous, if there is a choice of equally effective measures, and (4) in any event must not produce adverse effects which are disproportionate to the aim pursued.”*¹³⁷

187. The CC Guidelines themselves recognize this, and also note that the CC will consider “*remedy options both relative to other effective measures*” and will “*apply these principles to the evaluation of individual measures within a package of remedies as well as to the package taken as a whole.*”¹³⁸

188. The CAT has repeatedly made clear that, in making this assessment, the depth of the CC's investigation and the strength of its evidence must increase with the intrusiveness of the proposed remedy:

*“...the more important a particular factor seems likely to be in the overall proportionality assessment, or the more intrusive, uncertain in its effect, or wide-reaching a proposed remedy is likely to prove, the more detailed or deeper the investigation of the factor in question may need to be.”*¹³⁹

*“...the depth and sophistication of analysis called for in relation to any particular relevant aspect of the inquiry needs to be tailored to the importance or gravity of the issue within the general context of the Commission's task.”*¹⁴⁰

“...where the CC has taken such a seriously intrusive step as to order a company to divest itself of a major business asset like Stansted airport, the Tribunal will naturally expect the CC to have exercised particular care in its

¹³⁷ *Tesco v Competition Commission* [2009] CAT 6, at paragraph 136. See also *BAA Limited v Competition Commission and Ryanair Limited* [2009] CAT 35, at paragraph 246.

¹³⁸ CC's Revised Guidelines for Market Investigations of April 2013, at paragraphs 342-346.

¹³⁹ *Tesco v Competition Commission* [2009] CAT 6, at paragraph 139.

¹⁴⁰ *Barclays PLC v Competition Commission* [2009] CAT 27, at paragraph 21.

analysis of the problem affecting the public interest and of the remedy it assesses is required.”¹⁴¹

189. Again, this is reflected in the CC’s Market Investigation Guidelines, which state that *“the level of detail in which the CC investigates particular effects of a remedy will be influenced by their importance to the CC’s overall assessments. For example, if it is clear that the costs of a particular remedy are likely to be very small – both in absolute terms and relative to its benefits – the CC may not seek to establish these costs with greater precision.”¹⁴²*
190. So, before the CC can impose a divestment remedy (the most intrusive of any option), it must have conducted a detailed and sophisticated assessment of all relevant information, and in particular concluded that a divestment will be effective, the least onerous remedy that addresses the AEC, and does not produce adverse effects that are disproportionate to the CC’s aim. The CC must ensure it has done so in this case.
191. Moreover, bearing in mind the discretion afforded to the CC under Section 138 of the Act (*i.e.*, it is only obliged to consider what action is reasonable and practicable), the CC should take the following considerations into account in this case:
- (a) **The CC should not penalise one undertaking more than its rivals.** A cement divestment remedy targeted at LT would have a disproportionate impact on LT compared with its rivals. As a sophisticated competition regulator, the CC should not interfere in markets by penalising one undertaking more than its rivals. LT’s position in the cement markets is the result of hard-won competition, and the CC should not intervene lightly.
 - (b) **The CC should not impose a divestment for a conduct-based AEC.** The focus of the CC’s concerns appear to be the conduct of the majors (in particular in the last decade), rather than the structure of the market. In such circumstances, the CC should not require a divestment that goes further than the OFT’s ability to impose fines for a more serious, hard-core cartel violation of the Chapter I prohibition.
 - (c) **The CC has recently imposed another divestment on LT.** Last year, the CC required an extensive set of divestment remedies from Lafarge and Anglo American as a condition of its approval for the creation of LT. To impose a further divestment on LT now would be disproportionate, unfair, and would breach the legitimate expectations of LT’s shareholders, Anglo American and Lafarge. This consideration applies all the more in light of the CC’s failure properly to take into consideration the role now being played by HCM, the result of that previous divestment.
192. With this context in mind, the imposition of a cement or RMX divestment would not remedy the AEC identified by the CC, less intrusive remedies would be effective, and such a divestment would be wholly disproportionate the level of consumer harm:

¹⁴¹ *BAA Limited v Competition Commission and Ryanair Limited* [2012] CAT 3, at paragraph 20(7).

¹⁴² CC Guidelines, at paragraph 349.

- (a) **Divestment is ineffective.** It is arbitrary for the CC to assume that having five GB cement producers would prevent coordination. Moreover, the assertion that LT's exposure to the external segment facilitates coordination is inconsistent with the CC's reasoning in the Merger Review. The CC cannot simply assume that a divestment remedy would be effective.
- (b) **Less intrusive remedies would be effective.** The CC only needs to remedy one of the three cumulative conditions for coordination it has identified (*i.e.*, monitoring the terms of coordination; internal sustainability; and external sustainability). The behavioural remedies proposed in the Remedies Notice address each of these conditions, and it would be unnecessary for the CC to go further and require a divestment.
- (c) **Divestment is disproportionate.** The CC can only impose proportionate remedies that satisfy the criteria set out in the CAT's judgment in *Tesco v Competition Commission* and *BAA v Competition Commission* and the CC's own Market Investigation Guidelines. A divestment remedy does not meet these criteria:
- (i) Since a divestment would be ineffective and unnecessary, it is, by definition disproportionate.
 - (ii) The CC has provided no evidence of any detrimental effect on customers. The CC concedes that it "*it did not receive many submissions from bulk or bagged cement customers complaining about cement prices or other aspects of the supply of cement*"¹⁴³ and its attempt to quantify customer harm through its profitability analysis is impaired by the considerations described above.
 - (iii) Any divestment would undermine LT's ability to provide Value Added Products ("VAPs") that save significant costs for LT's customers through reduced build time or labour requirements.
193. While LT strongly disagrees with the CC's provisional AEC finding, it is clear that less intrusive remedies would effectively address the CC's apparent concerns, while allowing the market to continue to develop organically:
- Restrictions on the publication of information by Government and other bodies;
 - Prohibition on generalized price announcement letters;
 - A partial prohibition on cross-sales;
 - An industry code of conduct;
 - Measures to enhance the countervailing power of cement purchasers; and
 - The introduction of an auction mechanism for GBS.

¹⁴³ PFs, at footnote 204.

194. A combination of some or all of these remedies would be effective in addressing all of the concerns identified in the Provisional Findings Report.

C. Cement Remedies

195. The CC identifies (at paragraph 8.159) three *cumulative* conditions that are necessary for coordination to be sustainable in a market:

- (a) Firms need to be able to reach an understanding and monitor the terms of coordination (the “**First Condition**”);
- (b) Coordination needs to be internally sustainable among the co-ordinating group (the “**Second Condition**”); and
- (c) Coordination also needs to be externally sustainable in that co-ordination is unlikely to be undermined by competition from outside the coordinating group or from the reactions of customers (the “**Third Condition**”).

196. In considering each of the remedy proposals put forward by the CC, it is important to have regard to the extent to which each proposal addresses, whether individually or in combination with others, each of these conditions.

(i) **Restrictions on publication of information by Government and other bodies**

197. The CC proposes three possible remedies aimed at reducing the volume of data available to cement producers, thereby reducing producers’ ability “*to calculate their own monthly shares of GB production and monthly shares of sales.*”¹⁴⁴ The proposals are:

- (a) to recommend to the European Commission’s Directorate-General for Climate Change and to the UK Department of Energy and Climate Change (“**DECC**”) various changes to the presentation and publication of verified carbon emissions data for GB;
- (b) to recommend to the Department for Business, Innovation and Skills (“**BIS**”) that cement sales and volume data should be subject to more limited public disclosure, including by increasing the time lag for publication of aggregated cement market data; and
- (c) “*prohibiting GB cement producers from submitting, or selling, commercially sensitive cement sales and production volume data to trade association or any other private sector organization, including, but not limited to, the MPA, CEMBUREAU (the European Cement Association based in Brussels) and market research or consulting firms.*”

198. Each of these remedies would be directed at the First Condition of the CC’s coordination assessment and would be intended to reduce or eliminate any ability for

¹⁴⁴ Remedies Notice, at paragraph 78.

GB cement producers “to reach an understanding and monitor the terms of coordination.”

199. LT does not propose to comment with respect to the CC’s proposed recommendations to the European Competition, DECC or BIS. Publication of data by these public authorities is a matter for them alone, and LT has no ability or wish to influence the manner in which these authorities choose to exercise their functions.
200. LT nonetheless notes that, in the context of the CC’s Merger Review, Lafarge and Tarmac each indicated to the CC that they would be prepared to limit the JV’s participation in any cement data exchange to such frequency as may be required by Government, namely annually.¹⁴⁵ This commitment was formally included in a written proposal of 21 March 2012 in which the parties indicated their preparedness “to undertake to limit the JV’s participation in any MPA statistical exchange so that, in relation to both bulk cement and RMX, the JV would submit and receive data on an annual statutory basis, and at no more geographically disaggregated level than on an EPR basis.”

(ii) Restrictions on supplier conduct

201. The CC puts forward three possible remedies relating to the market conduct of GB cement suppliers:
- (a) “to prohibit all GB cement producers from sending generalized price announcement letters to their cement customers;”¹⁴⁶
 - (b) a “partial prohibition of cross-sales” between GB cement producers;¹⁴⁷ and
 - (c) a requirement that the Top 3 GB cement producers (*i.e.*, Cemex, Hanson and Lafarge Tarmac) “adhere to a code of conduct that prevents market conduct and behaviour that we have provisionally found give rise to coordination.”
202. Each of these remedy proposals is targeted at the First and/or Second Conditions of the CC’s coordination theory of harm and aims to reduce any ability for GB cement producers to establish and monitor a common policy, and to limit the ability to signal to each other, or rebalance market shares, via the use of cross-sales. The Code of Conduct potentially could be devised to address all three conditions.
203. LT notes that its parent companies offered remedies similar to (a) and (b) above during the course of the Merger Review.
204. LT has substantiated that price increase announcement letters do not materially influence actual prices (see paragraphs 103 to 112 above). Nonetheless, LT notes that with respect to price increase announcement letters, representatives of Anglo

¹⁴⁵ See the Notes of a Remedies Hearing held with Anglo American and Lafarge on 16 March 2012 (“**Merger Remedies Transcript**”), at page 64.

¹⁴⁶ Remedies Notice, at paragraph 73.

¹⁴⁷ Remedies Notice, at paragraph 106.

American and Lafarge made clear to the CC that, save in circumstances where a customer expressly required a specific letter, “*there would be no bulk circular letters*”¹⁴⁸ and that prices would in future be negotiated through “*phone calls from the sales team to each individual customer*.”¹⁴⁹ The CC did not pursue that remedy offer.

205. As regards cross-sales, [REDACTED] The CC’s interpretation of cross-sales now appears to be somewhat wider, and does not in fact require any “cross” element, with cross-sales now being defined simply as “*the extent to which the Majors bought cement from and sold cement to each other*.”¹⁵⁰ As a matter of fact, LT does not consider that cross-sales are a continuing feature of the GB cement industry following the internalisation of cement demand by GB cement producers and the formation of LT itself. In the year to end of May 2013, LT has sold just [REDACTED] tonnes to Cemex and [REDACTED] tonnes to Hanson, and has purchased [REDACTED] tonnes from Cemex and nothing from Hanson. As the CC itself recognises, “*as prices for cement are agreed following confidential bilateral negotiations, the prices at which such cross-sales are made do not provide precise information on prices paid by other cement customers*.”¹⁵¹ More generally, as substantiated at paragraphs 135–136 above and **Annex 2** below, the CC has no basis for its stated concerns over the competitive effects of cross-sales.
206. Finally, with respect to a possible Code of Conduct, the CC notes that Cemex, Hanson, Lafarge and Tarmac have each historically had in place competition compliance programmes, but that “*these pre-existing codes have not prevented the conduct of concern to us in relation to coordination in the GB cement markets*.”¹⁵² The CC rejects this option on the basis that “*it would be very difficult to specify, monitor and enforce an effective code of conduct, without intrusive ongoing surveillance and supervision of the internal activities of the Top 3 cement producers*.”¹⁵³
207. It is not obvious to LT why a Code of Conduct would not be a feasible remedy with respect to the concerns identified by the CC, particularly if considered in combination with other remedies that would reduce or eliminate any ability to establish or monitor terms of coordination. By way of example only, LT could contemplate provisions of a Code of Conduct that could, for example, exclude any cross-subsidisation between vertically integrated cement and RMX businesses, and that could ensure the availability of competitive pricing terms for independent RMX customers (such as through a commitment not to sell to independent customers at prices which are higher on average (*i.e.*, across all independents) than those applied to the internal business). Effective monitoring and enforcement of such commitments could be readily

¹⁴⁸ Merger Remedies Transcript, at page 64.

¹⁴⁹ Merger Remedies Transcript, at page 65.

¹⁵⁰ PFs, at paragraph 7.198.

¹⁵¹ PFs, at paragraph 7.13(a).

¹⁵² Remedies Notice, at paragraph 108.

¹⁵³ Remedies Notice, at paragraph 100.

achieved through publication of appropriate accounts and through a right of independent audit.

(iii) Market-opening measures in relation to cement imports

208. The CC observes at paragraph 101 of the Remedies Notice that “[w]e have considered possible remedy options to intensify the competitive constraint provided by cement imports on GB cement producers.” It concludes, however, that “it would not be feasible to address the relative cost issue, which appears to be an intrinsic competitive disadvantage faced by cement importers,”¹⁵⁴ with the result that “we have not identified a specific measure aimed at increasing the constraint posed by imports.”¹⁵⁵
209. Before dismissing this remedy option, LT considers that the CC must consider whether the remedy could potentially be effective in addressing the relative cost issue, thereby improving the competitiveness of cement importers in GB.
210. The CC Guidelines provide that, where barriers to entry or expansion are among the features that give rise to an AEC, the CC may consider market-opening measures that address the main barriers to entry or expansion as appropriate and effective.¹⁵⁶
211. A remedy could seek to address coordination in the cement market by increasing the effectiveness of external constraints, such as the competitiveness of cement imports. One way to do this would be to require the majors to allow importers access to their import terminals and related infrastructure on fair, reasonable and non-discriminatory (“FRAND”) terms. This was suggested by the OFT as a possible remedy in its Final Report.¹⁵⁷ Other decisions of the European Commission¹⁵⁸ and the Competition Commission¹⁵⁹ provide a framework from which access to cement terminals could be constructed.

¹⁵⁴ Remedies Notice, at paragraph 103.

¹⁵⁵ Remedies Notice, at paragraph 103.

¹⁵⁶ CC Guidelines, at paragraph 47.

¹⁵⁷ See, “Aggregates: The OFT’s reason for making a market investigation reference to the Competition Commission”, January 2012, OFT1358, paragraph 7.53, “We also suggested that another potential remedy might be the development of an import terminal access regime, to ensure independents have fair access to terminals from which to import cement.”

¹⁵⁸ M.2389 - *Shell/DEA*, the Terminalling Agreement which formed part of the commitments given by Shell included detailed arrangements for delivery, in which obligations for users to give notice to the terminal operator were specified (including when the delivery would be made, the vessel name, quantity to be delivered, discharge rate), the mode of delivery (i.e., only by ship), and the circumstances in which delivery could be refused (in circumstances of force majeure or for failure to meet safety standards applied by the terminal operator to its operations).

¹⁵⁹ In *Local Buses*, the CC introduced by means of an Order a requirement for bus operators to provide access on fair, reasonable and non-discriminatory terms to privately-owned and operated bus stations. See also *Centrica/Dynergy Storage*, CC’s Final Report, 2003.

212. LT considers, however, that recent market changes including the acquisition by CRH of Dudman, render any import access remedy unnecessary. Furthermore, there are presently no barriers to any independent operator accessing terminals in order to import cement into GB.
213. In spite of these changes, should the CC consider it nonetheless appropriate to pursue an import access remedy, it is possible that such a remedy could be used to address the CC's concern that importers have higher transport costs because the cement is transported by sea (while GB cement is not) and therefore importers are at a cost disadvantage when the cement arrives at the import terminal. This alleged cost disadvantage could be addressed through a remedy that grants access to terminals at or close to cost. While importers do not require an identical cost structure as GB producers to constrain coordinated behaviour, with a lower cost profile and greater capacity to import increased volumes, importers may find it more profitable than at present to undercut prevailing prices charged by the majors and credible threats to switch to importers would be substantially enhanced.

(iv) Measures to enhance countervailing power of cement purchasers

214. At paragraph 66 of the Remedies Notice, the CC outlines a possible proposal regarding "*the establishment of regional or national cement buying group(s) (CBG) representing independent concrete producers.*" According to the CC, "[t]his remedy option could be effective in addressing the AEC by enabling independent cement customers to increase their purchasing and negotiating power to achieve lower prices from GB cement producers, increase the threat of switching and thereby reduce the internal and external stability of coordination." This proposal is therefore directed at both the Second and Third Conditions of the CC's coordination theory of harm.
215. LT considers that the organisation of any CBG would be a matter for comment by its potential members and would not therefore propose to comment further.

(v) Divestiture remedies

216. LT notes the statutory obligation of the CC, in considering appropriate remedies to address any identified AEC, "*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.*"¹⁶⁰ The CC Guidelines make clear that "*[i]n considering the reasonableness of different remedy options the CC will have regard to their proportionality.*"¹⁶¹ In that context, the CC considers that a "*proportionate remedy is one that*

- (a) *is effective in achieving its legitimate aim;*
- (b) *is no more onerous than needed to achieve its aim;*

¹⁶⁰ Section 134(6) of the Act.

¹⁶¹ CC Guidelines, at paragraph 342.

(c) *is the least onerous if there is a choice between several effective measures; and*

(d) *does not produce disadvantages which are disproportionate to the aim.*¹⁶²

217. Insofar as divestment is concerned, these proportionality requirements must be read in light of the stringent requirements imposed by Article 1 of the First Protocol to the European Convention on Human Rights.¹⁶³ Any interference with property rights requires particularly cogent justification and close scrutiny.
218. Any divestiture requirement therefore should only be imposed if the CC considers not only that all other remedies have been rejected because they would be plainly inappropriate and insufficient - whether individually or in combination - to eliminate or substantially mitigate the AEC identified by the CC, but also that the divestiture would itself clearly remedy the AEC and do so in a manner that would not produce disproportionate disadvantages.
219. Where (as in the present case) the industry structure is a result of competitive evolution over the long term, and particularly where (as also in the present case) there are acknowledged significant economies of scope and scale, a divestiture remedy will almost never be appropriate or proportionate. This is for the simple reason that in such cases the harm to consumer welfare from the inevitable damage to efficiency (*i.e.*, increased costs of production and costs of disruption from forced sales) is likely to well exceed any speculative benefits that may accrue in the form of increased competition.
220. It is a reflection of these factors, and the radical nature of the divestiture remedy, that the CC has, in recent history, only once previously imposed a divestiture remedy - in the BAA Airports investigation. That investigation involved a scenario quite incomparable to the present case. BAA was a single undertaking owning (as a result of privatisation) all of the major airports in the South East of England and Scotland – giving it both local and regional super-monopoly status, with no plausible introduction of material competition even in the medium term. By contrast, the present case involves, at worst, an oligopolistic market with no switching costs for purchasers and increased recent market share and competition from both imports and a significantly strengthened smaller competitor (with very deep pockets) that is demonstrably already having an impact on the market. For reasons explained in further detail below, to impose a divestiture remedy in such circumstances would be plainly disproportionate.

(1) Divestment would be ineffective

221. In order to meet the requirements of proportionality, the CC would have to be satisfied that divestiture of a plant or plants would itself be effective to remedy the alleged AEC and would do so in a manner that would not pertain absent such divestiture. However, in this regard, it is entirely unclear why the CC considers that it

¹⁶² CC Guidelines, at paragraph 344.

¹⁶³ *See*, in this regard, the Supreme Court's recent judgment in *Bank Mellat v HM Treasury* [2013] UKSC 38, judgment of Lord Sumption at paras. 20-26 and Lord Reed at paras. 67-76.

would do so. It is plainly not enough in this regard to consider that merely because a particular remedy would serve to reduce a particular measure of industry concentration therefore it will be effective. Such a mechanistic approach would be profoundly misguided.

222. Indeed, the CC's remedy does not appear to be driven by the degree of concentration *per se*. The CC is considering a provisional remedy in order to address the asserted leadership position of Lafarge (and now LT). LT submits that neither of the CC's allegations of LT's leadership requires a structural remedy.
223. As explained in Part II, Section B, the first allegation is that LT's exposure to the external segment facilitates coordination for the same reason that Lafarge's exposure to the external segment facilitated coordination. Specifically, the CC has asserted that the loss in Lafarge's market share over the 2007-2011 period was not due to the breakdown of coordination, but due to Lafarge's role in the coordinating group as the largest player with an incentive to concede its share to importers and Tarmac so as to ensure that coordination with Cemex and Hanson would not break down.¹⁶⁴ However, it is inconsistent to assert, on the one hand, that the terms of coordination are to maintain market shares, and on the other that volatility in Lafarge's share was due to Lafarge not pursuing a strategy of maintaining share but instead an entirely different strategy of *losing* share to sustain coordination.
224. In addition, Lafarge has lost share consistently since 2001; so even if Lafarge were seeking to lose share in the short term to stabilise share in the long term, there is no evidence to suggest that this policy has worked, or would work in the future.
225. It is critical to understand the context of the CC's claim about Lafarge's leadership. The CC asserts that where a supplier has relatively high external sales then it is more exposed to losing external sales and thus hurt more by a punishment strategy. The CC goes on to claim that such a firm would not have a strong incentive to deviate from coordination since that would drive down the price on the external market (where it is heavily exposed). However, the CC's claims are inconsistent with its theory of deviation and retaliation. The theory of retaliation is small scale tit-for-tat rebalancing of market shares and not a large scale price war on the external segment. For example, if a deviant wins 10kt of cement and subsequently loses 10kt as a result of a tit-for-tat retaliation, there is no reason to expect that a larger firm is hurt more than a smaller firm in terms of profit.¹⁶⁵
226. It is evident, therefore, that the CC's approach is inconsistent with the structural remedy required in the Merger Review. In that inquiry, the CC required the JV to divest RMX sites in order to *increase the JV's exposure to the external market*, to ensure that the level was similar to the pre-merger level of Lafarge. However, according to the CC's logic in the current MIR, the CC team assessing the JV should *not* have required a substantial RMX divestment because the more that the JV had

¹⁶⁴ PFs, at paragraph 8.247.

¹⁶⁵ The issue of whether the larger firm has more or less internal sales impacts on the share of total profit generated from the external sector; however the relevant question is whether *absolute* profit is increased by coordinating as opposed to competing and not whether that profit is generated disproportionately from internal or external sales.

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internal sales, the less effective any punishment of the JV would be, as it could rely more on its internal sales in the event of a price war. In turn, if it was harder to punish the JV from deviating and more attractive for the JV to deviate, then coordination would become less stable.

227. In other words, the CC has no coherent basis for requiring a structural remedy from LT in relation to cement plants (or RMX sites, as discussed further below). The CC cannot, on the one hand, require a remedy to a JV that ensures that LT has exposure to the external sector and then, on the other hand, require a remedy to reverse that position less than a year later.
228. The second allegation of leadership relates to price increase announcement letters. These do not require a structural remedy (indeed, such a remedy would not prevent such letters being sent). In short, LT has substantiated why such letters do not harm competition and notes that the most straightforward remedy to a concern about such letters is to prevent them from being sent.
229. Moreover, and in any event, any leadership role that Lafarge had does not apply to LT. LT's estimated market share in the cement market has now declined to below 38%. Even if it were the case that Lafarge had operated a "leadership role" in the past (which is not accepted) it is unrealistic to suppose that it could continue to do so – particularly given the consistent downward trend of its market share in recent years. In this regard (as in others) it is important to bear in mind that the CC, in evaluating the necessity and proportionality of prospective remedies, must seek to extrapolate to the likely state of the market at such time in the future when such remedies may be expected to take effect. In the case of divestiture, any such remedy could not realistically take effect before 2016.
230. Finally, the CC hypothesises that it would be important to create a fifth GB cement producer. However, the CC must first seek fairly to assess whether the significantly enhanced fourth GB producer (HCM) offers (or will in the medium term be likely to offer) a sufficiently enhanced competitive constraint, whether alone or in combination with the strengthening importers, (in particular from Ireland) to substantially remedy the alleged AEC. LT shows in paragraphs 149–163 above that this is highly likely to be the case. In particular, the CC has not shown why HCM would not be sufficient, particularly given the absolute amount of capacity it has free to supply the external segment. In this regard, the CC must ask itself a number of important questions:
- (i) If the CC considers that LT is the same as Lafarge pre-2013 (despite the evidence in this Response that it is not), and if the CC believes that a fifth player is required to create market disruption so as to undermine the "accepted share of sales" that LT, Cemex and Hanson would allegedly seek to attain, then why would HCM not have the same disruptive effect?
 - (ii) To the extent that the CC considers HCM does not have sufficient spare capacity to compete aggressively on the external market, that is due to the CC's own requirement in the Anglo American-Lafarge JV (the solution would be to give a number of RMX sites back to LT so as to increase HCM's exposure to the external market and reduce that of LT, thereby removing its asserted incentive to be a leader) and, in any

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event, any such constraint will be removed at the expiry of the contract with LT (*i.e.*, before any divestment remedy could realistically take effect);

- (iii) If, despite HCM's proven aggressive competitive behaviour since its formation, it is presumed that HCM will somehow align itself with LT, Cemex and Hanson, then why should the fifth player (presumably with a smaller plant) not do the same?
- (iv) If, following the divestment, there is one GB cement producer more exposed to the external market than another, why (if one follows the CC's MIR logic) would that player not become the price leader? Whereas if, on the other hand, GB producers are relatively symmetric as regards their proportionate internal and external requirements, then why would that not facilitate coordination?
- (v) If a fifth producer wins volumes from LT, Cemex or Hanson, what prevents them from winning the same amount back in a tit-for-tat strategy?

231. The CC cannot simply assert that five domestic producers is less likely to give rise to coordination than four domestic producers. The critical question is why five producers would be so much better than four that a divestment is justified, given that the fourth (HCM) is competing hard already, with additional material scope for greater competition from CRH.

(2) Less intrusive remedies would be effective

232. First, as noted above, the three conditions for coordination identified by the CC are *cumulative*. In terms of proportionality, this means that, as soon as any one of the conditions is no longer satisfied, the CC has no basis for requiring additional remedies to address its coordination concern. Before considering divestiture remedies, the CC must therefore conclude that the other remedies that it has proposed are insufficient to address the identified AEC:

- **First Condition.** The CC has proposed five measures that would potentially reduce or eliminate the ability of producers to establish and monitor a common policy:
 - Aggregation and/or delay in the publication of annual verified carbon emissions data so as to limit the ability of cement producers to infer and estimate the annual production, sales volume and/or market shares of competing plants;
 - Aggregation and/or delay in the publication of cement market data by public sector bodies;
 - Non-submission of commercially sensitive cement sales and production volume data to private sector organisations;
 - Non-circulation of generalised price announcement letters to cement customers; and

- Exclusion of cross-sales between cement producers.
 - **Second Condition.** Two of the measures proposed by the CC would potentially eliminate the existence of any “punishment” mechanism such as might be used to sustain coordination:
 - Exclusion of cross-sales between cement producers; and
 - Establishment of a mandatory Code of Conduct that could be incorporated within the Sales Terms and Conditions of each cement producer.
 - **Third Condition.** The CC has proposed three measures that would potentially increase the external constraint imposed on the members of the alleged coordinating group:
 - Establishment of a mandatory Code of Conduct that could be incorporated within the Sales Terms and Conditions of each cement producer;
 - Market-opening measures with respect to cement imports; and
 - Establishment of regional or national cement buying groups representing independent concrete producers.
233. LT submits that a package of some or all of these remedies would comprehensively eliminate any possibility for the cement producers to establish or monitor a common policy such that at least one of the three conditions would not be satisfied.

(3) Divestment is disproportionate

234. The profound prejudice to any individual company of a forced divestiture of its assets is self-evident. First, the conditions of such a forced sale render it highly unlikely that the seller will obtain full or fair value for the asset. For example, even BAA (that had a ready market for the assets it was selling) lost £277 million on the sale of Gatwick airport following the CC’s previous divestment order.¹⁶⁶ In particular, in the present case, given that the other majors would presumably be excluded as potential purchasers, there is every reason to suppose that there would be very few, if any, purchasers for such an asset or assets and the vendor would therefore be likely to obtain a price well below the fair value of the plant (including even the ‘break up’ value of the plant *i.e.*, the value of the plant if cement production were discontinued and it was converted to other use).
235. Conversely, it must be recognized that there is every incentive on any prospective purchaser (and competitor to the vendor) to feign the essential need for the plant and the likely pro-competitive use of the asset in order to obtain a potentially valuable asset at an undervalue. It may even be the case that a competitor could purchase an

¹⁶⁶ See <http://www.guardian.co.uk/business/2010/feb/22/baa-gatwick-sale-financial-loss>.

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asset claiming it intended to use it to expand its cement capacity only later to sell it for other more profitable uses (*e.g.*, for housing or to other industry). It is hoped that the CC will be very much alive to the possibility (indeed the likelihood) of such gaming of the regulatory system to gain an asset 'on the cheap' and to harm a rival.

236. Accordingly, at a minimum, any forced divestiture would (in order to meet the requirements of proportionality) have lawfully to be structured by the CC in such a way so as to ensure that the following essential conditions were met: (a) there were safeguards to ensure that the purchaser was obliged actually to operate the cement plant as such and not to convert it to another use; and (b) the sale was not at a significant undervalue to its true value (or compensation was paid to the seller for any shortfall). The first condition would likely require a restrictive covenant or contractual undertaking on the part of the purchaser. In its absence, there could be no reasonable assurance that the imposition of the divestiture remedy would increase competition at all. The second condition would require that the CC impose a minimum sale price on any purchaser and/or itself agree to underwrite any shortfall in the sale price below a reasonable minimum.
237. More generally, the CC must recognise that any divestiture is bound to cause significant harm to the efficiency of production and cause considerable disruption to production. In this regard, it is important to appreciate that it has not been contested that there are considerable economies of scale (see paragraph 7.38 of section 7) in cement production. By reducing the size of one of the major producers one is therefore liable to increase average and marginal costs to the ultimate detriment of consumers (as explained above). At present, LT operates effectively at full capacity at its operations at Aberthaw, Tunstead and Cauldon. This network allows certain efficiencies such as LT's ability to concentrate bagged production at Cauldon. A divestment would therefore undermine the operational efficiency of LT.
238. LT also benefits from access to Lafarge's global technical support team which benchmarks manufacturing performance against all of Lafarge's global cement plants and identifies efficiency opportunities. This means that LT has access to the economies of scale available to a major international cement player.
239. Before considering any divestiture requirement, the CC must therefore conclude not only that a combination of some or all of the remedies discussed above would not be sufficient to eliminate any one of the three conditions for coordination, but also that the harm to efficiency that the divestment remedy would inevitably entail is not liable to cause greater loss to consumers (and others) than the supposed good from any (marginal) gain to competition that divestiture might be speculatively supposed to lead to.
240. For a divestiture remedy to be considered to be a proportionate response to the AEC identified, the CC must therefore further evaluate and explain:
 - (a) whether such remedies are required to remedy the customer harm identified; and
 - (b) whether the harm that will flow from the implementation of such remedies would undermine or exceed any relevant customer benefits.

(a) The CC’s proposed remedies are required to remedy the customer harm that it has identified

241. The CC seeks to justify its decision to require remedies in this MIR on the basis of industry profitability. The CC justifies this approach on the basis that this can be used to “*assess the detriment associated with high cement prices.*”¹⁶⁷ However, as set out in paragraphs 46–81 above, the CC’s profitability assessment and hence its estimate of consumer detriment is entirely misconceived. When fairly read, the evidence does not indicate excessive profits or supra normal pricing.
242. Section 134(4) of the Act requires the CC to decide whether remedies should be required for the purpose of remedying the AEC or any detrimental effect on customers so far as it has resulted from the AEC.
243. Section 134(5) of the Act defines a detrimental effect on customers as one taking the form of “*higher prices, lower quality or less choice of goods or services in any market in the UK... or less innovation.*”¹⁶⁸
244. The CC has provided no evidence of any detrimental effect on customers as defined in the Act. There is no suggestion that customers have any concerns about the quality of cement, or any lack of choice or innovation in the production and supply of GB cement.
245. Similarly, the CC has no evidence to support any suggestion that customers are paying higher prices for cement in GB. As to “*higher prices*”, the CC says:
- “We did not receive many submissions from bulk or bagged cement customers complaining about cement prices or other aspects of the supply of cement—although there were a small number.”*¹⁶⁹
246. The CC seeks to justify this “lack of evidence” on the basis that:
- “...firms were likely in our view to be more concerned about the relative price they paid for cement (ie that the price they paid was not substantially different from the price paid by their competitors in their downstream markets) than the absolute price (within limits) they paid. If the effect of co-ordination is to raise cement prices to all GB users of cement, this would generate fewer customer concerns about apparently unfair relative prices—and customers would not be able to compare the prices they were paying with the prices that would prevail in a competitive market.”*¹⁷⁰
247. As explained in paragraphs 87–96 above, this contention does not bear scrutiny. Downstream firms using cement as an input to their own products or builders

¹⁶⁷ PFs, at paragraph 8.272.

¹⁶⁸ Section 134(5) of the Act; CC Guidelines, at paragraph 326.

¹⁶⁹ PFs, at footnote 204.

¹⁷⁰ PFs, at footnote 204.

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merchants would want lower prices irrespective of their rivals' input prices; in any event, they would not know the price paid by their rivals; prices are acknowledged to be very dispersed. Accordingly, the absence of any evidence or complaints from customers about the price of cement clearly indicates that customers do not think their prices are inflated.

248. The CC also concedes that customers are able to secure lower prices if they switch suppliers or even if they threaten to switch suppliers. Given this conclusion, the natural focus of any remedy would appear to be on customer inertia, rather than on plant divestments (which will not address inertia at all). Further, LT has provided substantial evidence in paragraphs 25–27 above regarding the reduction in real prices since their peak in 2009 (which was a result of cost inflation) as well as how credible threats to switch are successfully employed by customers to secure lower prices.¹⁷¹
249. It would not therefore be proportionate for the CC to require such substantial and costly remedies given the absence of any evidence of customer harm through the form of increased prices, especially given the extremely shaky foundations of the CC's profitability analysis that drives its estimate of customer detriment.
250. Moreover, in evaluating the proportionality of the proposed divestiture remedy, what is relevant is not the CC's estimate of "customer detriment" from the AEC. What is relevant is the marginal contribution to eliminating such customer detriment that the divestiture remedy might be expected to make *i.e.*, the further contribution that would putatively be made by the divestiture remedy on the assumption that the other proposed remedies had already been implemented. Further, the CC must seek to assess such marginal contribution not as divestiture might have made in 2007-2011 (or even at the present time), but as at the time when such divestiture remedy might realistically be expected to have effect (2016 at the earliest).
251. A fair analysis leads inevitably to the conclusion that any such marginal contribution to the elimination of customer detriment would be either nil or, on any view, entirely speculative. Furthermore, any such divestiture would, in any event, be bound to do more harm than good. It is to this that we now turn.

¹⁷¹ PFs, at paragraph 8.178, "...*there were some examples provided by the cement producers of having to reduce prices (or increase prices less than forecasted) in response to threats to switch*"; PFs paragraph 8.266 and 7.158, "*customers switching from 2009 onwards achieved lower prices after switching on average.*"

(b) **The harm caused by the implementation of such remedies would undermine and exceed any relevant customer benefits**

252. The CC is required to consider the potential negative effects of a remedy including the costs to business.¹⁷² These costs include the amount of any relevant customer benefits (“RCBs”) that are foregone as a consequence of the remedy.¹⁷³
253. Thus far, the CC has apparently not sought even fully to identify the inevitable negative effects of a divestiture, still less sought to quantify such negative effects or to evaluate whether they are likely to exceed any expected benefits. It must attempt a comprehensive and fair evaluation of the harm that will inevitably come through: (a) the loss of efficiency from reduced economies of scale, scope and common management (b) the harm from the disruption caused by the sale and (c) the harm specifically to the company or companies forced to make such divestment. Before determining that divestiture is appropriate, it must then attempt to weigh this inevitable harm against any speculative marginal benefits¹⁷⁴ it considers may flow from divestment. Only if the likely benefits exceed the inevitable harm by an order of magnitude could a divestment remedy be appropriate or proportionate.
254. We should specifically highlight in this regard that around [X]% of Lafarge’s UK sales prior to the formation of LT were VAPs. VAP products represent approximately [X]% of Lafarge Cement UK’s total bagged volumes (based on 2010 figures). In 2010, two of Lafarge Cement UK’s bulk cement VAPs accounted for approximately [X]% of Lafarge Cement UK’s overall bulk cement sales in GB. In 2010, Lafarge’s VAPs in GB accounted for [X]% of RMX sales volume and [X]% of revenues.
255. Although value-added RMX products have a higher purchase price than regular RMX, they save significant costs through a reduced build time or labour requirements, and therefore ultimately are a more cost-efficient solution for a customer. Despite the increasing demand for these proprietary products, given the more limited number and coverage of LT RMX sites in GB, LT cannot currently meet demand in all areas.
256. These products are therefore in demand and provide significant customer benefits. Were the CC to require a remedy that would require LT to make further divestments of either cement or RMX assets, LT’s ability to provide these VAPs to customers throughout the country would be severely limited.

F. VI Remedies

257. The CC is considering a structural measure to require one or more of the Top 3 cement producers to divest some of their downstream RMX plants to independents. The CC considers that this measure could be effective in addressing the AEC by:

¹⁷² CC Guidelines, at paragraph 352.

¹⁷³ CC Guidelines, at paragraph 352(c).

¹⁷⁴ As noted above, by marginal benefits we mean the benefits that would only be achieved by divestiture and would not be liable to flow from the other remedies also contemplated.

- increasing the size of the ‘addressable market’ (*i.e.*, cement sales to independent customers) and thereby reducing barriers to entry and expansion;
- increasing the size of the cement volumes purchased by independent RMX operators, thereby helping to increase countervailing buyer power;
- reducing the scope for the Top 3 cement producers to undertake cross-sales of cement with each other, thereby reducing transparency between the Top 3 cement producers and reducing the scope for cross-sales to be used to re-balance shares of sales and/or signal that deviations from coordination have been detected; and
- potentially increasing the focus of the Top 3 cement producers on supplying the ‘addressable market’ and seeking to win and retain external customers.

258. Each of these issues is addressed in turn below.

(a) Widening the addressable market

259. The CC considers that vertical integration might limit the size of the “*addressable market*”, thereby limiting opportunities for importers to enter and expand. The addressable market is defined as bulk cement sales by GB producers to non-majors.¹⁷⁵ However, there is no evidence to suggest that importers have found it difficult to enter and expand their supply to the independent sector. As noted in Part II, LT estimates importer share in that sector to have increased from 13% in 2007 to 18% in 2010.¹⁷⁶ Furthermore, 6 new import terminals have opened since 2007 with CRH well set to expand further.¹⁷⁷

260. If the size of the addressable market were an issue for importers, the fact that the addressable market shrunk by over 1mt between 2007 and 2009 (LT estimate) should have had a marked impact on importers, forcing them out of this segment. On the contrary, they grew their share by over 6pp over this period and in fact LT estimates that they slightly increased the volumes sold to that segment. Consequently, there is no basis for the CC’s first reason to require a divestment of RMX outlets.

(b) Increasing the size of the independent operators

261. The CC asserts that the divestment of a number of RMX plants by LT, Hanson and Cemex would enhance buyer power of the independent operator(s) that acquired the divested sites. However, as the CC itself acknowledges, cement prices are individually negotiated on a customer-by-customer basis, and accordingly, the enhanced power of any given buyer does not benefit weaker buyers.¹⁷⁸ Relying on

¹⁷⁵ Remedies Notice, at footnote 18; PFs at paragraph 7.74.

¹⁷⁶ See for example Table 1 of “Assessing Competition in the Supply of Bulk Cement: An Economic Response to the Competition Commission’s Proposed Theory of Tacit Coordination”, dated 27 January 2012.

¹⁷⁷ Section 7, at paragraph 7.62.

¹⁷⁸ PFs, at paragraph 8.215.

the CC's own theory of harm, therefore, a divestment of RMX assets would not be effective in improving the negotiating leverage of smaller customers.

262. It is also incumbent on the CC to explain why the creation of a buyer group would not prove to be a better solution.

(c) Reducing the scope for cross-sales

263. The CC states that cross-sales increase price transparency "*both through price announcement letters and through the level of the price that is agreed.*"¹⁷⁹ However, the CC has not demonstrated that this concern warrants a structural remedy for three main reasons.

264. First, a remedy to prevent price increase announcement letters being sent by one major to another would be sufficient to address the concern.

265. Second, as to the agreed level of price arising from a cross-sale, the CC acknowledges that there is no coordination on price (PFs, 8.164). In fact, there is no single price level on which coordination could take place. The CC merely asserts that the price level might act as some type of signal for what price should be charged (despite the absence of price coordination).

266. As the CC itself recognises, "*as prices for cement are agreed following confidential bilateral negotiations, the prices at which such cross-sales are made do not provide precise information on prices paid by other cement customers.*"¹⁸⁰ Indeed, as explained in detail in Part II above and Annex 2, the empirical evidence rejects entirely the view that Lafarge sales to Cemex and Hanson increase transparency or act as a signal.

267. Third, while LT disputes that cross-sales facilitate any form of coordination, the CC would appear to be requiring a major structural remedy to resolve behaviour that has not occurred in recent years. As the CC acknowledges:

*"Some aspects of this mechanism for coordination (such as the scope for transparency and punishment of deviation through cross-sales) may not have been in operation for all of the last five years as a result of significant changes in the market during this period."*¹⁸¹

268. Fourth (albeit related to point three above), the CC asserts that cross-sales provide a means for GB cement producers to re-balance shares of sales by increasing or reducing cross-sales when necessary and to signal that deviations have been detected through small-scale internalization or changes in the terms of cross-sales. However, the CC must again acknowledge that this is a speculative concern:

¹⁷⁹ PFs, at paragraph 8.219(b).

¹⁸⁰ PFs, at paragraph 7.13(a)

¹⁸¹ PFs, at paragraph 8.221.

“Whilst there is, in our view, direct evidence of many aspects of this mechanism for coordination taking place (for example, tit-for-tat retaliation and monitoring of shares), there is less direct evidence for some other aspects (for example, cross-sales being used to re-establish shares of sales when these changed)...”¹⁸²

269. Ultimately, the simplest way to reduce the scope for cross-sales is entirely to prohibit them (at least for a certain period of time). The alleged problem is then instantly removed. Attempting to reduce cross-sales by forcing cement producers to divest RMX sites does not prevent cross-sales from taking place and is not therefore effective in achieving the aim reducing opportunities for the purported coordination.

(d) Increasing the focus of the Top 3 cement producers on supplying the ‘addressable market’ and seeking to win and retain external customers

270. The CC asserts that if LT, Cemex and Hanson had a lower degree of internal demand, each might compete more for external customers. In that regard, LT notes the following:

- Of the members of the purported coordinating group, LT already has by far the lowest share of internal demand for cement indicating that further RMX divestments would not be appropriate or proportionate.
- LT’s low share of internal demand for cement was a critical requirement of the CC’s conditional clearance decision in the Merger Review. In the Merger Review, the CC required the JV to divest a number of RMX sites in order to increase the JV’s exposure to the external market, to ensure that its levels of vertical integration were similar to Lafarge’s pre-merger levels. The CC now takes an entirely contradictory approach in the MIR to that taken in the Merger Review by asserting that Lafarge’s high exposure to the external market was a feature that made coordination more likely.¹⁸³ LT would highlight this inconsistency in approach taken by the same institution.
- LT would also point out that the CC’s concern in the MIR (different from that taken in the Merger Review) is that Lafarge’s exposure to the external market meant that it had an incentive to lose share to accommodate growth by Tarmac and importers). This claim is not only inconsistent with the CC’s contention that coordination is on the basis of maintaining share, it is also inconsistent with its concern that the addressable market needs to be larger to allow for growth by importers.
- As outlined above in relation to “relevant customer benefits,” the CC has almost entirely ignored LT’s evidence on the importance of VAPs to its strategy. One of the main purposes of creating LT was to improve the geographic footprint of the LT RMX business in order to allow for the roll-out of Lafarge’s VAPs on a nationwide basis.

¹⁸² PFs, at paragraph 8.220.

¹⁸³ PFs, at paragraph 8.247.

- Critically, as LT has indicated on numerous occasions, the independent sector (*i.e.*, that which comprises the addressable market) is one where there is evidence of substantial competition between the majors. In this segment, importers have gained a substantial share; LT, Cemex and Hanson's shares are volatile; switching is high; and prices have fallen in real terms since their peak in Q1 2009 (which was associated with the peak in variable costs of producing cement). These points were set out in Part II, section A above.

E. GGBS Remedies

271. The CC has provisionally found that *“Lafarge Tarmac’s exclusive agreements with the GB steel producers for the production of GBS, and Hanson’s exclusive long-term contract with Lafarge Tarmac for the production of GGBS, in combination with Lafarge Tarmac’s and Hanson’s participation in the GB cement markets, were features that gave rise to an AEC in the GB cement markets.”*¹⁸⁴
272. In its Remedies Notice, the CC has indicated that it is considering a divestiture remedy in relation to GGBS supply. This is on the basis that the CC has provisionally found that *“arrangements relating to the production of GGBS in GB give rise to an AEC in the GB cement markets. In particular, there are long-term exclusive arrangements at both the upstream and downstream stages of production for GGBS, to which two of the GB cement producers are party, which contribute to our AEC finding.”*¹⁸⁵
273. LT considers that it is appropriate to properly frame LT’s position in the GBS/GGBS value chain. **Annex 4** outlines LT’s activities in the production of GBS. LT’s position is restricted to the production of GBS. LT has no activities in the conversion of GBS to GGBS or in the downstream supply of GGBS to customers. GBS facilities are co-located with steel and iron-producing works. By their nature, GBS operations cannot be operated away from the steel works.
274. LT’s position in the production of GBS from steel risings generates a positive contribution to LT’s EBITDA (before SG&A).¹⁸⁶ In 2011, LT estimates that its activities in GBS generated a contribution of £[~~8~~] to LT’s EBITDA (before SG&A). Accordingly, were the CC to require LT to exit from its GBS activities, this would come at a significant cost to LT’s business.
275. LT considers that the focus on GBS/GGBS remedies provides the CC with a unique opportunity to produce highly pro-competitive outcomes in the GB cement market. Although LT has pursued alternatives to GGBS (by securing imports of GGBS and by developing a PFA-blended strategy), the ability to secure access to low-cost local sources of GGBS has the potential radically to change the structure of the GB cementitious market.

¹⁸⁴ PFs, at paragraph 8.292; Remedies Notice, at paragraph 10.

¹⁸⁵ Remedies Notice, at paragraph 89.

¹⁸⁶ *i.e.*, Selling, General and Administrative Expenses which are non-production costs or “overheads”.

276. Before focusing on the possible form that such a remedy may take, LT considers that it is necessary to comment on two broad questions posed by the CC in its Remedies Notice:

- (a) Is it necessary for the GBS activities to be operated separately from GGBS production activities?
- (b) Is it possible for three separate and independent parties to operate a GGBS/GBS facility at each steel/iron producing-location?

Each of these is assessed in turn below.

- (a) *Is it necessary for the GBS activities to be operated separately from GGBS production activities?*

277. GBS operations must be co-located with the steel or iron-producing facility. This is because in order to produce GBS, the liquid blast furnace slag that is produced as a by-product of a steel-works must be immediately water-cooled. If it is not immediately water-cooled, the slag cannot be used to produce GBS. To obtain good slag reactivity or hydraulicity, the liquid blast furnace slag needs to be rapidly cooled to below 800 degrees celsius to prevent crystallisation. “Fast cooling” the liquid slag using water produces vitrified granulates (0-5 mm in size) which can be ground to powder to produce GGBS. If liquid blast furnace slag is air-cooled, the resultant material will be either crystalline blast furnace slag or blast furnace slag pellets that cannot be used to produce GGBS.

278. As the CC is aware, Hanson does not grind GBS in its existing cement works, but operates four facilities that are dedicated to grinding GBS. These plants are either co-located in or within the steel works or are located very close to the steel works.¹⁸⁷

279. The current structure of arrangements shows that it is possible to operate GBS activities separately from GGBS, although some efficiencies may arise as a result of operating together the upstream manufacture of GBS and the downstream grinding of GGBS. In particular, the proximity between GBS and GGBS grinding facilities is also likely to reduce transport costs.

- (b) *Is it possible for three separate and independent parties to operate a GGBS/GBS facility at each steel works?*

280. It would be possible for three separate and independent parties to each operate a GGBS/GBS facility at each steel works, subject to the longevity of the steelworks operations themselves. However, were the CC to consider that GBS/GGBS facilities should be placed in the hands of three separate parties, the CC may face difficulties attracting buyers for the individual GBS activities at each of the steelworks given the high levels of uncertainty facing the long term operation of these works.

¹⁸⁷ Two of Hanson’s facilities are located within steelworks plants in Scunthorpe and Port Talbot. The third grinding facility at Teesport is located very close to the third steelworks plant at Teesside. Hanson’s fourth grinding plant is located on the River Thames and has a wharf to receive bulk deliveries of GBS. Hanson’s grinding facilities at Teesport is mothballed and therefore material from Teesside is granulated at Purfleet. Hanson’s grinding facility at Llanwern is also mothballed.

281. In contrast, the operation by the steelworks themselves of the liquid blast furnace activities to produce GBS may overcome these problems. Steelworks possess the capability to operate the GBS facilities, and are well placed to do so particularly given the co-location and integration of GBS facilities with the steelworks.
282. LT therefore suggests that an appropriate remedy would involve the sale of GBS granulation activities back to the steelworks who would then be able to produce GBS and sell it on the open market to any willing purchaser.
283. LT understands that, currently, approximately 1.5 MT of GBS is available from what is produced by the steelworks which is *not* ultimately ground to produce GGBS. Were this GBS available to any willing purchaser, this would immediately release 1.5MT of GGBS to the market which is equivalent to the annual production value of one large cement plant. Since 1.5 MT of GGBS can be blended with CEM I at a rate of 40-50%, such a remedy would make available an additional 2.5 MT of blended grey cement. The inevitable consequence of this would immediately be to place considerable downward pressure on cement prices in GB.
284. Accordingly, LT considers that the CC may have the opportunity to use remedies focused on GBS supplies in GB to radically change the competitive dynamics of the GB cement markets. A GBS remedy would bring to the GB market a very substantial quantity of cementitious product that is capable of being brought to market quickly but which is not at present available. This would amount to a genuine expansion of output likely to drive down prices materially in stark contrast to divesting a fully utilised cement plant which merely shifts production from one producer to another without materially expanding output.
285. Similar structural changes to the supply of GBS were recently introduced in Germany whereby the steel manufacturers in Duisburg, ThyssenKrupp Steel and Hüttenwerke Krupp Mannesmann, agreed to auction tranches of GBS output. Mechanisms were put in place to ensure that significant quantities of GBS from both steel plants would be sold to other third parties (*i.e.*, other than the major cement producers). The arrangements were reported on by the Bundeskartellamt.¹⁸⁸

F. Conclusions

286. Irrespective of the merits of the CC's particular AEC assessment, it should not require the divestment of cement or RMX assets. This would not remedy the AEC identified by the CC, less intrusive remedies would be effective, and a divestment would be wholly disproportionate to the level of consumer harm:
- (a) **Divestment is ineffective.** It is arbitrary for the CC to assume that having five GB cement producers would prevent any alleged coordination. Moreover, the assertion that LT's exposure to the external segment facilitates coordination is inconsistent with the CC's reasoning in the Merger Review. The CC cannot simply assume that such a remedy would be effective.

¹⁸⁸ See, Bundeskartellamt, *Tätigkeitsbericht 2007/08* [Report on Administrative Action in 2007 and 2008], page 84. The *Tätigkeitsbericht* is a report that the Bundeskartellamt edits and publishes every two years to inform the German Federal Government and the public about its activities.

- (b) **Less intrusive remedies would be effective.** The CC only needs to remedy one of the three cumulative conditions for coordination it has identified (*i.e.*, monitoring the terms of coordination; internal sustainability; and external sustainability). The behavioural remedies proposed in the Remedies Notice address each of these conditions, and it would be unnecessary for the CC to go further and require a divestment.
- (c) **Divestment is disproportionate.** The CC can only impose proportionate remedies that satisfy the criteria set out in the Competition Appeal Tribunal's judgment in *Tesco v Competition Commission* and *BAA v Competition Commission* and the CC's own Market Investigation Guidelines. A divestment remedy does not meet these criteria:
- (i) Since a divestment would be ineffective and unnecessary, it is by definition disproportionate.
 - (ii) The CC has provided no evidence of any detrimental effect on customers. The CC concedes that it "*it did not receive many submissions from bulk or bagged cement customers complaining about cement prices or other aspects of the supply of cement*"¹⁸⁹ and its attempt to quantify customer harm through its profitability analysis is impaired by the considerations described above.
 - (iii) Any divestment would undermine LT's ability to provide Value Added Products ("VAPs") that save significant costs for LT's customers through reduced build time or labour requirements.

287. While LT strongly disagrees with the CC's provisional AEC finding, it is clear that less intrusive remedies would effectively address the CC's concerns, while allowing the market to continue to develop organically:¹⁹⁰

- Restrictions on the publication of information by Governmental and other bodies;
- Prohibition on generalized price announcement letters;
- A partial prohibition on cross-sales;
- An industry code of conduct;
- Measures to enhance the countervailing power of cement purchasers; and
- The introduction of an auction mechanism for GBS.

288. A combination of some or all of these remedies would be effective in addressing all of the concerns identified in the PFs.

¹⁸⁹ PFs, footnote 204.

¹⁹⁰ These remedies are proposed without prejudice to the CC's obligation to ensure that any remedies are compatible with Article 3 of Regulation 1/2003, to which LT expects the CC to provide a full and reasoned response, complying with its own guidance on this point.

ANNEXES

Cross-sales and transparency

1. In this annex LT demonstrates that cross-sales do not provide a signalling device and/or increase transparency.
2. As discussed in Part II , the PFs state that cross-sales may increase price transparency through the level of the price that is agreed (PFs, 8.219b). This assertion is made despite the PF's acknowledgement that there is no coordination on price, and despite the fact that there is no single price level on which coordination could take place. In this annex LT shows that cross-sales do not provide a signalling device and/or increase transparency.
3. If the CC's assertion were correct, that cross-sales increase price transparency through the level of price that is agreed, and in turn that cross-sales prices act as a signal of the prices charged to other internal and external customers, then one would expect to see the following:
 - the cross-sales prices charged by Lafarge to (i) Cemex RMX plants and (ii) Hanson RMX plants would be very similar to the price Lafarge charges *its own* nearby RMX plants (i.e. those that are located within a 10 mile radius of the receiving Cemex or Hanson site).
 - the cross-sales prices charged by Lafarge to (i) Cemex RMX plants and (ii) Hanson RMX plants would be very similar to the price Lafarge charges *independent* RMX customers located within 10 miles of receiving Cemex or Hanson RMX plants.
4. Put differently, the cross sale price would provide Cemex and Hanson with an indication of Lafarge's local transfer price (in the first case) or the price that Lafarge charges nearby independents (in the second case).
5. The two charts below show the difference in prices (£ per tonne) between the CEM I price Lafarge charges its own RMX plants and the CEM I price Lafarge charges Cemex (Figure 3) and Hanson (Figure 4), for local areas where Lafarge RMX sites (one or more) are located within 10 miles of a Hanson or Cemex site. Price differences are presented as the price charged to Lafarge minus the price charged to Cemex or Hanson. The charts show that the prices Lafarge charges its downstream RMX plants differ substantially and non-systematically from the cross sale prices Lafarge charges to RMX plants of Cemex and Hanson in the same local area.
6. If the CC's assertion were correct, then one would expect the observations in the two charts below to be tightly clustered around £0. However, the charts clearly show that price differences are widely dispersed as between Lafarge and Cemex and as between Lafarge and Hanson. This demonstrates that cross-sales prices do not increase price transparency and do not act as a signal of Lafarge's local transfer price.

Figure 3: Price differences between Lafarge and Cemex RMX plants sourcing from Lafarge (£ per tonne)

[✂]

Source: RBB analysis of Lafarge transaction data

Figure 4: Price differences between Lafarge and Hanson RMX plants sourcing from Lafarge (£ per tonne)

[✂]

Source: RBB analysis of Lafarge transaction data

7. Similarly, the two charts below show the difference in prices (£ per tonne) between the CEM I price Lafarge charges bulk independent RMX plants and the CEM I price Lafarge charges Cemex (Figure 5) and Hanson (Figure 6) RMX plants, for local areas where independent RMX plants (one or more) are located within 10 miles of a Hanson or Cemex RMX plant. As before, the charts show that the prices Lafarge charges independent RMX plants differ substantially and non-systematically from the cross sale prices Lafarge charges to RMX plants of Cemex and Hanson in the same local area.

Figure 5: Price differences between independent and Cemex RMX plants sourcing from Lafarge (£ per tonne)

[✂]

Source: RBB analysis of Lafarge transaction data

Figure 6: Price differences between independent and Hanson RMX plants sourcing from Lafarge (£ per tonne)

[✂]

Source: RBB analysis of Lafarge transaction data

8. In summary, the analysis presented above shows that Cemex and Hanson could not infer from the price that they pay Lafarge in the RMX channel either the price that Lafarge charges itself or the price paid by independent RMX producers served by Lafarge. As such, cross-sales do not act as a signalling device or increase transparency.

Successful retentions following a competitive threat by HCM

1. In this annex LT presents evidence on bulk independent cement customers having credible threats to switch. LT has repeated the bespoke exercise conducted during the course of the Anglo American/Lafarge JV investigation, and presents evidence on bulk non-major customer credible threats to switch to HCM in 2013 (January to April). LT found that the simple average price reduction in order to successfully retain customers following a threat to switch to HCM was £[X] over affected volumes of [X]kt.

Table 2: Successful retentions of Lafarge Tarmac in 2013 to approaches by HCM for bulk independents

Customer	Region	Volume (kt)	Action taken to retain customer
[X]	South East	[X]	[X]
[X]	East Anglia	[X]	[X]
[X]	East Anglia	[X]	[X]
[X]	East Anglia	[X]	[X]
[X]	East Midlands	[X]	[X]
[X]	South East	[X]	[X]
[X]	South East	[X]	[X]
[X]	South East	[X]	[X]
[X]	South East	[X]	[X]
[X]	All sites	[X]	[X]
[X]	Various	[X]	[X]
[X]	North West	[X]	[X]
[X]	East Midlands	[X]	[X]
[X]	Midlands	[X]	[X]
TOTAL	-	[X]	-

Source: Lafarge Tarmac

Structure of GB Arrangements for the Supply of GBS and GGBS

1. There are two levels of agreements which are relevant to this discussion: (a) agreements with steel / iron facilities for the acquisition of slag to produce GBS; and (b) agreements with Hanson for the sale of GBS. LT has no position in the production of GGBS or the on-sale of GGBS. Each of these is discussed in turn below.
 - (a) ***Agreements with steel / iron facilities for the acquisition of slag to produce GBS***
 - LT has four agreements in place with Tata which give LT the exclusive right and obligation to remove all slag, including blast furnace slag, produced at Tata's Scunthorpe, Port Talbot and Llanwern plants and at SSI's Teesside plants. LT only receives slag at Port Talbot, Scunthorpe and Teesside. Llanwern ceased production of iron, steel and slag in 2002 when that facility closed.
 - LT acquires title to the slag at the point when the liquid slag passes to the processing facility (*i.e.*, when it comes off the runner from the blast furnace). The granulators which produce GBS are bolted onto the blast furnaces. The granulators process the slag to make GBS, which is then stockpiled by LT.
 - LT pays Tata and SSI a per-tonne royalty for the slag it removes. This royalty is subject to annual adjustment. The current level of royalty varies by site and also depends on the type of slag.
 - All four of these contracts terminate on 31 March 2029.
 - (b) ***Agreements for the supply of GBS to Hanson for use in the production of GGBS***
 - LT has three agreements in place with Hanson which give Hanson the exclusive right to purchase GBS from LT at Scunthorpe, Teesside, Port Talbot and Llanwern for processing the GBS into GGBS or for on-sale. Hanson is not required to take any minimum volumes from LT, but, subject to certain limited exceptions,¹⁹¹ Hanson must purchase all of its GBS needs from LT.
 - LT may sell GBS to third parties once its stockpiles exceed a specified amount provided that: (i) Hanson is given a right of first refusal to supply the identified customer;¹⁹² (ii) only the amount which exceeds the specified stockpile amount is sold; and (iii) the GBS is sold to someone who will not

¹⁹¹ Hanson may source up to 200kt of GBS from third parties (for processing at its Purfleet site) and may also source from third parties where Tarmac cannot supply sufficient GBS of such quality as to meet Hanson's requirements.

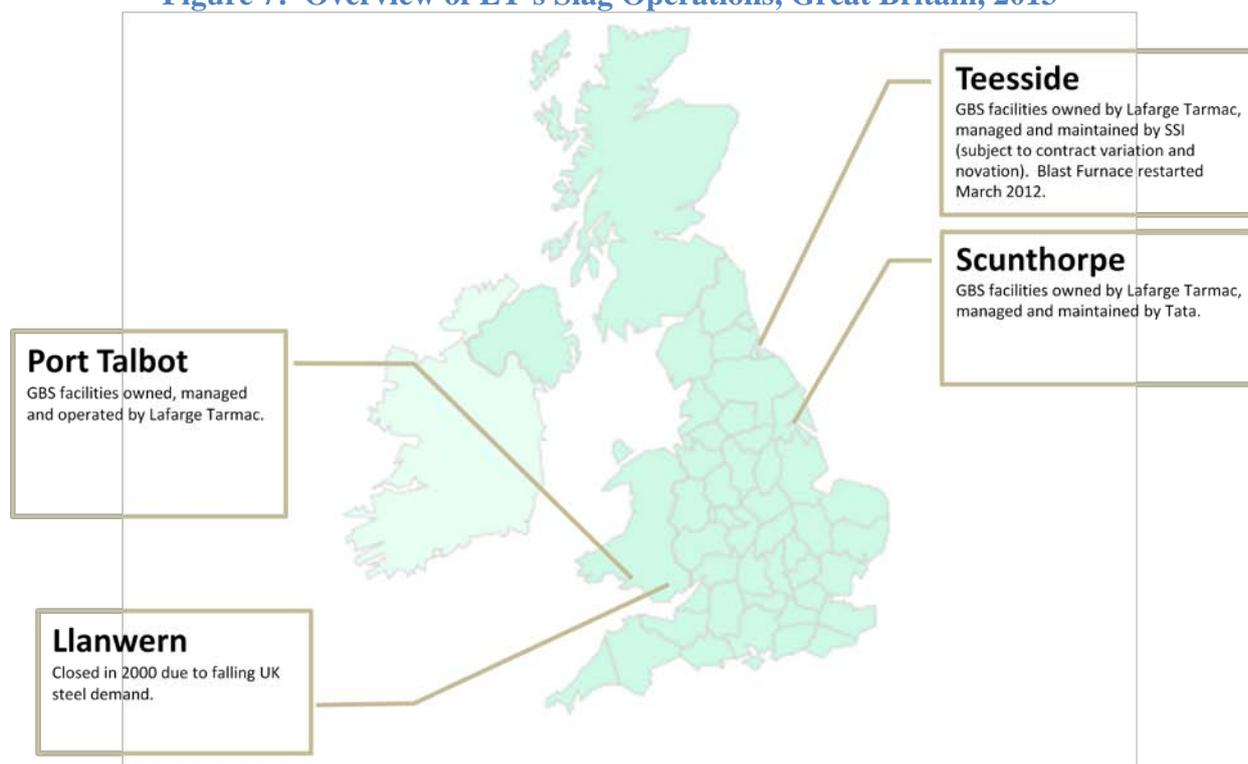
¹⁹² Hanson may source up to 200kt of GBS from third parties (for processing at its Purfleet site) and may also source from third parties where Tarmac cannot supply sufficient GBS of such quality to meet Hanson's requirements.

use it in the production of GGBS or other cementitious product within Great Britain, or for resale into Great Britain.

- The price that Hanson pays LT for the GBS it buys is linked to the price at which Hanson sells GGBS. LT receives a rebate from Hanson on the GGBS it purchases if certain volume thresholds are achieved.
- The contracts relating to the supply of GBS to Hanson from the Port Talbot and Llanwern facilities also contain impose an obligation on Hanson to consult LT on the terms of any bid or tender in circumstances in which the volumes and prices offered to supply GGBS to any third party could reasonably be expected to result in a significant reduction in the price of GGBS for that year.
- All these contracts with Hanson terminate on 31 December 2029.

2. **Figure 7** below illustrates the position of LT's activities in relation to GBS.

Figure 7: Overview of LT's Slag Operations, Great Britain, 2013



3. LT is constrained in its ability to produce GBS by the availability of blast furnace slag to granulate, which is controlled by Tata and SSI. LT has the capacity to build stockpiles of granulate, however, if the stock is left unprotected from the weather, the cementitious properties tend to deteriorate.
4. Granulation and grinding activities are highly capital intensive necessitating large facilities which require significant levels of maintenance. LT estimates that the current cost to build a granulator is approximately £[X], but the ongoing

maintenance and capital expenditure costs are also significant. LT estimates that approximately £[£] of capital expenditure will need to be incurred over the next three years to maintain the facilities at Port Talbot and Scunthorpe. Since the production of GBS and GGBS involves a very significant capital investment, secure routes to market for GGBS and GBS are required. Granulators can only be used to produce GBS. GBS is primarily used for the production of GGBS and therefore must be supplied to a party with the requisite capital assets and capability to grind the GBS into GGBS.

5. **Figure 8** illustrates LT's and Hanson's position in the value chain.

Figure 8 - Slag Value Chain, Great Britain, 2013

