CEMEX UK OPERATIONS LIMITED

Aggregates, Cement and Ready-Mix Concrete Market Investigation

Response to the Competition Commission's provisional findings report published on 23 May 2013

25 June 2013

CEMEX'S RESPONSE TO THE CC'S PROVISIONAL FINDINGS REPORT DATED 23 MAY 2013

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1 INTRODUCTION

1.1 CEMEX welcomes the opportunity to comment on the Competition Commission's ("CC") provisional findings as set out in its report published on 23 May 2013 (the "Provisional Findings" and "Provisional Findings Report" respectively). This submission builds on CEMEX's responses to the CC's working papers, which were published in advance of its Provisional Findings.

1.2 In this submission CEMEX draws the CC's attention to several key points, which fundamentally undermine the conclusion that coordination exits in the GB cement market. These show very clearly that:

(a) the CC's theory on coordination in cement is highly theoretical, sensitive to a range of assumptions, and inconsistent with market realities, the evidence before the CC and, indeed, much of the CC's own analysis (e.g. on switching);

(b) the CC has accepted that <u>there is competition</u> in the GB cement market and does not put forward a credible hypothesis to explain how coordination could be maintained in these circumstances;

(c) whatever view is taken on the alleged coordination between the GB cement producers, this is clearly not sustainable given the ubiquitous pressure and competition from importers;

(d) even if coordination had been possible at some point in the past (which CEMEX does not accept) this could not be sustained in the light of the recent changes to the structure of the GB cement market – most notably the (CC-mandated) entry of HCM as a new and disruptive player on the market (with no prior involvement in, or connection with, the cement market); and

(e) while CEMEX believes that the entry of HCM is of sufficient gravity in itself to preclude any concerns over coordination, in order for the CC to assess the total external constraint on any coordinating group, it must consider the impact of HCM in combination with the significant constraint imposed by importers, which together constitute a "competitive fringe" with a significant share of the market.

1.3 This paper is divided into four parts, which, taken together, explain how coordination in the GB cement market is not sustainable:

(a) Part I of this paper contests the CC's allegation that certain market outcomes facilitate coordination. On the contrary, CEMEX submits that a number of these market outcomes are inconsistent with coordination;

(b) Part II of this paper addresses the errors in the CC's mechanism for coordination;

(c) Part III of this paper discusses the role of importers in constraining the GB producers and undermining any ability for them to maintain a tacit agreement; and

(d) Part IV of this paper sets out how HCM undermines any ability for Lafarge Tarmac, Hanson and CEMEX to maintain a tacit agreement.

2 EXECUTIVE SUMMARY

2.1 CEMEX has reviewed the CC's Provisional Findings and strongly disagrees with its conclusions in relation to the GB cement market. CEMEX does not consider that the evidence presented by the CC, or the analysis carried out by it, establishes to the requisite standard of proof that there is any tacit coordination in the GB cement market, either now or going forwards, given the recent, significant changes in the market.

2.2 There are several key factors which, in CEMEX's view, critically undermine the CC's analysis:

(a) the CC places too much weight on historic evidence in circumstances where it acknowledges that there have been fundamental changes to the market (and too little emphasis on recent evidence of competition in the market);

(b) the market outcomes do not support the CC's provisional finding that there is coordination around market shares:

(i) recent market trends show that cement prices have decreased significantly;

(ii) the CC's analysis of profitability is not robust and, accounting for certain sensitivities, shows that GB producers are not making excess profits. This is particularly the case for [✂] even on the CC's own analysis; and

(iii) the CC overstates the stability in market shares. The shares of several GB producers have changed significantly over the period of analysis. Moreover, monthly shares are relatively volatile and do not show the pattern of correlation alleged by the CC. In short, they demonstrate healthy competition;

(c) The CC's coordination mechanism is highly technical, difficult to monitor and impossible to maintain. Further, the CC has not explained adequately a number of vital factors including how the tacit agreement was allegedly reached;

(d) the CC now recognises that there is, at least, some competition in the GB cement market (i.e. it states that there is "competition within bounds") but fails to (1) explain how its theory of coordination is possible when there is such competition or (2) address how this (apparently limited) competition, when combined with the entry of HCM, will not tip the balance from "competition within bounds" to just "normal competition";

(e) the evidence from the market investigation shows that importers are a competitive constraint and have increased share in a period when demand has contracted. Further, the EU ETS incentives and the recent acquisition of 6 further import terminals by CRH are only likely to increase this constraint;

(f) the entry of Hope Construction Materials ("HCM") fundamentally alters the market dynamic and replaces Tarmac with a greater competitive constraint because of HCM's additional and excess cement capacity compared to Tarmac pre-JV; and

(g) HCM and importers (including Aggregate Industries ("AI")), taken together, result in a strong "competitive fringe" with a market share of approximately 30%.

A TIME POINT AT WHICH TO ASSESS AN AEC AND EVIDENTIAL REQUIREMENTS

2.4 Section 134(1) of the Enterprise Act requires the CC to assess "*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 or services in the United Kingdom or a part of the United Kingdom*". This, as well as the CC's recently published guidelines on market investigations,[1] make it abundantly clear that in making an AEC finding the CC is required to assess the *current* features of the market and not base its conclusions on features of the market that the CC believes may have existed at some point in the past.

2.5 In contrast, the CC, in support of its Provisional Findings, has referred to evidence of market behaviour going as far back as 2008/2009 and even, at times, 2005/2006. As the CC itself has conceded, the cement market has undergone profound changes since 2008 and it is not clear to CEMEX on what basis the CC considers this historical evidence to be relevant. CEMEX requests the CC to clarify which time periods it considers relevant to an analysis of the cement market as it exists in 2013. Furthermore, the CC still makes no attempt to analyse in detail how HCM is affecting the market in which it is now an active competitor.

2.6 The standard of proof in the case of coordinated effects cases (while not differing in principle to other cases) is a high one. The CC needs to provide "convincing evidence" that the alleged coordinated group has the ability to reach and monitor the terms of coordination. This is a significant hurdle because it requires the CC to predict how market participants will interact going forwards. In the present case, this is particularly relevant because (1) there has been a recent market entry in the form of HCM and (2) the CC has accepted that there is already clear evidence of competition in the GB cement market. CEMEX submits that the CC has not produced such convincing evidence in its Provisional Findings.

B MARKET OUTCOMES DO NOT SUPPORT A FINDING OF COORDINATION

2.7 The market outcomes do not support the CC's provisional finding that there is coordination around market shares in the GB cement market, including the following three key factors:

(a) prices have decreased in 2012/2013;

(b) the CC overestimates profitability in the GB cement market; and

(c) market share stability is overstated.

Prices have decreased in 2012/2013

2.8 Recent market trends demonstrate further that there is fierce competition in the GB cement market. [✂] CEMEX also notes the impact of [✂] importing from Ireland into the South East, [✂]

2.9 In addition, CEMEX has had [✂] with the result that its average prices for external sales of [✂] per tonne between January 2012 and May 2013. [✂] has occurred in spite of CEMEX attempting to implement two price increases during this period. This clearly indicates that price increases are not "sticking" and, on the contrary, customers are demanding reductions in prices previously agreed.

The CC overestimates profitability in the GB cement market

2.10 CEMEX rejects any suggestion that GB cement producers are generating excess profits. In particular, CEMEX rejects any suggestion that its [✂]

2.11 To the extent that the CC's CCA methodology finds that GB cement producers' ROCE exceeds their WACC, the margin above the WACC is too small to lead to any robust conclusion. This is particularly so in this case given the novel model used by the CC and its sensitivity to the CC's analysis of certain key assumptions. In this regard, CEMEX notes that the CC's CCA methodology is extraordinarily complex and depends on a large number of assumptions. The level of complexity is greater than any encountered in previous market investigations and is far beyond the complexity

[1] Guidelines for market investigations: Their role, procedures, assessment and remedies, April 2013, CC3 (Revised)

of the method adopted by the CC for the concurrent investigation into the private healthcare market. As a result, the scope for misstatement is large.

2.12 The CC concludes that the ROCE of the GB cement producers averaged over the 2007 to 2011 period was 13.3%, which is slightly above the CC's estimate of the WACC of 8.9% to 11.5% with a central WACC estimate of 9.9.%.

2.13 The CC's own analysis illustrates the precariousness of the CC's conclusions; the CC's limited sensitivity analysis suggested that ROCE could be as low as 11.4%, inside the CC's WACC range.

2.14 However, if a number of reasonable downside sensitivities (presented in **Table 1** below) are combined (i.e. asset values of £ [✂], diminution rate of 2.5% p.a. and asset price inflation of 1.5%) the estimated ROCE falls to [✂] well below the CC's central estimate of the WACC (9.9%) (which is likely to be too low). In addition, CEMEX considers that further downside sensitivities could be modelled (see paragraphs 3.3 to 3.12 below). This would further reduce the ROCE calculated by the CC.

CEMEX's ROCE is lower than other GB cement producers

2.15 CEMEX notes from Table 7.12 of the Provisional Findings Report that its ROCE on a CCA basis across 2007 to 2011 is, on average, [✂]%. This is [✂] than the average ROCE of the other GB cement producers of 13.3% and [✂] of the CC's WACC range, which is 8.2%.

2.16 Further, Table 7.12 indicates that even using the CC's ROCE figure reflecting all costs incurred, CEMEX's ROCE on this measure across 2007 to 2011 is [✂]% compared to the [✂]% average for GB cement producers. No downside sensitivities have been applied to these figures and CEMEX submits that they would be considerably reduced on the application of these reasonable downside sensitivities.

Market share stability is overstated

2.17 The CC's evidence shows very significant variation in market shares across the period analysed and high volatility in monthly shares. The monthly shares of GB producers vary by as much as 4 percentage points - 8 percentage points if Hanson's internalisation of cement purchases from Lafarge is taken into consideration (see Section 4 below).

2.18 The CC submits that the shares display negative autocorrelation. However, CEMEX notes that the CC's analysis includes internal sales, which are not part of the "addressable" market, and that if one were to exclude internal sales, the negative autocorrelation all but disappears. Furthermore, there is significant persistence in the market share trends of the GB producers over periods of up to 1 year (see further paragraphs 4.10 to 4.12 below).

C THE CC'S HYPOTHETICAL COORDINATION MECHANISM IS FLAWED

2.19 CEMEX makes the following comments on the coordination mechanism hypothesised by the CC which make it entirely unworkable in practice:

(a) the CC critically fails to explain in its theory (1) on what basis each GB producer's share of sales has been tacitly agreed and (2) the effect of changing market conditions on the allegedly agreed market shares (see paragraphs 7.2 to 7.11 below);

(b) in practice, changes to several of the GB producers' market shares, significant levels of customer switching and aggressive competition between GB cement producers and between GB cement producers and importers make coordination on shares of sales impossible (see paragraphs 7.24 to 7.39 below);

(c) it is not clear how price announcement letters could be used for signalling in a tacit agreement around market shares. In any event, Lafarge is not always the first to make price announcements (see paragraphs 7.40 to 7.53 below);

(d) cross-sales, given their dramatic reduction, are of limited relevance in present market conditions and, in any case, cannot serve as an effective signalling mechanism because of price differentiation (see paragraphs 6.14 to 6.18 and 8.30 to 8.31 below);

(e) it is not possible for a GB producer to monitor wins and losses to a sufficient degree of accuracy such that it would be able it to monitor its competitors' adherence to the alleged focal point for coordination (which is not clearly defined in any event); (see paragraphs 7.12 to 7.15 below);

(f) the risk of accidental punishment arising from a tit-for-tat strategy (in circumstances where there is acknowledged "competition within bounds") is untenably high. Unless any deviation were punished in every case with full recovery of any lost volume, it would become impossible to distinguish deviation from (presumably permissible) retaliation (see paragraphs 8.33 to 8.36 below);

(g) it is clear from the CC's own switching analysis that monthly gains and losses are not sufficiently correlated to enable a GB producer to distinguish deviation from retaliation in the manner specified by the CC and, contrary to the CC's allegation, the data provides good evidence against such a punishment mechanism being used (see paragraphs 8.21 to 8.26 below); and

(h) any possibility for internalisation of cement purchases to be used as a mechanism for punishment has been significantly reduced by the dramatic reduction in cross sales (as the CC recognises).[2]

D ACKNOWLEDGED COMPETITION IN THE GB CEMENT MARKET

2.20 The CC acknowledges that there is evidence of competition in the GB cement market, in particular stating that the GB producers' internal documents "*include many examples of price competition taking place with GB producers noting that they have been undercut by other GB producers or importers and have either lost accounts or had to reduce their price to defend*."[3] This is supported by the CC's analysis of cement customer switching.[4]

2.21 However, the CC goes on to allege that, despite these documents and the evidence from its switching analysis, somehow coordination will not be undermined overall even if there is some competition between GB suppliers (such as for the most profitable customers), provided that there is a mechanism to re-establish stable market shares and to punish deviations.

2.22 The CC does not provide any further explanation as to how this mechanism is supposed to work in practice. The CC has suggested that the alleged coordinating group can be sustained when there is "competition within bounds", but has then failed to identify any clearly defined bounds within which each member of the alleged coordinating group is able to compete. This results in each GB producer being unable to distinguish deviation from permissible competition within the boundaries of the alleged tacit agreement (see further at paragraphs 8.33 to 8.36 below).

E CEMENT IMPORTERS ARE A CONSTANT CONSTRAINT ON GB PRODUCERS AND UNDERMINE ANY ABILITY TO COORDINATE

2.23 The large volume of cement imported into the GB market each year (both on its own and in combination with HCM as part of a wider "competitive fringe") imposes a very significant constraint on the behaviour of domestic producers. In particular, CEMEX notes the following:

[2] Provisional Findings Report, at para. 8.203.

[3] Provisional Findings Report, at para. 8.150.

[4] Provisional Findings Report, Appendix 7.9 at paras. 49 – 51 and 57.

(a) the significant increase in importers' market share between 2007 and 2011, against the backdrop of a market that contracted by 25% across the same period;

(b) the absence of any significant barriers to either entry or expansion in relation to importing cement into GB;

(c) failings in the CC's analysis intended to suggest that importers suffer from cost disadvantages which preclude them from competing on price with domestically produced cement; and

(d) the large body of evidence collected from importers and independent RMX customers which highlights that importers consider themselves (and are considered by customers) to be a viable and competitive alternative to domestically produced cement.

2.24 The CC's PF sets out that importers' market share (excluding AI) of all grey cement has increased by 50%, from 6% in 2007 to 9% in 2011 – a figure that is likely to have now increased. Further, if AI is included, we see that importers' market share has risen by over 60% from 8 to 13% during this period. Whilst CEMEX views this 13% market share as significant in the context of constraining any alleged coordination, CEMEX believes that the external market should be the focus of the CC's analysis. With this in mind, CEMEX has difficulty in understanding how the CC can characterise the collective share of importers as "low" given their share of 18% of the "addressable" market for independent customers (excluding AI).

2.25 Additional to the significant volumes of imported cement already reaching GB, the CC acknowledges the likelihood of further imports owing to the incentives placed on European producers to operate above 50% capacity by the EU ETS partial cessation rule. The CC acknowledges that annual excess volumes in Ireland alone will amount to (at least) [✂] of total demand in GB, a large proportion of which will be exported to GB. CEMEX further estimates that the excess volumes produced elsewhere in Europe, owing to the EU ETS incentive, are likely to be greater than those produced in Ireland.

2.26 Barriers to entry and expansion for importers are extremely low. Most GB import terminals are operating at [✂] % capacity, meaning importers can increase volumes significantly (and new import terminals can be (and are being) built quickly and cheaply). This is consistent with the evidence collected by the CC from importers that they are able to compete with domestic producers on price, quality and security of supply.

2.27 CEMEX does not consider the CC's analysis of cement importers costs to be robust and notes a number of limitations to the CC's analysis in this regard (in particular the small sample size, the inclusion of Thomas Armstrong in the sample and the failure to analyse the total costs of a large Irish cement importer seriously undermines the CC's conclusions).

2.28 The CC alleges that importers have a significant cost disadvantage in competing for customers at the margins. CEMEX reiterates its previous submissions that it cannot price at variable cost and that there are no customers at the margins because all significant contracts at least quote importers prices. For instance, Balfour Beatty said that, "*it had considered imported cement and sought quotes from independent importers <u>whenever it needed to buy cement</u>*."

2.29 The CC alleges that cement importers have higher costs which incentivises them to price just below the price of GB produced cement. CEMEX has identified a number of flaws in the CC's cost comparison which make CC's findings in this regard unreliable.

2.30 The evidence which the CC itself has collected from importers, producers and customers serves to highlight and reinforce the competitiveness of imported cement in the GB market. In particular, the evidence collected from importers and customers contains various examples of cement importers being able to (a) attract customers in the GB market and (b) compete aggressively on price with domestically produced cement.

F HCM FUNDAMENTALLY UNDERMINES THE EXTERNAL STABILITY OF ANY ALLEGED TACIT AGREEMENT

2.31 The entry of Hope Construction Materials ("HCM") onto the GB cement market, following the CC's investigation into the Anglo-Lafarge Joint Venture, has fundamentally altered the GB cement market as it previously existed.

2.32 The CC's analysis set out in its PF continues to underestimate the significance of this event and, in particular, CEMEX criticises the CC's failure to fully consider the following:

2.33 The entry of a new competitor, significantly 'longer' in cement than Tarmac pre-JV and incentivised to compete for volume in the market;

2.34 The increased market uncertainty surrounding the behaviour of HCM and the future conduct of the new JV entity; and

2.35 The change in the structure of the UK cement market and the significant growth of the "competitive fringe," both in terms of its market share and its share of capacity compared to pre-JV levels.

2.36 HCM is able to produce around [✂] % more cement than Tarmac pre-JV. This means that, after accounting for its downstream requirements, HCM will have an additional [✂]kt of cement for sale to the external market. This is almost four times the volume of cement sold externally in 2011 by legacy Tarmac, meaning that, in terms of external sales of cement, Tarmac has been replaced with a competitor almost four times its size (and therefore much more likely to undercut GB producers' prices to secure volumes). Such a significant increase in capacity cannot fail to *move the goalposts* in terms of incentivisation, with HCM now incentivised to compete aggressively in the market.

2.37 Additionally, given that (a) HCM is a single plant operator (and so does not have to consider cross-plant utilisation) and (b) Hope is a particularly efficient plant with low fixed costs relative to those of the other GB producers, HCM is further incentivised to operate its plant at, or close to, full capacity.

2.38 Much of the uncertainty concerning HCM's behaviour has now disappeared, following direct evidence that HCM has already begun to compete aggressively in the market. However, to the extent that the CC believes that questions do remain over HCM's behaviour, such concerns will only serve to cause uncertainty amongst members of any alleged coordinating group, significantly affecting their ability to coordinate. This is particularly true in relation to any coordination over market shares given HCM's additional capacity.

2.39 Although the ability of HCM to constrain any alleged coordinating group should not be viewed in isolation (as discussed below), CEMEX still considers the CC to have underestimated the significance of the constraint imposed by HCM, particularly in the light of its vertical integration. HCM's RMX operations provide it with the rare ability for a member of a so called 'fringe' to effectively foreclose a portion of the downstream market from its upstream rivals. Further, given that HCM is able to sell almost four times the volume of cement to the external market as Tarmac pre-JV, in the event that a coordinating group was maintaining an artificially high market price, HCM has the unique ability to both avoid paying these prices by internalising *or* switching to imports (or threatening to do so) *AND* take volumes off GB producers by offering its excess cement to the market at lower prices than any alleged coordinating group.

G THE COMBINED EFFECT OF HCM AND IMPORTS AS PART OF A LARGE "COMPETITIVE FRINGE"

2.40 The CC Draft MIR Guidelines observe that the CC should have regard to the number and size of the non-coordinating (or fringe) rivals and importantly their scope to expand output in relation to existing levels and to the levels of any alleged coordinating group.[5] The CC goes on to observe that if a firm "*has the capacity to take a significant share from any group of firms that tried to coordinate without its participation but also has substantially different incentives from those of the coordinating group, it can undermine a coordination strategy.*" [6]

[5] Draft MIR Guidelines, at para. 247.
[6] Draft MIR Guidelines, at para. 249.

2.41 Whilst CEMEX believes that the entry of HCM is of sufficient gravity in itself to preclude any concerns over coordination, in order for the CC to assess the total external constraint on any coordinating group, it must consider the impact of HCM in combination with the significant constraint imposed by importers, which together constitute a "competitive fringe" with a significant share of the market.

2.42 In its *Airtours* decision, the CFI stressed that, *"the issue here is not whether a small tour operator can reach the size necessary for it to compete effectively with the integrated tour operators by challenging them for their places as market leaders*," rather, the court clarified, the deciding factor was the effect of the non-coordinating group *"taken as a whole."*

2.43 The 16% share of production held by HCM, together with its numerous incentives to operate as close to full capacity as possible, in combination with (at least) a 13% market share held by importers[7], is likely to result in a market share of around 30% being held outside the alleged coordinating group. Further, given the very significant increases in importers' market share (as well as the further EU ETS incentive for many European producers to overproduce domestically), this figure is only likely to increase. Whilst HCM's ability to expand beyond its capacity limits, without further significant financial investment, may be limited, barriers to expansion for importers (which make up half of the "competitive fringe") are very low, with significant expansion possible before reaching maximum capacity at the vast majority of import terminals (with most terminals operating at [✂]% capacity).

2.44 CEMEX's experience of competing against both importers and HCM has been one of [✂]. Between January 2012 and May 2013 (and [✂]. With this in mind and considering that the combined market share of HCM and the numerous importers is likely to be just under one third of the total market, the CC must seriously (re)consider the ability of this enlarged "competitive fringe" to preclude future coordination in the UK cement market.

[7] Including AI.

PART I – MARKET OUTCOMES

3 THE CC OVERESTIMATES PROFITABILITY IN THE GB CEMENT MARKET

3.1 The CC concludes that pricing has been excessive, partly on the basis of its analysis of the profitability of GB cement producers. Here we comment on the CC's findings in relation to profitability. In particular:

3.2 CEMEX does not agree with the CC's approach to measuring profitability, because there are a number of incorrect assumptions and other methodological problems which distort the cement industry's ROCE. Further, even if the CC's analysis were reasonable, it does not support a conclusion that profits are excessive. Finally, CEMEX notes that CEMEX's profitability is much lower than for the industry as a whole, suggesting that it is other producers that are driving the conclusions reached by the CC. CEMEX's response to the CC's analysis of cement industry profitability is set out in detail in **Annex 1** and summarised below.

The CC's approach is flawed

3.3 In CEMEX's response to the CC's earlier "Current cost accounting profitability assessment for cement" working paper CEMEX commented at length on the methodology adopted by the CC for estimating profitability. CEMEX's comments focused on the unusual and untried approach the CC has adopted for calculating the CCA asset values and ROCE, noting that a number of the assumptions that the CC had made in the course of its analysis had not been robustly justified.

3.4 CEMEX notes that in the Provisional Findings the CC acknowledges some of the uncertainties around its analysis and methodology (which are summarised in **Annex 1**). However, ultimately, the CC has adopted exactly the same approach as in its original working paper. CEMEX does not repeat its critique of the CC's method again at length here, but CEMEX remains of the opinion that the CC's methodology is not robust enough for reliable conclusions about excess profitability to be drawn on the basis of its analysis.

3.5 CEMEX would, however, reiterate some of the key points that it made previously and, where appropriate, address updated comments and analysis presented by the CC:

(a) the CC's rationale for assuming the new asset costs of £170m for a 1 Mt plant (2007 prices) is still not clear based on the evidence presented. For example, the specification of the plant is not analogous to the characteristics of plants used by CEMEX. Further, as noted previously, some of the evidence presented by the CC for justifying its assumption actually points to a higher cost for new assets. This may be why the CC has considered a sensitivity analysis where new assets are assumed to have a value of £200m (2007 prices) and which reduces average industry ROCE substantially to 11.4% from 13.3%;

(b) the CC's assumed asset price inflation rate does not appear to be based on any particular evidence. The Output Price Index for New Construction data from the Office of National Statistics (ONS) suggests that asset price inflation was closer to 0.7% p.a. over the five year period. CEMEX notes that by reducing the assumed asset price inflation rate to 1.5% p.a. (roughly half-way between the CC's assumption and the rate suggested by the ONS data cited above) reduces industry ROCE by around [✂];

(c) the use of a declining balance depreciation profile is inappropriate in this case;

(d) the CC ignores economic and market conditions, asset condition and performance and the behaviour of competitors in its expectations of production for a given year simply relying on the previous year's outrun production; and

(e) intangible assets are attributed no value yet a new entrant would need to incur additional costs to generate these assets (e.g. a brand, know how).

The CC's analysis does not support a conclusion of excessive profits

3.6 There are a number of methodological issues with the CC's approach to WACC that suggest a higher WACC range would be appropriate.

3.7 CEMEX observes that, even on the CC's own analysis, the estimate of ROCE (13.3% on average for the industry over the 2007-11 period) is not significantly higher than the estimated WACC (8.2 – 11.5%). This sensitivity analysis illustrates the precariousness of the CC's conclusions and CEMEX notes that the CC's own limited sensitivity analysis suggested that ROCE could be as low as 11.4%, inside the CC's WACC range.

3.8 In addition, on the application of further sensitivities described above and in CEMEX's response to the working paper on profitability on a CCA basis, we find that the estimate of ROCE falls even further.

Table 1: CEMEX's sensitivity analysis

Parameter	Original	Sensitivity	Average ROCE on a CCA basis
Cost of new plant	£[✂]	£[✂]	[✂]
Diminution Rate	[✂]	[✂]	[✂]
Asset price inflation rate	[✂]	[✂]	[✂]
Combined adjustments			[✂]

3.9 Overall, the sensitivity analysis illustrates that the estimated ROCE range is materially impacted by relatively minor changes in parameter values. For example, assuming asset price inflation of [✂]% p.a. instead of [✂]% p.a. reduces the average ROCE by around [✂] ppts to [✂].

3.10 If each of the reasonable downside sensitivities presented in **Table 1** above were combined (i.e. asset values of £[✂], diminution rate of [✂]% p.a., and asset price inflation of [✂]%) then the estimated ROCE falls to [✂] well below the CC's central estimate of the WACC (9.9%) which we would say is likely to be too low for the reasons given earlier. In addition, we consider that further downside sensitivities could be modelled such as ascribing a value to intangible assets (see paragraph 3.5(e) above) and taking into account the uncertainties regarding cement production (see paragraph 3.5(d) above). This would further reduce the ROCE calculated by the CC.

3.11 There is further reason to be cautious about interpreting the CC's analysis: the gap between ROCE and WACC is too small to allow the CC to draw robust conclusions from it. This is because in a competitive market CEMEX would expect to see observed returns in excess of WACC due to a survivor bias: the firms which are most efficient and profitable are the ones that are most likely to survive and consequently the most likely to be observed by the CC.

3.12 Overall, there is so much uncertainty around the estimates of ROCE and WACC presented (especially ROCE) that in our view it is not possible for the CC to draw a robust conclusion of high ('excess') profitability. In fact, the evidence suggests profitability has not been excessive. This is especially the case because the CC uses an unusual and assumption-sensitive methodology to estimate CCA values which we have demonstrated can produce estimates of ROCE much lower than the CC's own estimates and lower than the estimated WACC under a range of plausible alternative assumptions. In these novel circumstances CEMEX submits that the results would need to have produced a much wider gap between ROCE and WACC before any reasonably firm conclusions about excessive profitability could be inferred – in CEMEX's opinion the data is not, therefore, sufficiently robust to infer such a conclusion.

CEMEX's contribution to industry profitability

3.13 Notwithstanding CEMEX's serious objections to the methodology used by the CC to arrive at this conclusion, it is clear that even using the CC's own methodology, CEMEX's individual profitability is not excessive.

3.14 CEMEX notes from Table 7.12 of the Provisional Findings Report, shows that its ROCE on a CCA basis across 2007 – 2011 is, on average, [✂].

3.15 Further, Table 7.12 indicates that, even using the CC's ROCE figure reflecting all costs incurred, CEMEX's ROCE on this measure across 2007 – 2011 is on average [✂] compared to the 11.6% average for GB cement producers. [✂].

3.16 CEMEX submits that its ROCE would be [✂] reduced on the application of the reasonable downside sensitivities described in **Table 1** above.

4 MARKET SHARE STABILITY

4.1 The CC alleges that there have been only small changes in market shares across the period 2007 to 2011 in the face of a significant slump in demand.[8] CEMEX disputes this finding and submits that the market share data shows significant absolute changes in market shares as well as high volatility in market shares. In particular CEMEX makes the following observations:

4.2 First, there have been significant changes in market shares of all grey cement (the metric used by the CC) across the period despite the fact that this is a mature industry with high fixed costs (such industries are more likely to display low volatility in shares). CEMEX notes that there have been changes in market share across the period 2007 to 2011 with Hanson and Lafarge losing 3% and 4% of market share respectively and Tarmac, AI and importers significantly gaining market share with a significant increase in share of approximately 50% in the case Tarmac and some 37.5% in the case of importers. Moreover, this does not show the full extent of the variation in the relative market shares of the GB producers across this period:

- Lafarge's relative market share ranges from a high of [✂] in April 2007 to a low of [✂]% in January 2009, i.e. a decrease of [✂]%. Lafarge's market share in December 2011 was [✂]% lower than its March 2007 high, a drop of [✂]%;
- Hanson's relative market share ranges from a low of [✂]% in April 2009 to a high of [✂]% in December 2010, which represents an increase in share of [✂]%;
- Tarmac's relative market share ranges from a low of [✂]% in February 2008 to a high of [✂]% in January 2009, which represents an increase in share of [✂]%; and
- CEMEX's relative market share, while being the GB producer with the most stable relative market share across the period, still ranges from a [✂] in March 2008 to a [✂] in January 2009, which represents an increase in share of [✂].

4.3 CEMEX submits that it is not possible to maintain coordination on market shares in the face of such changes in GB cement producers' relative shares.

4.4 Secondly, CEMEX notes that the CC considers CEMEX to have had a fairly stable market share across the period of analysis. While CEMEX accepts that it has had the most stable share of the GB producers, its monthly share data still shows significant volatility [✂][9] Therefore it is not correct to state that CEMEX's relative market share has been stable. The other GB producers have experienced larger absolute changes in relative market share and have also experienced similar volatility in monthly shares with changes of as high as 4 percentage points from one month to the next (even when excluding the large drop of [✂] percentage points in Lafarge's share following the internalisation of Hanson's cement purchases from Lafarge in 2009). CEMEX notes that a [✂] and should be regarded as such by the CC.

4.5 Thirdly, the market shares for all grey cement (bulk and bagged) are more stable than those for individual subcategories of cement. For example, in relation to bagged cement, CEMEX's market share [✂] from [✂] in February 2007 to [✂] in January 2009, i.e. an increase of [✂], and Hanson's market share decreases from [✂]% in February 2007 to [✂]% in January 2010, i.e. a decrease of [✂]%.[10] CEMEX submits that, given differences in profitability across segments, the variation in shares in these segments would undermine any tacit agreement in particular by resulting in diverging incentives (e.g., there are numerous references in the internal documents analysed by the CC to increasing share of bagged cement which is a profitable segment[11]).

4.6 Fourthly, the CC's conclusion that the GB producers have had a fairly stable market share across the period is based on an analysis of market shares that include both internal and external sales,

[8] Provisional Findings Report, at para. 8.3(c).

[9] Provisional Findings Report, Appendix 7.1 at Table 25.

[10] Provisional Findings Report, Appendix 7.1 at Table 30.

[11] See Provisional Findings Report, Appendix 8.3.

to both GB producers and independents. CEMEX notes that internal sales tend to be more stable than external sales. Therefore, the CC's results regarding stability is likely to be driven by the internal sales component. Furthermore, CEMEX submits that the CC should not have included internal sales in its analysis and should have instead focused on sales to external customers and, in particular, on sales to independent customers, because these are the "addressable market".

4.7 CEMEX computed the variability (or standard deviation)[12] in monthly share changes for each major, first, using the CC's approach i.e. for both internal and external sales of grey cement (Table 25, Appendix 7.1), second, using sales of CEM I to all external customers (Table 28, Appendix 7.1), and, third, using sales to just independent customers (Table 29, Appendix 7.1). We found that variability in monthly changes when using (1) sales to external customers and (2) just independent customers was considerably greater than when using sales to both internal and external customers.[13]

4.8 Fifthly, in an attempt to disregard the significant volatility in monthly shares, the CC alleges that the data shows some correlation between a given GB producers' gains in share in one month and its losses in share in the next month. [14] The CC states that if there is coordination in market shares between GB producers, it would expect these correlation coefficients to be negative. This is because a negative correlation coefficient means that an increase in share in one month tends to be followed by a reduction in the following month, which is consistent with (but not proof of) the existence of a mechanism to rebalance market shares through matching of wins and losses.

4.9 In its analysis, the CC first correlated the monthly change in each GB producer's own share (relative to all GB producers) in a given month with the change in the following month. It found a negative statistically significant correlation coefficient for two of the four GB producers (for CEMEX, [✂], and for Hanson, [✂]), while for Lafarge and Tarmac the correlation coefficient was not statistically significant from zero [✂] and [✂], respectively). The CC also correlated the change in each GB producers' own share (relative to all GB producers) in a given month with the total change in the following two months. The CC found statistically significant correlation coefficients for CEMEX of [✂], for Hanson of [✂], and for Lafarge of [✂], and a correlation coefficient not statistically significant from zero for Tarmac.

4.10 Although the CC's analysis yields some evidence of correlation, CEMEX submits that there is also evidence of persistence in the changes in monthly relative shares. For example, CEMEX's relative share largely decreases between January 2009 and December 2009 [(✂]. Similarly, Hanson's share decreases by [✂]% between May 2009 and April 2010 (from [✂]% to [✂]%) despite a two month period of limited gains. In addition, Lafarge's relative share increases between December 2010 and October 2011 (from [✂]% to [✂]%). This evidence of persistent changes in share on a monthly basis over a protracted period of time is not consistent with coordination around market shares because it indicates that there has been no (successful) punishment of any deviation from the alleged tacit agreement.[15]

4.11 Furthermore, the CC performed the above analysis on all sales (internal and external). CEMEX submits that the CC should have focused on sales to external customers and, in particular, on sales to independent customers, because these are the "addressable market". CEMEX has replicated the CC's autocorrelation analysis for sales to all external customers and for sales to just independent customers.[16] CEMEX finds that for sales to independents, only one major (Hanson) had a correlation coefficient that is [✂]. For sales to all external customers, none of the GB producers had a statistically significant correlation coefficient. Thus, for the relevant addressable

[12] Standard deviation is a statistical measure of dispersion from the mean.

[13] In particular, comparing the standard deviation of monthly market share using sales to internal and external customers to using sales to external customers and sales to independent customers:[✂].

[14] Provisional Findings Report, at para. 7.9 and Appendix 7.10.

[15] CEMEX notes that evidence of deviation that has gone unpunished is a significant pointer against the existence of coordination (see Lindsay, A., and Berridge, A. (2012) *EU Merger Regulation: Substantive Issues*, at section 8-014).

[16] Appendix 7.1, Tables 28 and 29. Please note, only data on CEM I was available.

part of the market, we find no evidence of the existence of a mechanism to rebalance market shares through matching of wins and losses in order to maintain a collusive outcome.

4.12 In the absence of any significant correlation of gains and losses, CEMEX observes that consistent volatility in market shares is ordinarily a sign of strong and healthy competition in a market. In this regard, CEMEX notes in particular that the volatility in the market share of Tarmac (which the CC accepts is not part of any coordinating group) follows a similar pattern to the change in shares of the other GB producers. CEMEX submits that the volatility in shares is therefore more likely to be indicative of healthy competition.

4.13 The CC comments that, in a market faced with a demand slump and significant excess capacity and high fixed costs, it would expect market participants to compete vigorously to "maintain" volumes.[17] CEMEX submits that the CC's evidence of monthly market shares fits this model better than the alternative alleged by the CC (tit-for-tat behaviour) with GB producers winning business from one another in attempt to maintain sales volumes (and grow market share). CEMEX has told the CC on numerous occasions that its internal market share targets are ambitious and that, in a challenging market, seeking to maintain or grow lost share is an aggressive target.

4.14 Finally, CEMEX refers the CC to **Confidential Annex 2** containing excerpts from CEMEX's internal documents, which clearly indicates that GB cement producers and importers are competing hard for each other's customers and market share.

4.15 It is clear from the above that there have been changes to market shares in the GB cement market. This is consistent with the evidence available to CEMEX, which indicates intense competition for customers. CEMEX submits that the evidence clearly demonstrates that there is no coordination around market shares in the GB cement market.

[17] Provisional Findings Report, at para. 8.3(c).

5 THE CC HAS FAILED TO EXPLAIN HOW STABILITY IN VARIABLE PROFIT MARGINS FACILITATES COORDINATION

5.1 CEMEX submits that the CC does not put forward a compelling explanation as to why, absent any co-ordinated effects, it would necessarily expect market participants to decrease prices or margins by following a volume strategy in response to falling demand in the industry.

5.2 In contrast to its conclusions in respect of GB producers, the CC has followed a different approach in respect of cement importers where it observes that, in respect of importers' alleged strategy not to go for volume (but to balance volume and price), it is "*in the individual interests of GB cement importer to adopt such pricing behaviour to maximise profits"*.[18] CEMEX submits that it is equally in each GB producer's best interest to follow the pricing strategy that it has followed absent coordination.

5.3 The CC should give consideration to the fact that most of the period 2008-2010 has been characterised by a sharp decline in the UK construction sector. This development has led firms in this sector to financial distress to varying degrees. The economics literature has recognised that high levels of corporate debt or financial distress can have a significant impact on how companies compete in their product markets. The central insight of most of this literature is that more highly leveraged firms tend to compete 'less aggressively' (i.e., set higher prices or margins, choose lower output, invest less in capacity expansion etc.). The reason is that higher leverage requires larger debt service payments to prevent the company going insolvent.

5.4 An increased debt burden may lead to, or increase the probability of, financial distress ('debt overhang'). Concerns about long-term viability reduce incentives and efforts to attract new customers. Financial distress raises the importance of current revenues instead, and may therefore induce firms to raise prices or variable margins. Financial distress decreases the value of future profits by decreasing the likelihood that they are realised. [✂].

5.5 [✂].

5.6 Moreover, recent market trends show that the CC's observation on price trends in the market may no longer be correct. CEMEX has recently had to [✂] with the result that its average prices for external sales of [✂] between January 2012 and May 2013. This [✂] has occurred in spite of CEMEX attempting to implement two price increases during this period. This clearly indicates that price increases are not "sticking" and, on the contrary, customers are demanding reductions in prices previously agreed.

[18] Provisional Findings Report, Chapter 8 at fn. 183.

PART II – COORDINATED EFFECTS

This part of the response explains how the CC's theory on coordination in cement is highly theoretical, and sensitive to a range of assumptions inconsistent with market realities, the evidence before the CC, and, indeed, much of the CC's own analysis (e.g. on switching). CEMEX addresses the CC's analysis in several parts:

- Section 6 addresses the lack of transparency in the GB cement market;
- Section 7 explains how the CC's theory of coordination around market shares is not practical in reality;
- Section 8 addresses the absence of internal stability in the GB cement market;
- Section 9 explains the external factors that would undermine any coordination in the GB cement market;
- Section 10 submits that the CC's mechanism for coordination is not workable in practice; and
- Section 11 notes the CC's failure to explain adequately the incentives of the GB producers to coordinate.

6 LACK OF TRANSPARENCY UNDERMINES ABILITY TO REACH AN UNDERSTANDING

6.1 CEMEX submits that the CC has failed to recognise a number of key structural features of the market that critically undermine the GB producers' ability to reach and, if reached, maintain a tacit agreement. In particular:

(a) concentration on a number of measures has decreased dramatically since 2007 with importers and Tarmac taking share from the GB producers, which has reduced concentration dramatically (with a change in the market HHI of in excess of 400);

(b) the market entry of HCM and the creation of Lafarge Tarmac will further decrease concentration in the market;

(c) there are significant asymmetries in the cost structures of the GB producers as confirmed by the CC's analysis at Appendix 6.5 of the Provisional Findings Report. This undermines coordination because the GB producers do not have common incentives;

(d) there has been a significant switch away from cross-sales to internal cement supply such that cross-sales are only of limited relevance to any assessment of the GB cement market today. In any event, high price dispersion would undermine any attempt to use cross-sales to signal prices; and

(e) [✂] in order to provide sufficient transparency to monitor the alleged tacit agreement. This data is far too unreliable to enable a GB producer to estimate the share of importers or other GB producers.

High concentration in the GB cement market

6.2 In its response to the CC's working paper regarding coordinated effects in Great Britain cement of 8 April 2013 (the "Coordinated Effects Response"), CEMEX observed that the GB cement market is becoming increasingly less concentrated, with two critical developments: (1) cement importers increasing share of GB cement sales and (2) the recent formation of Lafarge Tarmac and market entry of HCM (redistributing [✂]% of total GB cement production share from the former to the latter).

6.3 Cement importers' share of the GB cement market (excluding AI) has increased from 6 to 9% between 2007 and 2011, i.e. an increase by 50% in importers' market share across this period. Further, including AI, we see that importers' market share has risen by over 60%, from 8% to 13%, during this period. This increase in importers' market share is even more pronounced when cement importers' share of sales to independent customers is considered. When the GB cement producers' RMX operations (for which cement importers do not compete[19]) are excluded from the market, the rise in importers' market share for the part of the market in which they do compete (i.e. sales to independents - the so called "addressable market") is even more pronounced, [✂].

6.4 The CC responds to CEMEX's arguments by noting that the share of importers has been relatively stable between 2009 and 2011 and, in any event, remains low. CEMEX notes that stability in importers' shares in a challenging market indicates that importers have continued to be a significant competitive constraint. In any event, the market share held by AI and importers has also displayed significant volatility over this period, with the combined share of importers and AI increasing to almost [✂]% in Q4 2010 and their market share not dropping below [✂]% for a single quarter.[20] In any event, the external cement market should be the focus of the CC's analysis. CEMEX therefore has difficulty in understanding how the CC can characterise the collective share of importers as "low" given their share of 18% (26% with AI) of the market for independent customers. The CC fails to address the importance of this large share of independent sales held by cement importers in its provisional findings.

[19] [✂].

[20] CEMEX notes that it has not been provided with data to confirm how much of this volatility is a result of AI.

6.5 The CC also dismisses without adequate consideration the recent entry of HCM into the GB cement market. The CC notes in its provisional findings that the number of GB cement producers remains unchanged at four. However, CEMEX submits that the fact that the arithmetic number of GB producing competitors remains unchanged is irrelevant. The key consideration is that Tarmac has been replaced by a competitor with different structural characteristics and, of critical importance, significantly greater cement capacity to sell on the external market (i.e., an additional [✂] share of production in the GB cement market)[21] particularly when combined with the existing "competitive fringe". CEMEX refers the CC to Part IV below for a full analysis of the significant and fundamental changes that HCM introduces into the GB cement market, which the CC fails to address adequately.

6.6 In any event, CEMEX would note that the GB cement market should no longer be considered as 'highly' concentrated. The HHI for the GB cement market has decreased consistently over the period examined, with the HHI in Q2 2007 some 18% higher than in Q4 2011.[22] This will have decreased even further following Lafarge Tarmac's divestment of cement capacity to HCM in 2012 (which, as recognised by the CC, may also be expected to decrease the three-firm concentration ratio further if HCM's plant operates at, or near, full capacity). [23] An HHI of less than 2,323 would be considered as only a "moderately concentrated" market by many competition regulators around the world.[24] A delta of more than 400 across the relevant period would also be considered as a significant change in market concentration.[25]

6.7 Finally, the CC concludes that, because the market is concentrated, GB producers are likely to have a high awareness of each other's wins and losses. This is a very simplistic view which completely ignores the highly fragmented nature of the external customer base. The CC identified 900 buyers of cement with 3,859 delivery sites in its analysis of switching alone.[26] Please see paragraphs 7.12 to 7.15 below which discuss in further detail GB producers' inability to monitor each other's actions effectively.

Stability in the customer base

6.8 CEMEX submits that the CC is wrong to conclude that the customer base for cement is stable. When the GB producers are excluded, the top 15 cement customers between 2007 and 2011 accounted for only a minority of total sales of cement, with the majority of sales being made to the large number of customers outside this [✂])).[27] The CC notes that there were 900 customers across the period 2007 to 2011 of which only approximately 600 were active in any given year.[28] The CC's analysis of cement customer switching (which does not encompass the whole market and is therefore likely to be an underestimate) shows that there is significant churn in the GB producers' independent customer base with wins and losses on an annual basis representing [✂] and [✂] respectively of the average number of customers supplied per year (including GB producers and independents). This increases to [✂] for wins and [✂] for losses when all external customers are included.[29] CEMEX submits that the CC's analysis of wins/losses of independent customers as a proportion of total sales volume may be understating the level of churn. In particular CEMEX's advisers have not been provided with data to allow them to calculate won/lost independent volumes as a proportion of independent sales (as opposed to all sales), which are

[21] Provisional Findings Report, at Table 7.15 and 7.16

[22] Provisional Findings Report, Table 32 of Appendix 7.1.

[23] Provisional Findings Report, at para 7.217.

[24] See for example the Department of Justice and Federal Trade Commission, Horizontal Merger Guidelines, August 2010, at page 19.

[25] *Ibid* and European Commission. Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (2004/C 31/03), at para. 20

[26] Provisional Findings Report, Appendix 7.9 at para. 18.

[27] Provisional Findings Report, Appendix 7.9 at paras 18 - 20.

[28] Ibid, at para 18.

[29] Analysis based upon Provisional Findings Report, Appendix 7.9 at Tables 1, 7 and 8.

likely to indicate an even higher level of churn of independent customers. This evidence does not support the CC's assertion that there is a stable customer base that is easy to monitor.

6.9 Moreover, when considering stability in the customer base, it is not possible to ignore conditions of demand in the GB cement market which introduce a high degree of uncertainty into the market. As set out in its Coordinated Effects Response, CEMEX noted that there is [✂]. The CC, while recognising that demand for cement is not particularly stable over time and that capacity decisions are affected by this uncertainty,[30] notes that GB producers are likely to have some insight into (short-term) demand movements. In particular the CC cites tendering of large scale construction projects and the GB producers' downstream RMX operations. However, CEMEX submits that the CC is ignoring the fact that more broadly the cement industry is not characterised by long term supply contracts or contracts with volume commitments and long-term projects are frequently delayed, amended or cancelled altogether.

High barriers to entry

6.10 CEMEX does not dispute that there are high barriers to producing cement in GB. However, CEMEX observes that, at the CC's instigation, a new market participant, HCM, has recently entered the GB cement market, which has fundamentally altered the competitive dynamic in the market.

6.11 Moreover, there are low barriers to entry to import cement into the GB cement market and importers can enter the market in an effective and timely manner. The CC recognises that barriers to entry and expansion of cement importers are low, particularly in relation to expanding capacity at existing terminals many of which have excess capacity.[31] However, the CC dismisses these low barriers out of hand because it considers that cement importers suffer a cost disadvantage compared to GB producers. CEMEX refers the CC to Section 12, which explains how cement importers are a constant and very real constraint on its behaviour.

Similarity in cost structures and production processes

6.12 As noted in its Coordinated Effects Response, CEMEX acknowledges that, like in any commodity market, there is a degree of similarity in some of the costs incurred by GB cement producers and in particular unit variable costs. However, it is this similarity in input costs, which has led to a number of the behaviours in the market that the CC (wrongly) ascribes to the existence of a tacit agreement.[32] For example, instances of simultaneous price increases are largely explained by GB producers facing similar costs increases at the same time.

6.13 However the CC fails to address the importance of the asymmetries in the GB producers' respective plant portfolios (see Figure 12 of Appendix 6.5 showing the high variability in plant level costs) which result in variations in costs of production. This makes monitoring any hypothetical coordinated outcome difficult. CEMEX refers the CC to Section 7 below which sets out in detail how the asymmetry in the overall cost structures and production capacities of the GB producers undermines any incentive to coordinate.

Participation in JVs

6.14 CEMEX, like other cement producers is a member of a limited number of <u>aggregates</u> JVs. However, the CC has not presented any evidence regarding how these aggregates JVs are used to facilitate coordination in <u>cement</u> or which JVs are of particular concern, other than a vague statement that these facilitate informal senior level contacts and strengthen relationships/a sense of interdependence. The CC has not adduced any evidence to support this assertion whatsoever. Therefore, while in theory participation in JVs might be capable of increasing transparency in the

[30] Provisional Findings Report, at para. 7.25.

[31] Provisional Findings Report, at para. 7.79 and Appendix 7.5 at para. 5.

[32] Provisional Findings Report, at para. 8.162(c).

market, there is no evidence to show that this is happening in practice. Furthermore, the number of JVs in which CEMEX participates has reduced dramatically over recent years.[33]

Cross-sales

6.15 CEMEX would emphasise again that it makes very few cross-sales at present, which are limited to very small amounts of cement purchases from, and sales to, [✂]. More generally, the CC also found that there has been a shift toward greater self-supply apart from in areas where logistics implied that purchases from other GB producers might be more efficient.[34] As regards 2012, CEMEX's cross-sales have remained at similarly low levels.[35] Given this reduction in cross-sales, it is clear therefore that they are of only limited relevance to any analysis of the GB cement market. CEMEX refers the CC to Figures 2 to 5 of Appendix 7.12 of the Provisional Findings Report, which illustrate this reduction very clearly.

6.16 In its Coordinated Effects Response, CEMEX noted that there is an inherent tension between, on the one hand, the CC's assertion that cross-sales of cement provide a high degree of transparency of rivals' cement pricing[36] and, on the other hand, its assertions that (a) cross-sales tend to be at a higher price than external sales to independent customers;[37] (b) vary between GB producers; and (c) evidence, in some cases, that cross-sales between GB producers exhibit an element of reciprocal pricing.[38]

6.17 The CC, however, continues to maintain this contradictory position in its Provisional Findings. It is not clear to CEMEX how cross-sales increase market transparency given the CC's findings that (1) GB producers often paid higher prices than non-GB producers and (2) there were significant variations in the prices charged by each major to the other GB producers.[39] Moreover, the CC recognises that "*the prices at which [cross-sales] are made do not provide precise information on prices paid by other customers*".[40]

6.18 The CC also asserts that cross-sales may act as a signal of the desired level of prices for cement among the coordinating group, which results in each GB producer accepting higher prices for cement than might otherwise be the case (thereby signalling that the price they themselves charge their own customers is high).[41] However, it is again not apparent how the price of cross-sales among GB producers acts as a signal for aspirational price levels in circumstances where the CC has found that the prices charged by each GB producer differ in respect of its other GB cement producing customers.[42]

6.19 Moreover, the high level of price dispersion found by the CC would also undermine the ability for cross-sales to make the GB cement market transparent and indicate that any alleged signalling of aspirational prices is, in any event, unsuccessful.[43]

MPA data and EU-ETS data

6.20 CEMEX submits that the MPA data and the EU-ETS data only provide limited transparency in the market and as such do not facilitate coordination, principally because it is not possible to

[33] [✂]).

[34] Provisional Findings Report, at para. 7.202(d).

[35] [✂].

[36] Provisional Findings Report, at para. 7.199

[37] Ibid.

[38] Ibid.

[39] Provisional Findings Report, at para. 7.202(c).

[40] Provisional Findings Report, at para. 7.131(a).

[41] Provisional Findings Report, at para. 8.218(c).

[42] Provisional Findings Report, at para. 7.202(c).

[43] See the CC's findings in this regard at para. 7.152 of the Provisional Findings Report.

supplement this information, as regards CEMEX, by monitoring its wins and losses of customers, and of the supplier(s) to which these customers switched, to a sufficient level of accuracy.

MPA data

6.21 The CC observes that the MPA publishes data on monthly GB cement production and sales of cement by GB producers, with a one month time lag. The CC recognises that this does not enable the calculation of market shares including imports nor does it show to which other supplier(s) share has been lost in the event of a loss and therefore GB producers need to complement information on monthly share with other information.[44] The CC then explains that the additional information it is referring to is the monitoring of wins and losses of customers and which supplier they have been won from/lost to.

6.22 While CEMEX does not dispute that the MPA data can be used by a GB producer to estimate its own share of production by GB producers, CEMEX submits that the inherently unreliable nature of win/loss data make it impossible to estimate share of production including importers or shares of other GB cement producers. In this regard, CEMEX notes that, given the incentives of customers to mislead suppliers as a negotiating tool, monitoring of wins/losses through customer interaction is a particularly unreliable method of monitoring wins/losses and this has been recognised by the European Commission.[45]

6.23 The inherent unreliability of win/loss data is also clear from the CC's own analysis of the GB producers' win/loss data. In its provisional findings, the CC notes that only approximately [✂] percent of Lafarge and Hanson's win/loss data matched the CC's calculation, whereas for CEMEX, the equivalent number was only [✂] percent. Therefore, on average, only approximately [✂] to [✂] percent of win/loss data matched the CC's analysis. It is not clear to CEMEX how effective monitoring of a coordinated agreement can be maintained when win/loss data is only accurate in [✂] of every [✂] cases.

6.24 When taken together, the limitations above mean that the utility of the MPA data in monitoring any coordination is severely constrained by the unreliability of the win/loss data (with which, in the CC's view, it must be combined) and it is therefore not possible for GB cement producers to monitor, identify and retaliate against competitors to which it has lost market share.

EU Emissions Trading Scheme ("EU ETS")

6.25 The CC states that it is possible to obtain annual production by plant and annual market shares by plant through the EU ETS data, which is published in arrears.[46]

6.26 As noted in its Coordinated Effects Response, [✂]. In summary, the EU ETS data is not a reliable indicator of cement production at each facility and does not increase transparency in the GB cement market. The data is also a year in arrears and therefore of limited assistance in detecting deviations (in monthly shares of sales) even if the above steps are possible.

6.27 In an apparent response to CEMEX's observations, the CC states that "*EU ETS [is] unlikely to be the primary source of information*" used in any alleged coordination.[47] The CC goes on to indicate that it "*thought that the availability of EU ETS data would nonetheless be a valuable cross-check on the accuracy of other information used for monitoring purposes and would contribute to increased levels of transparency in the market on individual plants' production volumes and costs, particularly variable costs*."[48]

6.28 However, CEMEX raises four points in this regard:

[44] Provisional Findings Report, at para. 8.166.

[45] See the European Commission's decision in Case COMP/M.3333, Sony / BMG of 3 October 2007 ("*Sony/BMG*)", paras. 486, 545, 590 and 591.

[46] Provisional Findings Report, at para. 8.162(e).

[47] Provisional Findings Report, Chapter 8 at fn. 160.

[48] Ibid.

(a) first, the CC has not indicated what other information can be cross-checked using the EU ETS data;

(b) secondly, the CC has not provided any evidence to indicate that the EU ETS data is used to cross-check other data used for monitoring;

(c) thirdly, even assuming that the EU ETS data can be used to cross-check other information used for monitoring purposes, the need for a cross-check indicates the inherent unreliability of all other data used for monitoring purposes; and

(d) fourthly, the CC has not indicated what steps a GB cement producer would take if it were to find that, following a cross-check, its original monitoring data was not accurate.

6.29 CEMEX does not use the EU ETS data in the manner described by the CC.

Monitoring of a producer's own wins and losses of customers

6.30 CEMEX notes that the ability of GB producers to monitor wins and losses and the supplier(s) to which these customers switched is an essential element of the CC's theory of coordination. The lack of transparency as regards wins and losses of customers is discussed at paragraphs 7.12 to 7.15 below.

Senior level business contacts

6.31 The CC continues to identify senior business contacts as a means through which the GB cement market is transparent but, in the absence of any specific and recent examples of such contact facilitating transparency, CEMEX is unable to respond to these allegations.

Prices are not transparent

6.32 CEMEX agrees with the CC's conclusion that prices paid by individual customers to competitors are not transparent to each GB producer.[49] However, CEMEX rejects the suggestion that sufficient transparency on prices can be obtained through interaction with customers. As CEMEX noted in its Coordinated Effects Response, customers are driven by their own agenda and will often misreport the name of their former supplier, the supplier they wish to switch to, the quantities they bought from their former supplier and the terms on which they traded with other suppliers.[50] This makes it impossible to precisely track competitor behaviour, particularly prices, by interacting with customers. As regards the inability of cross-sales to increase market transparency, please see paragraphs 6.15 to 6.19 above. In relation to price transparency as a result of price announcement letters, CEMEX refers the CC to paragraphs 7.40 to 7.54 below which explain that price announcement letters do not increase transparency in the market.

[49] Provisional Findings Report, at para. 8.43.

[50] In addition to being supplemental to published data on cement production and sales, information received from customers is particularly unreliable given the incentive to exaggerate as a negotiating tool. This has been recognised by the European Commission in Sony/BMG (see paras. 486, 545, 590 and 591).

7 COORDINATION ON MARKET SHARES

7.1 The CC's theory of coordination is highly theoretical and not workable in practice. The CC alleges that the focal point for coordination for each GB producer is its own share of GB cement sales, as a proportion of total cement sales made by GB producers. CEMEX submits that this vague and imprecise focal point is not capable of enabling the GB producers to reach a common understanding. On the contrary, CEMEX submits that there are a number of factors that make the CC's mechanism for coordination around these shares impossible:

(a) the GB producers' internal documents indicate vigorous competition in the GB cement market among GB producers and between GB producers and importers;

(b) the GB producers' have aggressive market share targets which go beyond simply maintaining market share;

(c) customer behaviour does not facilitate monitoring, principally because a large number of customers would need to be monitored and there is significant churn among customers;

(d) there are high levels of customer switching, which indicates only a limited correlation in wins and losses among the GB producers, as would be expected from a market with, as stated by the CC, three large external producers (at the time of the analysis – there are now four when including HCM);

(e) GB producers are unable to monitor wins and losses to a sufficient degree of accuracy as indicated by the CC's analysis of Lafarge's, Hanson's and CEMEX's win/loss records against the CC's switching analysis, which indicate significant differences (and, in the case of CEMEX, only a very limited match); and

(f) the evidence from the CC's analysis of price parallelism and price announcement behaviour does not support the CC's conclusion that the GB cement market is characterised by price leadership and price following.

Uncertain focal point around which to coordinate

7.2 The CC states that coordination, if it were occurring, is likely to:

> "*evolve mainly around share of GB sales made by the GB producers (i.e. for each producer, the focal point is its <u>own share</u> of GB cement sales, as a proportion of total cement sales made by GB producers), but may be supplemented with the information on prices which can be gathered through discussions with customers and in the context of cross-sales, as well as through price announcement letters.*"[51] (Emphasis added)

7.3 CEMEX submits that the inability of the CC to explain satisfactorily how the coordinating firms have maintained, and will continue to maintain, the alleged coordinated agreement exposes a fundamental flaw in the CC's analysis. The CC admits that it was not able to explain how the allegedly agreed market shares were initially arrived at and that these market shares may change in response to market conditions.[52] Therefore, the CC fails to explain: (1) on what basis the shares of sales have been agreed; and (2) what is the effect of changing market conditions on the allegedly agreed market shares.

7.4 The CC appears to draw a link between the allegedly agreed market shares and shares of capacity where it acknowledges that market share asymmetries make coordination more difficult because a firm with lower market share would have more to gain from a deviation and less to lose from retaliation.[53] The CC then goes on to assert that this difficulty is supposedly overcome by the coordinating firms as "production shares are aligned with capacity shares" and this somehow

[51] Provisional Findings Report, at para. 8.164.

[52] Provisional Findings Report, Chapter 8 at fn. 161.

[53] Provisional Findings Report, at para. 8.237.

minimizes any asymmetries in the incentives to deviates between Lafarge, Hanson and CEMEX.[54] It is therefore clear that, in spite of the CC stating that the allegedly agreed market shares are not mechanistically derived from shares of capacity,[55] in the CC's view there exists a clear link between the allegedly agreed market shares and shares of capacity.

7.5 CEMEX submits that, if the CC's analysis is correct, it is necessary for the CC to explain how the coordinated agreement has been maintained in the light of the significant changes in capacity that have taken place during the period under investigation (and which continue to take place). In particular, in the period 2007 – 2011:

- Lafarge's capacity decreased by [✂] percentage points between 2007 and 2010 (and then marginally increased in 2011);
- Hanson's capacity increased by [✂] percentage points between 2007 and 2009 (and then decreased by [✂] percentage points in 2010-2011); and
- Tarmac's capacity increased by [✂] percentage points between 2007 and 2011.

7.6 CEMEX is the only GB producer which has had a relatively stable market share in the period under investigation (and, even so, its share has been subject to considerable volatility see paragraph 4.4 above).

7.7 If the CC fails to explain the basis on which the allegedly agreed market shares were arrived at, and continue to be maintained, in the Final Report it will be committing a reviewable error. This is particularly important in the light of the entry of HCM into the market. In order for the alleged tacit agreement to be maintained, it will be necessary for the coordinating firms to take into account the market share that will be captured by HCM. A new tacit agreement will therefore have to be arrived at. In this regard it should be noted that, to the extent that the CC persists with its theory that production and capacity shares are aligned, the coordinating firms cannot simply assume that HCM will slip into the shoes of Tarmac, as HCM has [✂]% more capacity than Tarmac did.

7.8 Even if a basis for the alleged coordination could be found, CEMEX notes that the CC states that the primary tool that facilitates this coordination is the MPA data, which can be used to estimate a suppliers' own market share (with a one month time lag).[56] The CC goes on to hypothesise that, in order to monitor deviations, each supplier would need to combine the monthly MPA share data with other information (i.e. monitoring of own wins and losses and of the supplier(s) to which these customers have switched).[57] The CC then suggests that a degree of monitoring of prices may also help cement suppliers to detect deviations.[58] In addition, the CC alleges that suppliers' knowledge of downstream RMX conditions increases transparency in the cement market.[59] Finally, the CC alleges that characteristics of cement customers, and the way they purchase cement, also facilitate coordination.[60]

7.9 CEMEX emphasises the importance, in satisfying the requisite legal standard, of the CC being able to substantiate that the alleged coordinating group is able to reach a common understanding, which necessitates a specific reference point for this understanding that is sufficiently certain such that it can prescribe a given course of behaviour.[61]

7.10 CEMEX submits that the CC has not specified in sufficient detail what the reference point for coordination is or how the GB producers have allegedly reached a common understanding in relation to this reference point. The CC's finding of coordination must be made by reference to the

[54] Provisional Findings Report, at para.8.239.

[55] Provisional Findings Report, Chapter 8 at fn. 161.

[56] Ibid, at para. 8.166

[57] Ibid.

[58] Ibid.

[59] Ibid, at para. 8.167.

[60] Ibid, at para. 8.168.

[61] Sony/BMG; See also commentary in Lindsay, A., and Berridge, A. (2012) *EU Merger Regulation: Substantive Issues*, at section 8-017.

alleged common understanding and if the CC is unable to specify what the common understanding of the GB producers is then it has not satisfied the requisite legal standard.[62] CEMEX notes that this is particularly the case given that the CC has acknowledged that it has seen evidence of competition on the merits in the period since 2010.[63]

7.11 The CC has suggested that the alleged coordinating group can be sustained when there is "competition within bounds"[64] but has then failed to identify any clearly defined bounds within which each member of the alleged coordinating group is able to compete. This results in each GB producer being unable to distinguish deviation from permissible competition within the boundaries of the alleged tacit agreement. For example, if Competitor A and Competitor B have not reached a common understanding as to what Competitor A's market share is allowed to be, how can Competitor B know whether Competitor A is increasing its market share at Competitor B's expense within the bounds of a tacit agreement or deviating outside such an agreement? The answer is that it cannot.

Monitoring of own wins and losses of customers and use of this data to amend shares

7.12 The CC notes that, in order to monitor deviations from a coordinated agreement, "*GB producers would need to complement information on monthly share with other information. Monitoring of a producer's own wins and losses of customers, and of the supplier(s) to which these customers switched, would enable a distinction to be made between a change in share of sales due to deviation by another specific cement producer, a change due to switching to the competitive fringe (i.e. suppliers outside the coordinating group of firms), and a change due to a customer simply requiring more or less cement overall in a given month (which would not represent a deviation from the coordinated outcome because another cement producer would not be responsible for the change in share [Footnote 165: Such changes in share (as a result of customers simply requiring more or less cement in a given time period) could be expected to occur randomly across the entire customer base, and to even out across cement suppliers over time]).*"

7.13 CEMEX would emphasise again that information from customers is inherently unreliable.[65] Win/loss data collected from local sales representatives is similarly inaccurate. The inherent unreliability of win/loss data is clear from the CC's own analysis of the GB producers' win/loss data, as, on the CC's own analysis, it is only accurate in [✂] out of every [✂] cases (paragraph 6.23 above).

7.14 CEMEX is unable to monitor the market shares of its competitors using its own win/loss data and it is not possible to obtain accurate or current information that would assist it in this regard (for example monitoring competitors' wins and losses where CEMEX is not involved is not practical). CEMEX therefore has only limited visibility of the market as a whole.

7.15 CEMEX also refers the CC to its analysis of customer behaviour at paragraph 7.18 below, which sets out the practical difficulties in monitoring cement customers.

Monitoring of prices

[62] For example, the European Court of Justice has held that "*the assessment of, for example, the transparency of a particular market should not be undertaken in an isolated and abstract manner, but should be carried out using the mechanism of a hypothetical tacit coordination as a basis. It is only if such a hypothesis is taken into account that it is possible to ascertain whether any elements of transparency that may exist on a market are, in fact, capable of facilitating the reaching of a common understanding on the terms of coordination and/or of allowing the competitors concerned to monitor sufficiently whether the terms of such a common policy are being adhered to. In that last respect, it is necessary, in order to analyse the sustainability of a purported tacit coordination, to take into account the monitoring mechanisms that may be available to the participants in the alleged tacit coordination in order to ascertain whether, as a result of those mechanisms, they are in a position to be aware, sufficiently precisely and quickly, of the way in which the market conduct of each of the other participants in that coordination is evolving*." (Case C-413/06 P Bertelsmann AG and Sony Corporation of America v Independent Music Publishers and Labels Association (Impala), at para. 126.)

[63] Provisional Findings Report, at paras. 8.150.

[64] Provisional Findings Report, at para. 8.176.

[65] See footnote 50 above.

7.16 The CC alleges that a degree of monitoring of prices may also help cement suppliers to detect whether a deviation has occurred.[66] However, the CC does not explain how monitoring cement suppliers' prices would help monitor deviations in market shares in circumstances where, as the CC has accepted, there is no coordination around prices. It is not clear to CEMEX how knowing its competitors' prices would help it to identify whether a competitor has exceeded its alleged market share target. The CC does not support this assertion with any evidence and CEMEX challenges the CC to provide any evidence that it has to support this assertion.

Knowledge of demand conditions through vertically integrated RMX businesses

7.17 The CC alleges that GB producers' knowledge of the downstream RMX market via their own RMX divisions may help them to distinguish whether reductions in a customers' sales were caused through deviation or otherwise. Again, the CC does not support this assertion with any evidence.

Customer behaviour does not facilitate monitoring

7.18 CEMEX notes the CC's provisional conclusion that for both bulk and bagged cement customer behaviour facilitates monitoring of wins and losses of customers. CEMEX makes the following observations on this finding:

(a) first, the CC observes that the [✂][67]

(b) secondly, the CC alleges that customers of bulk cement tend to single-source for a given job-site, which makes detecting a switch easier. However, this is not borne out by the CC's data which indicates that [✂] have purchased cement from [✂] suppliers in the period 2007 - 2011 (which is a result of (simultaneous) multi-sourcing or switching);[68] and

(c) thirdly, the CC alleges that customers purchase cement from fixed locations and that the customer base is relatively stable over time, which means that it is easy to detect when a job-site ceases purchasing cement and for what reason. As noted at paragraphs 7.12 to 7.15 above, the CC's analysis of cement customer switching does not support the CC's assertion that the GB cement customer base is stable over time, particularly when the major customers are excluded. In particular, the CC identifies 900 customers in the period 2007 - 2011 of which only 600 were active in a given year. This in itself indicates a high degree of churn.

Analysis of the internal documents

7.19 CEMEX notes that the CC has concluded that the GB producers' internal documents indicate an emphasis on maintaining market share. As a preliminary observation, CEMEX notes that the period over which the CC has analysed the competitive landscape in the GB cement market has been characterised by an enormous drop in demand, which, despite a small increase in demand in 2011, is yet to return to pre-2007 levels. In these circumstances, CEMEX would emphasise that preserving or regaining share is a competitive goal in present depressed market conditions and in the face of aggressive competition.

7.20 CEMEX notes that this would appear to hold true for the other GB producers. For example, CEMEX notes from the CC's analysis of the internal documents Lafarge's goal to return to its 2007 market share (which would involve an increase in market share of 6%) and Hanson's goal to return to its 2008 share (which would involve an increase in market share of 3%). These are aggressive growth targets in a depressed, mature market and the CC is incorrect to categorise these goals as merely an attempt to recover lost share (particularly so for the Hanson target, which relates to its share 4 years previously).

[66] Provisional Findings Report, at para. 8.166.

[67] Provisional Findings Report, Appendix 7.9 at paras. 18 - 20.

[68] Provisional Findings Report, Appendix 7.9 at Table 5.

7.21 CEMEX would also note that the CC continues to rely on documents from the period 2005 to 2008 in its provisional findings. The CC has recognised that the market changed dramatically between 2008 and 2009. Given this finding, CEMEX considers the CC's finding that these documents continue to be relevant untenable in the light of these changes.

7.22 CEMEX does not address those documents dating from prior to 2010 because it does not consider these to be relevant in any assessment of the GB cement market today in the absence of a conclusive finding in relation to those behaviours more recently.

7.23 CEMEX acknowledges that it collects market intelligence. This is no different to normal competitive behaviour in any industry. Similarly, monitoring its own absolute market share and its (estimated) relative market share compared to its competitors are two legitimate metrics of business performance among a number of others. For example, as the CC recognises,[69] [✂].

Market outcomes do not support coordination on market shares

Volatility in market shares

7.24 CEMEX would refer the CC to Section 4 above, which addresses the CC's findings in relation to market shares in detail. In particular, CEMEX notes that the CC's evidence shows very significant variation in market shares across the period analysed which is combined with high volatility in monthly shares. The monthly shares of GB producers' vary by as much as 4 percentage points (8 percentage points if the Hanson's internalisation of Lafarge's cement purchases is taken into consideration).

7.25 The CC submits that the shares display negative autocorrelation. However, CEMEX notes that the CC's analysis includes internal sales, which are not part of the "addressable" market, and that if one were to exclude internal sales, the negative autocorrelation all but disappears. Furthermore, CEMEX submits that there is significant persistence over periods of up to 1 year (see further paragraph 4.10 above).

7.26 Moreover, the CC qualifies its findings in relation to the observed variation in market shares across the period 2007 - 2011 noting that they are subject to the accuracy of the CC's findings in relation to each GB producer's incentives.[70] CEMEX refers the CC to Section 11 below which shows that the CC's analysis of incentives is incorrect.

Customer switching

7.27 The CC recognises that the GB cement market has been characterised by periods of relatively high switching between 2007 and 2011[71] and that customers who switched were likely to have received lower prices (prior to 2009) or price reductions (after 2009).[72] The CC also recognises that such switching, where it involves suppliers undercutting one another to win back customers, has the potential to offset the alleged adverse effects of coordination.[73]

7.28 However, the CC goes on to suggest that a degree of customer switching between GB producers is somehow compatible with coordination. The CC asserts that some competition (for example for the most profitable customers) would not undermine any overall coordination provided that there is a mechanism in place to re-establish stable market shares and to punish deviations.[74] The CC also notes that stability in market shares also supports this analysis.

7.29 CEMEX rejects this suggestion as completely unworkable within the parameters of the alleged tacit agreement. Moreover, the CC's evidence is not compatible with this theory. In particular, CEMEX

[69] Provisional Findings Report, at para. 8.96.

[70] Provisional Findings Report, at para. 8.172.

[71] Provisional Findings Report, at para 7.157.

[72] Provisional Findings Report, at para 7.159.

[73] Provisional Findings Report, at paras. 8.174 - 8.175.

[74] Provisional Findings Report, at para. 8.176.

notes that the switching analysis does not find matching of wins and losses of the Top 3 (i.e. Lafarge, Hanson and CEMEX), which fatally undermines the CC's reasoning at paragraph 8.176 of its Provisional Findings Report. CEMEX also notes that a certain degree of correlation between wins and losses is to be expected in a market with only three large external suppliers, as explained in greater detail at paragraph 8.24 below.

7.30 In addition, CEMEX refers the CC to paragraphs 4.2 – 4.10 above, which discuss the significant volatility in market shares across the period 2007 - 2011, which would tend to undermine any ability of the GB producers to coordinate.

7.31 CEMEX submits that the evidence of switching undermines the ability of GB producers to coordinate. The CC makes several key findings in its analysis of cement customer switching:[75]

(a) the end of 2008 and all of 2009 were characterised by relatively high levels of switching, resulting in part from Hanson's internalisation of cement purchases from Lafarge;

(b) the end of 2010 and beginning of 2011 were also characterised by significant levels of switching;

(c) the data provides evidence of competition between cement importers and GB producers which is consistent with an increase in importers' combined market share in the period 2007 - 2011;

(d) the annualised data did not reveal the matching of wins and losses among the Top 3;

(e) there was no consistent pattern in which switching was greater or smaller than one might expect from market shares of the Top 3; and

(f) there was some correlation of wins and losses among the Top 3 and, to some extent, Aggregate Industries and Tarmac, which, as CEMEX notes above, is to be expected given that there were (as the CC states) only three large external suppliers of cement (there are now four large external providers including HCM).

7.32 CEMEX would also note that the results of the CC's switching analysis are consistent with the CC's own analysis of the internal documents in relation to which the CC found that "*[t]he documents include many examples of price competition taking place with GB cement producers noting that they have been undercut by other GB cement producers or importers and have either lost accounts or had to reduce prices to defend.*"[76]

7.33 The CC attempts to disregard the evidence from its own analysis of cement customer switching by noting that the average data is distorted by two periods of significant switching at the end of 2008 and all of 2009 and the end of 2010 and beginning of 2011. As a preliminary remark, CEMEX would note that in an analysis of the period 2007 to 2011 this represents a significant proportion of the period under analysis, i.e. affecting four years (one full year and significant periods in three other years) across the five years analysed. In any event, the data shows consistent switching across the period, albeit with peaks in the periods highlighted by the CC.[77] [✂].

7.34 CEMEX notes that its [✂] in 2011 is not consistent with coordination in the GB cement market. This decision was made to [✂]. The CC has not provided any evidence to show that CEMEX made this change to retaliate against the deviation of another GB producer. In the absence of such evidence, the CC must accept CEMEX's explanation and acknowledge that this is ordinary competitive behaviour.

7.35 CEMEX also refers the CC to the level of churn of independent customers (which is not affected by changes in cross-sales) which shows, on a conservative basis, that there is significant churn in the GB producers' independent customer base with wins and losses on an annual basis representing

[75] Provisional Findings Report, at para. 7.157.

[76] Provisional Findings Report, at para. 8.150.

[77] See Tables 12 – 16 of Appendix 7.9 of the Provisional Findings Report.

[✂] respectively of the average number of customers supplied per year (including GB producers and independents)[78] - see further at paragraph 6.8 above.

7.36 The CC also notes that "competition within bounds" does not result in cheaper prices for customers because there is price discrimination in the market. CEMEX rejects this conclusion, which appears to contradict the clear results of the switching analysis (i.e. that there is a significant level of switching in the GB cement market). The high level of switching, or the **threat** of switching, is likely to impact across the market given that customers are cost conscious and have adequate market information, e.g. customers can, and do, ask for quotes from cement importers on a regular basis and there is a high level of multisourcing. In particular, average prices across the market are still lower than would otherwise be the case in the absence of switching, even in circumstances where customers who do switch pay relatively lower prices than those who do not switch. As CEMEX sets out in paragraphs 15.19 to 15.22 below (and Annex 6), CEMEX is not able to price discriminate by offering selected discounts.

7.37 The CC notes that switching and threats to switch had not been sufficient to erode the margins and profitability of GB producers. CEMEX rejects this suggestion and refers the CC to Section 3 above which notes that the CC's analysis of profitability is not sufficiently robust. In particular, the CC's sensitivity analysis, which more accurately reflects the cost of a new cement plant, brings the industry average ROCE within the CC's estimated WACC range.

7.38 CEMEX would also remind the CC that the results of its switching analysis are likely to underestimate the number of switching events, [79] i.e. it is a conservative assessment of the level of switching in the market (in particular that it covers only 3 of 11 cement importers active at that time).

7.39 CEMEX also wishes to draw recent market trends to the CC's attention, which demonstrate further fierce competition in the GB cement market. [✂]. CEMEX also notes the impact of [✂] importing from Ireland into the South East, [✂]. In addition, CEMEX has had to [✂], with the result that its average prices for external sales of [✂] between January 2012 and May 2013. CEMEX notes that this [✂] has occurred in spite of CEMEX attempting to implement two price increases during this period. This clearly indicates that price increases are not “sticking” and, on the contrary, customers are demanding reductions in prices previously agreed.

Price leadership and price following

7.40 CEMEX welcomes the CC’s conclusion that coordination on price is unlikely because (1) prices are negotiated bilaterally, (2) there is a high-level of price dispersion[80] and (3) that there may be legitimate reasons for notifying customers of planned or intended price increases.[81] However, CEMEX rejects the CC’s allegation that price announcements (a) facilitate price leadership and price following and (b) soften customer resistance to price increases.

7.41 As explained in its Coordinated Effects Response, CEMEX notes that it is widely recognised that the price announcements are purely aspirational and merely represent a starting point for negotiations, which will take place bilaterally with each individual customer throughout the year. Customers are extremely price sensitive and will often threaten to switch suppliers in the face of announced price rises, resulting in CEMEX being able to secure, on average, [✂].

7.42 The CC does not substantiate its allegation that price announcements facilitate price leadership and price following with any credible recent evidence. In fact, the evidence that the CC has collected indicates that price announcements are of limited value in indicating with any degree of precision the range of realised prices following a price announcement. In particular, the CC’s conclusion on its own analysis of price dispersion in realised prices found that "*announced price*

[78] Analysis based upon Provisional Findings Report, Appendix 7.9 at Tables 1, 7 and 8.

[79] Provisional Findings, Appendix 7.9 at para. 15.

[80] Provisional Findings Report, at para. 8.164.

[81] Provisional Findings Report, at para. 7.175.

increases do not, on their own, provide clear information about each individual customer's price increase".[82]

7.43 This accords with CEMEX's analysis of the evidence in its Coordinated Effects Response, which showed that there is a wide range in realised price increases for CEMEX, ranging from (i) a price [✂]. There are also very large deviations in the announced prices and realised prices of the other GB producers and there is no evident relationship among the GB producers' respective realised prices.[83]

7.44 [✂]. Such large deviations between announced and realised prices across each of the four domestic producers reflect the distinct lack of price transparency present in the GB cement market.

7.45 The CC notes that the four GB producers generally announce similar price increases in fairly close succession and that Lafarge is typically the first to announce prices. with the remaining GB producers following with similar, or slightly higher, announced prices.[84] If this were indeed the case, the cumulative price increase announcements would in fact be diverging (Lafarge's being the lowest). This is not the case.

7.46 The CC alleges that "*although price increases are not identical across GB producers, announced price increases tend to be similar in size*."[85] In fact, Table 1 of Appendix 7.11 shows that different suppliers announce different proposed price increases. For 1 January 2006, two GB cement producers announced one price increase with the other two announcing a different proposed increase. For the subsequent 11 dates noted in Table 1, no two cement suppliers have announced the same price increase – instead the four suppliers have proposed four different price increases in every case. For example, see **Table 2** below which compares the amount of the actual announced price increase of each GB producer (identified in the left hand column) of 1 January 2012 against the actual announced price increase of each other GB producer (in the right hand columns under the header 'Comparator'), which are displayed in percentage terms.

Table 2 – Differences in price increases in 1 January 2012 announcements (%)

		Comparator			
		Lafarge	**Hanson**	**CEMEX**	**Tarmac**
Increasing party	**Lafarge**	-	19% or 24% lower depending on product	12% or 13% lower depending on product	5% lower
	Hanson	24% or 31% higher depending on product	-	10% or 15% higher depending on product	18% higher
	CEMEX	13% or 15% higher depending on product	19% or 13% lower depending on product	-	7% higher
	Tarmac	5% higher	15% lower	7% lower	-

7.47 It is also notable that CEMEX announced first with a proposed price increase of [✂], which was followed by Lafarge, which announced an increase of [✂], i.e. approximately [✂]. It is clear, therefore, that the CC's theory regarding similarity of price increases does not bear scrutiny.

7.48 Reflecting this fact, the CC then suggests that the evidence perhaps amounts to a "partial pattern" and admitted, at CEMEX's hearing on 7 December 2012, that any alleged pattern in price announcements appeared to weaken post-2008.[86] CEMEX submits that the evidence most

[82] Provisional Findings Report, at para. 7.184(a).

[83] Provisional Findings Report, Appendix 7.11 at Tables 2 - 4.

[84] Provisional Findings Report, at para. 7.174.

[85] Provisional Findings Report, Chapter 7 at fn. 70.

[86] [✂]."

relevant to the CC's analysis is evidence of recent conditions of competition in the market and this evidence clearly indicates that there is no pattern to price announcements. CEMEX notes that it is likely that a partial pattern will occur in any market with four large players. It is therefore important that the CC compares its findings here against the situation in other similar industries in order to assess the robustness of its findings in this regard. CEMEX does not believe that such a robustness check has been conducted.

7.49 The CC goes on to allege that the internal documents of the GB producers support its conclusions regarding the role of price announcements in price leadership and price following in the GB cement market. CEMEX submits that the CC should focus on the evidence as regards the outcome of any alleged behaviour, which, in this case, clearly indicates that price announcements do not facilitate these behaviours rather than statements in documents which are often taken out of context.

7.50 The CC recognises that CEMEX has recently made a number of "[✂].[87] CEMEX submits that it is not sufficient for the CC to state that at this stage it is not clear how these changes will disrupt the patterns in price announcements. The CC must look at the market as it currently stands rather than relying on historic behaviour and come to a conclusion as to whether the previous alleged behaviours will be possible under the new, changed circumstances.

7.51 As explained in its Coordinated Effects Response and its response to the CC's working paper regarding price announcements in bulk cement (attached at **Annex 3**), CEMEX believes that the changes it introduced in relation to price change announcements will effectively mean that, to the extent that it is alleged that price change announcements were used as a "signal" between the GB cement producers in the past, this will no longer be possible. This is because: (1) the price increases announced via CEMEX's price increase announcement letters will be more realistic than they were historically; [✂].

7.52 The CC alleges that price announcements that become effective at the same time appear to be more effective in increasing prices.[88] However, CEMEX notes that the CC's analysis of realised prices shows that the 2008 mid-year price increase was realised to a larger extent than other price announcements and this distorts the average as observed by the CC.[89] CEMEX submits that the success of this increase (which, as CEMEX has indicated previously, was made in order to account for a very large increase in energy prices) distorts the trend.

7.53 The CC argues that its allegations regarding price announcements are consistent with its conclusions regarding price parallelism. CEMEX disputes this suggestion and notes that there is no parallelism in the announcements themselves nor is the alleged leadership of Lafarge supported by the data. Therefore, there cannot be any causal connection between any alleged parallelism and price announcements. In any event, CEMEX submits that the CC's analysis of price parallelism does not support its theory of harm. In fact, the CC finds the prices of three GB producers and two importers are in line with each other but that one other GB producer and one other importer's prices are not. The presence of one or two maverick firms substantially decreases the sustainability of any coordination. CEMEX refers the CC to **Annex 4**, which contains CEMEX's response to the CC's analysis of price parallelism.

7.54 Finally, CEMEX notes that the CC alleges that cross-sales would further enhance the role of price announcements in facilitating price leadership and price following.[90] However, in support of this assertion, the CC provides only one historic and very specific example of a price announcement letter being sent to a major customer in advance of the announcement to customers more widely. In the absence of any recent and credible evidence, CEMEX cannot respond to this allegation in a meaningful manner. As regards CEMEX, it no longer sends price announcement letters to GB producers at all and, in the period that it did send such letters, it never sent advance copies.

[87] Provisional Findings Report, at para. 7.178.

[88] Provisional Findings Report, at para. 7.84(b).

[89] Provisional Findings Report, Appendix 7.11 at Tables 2 - 6.

[90] Provisional Findings Report, Chapter 8 at fn. 162.

Moreover, in future, CEMEX has decided that it will not send generalised price announcements and will instead communicate price increases to customers individually. CEMEX also refers the CC to the recent market developments discussed at paragraph 5.6 above which note that recent price increase announcements have not been "sticking".

Conclusions on ability to reach and monitor terms of coordination

7.55 As a preliminary observation, CEMEX observes that the standard of proof in the case of coordinated effects cases (while not differing in principle to other cases) is a high one. CEMEX reminds the CC that it should provide "convincing evidence" [91] that the alleged coordinated group has the ability to reach and monitor the terms of coordination. This is a significant hurdle because it requires the CC to predict how market participants will interact going forwards. In the present case, this is particularly relevant because (1) there has been a recent market entry in the form of HCM and (2) the CC has accepted that there is already evidence of competition in the GB cement market.

7.56 CEMEX submits that the CC has not produced such convincing evidence to demonstrate that coordination is occurring now and will continue in future. There are a number of factors which indicate quite the opposite:

(a) The CC's mechanism for coordination is highly theoretical and is not supported by the evidence obtained by the CC in its market investigation. CEMEX submits that the inability of the CC to explain satisfactorily how the coordinating firms have maintained, and will continue to maintain, the alleged coordinated agreement exposes a fundamental flaw in the CC's analysis. In particular, the CC identifies a link between market shares and cement capacity, yet fails to explain how the coordinated agreement has been maintained in the light of the significant changes in capacity that have taken place during the period under investigation. This is of critical importance following the entry of HCM into the market and creation of Lafarge Tarmac.

(b) Similarly, the CC has suggested that the alleged coordinating group can be sustained when there is "competition within bounds" but has not then gone on to identify any clearly defined bounds within which each member of the alleged coordinating group is able to compete. This would result in each GB producer being unable to distinguish deviation from permissible competition within the boundaries of the alleged tacit agreement.

(c) The market outcomes do not support the CC's provisional finding that there is coordination around market shares in the GB cement market, including the following key factors:

(i) there have been significant variations in the relative and absolute market shares of the GB producers. For example, (1) both Lafarge's and Hanson's market shares have decreased significantly across the period and (2) GB producers' monthly shares vary by as much as 4 percentage points from month-to-month (8 percentage points if the drop in Lafarge's sales following the Hanson internalisation is included);[92]

(ii) the CC accepts that there are many examples of price competition taking place between GB producers. This competition would make it impossible to monitor adherence to any tacit agreement. The CC's analysis of customer switching of cement customers and the GB producers' internal documents provide further evidence that there is intense competition between GB producers and between GB producers and importers; and

[91] The CC should have regard to the case law of the European Courts in this regard, see for example Case T-342/999 *Airtours plc. v Commission* [2002] ECR II-2585, at para. 63.

[92] There is also persistence in the monthly changes where a GB producers' market share consistently increases or decreases over a protracted period without significant fluctuations against the trend.

(iii) the CC has found that the prices announced by GB producers are very rarely realised in practice. CEMEX submits that this undermines any ability for these to facilitate price leadership and price following. In any event, it is not clear how these letters facilitate the alleged coordination around market shares.

(d) There are a number of key structural and behavioural features of the GB cement market that critically undermine the GB producers' ability to reach and, if reached, maintain a tacit agreement. In particular:

(i) the GB cement market is not sufficiently transparent to allow the GB producers to reach, and if reached, monitor effectively a tacit agreement. In particular, concentration in the GB cement market has reduced over the period analysed by the CC and has reduced even further following the creation of Lafarge Tarmac and the entry of HCM into the GB cement market. This has been accompanied by significant variations in the relative and absolute market shares of the GB producers. Further, the CC accepts that the GB producers' own market shares, which can be calculated from MPA data, [✂]. CEMEX submits that this is, in reality, not practical and does not allow for sufficient transparency to monitor for any deviations from the alleged coordinated agreement;

(ii) the GB producers have very different cost structures and in particular their degrees of vertical integration. The CC has failed to address adequately how the differing contributions to profits made by GB producers' RMX operations can be reconciled with GB producers' incentives to coordinate (see further paragraphs 11.6 to 11.10 below; and

(iii) the level of cross-sales has reduced dramatically across the period analysed and these do not allow the GB producers to signal prices to one another. In any event, CEMEX notes that the high price dispersion would undermine any attempt to do so.

8 ABSENCE OF INTERNAL STABILITY

8.1 CEMEX submits that, even if a tacit agreement could be reached, there are significant incentives for parties to any such agreement to deviate from it and it would not be possible to effectively punish deviating parties. Each of these factors is addressed below.

8.2 Of critical importance, the CC accepts that there is competition on the merits in the GB cement market.[93] However, it goes on to argue that this is merely "competition within bounds" which is consistent with coordination. The CC does not explain how the alleged coordinating parties are aware of these boundaries or how the parties supposedly distinguish such permissible competition on the merits from deviation from a tacit agreement.

8.3 Moreover, the CC finds that GB producers are not incentivised to deviate from the alleged coordinated outcome because the customer base is fragmented and this would entail approaching a large number of customers in order to be profitable. However, the CC does not attempt to reconcile this finding with the commonplace examples of GB producers aggressively winning business from each other in respect of both large and small customers. The CC also hypothesises that “competition within bounds” could, for example, be for particularly profitable customers but otherwise makes no effort to identify those customers for whom competition is permitted. Further, if there is indeed coordination in the market, it would appear perverse that the coordinated agreement permits competition for the most profitable customers. One would expect that these are precisely the customers in respect of which the coordinating group would seek to reduce competition. CEMEX submits that this is unacceptable and, if the CC believes that this is a credible theory, it should at the very least provide recent examples of it in action (and critically be able to distinguish these from other allegedly coordinated behaviour).

Incentives to deviate

8.4 The CC considers that deviation could take place in one of two ways.[94] First, by targeted deviation, whereby a cement supplier approaches customers of other cement suppliers by offering lower prices. Secondly, by announcing price increases substantially lower than those of its competitors. CEMEX considers that each of these strategies would be profitable methods of deviating from any hypothetical coordinated agreement and addresses each below.

Targeted Deviations

8.5 The CC alleges that the potential gains from one-off deviation would be limited as the largest independent customers alone do not account for a large proportion of total cement purchases and, even in respect of large multi-site operators, such customers would switch at site level rather than for their entire demand.[95] The CC also alleges that, to the extent that larger customers are targeted, this is likely to be detected by competitors more quickly because these customers will be more closely monitored. However, the CC’s theoretical analysis is squarely contradicted by the evidence.

8.6 First, the CC fails to address the abundance of evidence to demonstrate that GB cement producers can, and do, approach each other's customers (which the CC accepts). In particular, and in addition to those documents indicating normal competition identified by the CC in its review of the GB producers’ internal documents, a number of which are reproduced in Appendix 8.3, CEMEX refers the CC to **Confidential Annex 2**, which sets out numerous examples of GB cement producers approaching each other’s customers. As noted in its Coordinated Effects Response, it is incumbent upon the CC to explain why these approaches are being made if it is not profitable to deviate from a coordinated agreement. The CC has failed to do so in its Provisional Findings. In the absence of this explanation, CEMEX submits that the only logical conclusion that one can draw from these documents is that they demonstrate vigorous competition in the GB cement market.

[93] Provisional Findings Report, at para. 8.150.

[94] Provisional Findings Report, at para. 8.184.

[95] Provisional Findings Report, at para. 8.187 - 8.188.

8.7 Secondly, the CC's analysis of cement customer switching indicates that there has been significant switching between GB cement producers in the period 2007 to 2011.[96] Again, it is for the CC to explain why there have been significant numbers of wins and losses between GB cement producers if it is not profitable to deviate from any hypothetical tacit agreement. As set out at paragraph 6.8 above, CEMEX notes that the level of each of the GB producer's wins and losses of independent customers between 2007 and 2011 has amounted to [✂] respectively of the average number of customers supplied per year (including GB producers and independents) even considering that (1) sales among GB producers should be excluded from the denominator and (2) this includes only 3 cement importers.

Deviations by announcing lower price increases

8.8 The CC alleges that GB cement producers are unlikely to deviate by using this method as it would be transparent to other GB cement producers.[97] However, as noted in its Coordinated Effects Response, GB producers can, and do, announce price increases, which are substantially lower than price increases that have already been announced by their competitors. Indeed, Appendix 7.13 contains an example of one cement producer announcing a price increase which is [✂] lower than the highest price increase announced.[98] The CC notes its provisional findings that, despite the difference in the actual individualised prices, the increases in price tend to be similar in size.[99] This is not correct. CEMEX's observation relates to the announced increase and not the actual individualised price. In percentage terms, the announced increases differ to a considerable extent. See for example **Table 2** above, which shows that there are very large differences in the announced increases in January 2012 where the highest increase is [✂] larger than the lowest increase.

8.9 The only logical explanation for the "deviations" which are occurring in the GB cement market is that there is no tacit agreement in place and these so called deviations are, in fact, instances of normal competitive behaviour.

Punishment/deterrent strategies

8.10 As a preliminary observation, CEMEX would emphasise that the CC has failed to explain adequately, and to the appropriate legal standard, how the acknowledged competitive behaviour in the GB cement market[100] is compatible with its theory regarding the GB producers' incentives to deviate. The CC states that "*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*".[101] In particular, CEMEX notes that the CC gives no explanation at all as to how a GB producer is supposedly able to distinguish deviation from "competition within the bounds" of a tacit agreement.

8.11 The CC alleges that there is one primary mechanism through which deviators can be punished/deterred from deviating, the "tit-for-tat" strategy. The CC also alleges a second mechanism, changing the amount or terms of cross-sales.[102] Each of these mechanisms is addressed in turn below.

Tit-for-tat punishment

8.12 The CC considers that deviators from a coordinated agreement can be punished by regaining an equivalent amount of volume from the deviator (either by selectively targeting the deviator's

[96] Provisional Findings Report, at Tables 8 – 16 and Annex B.

[97] Provisional Findings Report, at para. 8.185.

[98] Provisional Findings Report, Appendix 7.11 at Table 1, see difference between Lafarge and Hanson 1 Jan 2012 price increases.

[99] Provisional Findings Report, Chapter 7 at fn. 70.

[100] Provisional Findings Report, at para. 8.150.

[101] Provisional Findings Report, at para. 8.176.

[102] Provisional Findings Report, at para 8.202.

customers or repatriating volume).[103] The CC considers that as "*deviations are more likely to occur at a relatively small scale by approaching individual customers of other cement suppliers […] a tit-for-tat strategy of punishment would be sufficient to deter deviations in many cases*."[104]

8.13 CEMEX would note that (given the evidence of competition in (1) the internal documents which show numerous examples of GB cement producers approaching each other's customers and (2) the results of the CC's analysis of the switching of cement customers) the behaviour observed is not "tit-for-tat punishment" as alleged and still less does it appear to be an effective deterrent to some sort of coordinated behaviour. It is, in fact, evidence of normal competitive behaviour.

8.14 In this regard, CEMEX notes the CC's explanation of this behaviour at paragraph 8.200 where it notes, "*As set out in paragraph 8.218, tit-for-tat strategies can be used both as a mechanism to re-balance shares on a short-term basis, as well as a mechanism to deter deviations (or to punish deviations when these have occurred). In addition, for the reasons set out in paragraph 8.176, a degree of competition is not incompatible with coordination*." The CC goes on to note at paragraph 8.218 that "*tit-for-tat strategies […], as well as the existence of cross-sales, provide opportunities for re-establishing shares of sales when these have changed (e.g. in the case of cross-sales, if Producer A's share has increased compared with B, it then increases volumes of cement purchased from B)*".

8.15 CEMEX submits that this explanation is entirely inadequate to explain the high level of competition in the GB cement market. The vast majority of examples that the CC has highlighted as tit-for-tat behaviour do not exhibit any evidence of "re-balancing" shares. This does not therefore explain this behaviour. CEMEX notes that attacks on its customers are vigorously defended and the internal documents show this (see **Confidential Annex 2** which includes numerous examples of this behaviour). CEMEX also refers the CC to paragraph 7.11 above which highlights the similar inadequacies in the CC's reasoning at paragraph 8.176 of its provisional findings.

8.16 The CC references a number of extracts from the GB producers' internal documents in its provisional findings in support of this statement. However, CEMEX notes that a number of the examples of tit-for-tat behaviour relate to the 2008 internal documents. As noted previously, CEMEX does not consider these documents to be relevant in any assessment of the GB cement market today.

8.17 As regards the more recent documents referred to at paragraphs 8.115 to 8.139 of the Provisional Findings Report, CEMEX notes the following statements in the CC's observations on these documents where the CC "*acknowledge[s] that there is evidence in the 2012 documents of both competition (see paragraph 8.150) and tit-for-tat behaviour*"[105]. The CC goes on to note that "*tit-for-tat strategies are not used by Lafarge and Hanson exclusively to cover actions against other members of the coordinating group (see the third footnote to paragraph 8.218(f)). [The CC does] not consider it surprising that the same approach to engaging in the market spills over into interactions with other rivals. What is significant is that, when used against other members of the coordinating group, there is a <u>mutual recognition that this is an action to correct</u> deviation from a coordinated approach or to balance volumes between firms*."[106]

8.18 As regards the correspondence that relates to it, CEMEX disputes the CC's suggestion that there is mutual recognition that this behaviour is intended to correct a deviation. CEMEX maintains its consistent position that a GB cement producer will indeed seek to recover volumes that it has lost. However, as the CC recognises that there were only three large external suppliers (i.e. Hanson, Lafarge and CEMEX), it is to be expected that, in a significant percentage of cases, volume will be sought to be recovered from the GB cement producer it has been lost to. The language used by

[103] Provisional Findings Report, at para 8.194.

[104] Provisional Findings Report, at para. 8.192.

[105] Provisional Findings Report, at para. 8.137.

[106] Provisional Findings Report, at para. 8.139.

CEMEX's employees is that of an ordinary sales force in any industry that has lost business in a competitive marketplace.

8.19 In any event, it is not clear to CEMEX how coordination could be maintained where there is competition on the merits in some cases, because it would be impossible for CEMEX to distinguish this behaviour from deviation from the alleged tacit understanding.

8.20 CEMEX reiterates that in some cases it makes rational sense to recover volumes from a supplier or a customer of a supplier to which it has lost volumes[107]. There was no consistent trend identified by the CC to indicate that it always attacked the customers of the supplier to which it had lost business, let alone, that, in each case that this was a GB producer, it always recognised that it was taking action to correct a deviation from a tacit agreement. CEMEX and all other suppliers in the GB cement market are always seeking to win customers. CEMEX refers the CC to a selection of illustrative samples of evidence from its internal documents of such competitive behaviour (see **Confidential Annex 2** for further examples):

- [✂]
- [✂]
- [✂]

8.21 The CC states that it found some evidence of tit-for-tat behaviour in the analysis of switching of cement customers. However, CEMEX considers this evidence to be weak and makes the following points in this regard.

8.22 First, CEMEX notes that only half of the correlation coefficients (6 out of 12) in Table 17 of Appendix 7.9, which examines contemporaneous correlation between wins and losses, are [✂]. In any event, in the light of the fact that the MPA publishes data on monthly GB cement production and sales of cement by GB cement producers with a one-month lag (which, according to the CC, allows GB producers to track and co-ordinate on market shares), so that "real-time" monitoring of market shares is not possible, it is not clear that analysing contemporaneous correlation is appropriate.

8.23 Secondly, two thirds (4 out of 6) of the statistically significant correlation coefficients in Table 17 of Appendix 7.9 of the Provisional Findings Report pertain to pairs involving Tarmac, leaving just 2 out of 12 correlation coefficients relating to pure pairs of the Top 3 producers. However, the CC considers Tarmac as a fringe player that is not part of the coordinating group.[108] According to the CC, Tarmac will be difficult to punish and has limited ability to significantly increase sales to external customers (which CEMEX considers would limit its ability to punish deviators). On that basis, one would not expect to observe Tarmac to initiate or be at the receiving end of tit-for-tat behaviour. But is precisely in relation to Tarmac where the support for the CC's flawed tit-for-tat hypothesis would be strongest, whereas for the other players it is not.

8.24 Thirdly, CEMEX notes that the positive correlation between wins and losses between [✂] is relatively small.[109] In any case, some correlation between wins and losses is to be expected in a market which has only three large external suppliers (as stated by the CC). When a supplier loses cement volumes, it will seek to recover this volume. One of the methods used to recover volumes is by internalisation and, in a market which consisted of only three large external suppliers, it is not surprising that a supplier will often seek to recover volumes from the GB cement producer to which it has lost volumes. The CC alleges that, irrespective of the correlations, the internal documents of the GB producers indicate intentional tit-for-tat behaviour. CEMEX submits that the correlations are

[107] CEMEX notes in this regard that the CC seems to attribute the rational commercial incentives of GB producers to coordination whereas such behaviour in importers is permissible - see paragraph 5.2, footnote 18, above, regarding footnote 183 to Chapter 8 of the Provisional Findings Report..

[108] Provisional Findings Report, at para. 8.256.

[109] Provisional Findings Report, Appendix 7.9 at Table 17.

more illuminating in this regard because they indicate the actual market outcome rather than the rhetoric of sales personnel.[110]

8.25 Fourthly, CEMEX notes that there is a negative (albeit not statistically significant) correlation between wins and losses between [✂].[111] This indicates that there is no consistent policy in place to recover volumes from the supplier to which that volume has been lost. As the CC has acknowledged, negative coefficients are consistent with competition.[112] This further supports the fact that it is not a consistent practice to retaliate against a competitor to which volumes have been lost. Each loss is assessed individually and a rational business decision is taken on how best to recover it.

8.26 Furthermore, CEMEX notes that, when considering correlations between wins and losses with a time lag, the CC finds [✂].

8.27 CEMEX notes that the CC indicates that in a competitive market with excess capacity it would expect firms to compete to recover volumes but would not expect firms in such a market to compete only to gain volumes that have been lost. Neither would it expect firms to attempt to gain volumes back from the customers of the producer to whom volumes were lost rather than the market as a whole. CEMEX notes that it does compete to gain volumes on a daily basis and where volumes are lost seeks to recover these from the market as a whole including from the producer to whom volumes were lost.

8.28 The CC asserts that there is a low risk of accidental punishment given the amount of information on monthly market shares, monitoring of customer switching and vertical integration of the GB producers. CEMEX refers the CC to paragraphs 8.35 to 8.36 below which set out the reasons why the cement market is not sufficiently transparent to avoid such accidental punishment where there is a significant degree of competition on the merits as accepted by the CC.[113] CEMEX also notes that the CC has not produced any robust evidence showing a high correlation of wins and losses from month-to-month. In fact, the CC's correlation analysis contradicts the notion that there is coordination between the Top 3 producers with Tarmac being one of the fringe players.

8.29 It is therefore clear that no effective tit-for-tat strategy is being employed in the GB cement market which can act as a punishment mechanism.

Changes in the amount or terms of cross-sales

8.30 CEMEX notes at the outset that the CC acknowledges that the "*scope of large scale retaliation via [cross-sales] was much smaller now than in the past, as a result in the decline of cross-sales*".[114] CEMEX agrees with this statement and notes that, whatever the historical role of cross-sales (which it disputes were used for the purposes suggested by the CC), this is no longer a relevant consideration in the GB cement market.

8.31 The CC suggests that changes in the amount or terms of cross-sales could be used to signal to a competitor that a deviation had been detected. CEMEX notes that the evidence cited by the CC in this regard is largely historic. As regards the more recent documents, CEMEX notes that it is not possible to interpret the CEMEX document cited at paragraph 8.204(e) as signalling that a deviation from the tacit agreement has been identified.

Punishment through RMX prices

8.32 CEMEX agrees with the CC's conclusions that punishment through lowering prices would be less effective than adopting a tit-for-tat mechanism.[115] As explained above, any tit-for-tat strategy would

[110] CEMEX notes that the CC makes an equivalent argument at paragraph 8.137.

[111] Provisional Findings Report, Appendix 7.9 at Table 17.

[112] Provisional Findings Report, Appendix 7.9 at para. 69.

[113] Provisional Findings Report, at para. 8.150.

[114] Provisional Findings Report, at para. 8.203.

[115] Provisional Findings Report, at para. 8.185.

be largely ineffective in punishing deviators and hence it can be expected that punishment through lowering of RMX prices would be even less effective. In any event, CEMEX notes that the CC has not explored this or other potential punishment mechanisms further.[116]

Accidental punishment

8.33 CEMEX notes the CC's view that the risk of accidental punishment is relatively low.[117] However, as explained in its Coordinated Effects Response, even if a punishment mechanism were indeed being adopted, CEMEX submits that the risks of accidental punishment would be very high. This is for three reasons:

(a) aggressive targeting of each other's customers by GB cement producers as evidenced by the internal documents;

(b) there is extensive customer switching between GB cement producers; and

(c) in reducing prices to a single job site, a cement supplier takes the risk of making other job sites of the customer aware of this reduction in price, with the consequence that other job sites of the customer demand a similar price either from its existing supplier or another supplier(s) supplying a different job site. CEMEX notes that the CC found that its customers had on average 4.1 jobsites in its analysis of cement customer switching.[118] This consideration therefore affects a significant proportion of CEMEX's cement sales volume. The existence of different transport costs to each of a customer's sites would not make price comparison between sites prohibitively difficult and a number of customers also ask CEMEX to quote prices for collection in any event.

8.34 The CC suggests that the risks of accidental punishment are low because GB producers are able to monitor both shares of production and switching. It is alleged that this will allow GB producers to distinguish, when they have experienced a reduction in their monthly production share, whether this is due to a loss of customers to other members of the coordinating group (i.e. deviation requiring action), whether this is due to loss of customers to fringe players, or whether it is due to their own customers not performing well in downstream markets.[119]

8.35 CEMEX notes that, in practice, this is not possible. There are a number of examples of GB producers seeking to win volume from other GB producers without this being driven by the need to recover lost volumes from that GB producer, see for example the documents at **Annex 2**. CEMEX submits that unless this behaviour were punished in every case with full recovery of any lost volume, it becomes entirely unworkable to distinguish deviation from, presumably permissible, retaliation. It is clear from the CC's own switching analysis that monthly gains and losses are not sufficiently correlated to enable a GB producer to distinguish deviation from retaliation in the manner specified by the CC. Therefore, CEMEX submits that the risk of accidental punishment is very high, (e.g. Competitor A punishes Competitor B for taking customers from Competitor A but Competitor B was actually retaliating against Competitor A for an earlier perceived deviation of Customer A for which it had not recovered 100% of lost volume).

8.36 Given the high risk of accidental punishment, CEMEX submits that it is not feasible to implement a punishment/deterrent policy in the GB cement market.

[116] Provisional Findings Report, at para. 8.205.

[117] Provisional Findings Report, at para. 8.206.

[118] Provisional Findings Report, Appendix 7.1 at Table 1.

[119] Provisional Findings Report, at para 8.206.

9 EXTERNAL FACTORS WOULD UNDERMINE ANY COORDINATION

HCM fundamentally undermines any alleged coordination in the GB cement market

9.1 CEMEX sets out in detail in Part III below how the entry of HCM into the GB cement market is a fundamental change that (both in itself and in combination with other factors, including its contribution to a strengthened "competitive fringe") undermines the external stability of any alleged coordination in the GB cement market. CEMEX summarises below the key factors that make HCM a vigorous competitor in the GB cement market now. This is supported by contemporaneous evidence (see paragraph 17.12 below).

9.2 The CC alleges that HCM will be "quite similar" to Tarmac prior to January 2013 in terms of having "a single cement plant, and in terms of its market position in cement and RMX, but will have some additional cement capacity".[120]

9.3 CEMEX submits that HCM is, in fact, very different to Tarmac on certain key variables and it will not, therefore, simply step into Tarmac's shoes.

9.4 HCM has significantly more capacity to produce cement than Tarmac pre-JV. CEMEX notes that the Hope plant can produce approximately [✂] more cement (CEMEX estimates that this amounts to [✂] tonnes of cement) per annum than Tarmac's Tunstead plant. This means that HCM's business in terms of external cement sales is almost four times the size of legacy Tarmac's equivalent business. HCM is therefore incentivised to seek new business from independent RMX producers in order to operate at full capacity and maximise its returns (see further at paragraphs 17.2 to 17.9 below).

9.5 An additional incentive for HCM to seek volume in the market stems from it being a single plant operator. Such an operator has strong commercial incentives to operate its plant at full capacity owing to the significant cost of running a cement kiln.[121] Given the imperative to minimise fixed costs, CEMEX considers it implausible that HCM will seek to operate only one of the two kilns at the Hope plant (see further at paragraph 17.7 below).

9.6 CEMEX also notes that the Hope plant is one of the GB cement plants with the lowest costs per tonne of production (see further at paragraph 17.8 below).

9.7 CEMEX submits that it is extremely unlikely that HCM will join any alleged coordinating group, in particular, because (a) as a new entrant HCM would not be able to enter into, or maintain, any tacit understanding with its competitors in the GB cement market and (b) the very structure of HCM makes its participation in any coordinated behaviour significantly less likely (see further at paragraphs 17.13 to 17.16 below).

9.8 The CC fails to recognise the impact that HCM's entry will have on any alleged coordinating group. The entry of HCM may be expected to cause uncertainty amongst members of any alleged coordinating group, significantly affecting any ability of GB producers to coordinate. In this sense, any ability for the GB cement producers to coordinate is not only undermined by the structural changes to the market but also by the uncertainty inherent in the entry of a new player to the market (see further Section 18 below).

9.9 Finally, and critically, HCM increases the size of the "competitive fringe" which should be considered as a whole in the CC's analysis (CEMEX notes that at present the CC only considers Tarmac pre-JV)[122]. The 16% share of production held by HCM, together with its numerous incentives to operate as close to full capacity as possible, in combination with (at least) a 13% market share held by importers (which is only likely to increase given the EU ETS Phase III), is likely to result in a market share of around 30% being held outside the alleged coordinating group.

[120] Provisional Findings Report, at para. 8.266.

[121] [✂].

[122] Provisional Findings Report, at para. 8.210.

Such a significant market share cannot fail to have an impact on the ability of any alleged coordinating group to maintain coordination (see further at paragraphs 19.9 to 19.13 below).

Cement importers form part of a "competitive fringe" that undermines any alleged coordination in the GB cement market

9.10 CEMEX sets out in detail at Part III below that importers act as a very real and constant constraint on the GB cement market. CEMEX addresses below the three points specifically highlighted by the CC in its Provisional Findings in support of its allegation that importers only exercise a "limited" competitive constraint.[123]

9.11 As a preliminary observation, CEMEX reiterates that it does not consider the CC's analysis of cement importers costs to be robust and notes a number of limitations to the CC's analysis in this regard, in particular the small sample size (only four of 11 possible importers) and in particular the failure to analyse the total costs of a large Irish cement importer[124] (see further at paragraph 14.1 below).

9.12 The CC alleges that importers have a significant cost disadvantage in competing for customers at the margins. CEMEX reiterates its previous submissions that it cannot price at variable cost and that there are no customers at the margins because all significant contracts at least quote importers prices (see paragraph 15.9 below). Cement production is a high fixed cost industry and CEMEX must set its prices at a level at which it can recover its long-run average incremental costs.

9.13 The CC alleges that cement importers have higher costs which incentivises them to price just below the price of GB produced cement. CEMEX submits that there are a number of flaws in the CC's cost comparison which make the CC's findings in this regard entirely unreliable (see further at paragraph 14 below).

9.14 The CC alleges that GB producers have considered and in some cases taken specific steps to undermine the viability of imported cement. CEMEX notes that the CC has not provided any recent and credible evidence of GB producers effectively undermining the viability of cement importers. However, what is clear from the internal documents of the GB producers is that they consider cement importers to be a very real and constant constraint on their businesses and, critically, illustrates that cement importers attempt to, and in many cases do, win GB producers' customers and this results in lower prices - which the CC recognises[125].

9.15 CEMEX submits that the CC's analysis is not reflected by the market reality, where importers have succeeded in increasing their combined market share in GB over a period in which the GB cement market has dramatically contracted. The CC analysis confirms that importers' market share (excluding AI) of all grey cement has increased from 6% in 2007 to 9% in 2011, i.e. an increase of 50% (see further at paragraphs 12.1 to 12.3 below), and that, when AI's market share is included, this rises to a market share 13% (an increase of over 60% from a combined market share of 8% in 2007). Moreover, the CC's analysis of cement customer switching demonstrates that both actual and threatened switching to importers undermines any ability for GB producers to coordinate (see further Section 15 below).

[123] Provisional Findings Report, at para. 8.211.

[124] CEMEX notes that the CC specifically chose an Irish importer for the purposes of its analysis of the incentives of importers to increase imports because of the EU ETS Phase III partial cessation rules. CEMEX submits that the CC has made a manifest error of assessment in failing to do likewise in respect of its analysis of importers' costs. Further, CEMEX notes that, since the CC's concluded its analysis, CRH (which already owns two GB import terminals through Premier Cement and Southern Cement) is set to purchase 6 further import terminals from Dudman (in administration). This provides CRH with a total of 8 GB import terminals and full GB coverage for imports, which, combined with the volumes of excess cement CRH produces in both Ireland and Europe, is likely to result in a further increase of imports into the GB market.

[125] Provisional Findings Report, at paras. 7.97 and 7.98.

9.16 CEMEX also notes that importers in several other European countries are incentivised to import cement to the UK, in part, because of the EU ETS Phase III partial cessation rules (in relation to which the CC's analysis demonstrated that additional imports from Ireland alone could equate to [✂] % of GB cement consumption) (see further at paragraphs 12.2 to 12.11 below).

9.17 Finally, CEMEX submits that barriers to entry and expansion are low for cement importers meaning that they can enter the market in a substantial and timely manner should GB producers increase prices (see further Section 13 below).

10 ALLEGED MECHANISM FOR COORDINATION IS NOT WORKABLE IN PRACTICE

10.1 The CC concludes, at paragraph 8.218 of the Provisional Findings Report, that the alleged coordination is likely to be occurring through the following mechanism:

"*(a) coordination on shares of GB cement sales made by the GB cement producers*[126] *as well as on customer allocations between Lafarge, Cemex and Hanson, with no coordination directly on prices as these are individually negotiated;* - CEMEX refers the CC to paragraphs 7.24 to 7.39 above which indicate that changes in market share, customer switching and aggressive competition between GB cement producers and between GB cement producers and importers make coordination on shares of production impossible. CEMEX also notes that the CC has not provided any evidence to support this new allegation that GB producers allocate customers

(b) 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 [127] – CEMEX refers the CC to paragraphs 7.40 to 7.54 above, which explain why price announcement letters cannot be used for signalling in any coordinated agreement. CEMEX also refers the CC to paragraph 7.48 above which explains that Lafarge is not always the first to make price announcements. In this context, the CC refers to various contributions to the economic literature that deal with the role of leadership in facilitating collusion. However, whilst those papers show that there are circumstances under which leadership can facilitate collusion, the results rely heavily on specialised assumptions regarding the environment and the nature of the interaction between firms. The CC fails to justify why the academic literature cited at **Annex 5** should not be favoured to that selected by the CC.

(c) potential signalling of the desired level of prices for cement through members of the coordinating group accepting higher prices for cross-sales than might other-wise 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) - CEMEX refers the CC to paragraphs 6.15 to 6.19 above which explain that cross-sales are of limited relevance in the present market conditions and, in any case, cannot serve as an effective signalling mechanism.

(d) tit-for-tat strategies (see below), as well as the existence of cross-sales, provide opportunities for re-establishing shares of sales when these have changed (e.g. in the case of cross-sales, if Producer A's share has increased compared with B, it then increases volumes of cement purchased from B) – CEMEX notes that the CC has not provided any evidence to support its theory that tit-for-tat strategies can be used as a mechanism to rebalance shares. CEMEX also notes that cross-sales have reduced dramatically as a characteristic of the GB cement market and, as such, behaviours attributed to them (which CEMEX disputes) can no longer support the CC's findings to an appreciable extent;

(e) monitoring of adherence to the coordinated outcome through each member of the coordinating group monitoring its own share on a monthly basis, using information from the MPA supplemented by monitoring of customers won and lost and from whom they were won/lost, and also using information on prices of cement gathered from cement customers and through cross-sales - CEMEX refers the CC to paragraphs 7.12 to 7.15 above which explain why it is not possible to monitor adherence to any hypothetical tacit agreement in this way*;*

[126] Footnote 186 states that*" Cement sales in this context means overall sales of cement, including both bagged and bulk cement and different types of cement (CEM I, CEM II etc.). Although we consider bulk and bagged cement to be in different product markets due to the lack of demand-side substitution between them, from the production point of view they are largely interchangeable. With respect to GGBS, we note that, even if GGBS is not the core product on which coordination may take place, retaliation in the event of deviation could encompass GGBS. There is evidence of this occurring in practice, such as during the 2009 internalization. In addition, it is possible that the threat of Lafarge or Cemex importing GGBS to sell to independent customers may also be an additional mechanism to prevent Hanson from deviating in cement."*

[127] Coordinated Effects Working Paper, at para. 155 (c).

(f) prevention of deviation: given that prices are individually negotiated, any deviations from coordination are most likely to take place by a firm approaching individual customers of other members of the coordinating group with low cement prices in order to induce these customers to switch. Such attempts at deviation could be punished through the following mechanisms:

> *(i) Tit for tat. If Firm A loses share to Firm B, Firm A will regain at least the equivalent volume from Firm B. This will quickly result in unchanged shares of sales but lower average prices (because of the need to offer lower prices to induce customers to switch), and therefore may cancel out benefits from deviations obtained by Firm A.* - CEMEX refers the CC to paragraphs 8.12 to 8.29 above which explain that there is no effective punishment mechanism which is being implemented by GB cement producers and hence significant 'deviation' (i.e. normal competitive behaviour) is being experienced in the market.
>
> *(ii) Internalization. Although not necessarily a credible punishment mechanism in all cases and at all times over the past five years (because of varying and declining levels of cross-sales), small-scale internalization may be sufficient for Firm A to signal to Firm B that an attempt at deviating has been detected (if Firm A purchases some cement from Firm B). If Firm A does not purchase cement from Firm B but sells cement to Firm B, another mechanism to signal that a deviation has been detected would be for Firm A to increase cement prices to Firm B, or to renegotiate any rebates that might be in place. -* CEMEX notes that given the dramatic shift towards internal supply of cement. It is no longer possible for internalisation to play a significant role in any alleged coordinated outcome.
>
> *(iii) Other possible punishment mechanisms. The extensive multi-market contact of the GB cement producers (for example, in GGBS, aggregates, RMX and asphalt) provide further opportunities for punishing deviations*. – the CC has not provided any specific evidence that these behaviours result in a coordinated outcome and CEMEX is therefore unable to respond to the CC's allegations in this regard.

11 INCENTIVES TO COORDINATE

11.1 CEMEX notes that the CC has carried out an analysis of each GB producer's incentives to coordinate. CEMEX addresses this analysis below.

Asymmetries in market shares and production capacity

11.2 As explained in paragraph 7.4 above, the CC accepts that market share asymmetries make coordination more difficult as smaller firms will seek to increase their market share and hence deviate.[128] However, the CC suggests that market share asymmetries are not an obstacle to coordination if they are closely correlated to capacity shares.[129] The CC suggests that production shares of GB GB producers are very close to capacity shares.[130]

11.3 However, as also explained above, the CC has failed to explain how the GB GB producers have allegedly reached a tacit understanding on shares of production, which, in the CC's view, is closely aligned to shares of capacity, when there have been large changes in capacity in the cement market in recent years. CEMEX notes that the CC has alleged that market shares have remained stable on a month-to-month basis.[131] In order for its current theory of harm to hold the CC would therefore need to show that, despite the different reactions to the reduction in demand, each major's share of total production capacity has also been stable on a month-to-month basis, so that shares of capacity have been closely related to market shares throughout. It is clear from the CC's own analysis that this is not the case.

11.4 Furthermore, the CC notes that the incentives for two GB cement producers to deviate are limited by their total cement capacity. CEMEX is unaware of which GB cement producers the CC is referring to but notes that CEMEX is not capacity constrained. However, even accepting the CC's assumption that two GB cement producers have limited capacity, this not only limits the ability of these GB cement producers to deviate but also limits the ability of these GB cement producers to punish deviation. Such a limitation on the ability to punish deviation would make deviation more likely and therefore coordination more difficult. CEMEX also notes that the CC has not clarified whether mothballed capacity is being included in the capacity available to deviate and requests the CC to clarify this.

11.5 Finally, even if there was coordination on market shares, which are closely aligned to shares of capacity, the CC has failed to explain how such coordination is (or could be) maintained in the face of new entry by HCM. As noted above, HCM has a significantly different structure than other GB cement producers and, in particular, it has lower costs and significantly more capacity than legacy Tarmac. If the CC's theory of coordination were to hold true this means that the present GB cement producers will have to reach some form of new tacit understanding taking into account HCM capacity. The CC has not explained how this is being achieved and, indeed, the evidence of strong competition between HCM and other GB cement producers suggests that no such tacit understanding is possible.

Exposure to external sales

11.6 The CC hypothesises that vertical integration, and a reduced exposure to external sales increases the sustainability of any hypothetical coordinated agreement as it softens the effect of a price rise in cement without resulting in a significant loss of sales in RMX.[132] As explained in its Coordinated Effects Response, CEMEX disagrees with this hypothesis for the reasons given below.

11.7 CEMEX does not agree that an increase in cement prices relative to another cement supplier will have a "softened" effect on cement sales. Firstly, in relation to external sales, it is clear from the

[128] Coordinated Effects Working Paper, at para. 165.

[129] Coordinated Effects Working Paper, at para. 166.

[130] Coordinated Effects Working Paper, at para. 166.

[131] Coordinated Effects Working Paper, at para. 166.

[132] Provisional Findings Report, at para. 8.243.

GB producers' internal documents that GB cement suppliers are competing for each other's customers (as recognised by the CC in its Provisional Findings)[133] and the main element of such competition is price. Secondly, the CC's analysis of switching of GB cement customers finds that post-2009 cement customers which have switched suppliers have benefitted from a price reduction.[134] This clearly indicates that any increase in prices incentivises cement customers to switch supplier. Thirdly, the CC's hypothesis does not account for the impact of importers. It is CEMEX's belief that every cement contract is quoted against importers' prices and this further reduces the incentive for GB cement producers to increase prices (indeed, it forces them to reduce prices).

11.8 With regard to the effect on internal sales, CEMEX rejects the CC's suggestion that a relative increase in cement prices will not have an effect on RMX prices so as to lead to a significant loss of RMX sales.[135] First, the CC notes that the final price of RMX depends on other inputs. However, as the CC is aware cement is a crucial input into RMX [✂] and it is incorrect to state that the price of cement as an input does not significantly affect the price of RMX. Secondly, the CC notes that RMX demand depends crucially on location and an RMX producer will retain a strong advantage for any customers located close by irrespective of its input costs.[136] However, the CC has found that local markets in RMX are competitive.[137] Having made this finding, it is contradictory to state that the impact on RMX volumes may not be strong as a result of RMX producers having a strong advantage for customers located nearby.

11.9 The CC has failed to address any of these arguments in its Provisional Findings.

11.10 CEMEX submits that, rather than facilitating coordination, the differences in the extent of each GB producer's vertical integration results in a misalignment of their incentives. In particular the significant negative contribution of CEMEX's and Hanson's RMX divisions result in these GB producers having different incentives to Lafarge.[138] It is not sufficient to simply state that the [✂].

Role of Lafarge (pre-2013)

11.11 CEMEX considers that it is primarily for Lafarge Tarmac to respond to the CC's comments on the alleged leadership role that Lafarge played in the cement market, and which the CC alleges facilitates coordination. However, in CEMEX's view, while Lafarge may have the highest market share in cement, CEMEX has not seen any evidence to indicate that Lafarge played any sort of leadership role in the cement market and still less that it is leading any coordinated agreement. This continues to be the case following the formation of Lafarge Tarmac which enhances further the factors that undermine its ability to play any such role (see further paragraph 18.6 below). As explained in its Coordinated Effects Response, CEMEX addresses the points made in this regard by the CC below which the CC failed to address in its Provisional Findings.

Price Increases

11.12 The CC notes that Lafarge is often the first to announce price increases.[139] CEMEX refers the CC to paragraphs 7.40 to 7.54 above which explain (a) that Lafarge is not always the first to make price announcements; and (b) why price announcement letters cannot be used for signalling in any coordinated agreement.

Decrease in Lafarge's market share

[133] Provisional Findings Report, at para. 8.150.

[134] Provisional Findings Report, Appendix 7.9 at para. 78.

[135] Provisional Findings Report, at para. 8.243(b).

[136] Provisional Findings Report, at para. 8.243(b).

[137] Provisional Findings Report, at para. 9.71..

[138] Provisional Findings Report, Appendix 6.5 at para. 17

[139] Provisional Findings Report, at para. 8.247(a).

11.13 The CC alleges that the reduction in Lafarge's market share indicates that it has taken most of the "cost" of accommodating the growth of fringe players.[140] However, CEMEX has not seen any evidence of a consistent strategy by Lafarge to accommodate the growth of independents to maintain any hypothetical coordinated agreement. Further, CEMEX questions how the CC is able to allege that relative market shares for the Top 3 have remained stable while at the same time alleging that Lafarge has lost market share in order to accommodate the growth of independents (which have grown market share by nearly [✂] in the period 2001 - 2011). These statements are clearly contradictory and demonstrate the speculative and theoretical nature of the CC's case.

Cross–Sales

11.14 CEMEX notes in this regard that its [✂]. However, the CC alleges that the fact that Lafarge supplied cement to other GB producers provided it with leverage over them.[141] The CC fails to mention that this also made Lafarge more susceptible to internalisation by other GB cement producers (as the CC is aware, there was large scale internalisation by Hanson in 2009). Therefore, instead of providing Lafarge with leverage over GB cement producers it provided other GB cement producers with buyer power in relation to their purchases from Lafarge. This will continue to be the case in relation to Lafarge Tarmac.

11.15 Further, CEMEX rejects the suggestion that Lafarge's provision of cement to other GB cement producers permitted Lafarge to signal to them through a change in terms of supplies that a deviation had been detected.[142] This is a highly theoretical argument and the CC has failed to present any recent evidence of such signalling.

11.16 Finally, the fact that price increase letters sent by Lafarge would be communicated to all GB producers[143] is irrelevant to Lafarge's "leadership role". This fact only supports the CC's allegation regarding Lafarge's leadership role if such price increase letters are (or would be) relied upon by other GB producers in formulating their own price announcements. As the CC is aware, there is no pattern that Lafarge was the first to announce price increase letters and, as the CC itself admitted at CEMEX's hearing on 7 December 2012, any pattern that may have existed has broken down in recent years.[144] Given that Lafarge had become the sole cross-supplier to all other GB GB producers only in recent years, it is not clear to CEMEX how Lafarge's role as sole cross-supplier to all other GB GB producers is supposed to have helped it establish any sort of leadership role in relation to price announcements.

Role of CEMEX

11.17 Despite CEMEX's submissions in its Coordinated Effects Response, the CC has still not explained in any detail CEMEX's incentives to coordinate. CEMEX makes the following brief points with regard to the CC's allegation that CEMEX has a strong incentive to coordinate:

(a) First, the CC alleges that CEMEX has a strong incentive to coordinate because of its size.[145] This is not correct. CEMEX is by no means the largest cement producer and, as indicated by the CC, has excess capacity. This gives CEMEX a strong incentive to compete.

(b) Secondly, the CC alleges that CEMEX has a strong incentive to coordinate because it can be punished because of its external sales of cement.[146] However, the CC fails to explain CEMEX's competitive behaviour whereby it is competing for both Lafarge and Hanson's customers and therefore risking "punishment".

[140] Provisional Findings Report, at para. 8.247(b).

[141] Provisional Findings Report, at para. 8.247(c).

[142] Provisional Findings Report, at para. 8.247(c).

[143] Provisional Findings Report, at para. 8.247(c).

[144] [✂]."

[145] Provisional Findings Report, at para. 8.250.

[146] Provisional Findings Report, at para. 8.250.

(c) Thirdly, the CC alleges that CEMEX has a strong incentive to coordinate as it can punish others.[147] However, this contradicts the CC's previous assertion that CEMEX cannot deviate as it is capacity constrained. If the CC were correct and CEMEX was indeed capacity constrained (which CEMEX is not) it is difficult to see how it could punish others. This form of contradiction is typical of the CC's analysis and undermines its case on coordination.

(d) Fourthly, the CC alleges that there is evidence in the GB producers' internal documents of behaviours consistent with coordination.[148] However, CEMEX notes that CC also finds evidence of competitive behaviour,[149] which, in CEMEX's view, is not consistent with coordination.

(e) [✂].[150] CEMEX has previously submitted that this view contradicts the literature on incentives to coordinate.[151] The CC has thus far failed to engage with this argument.

Role of Tarmac (pre-2013)

11.18 CEMEX considers that Tarmac's role is of limited relevance to the CC's analysis of present coordination as Tarmac no longer exists. However, in relation to the comments made by the CC in the Provisional Findings on Tarmac's role in the GB cement market, CEMEX notes that the CC has concluded that Tarmac was unlikely to undermine any hypothetical tacit agreement which existed.[152] CEMEX submits that Tarmac's presence made any coordinated agreement unlikely and notes the following points that the CC has failed to address in its Provisional Findings:

(a) as the CC has stated, Tarmac had a different structure from other GB cement producers[153] and this meant that it had different incentives from other GB cement producers. CEMEX submits that this asymmetry in structure and incentive made Tarmac something of a "maverick" which was able to undermine any hypothetical coordinated agreement;

(b) the CC notes that Tarmac only sold external cement on an opportunistic basis when prices were high.[154] However, this does not explain why other GB cement producers were supposedly willing to lose this highly profitable volume to Tarmac. The only explanation is that other GB cement producers were unable to match Tarmac's prices (as a result of its lower input costs arising from the higher efficiency of its Tunstead plant). This demonstrates the potential Tarmac had to disrupt any hypothetical coordinated agreement; and

(c) there is clear evidence in the GB producers' internal documents indicating that Tarmac was a strong competitor in the market, regularly undercutting competitors. This further demonstrates Tarmac's ability to act as a maverick in the GB cement market.

11.19 In view of the above, CEMEX considers that Tarmac had both the incentive and the ability to undermine any hypothetical coordination that may have been present in the GB cement market.

Role of Aggregate Industries

11.20 Given the significant redactions in the CC's analysis of the role of AI, CEMEX is unable to fully comment on this issue. However, CEMEX notes the CC's view that AI is disincentivised to sell

[147] Provisional Findings Report, at para. 8.250.

[148] Provisional Findings Report, at para. 8.250.

[149] Provisional Findings Report, at para. 8.150.

[150] Provisional Findings Report, at para. 8.251.

[151] CEMEX, 'Response to the CC's Working Paper regarding coordinated effects,' 08 April 2013, para. 6.20.

[152] Provisional Findings Report, at para. 8.255.

[153] Provisional Findings Report, at para. 8.252.

[154] Provisional Findings Report, at para. 8.254(b).

cement to independent customers as GB cement producers could retaliate by increasing prices to AI.[155] CEMEX considers that the CC's analysis contains a number of inconsistencies and hence disagrees with this assessment.

11.21 The CC acknowledges that AI is able to obtain keen prices from GB producers for cement and that it could increase imports to external customers.[156] Given that AI has buyer power, it is not possible for GB cement producers to raise prices to AI if it increases cement sales to independents, particularly because the CC found that AI could replace its GB purchased cement with imported cement if it chose to do so.[157] If it was possible for GB cement producers to raise prices to AI, they would have done so already, irrespective of whether AI increases its sales to independents.

11.22 CEMEX believes that AI could enter the GB cement market on a larger scale if it chose to do so. This is supported by the CC's analysis of AI's costs (see further Section 16 below).

11.23 The only scenario in which the CC's assessment could (hypothetically) be valid is if AI formed part of the allegedly coordinating group and entered a tacit agreement with the GB cement producers not to increase sales to independents in return for lower cement prices. However, the CC's case does not allege that AI is part of the coordinating group.[158] As a result, the CC's reasoning is flawed and it cannot be said that AI does not have the ability or the incentive to increase sales to independents.

Impact of entry of HCM on incentives to coordinate

11.24 CEMEX notes that the CC has not taken into account the significant impact of HCM on the alleged incentives to coordinate for GB cement producers.[159]

11.25 This is explained further in Part IV below.

[155] Provisional Findings Report, at para. 8. 262.

[156] Provisional Findings Report, at para. 8.264.

[157] Provisional Findings Report, Appendix 7.5 at para. 115.

[158] Provisional Findings Report, at para. 8.263.

[159] Provisional Findings Report, at para. 8.267.

PART III – CEMENT IMPORTERS ARE A CONSTANT CONSTRAINT ON GB PRODUCERS AND UNDERMINE ANY ABILITY TO COORDINATE

This part of the response explains how the CC's theory relating to importers significantly underestimates the external constraint imported cement places on the prices and actions of domestic producers. CEMEX reiterates that importers are able to compete on price and quality with domestically produced cement and that the increase in their combined market share (as well as the volumes of cement CEMEX is required to defend) reflects this competition. In particular, CEMEX stresses that the CC must view the increased influence of importers in combination with the constraint posed by HCM as part of a combined, and significant, "competitive fringe" accounting for just under one third of the total market for grey cement.

Further, if, contrary to CEMEX's submissions, the CC maintains its view that there is an AEC, then, at the very least, the CC must take this into consideration when assessing the necessary scope and proportionality of any remedies (see further CEMEX's response to the CC notice of Possible Remedies, 12 June 2013).

CEMEX addresses the CC's analysis in five sections:

- Section 12 - market shares and capacity of importers;
- Section 13 - barriers to entry and expansion;
- Section 14 - importers costs;
- Section 15 - evidence on the general competitiveness of imported cement; and
- Section 16 - Aggregate Industries.

12 MARKET SHARES AND CAPACITY OF IMPORTERS

Market Shares

12.1 The CC's Provisional Findings Report notes that cement importers have succeeded in increasing their combined market share in GB over a period in which the market has dramatically contracted. At present, there are a large number of cement importers competing in the GB market, with [✂][160]

12.2 Importers have been consistently growing, and continue to grow, their market share at the expense of CEMEX and other GB producers. CEMEX's calculations indicate that importers' market share (excluding AI) has increased 50% between 2007 and 2011 in the context of a market in which total volumes have contracted by 25% across the same period. The CC has found that importers' market share (excluding AI) of all grey cement has increased from 6% in 2007 to 9% in 2011.[161] A figure that is likely to have now increased. Further, including AI, we see that importers' market share has risen by over 60%, from 8% to 13%, during this period. Whilst CEMEX views this 13% market share as significant in the context of constraining any alleged coordination, CEMEX believes that the external market should be the focus of the CC's analysis. With this in mind, CEMEX has difficulty in understanding how the CC can characterise the collective share of importers as "low" given their share of 18% of the "addressable" market for independent custo in 2011[162]. This, also, is likely to have now increased.

12.3 CEMEX reminds the CC that, during this period of relative growth for importers, domestic volumes shrank significantly. In contrast, importers have (at worst) been able to maintain volumes during this slump in demand and have consequently secured a larger share of the domestic market. Whilst the CC notes that "*total volumes imported have not increased*", given that the ability to constrain coordination is based on the ability to increase share of overall demand rather than volumes in isolation, CEMEX believes the CC has severely underestimated the competitive constraint that importers are able to exert on domestic suppliers. [163]

Capacity

12.4 The CC states in its Provisional Findings Report: *"Since 2008, demand for cement has fallen dramatically in many countries, in response to adverse macroeconomic conditions, and several countries have significant excess capacity."*[164]

12.5 CEMEX has previously explained to the CC how this excess capacity, in combination with the EU ETS partial cessation rule, which incentivises producers across Europe to continue to run plants close to capacity, is likely to result in a significant increase in the volume of imported cement reaching the GB market. The EU ETS partial cessation rule means that if a cement plant's production falls below 50% of its historic 2005 to 2008 baseline levels, the plant start to automatically lose allowances, without compensation. This creates a significant financial incentive to increase or maintain high levels of production, even where significant price reductions are necessary to sell the volumes produced above the 50% threshold. This is acknowledged by the CC:

> *"even if the additional cement was sold at zero profit (i.e. profit from sale of cement under current production equals the profit from sale of cement under 50% of HAL), the total profits will still be higher when production is increased to 50% of HAL as long as the price of carbon is positive."*[165]

[160] Provisional Findings Report, paras. 7.61, 7.62 and 7.63.

[161] Provisional Findings Report, para. 7.8.

[162] This becomes 26% when AI is included.

[163] CEMEX makes the additional point that, perhaps more importantly, the CC has failed to appreciate the competitive constraint offered by imports in combination with HCM as part of a wider "competitive fringe".

[164] Provisional Findings Report, paras. 7.65.

[165] Provisional Findings Report, Appendix 7.5, para. 132.

As such, the CC *"found that the new rules were likely to provide such an incentive"*[166] (to maintain or increase production levels).

12.6 However, CEMEX believes that, despite this acknowledgement, the CC has still underestimated both the likely volume and impact of imports into GB resulting from this strong financial incentive. In Appendix 7.5 of the Provisional Findings Report, the CC analyses potential imports from Ireland resulting from Phase III of the EU ETS, finding that Irish producers will be incentivised "*to increase clinker output by 500kt relative to 2011, corresponding to about 550kt of cement*."

12.7 The CC considers that the total volume of excess production in Ireland would amount to "*no more than*" [✂] of total UK cement consumption, of which a large majority will be imported to GB. CEMEX submits that this is a significant amount, such that, if [✂] of this production were to be imported to the GB market[167], this would increase the level of imported cement by 29%, to 17% of total GB consumption. Further, if [✂] of these excess volumes were imported into the GB market[168], the volume of imported cement would increase by [✂] of total GB consumption. Such a large percentage increase in volumes is likely to have a significant impact on domestic producers' ability to maintain market share and will put significant downward pressure on the price of domestically produced cement. The CC itself recognises that if all of these volumes were to reach GB, imports would increase by [✂] percentage points, pushing importers market share up to [✂] (before taking account of imports from other areas of Europe, as discussed below).

12.8 Further, the CC notes that, "*it is possible, although not as likely, that Irish producers will face an incentive to increase output by 625kt of clinker, corresponding to about 718 kt of cement*." This amounts to 9% of total clinker production by the alleged coordinating group in 2011 and would likewise have a correspondingly greater impact on the GB market.

12.9 CEMEX remains concerned over the CC's failure to acknowledge the likely effect of such large volumes on domestic supply, especially given that the Global Cement Report forecasts indicate that it is likely to have significantly underestimated these exports:

> *"The analysis assumes that trading conditions in 2013 and 2014 are similar to 2011. The Global Cement Report forecasts lower domestic consumption in Ireland in 2013 and 2014 than in 2011. If producers respond by producing at 50% of HAL, this would mean that exports from Ireland will be higher than estimated here."*[169]

12.10 CEMEX notes that the CC has been unable to analyse the incentives on producers in other European countries such as Spain, Portugal and Greece. CEMEX considers that the CC has failed to consider the combined effect on the GB market of imports from Ireland <u>and</u> continental Europe, where producers are subject to the same incentives as Irish producers and also likely to target the GB market for the dumping of excess volumes. CEMEX urges the CC to fully consider the significance of the incentives driving increased imports from other European countries and provides the following examples (noted by the CC in its working papers on the profiles of medium-tier independents and its review of internal documents) as evidence of how such imports are already affecting the GB market:

(a) [✂]

(b) [✂]

(c) [✂]

(d) [✂]

(e) [✂]

[166] Provisional Findings Report, para. 7.66.

[167] Provisional Findings Report, Appendix 7.5, Figure 5 - 2012 figure for the percentage of exported Irish cement imported to the UK.

[168] Provisional Findings Report, Appendix 7.5, Figure 5 - 2011 figure for the percentage of exported Irish cement imported to the UK.

[169] Provisional Findings Report, Appendix 7.5, para. 154.

(f) [✂]

12.11 CEMEX submits that the excess volumes produced elsewhere in Europe (and in particular Spain) as a result of the EU ETS incentives are likely to be greater than those produced in Ireland.[170] Given the existence of such significant levels of spare capacity in Spain alone, CEMEX considers that the volumes of cement imported into the UK from mainland Europe will *at least* match the volumes coming into the GB market from Ireland. Indeed, [✂]. In the event that even [✂] of excess volumes from Spain alone reach the UK market, combined additional imports would likely equate to over [✂] of current total GB consumption. The likelihood of such a substantial increase in the levels of imported cement does not support the CC's conclusion that the incentives from the EU ETS are not likely to result in a "*material change in the extent of GB imports*."[171]

12.12 In relation to imports from both Ireland and mainland Europe, CEMEX notes that, since the CC concluded its analysis, CRH (which already owns two GB import terminals through Premier Cement and Southern Cement) is set to purchase 6 further import terminals from Dudman (in administration). This provides CRH with a total of 8 GB import terminals and full GB coverage for imports, which, combined with the volumes of excess cement CRH produces both in Ireland and Europe, is likely to result in a further increase of imports into the GB market.

12.13 With these points in mind, CEMEX reminds the CC that it is required to consider the competitive constraint exerted on any alleged coordinating body by the so-called "competitive fringe" *taken as a whole*, rather than considering imports in isolation. CEMEX notes that, following the entry of HCM and the increase in importers' market share to (at least) 13%, the market share of the combined "competitive fringe" is likely to be just below 30%. Furthermore, the CC itself acknowledges that as a result of the incentives created by phase III of the EU ETS, the GB cement market may face increased imports from Ireland alone of up to [✂] of current GB consumption, with further volumes arriving from Europe.[172]

[170] [✂].

[171] Provisional Findings Report, para. 7.66.

[172] [✂].

13 BARRIERS TO ENTRY AND EXPANSION

13.1 CEMEX remains concerned that the CC continues to overestimate the barriers to importers both entering the GB cement market and expanding existing operations to increase market share. *Prima facie*, given that there are now [✂] and that the market share of all importers has grown by 5% since 2007, reaching 13% in 2011,[173] any barriers that do exist are evidentially far from prohibitive.

Access to an import terminal

13.2 The CC correctly acknowledges that there are *"numerous ports and wharves suitable for importing cement*"[174] and that cement can be imported without using specialist import terminals. In relation to the latter, CEMEX reiterates to the CC that [✂].

13.3 However, whilst the CC acknowledges the common view of importers, i.e. that there is "*no difficulty in finding a port*,"[175] CEMEX is concerned that the CC has not taken into account its arguments in relation to [✂].

Source of supply

13.4 Evidence from both importers and independent customers supports the view that there is no reason for any fears over security of supply and that any fears that do exist are more perceived than real, as acknowledged by the CC in its PF[176]. Further, given the evidence set out by CEMEX above in relation to the incentives for European and Irish producers to import excess cement to GB, as well as the fact that importers consider they can compete on price with GB suppliers[177], security of supply is only likely to increase.

Upfront investment required

13.5 As noted by the CC in its Provisional Findings Report, a cement import terminal can be set up for as little as £200,000. Further, existing import terminals are in general operating well below their full capacity, meaning no further capital investment is required for existing importers to significantly expand their operations by increasing volumes imported.

Vertical integration of GB producers

13.6 The current size of the "addressable" cement market in the United Kingdom is a massive 4.5 million tonnes. This accounts for approximately 50% of GB cement production. CEMEX considers that an addressable market of this size already provides a significant incentive to enter and expand existing operations in GB. Further, the fact that the majority of customers multi-source for a given job site increases the likelihood of attracting orders. Accordingly, there has been little indication from customers or competitors that the size of the addressable market constitutes a barrier to entry.

13.7 In addition, there is no evidence to show that an increase in the size of the addressable market would result in more cement producers entering the market or existing cement importers expanding their operations.

Access to shipping

13.8 CEMEX agrees with the CC that this is readily available.[178]

Incumbent reaction

[173] And having receded almost [✂] in Q4 2010.

[174] Provisional Findings Report, para. 7.70.

[175] Provisional Findings Report, para. 7.71.

[176] Provisional Findings Report, para. 7.94.

[177] Provisional Findings Report, Appendix 7.5, para. 37 and 38.

[178]Provisional Findings Report, para. 7.75.

13.9 CEMEX refers the CC to paragraphs 15.27 – 15.29 below.

Customer reaction

13.10 In Appendix 7.5 of its Provisional Findings Report, the CC sets out evidence from customers which generally evidences a willingness in the market to switch from domestic to imported cement.

13.11 [✂]

13.12 [✂]

13.13 [✂]

13.14 [✂]

13.15 [✂]

Concluding remarks on barriers to entry

13.16 The evidence considered above shows that barriers to entry and expansion in relation to importers of cement into the GB market are low. This is clear from (a) the increase in importers market share since 2007 (including the maintenance of importers' volumes in a market that has significantly contracted); and (b) the price constraint customers are able to exert by both threatening to switch and actually switching to importers (as discussed in greater detail below).

14 IMPORTERS COSTS

14.1 CEMEX sets out below it assessment of the CC's analysis of the alleged cost disadvantage faced by importers as compared to domestic producers of cement in Great Britain. Whilst CEMEX believes that the CC's analysis is insufficient to (a) show that importers suffer from a cost disadvantage which precludes them competing on price with domestic producers; and (b) reconcile the large body of evidence of importers strongly competing on price and gaining market share. CEMEX emphasises that, given the requirement to comply with the CC's Data room undertakings, it has been prevented from developing certain aspects of the analyses more fully by conducting further analysis of the CC's results.

Importers' alleged cost disadvantage

14.2 The CC has repeatedly stated that importers face a cost disadvantage when competing against domestic producers.[179] The CC claims that, as a result of this alleged cost disadvantage, importers are not sufficiently competitive and as such are limited in their ability to undermine the alleged tacit coordination between the Top 3.[180] The CC further claims that this cost disadvantage has increased over time, which would imply that importers' competitive constraint has correspondingly decreased over the same period.

14.3 The CC performed two analyses to support its argument:

(a) In Appendix 6.6, the CC compared importers' costs to GB producers' prices; and

(b) In Appendix 7.5, the CC compared importers' costs to GB producers' costs.

Appendix 6.6: Comparison of importers' costs to GB producers' prices

<u>Small sample size</u>

14.4 In Appendix 6.6, the CC conducted a detailed analysis of importers' competitiveness. However, the CC's sample is limited to just four importers: [✂].

14.5 The representativeness of the sample is restricted further by the fact that [✂]. At the same time, the remaining volumes sold externally represent a very small fraction of the overall sales made by independent importers (approximately [✂]. However, in its comparison of importers' costs with average market prices, the CC does not draw a distinction between [✂] and the other three independent importers, thereby overstating the alleged cost disadvantage of importers through a reliance on skewed results.

<u>The CC's conclusions</u>

14.6 Based on its allegation that independent importers have a cost disadvantage (in relation to average prices achieved by GB producers) the CC concludes that importers are not capable of imposing a competitive constraint on domestic producers. However, CEMEX observes that, in spite of the alleged cost disadvantage, the three non-vertically-integrated independent importers scrutinised by the CC have neither been eliminated nor marginalised. Instead, they have been able to maintain a positive EBIT virtually throughout the period, whilst simultaneously increasing their market shares.[181]

14.7 The CC fails to address this apparent contradiction between its allegation and market outcomes. The CC concedes that '*cement imports into GB took place despite the cost disadvantages faced by importers,*'[182] asserting, counter-intuitively, that '*it would not be a profit-maximizing strategy for*

[179] Provisional Findings Report, Appendix 6.6, Appendix 7.5 and para. 7.89.

[180] Provisional Findings Report, paras. 7.105, 7.106 and 8.211.

[181] [✂]

[182] Provisional Findings Report, Section 8, Footnote 182.

the GB producers to price all imports out of the market.'[183] However, the CC does not develop the latter statement, nor is it clear how this is the case.

14.8 Instead, the evidence suggests that independent importers are successfully competing against GB producers in the market for cement and, as such, are perfectly capable of undermining any alleged tacit agreement.

14.9 This is further underlined by importers' evidence, which supports the contention that importers are able to compete with the GB producers in the GB cement market. [✂].

14.10 Furthermore, [✂][184]

Appendix 7.5: Comparison of importers' costs to GB producers' costs

14.11 As in Appendix 6.6, the sample of independent importers in Tables 4 and 5 of Appendix 7.5 is also small (four independent importers). Furthermore, the CC's sample again includes [✂], which as stated above, we deem to be irrelevant to assessing independent importers' costs.

Flaws in the CC's cost comparison

14.12 The CC computes an average "landed cost" of cement for importers and compares this to the GB producers' variable "ex-works" costs. We submit that the CC's analysis is flawed for the following reasons:

(a) First, rather than taking the weighted average FOB costs across all independent importers, the CC uses a simple average. Given the abnormal structure and cost base of [✂], in order to avoid a skewing of the results, the CC should have taken the weighted average as its starting point. Indeed, computation of weighted average FOB costs across all independent importers considered reveals that costs are 5-10% lower than indicated by the CC in paragraph 7.85 of the Provisional Findings Report, even when one – very conservatively – uses the maximum of the range of values indicated for [✂], which have a large combined weight.

(b) Secondly, the CC carries out the comparison for 2011 only,[185] which is not consistent with its analysis in Appendix 6.6, where it assesses importers' competitiveness over the entire period 2007 to 2011;

(c) Thirdly, as explained previously, the CC's finding relating to importers' landed cost is based on a highly restricted sample of importers; and

(d) *Fourthly*, the range of FOB costs indicated for the independent importers in Table 4 is very wide, especially for 2007 and 2008, where the minimum is around [✂] below the maximum. Even for the remaining years, the minimum is approximately [✂] than the maximum. If one uses minima instead of maxima for the weighted average calculation, one obtains weighted average FOB costs that are in the order of [✂] than those indicated by the CC.

The allegation that the cost disadvantage is increasing

14.13 The CC claims that importers' cost disadvantage has increased over time.[186] Whilst CEMEX is necessarily limited in the analysis it has been able to undertake given the CC's data room undertakings, this conclusion by the CC is very difficult to reconcile with evidence on importers' market behaviour and performance. In particular:

(a) As the CC notes, independent importers' collective market share of grey cement has increased from 6% in 2007 to 9% in 2011 (which, when Aggregate Industries'

[183] *Ibid.*

[184] Provisional Findings Report, Appendix 7.5, para. 39.

[185] Provisional Findings Report, Appendix 7.5, Table 6.

[186] See, e.g., Provisional Findings Report, Appendix 6.6, para. 18.

corresponding increase in market share is included, equates to an increase from 8% in 2007 to 13% in 2011);

(b) [✂]

(c) [✂]

(d) The plethora of evidence the CC has collected from both customers and importers evidences an increasing willingness to (at least) consider switching to imports.

14.14 If importers' cost disadvantage increased over time, as the CC alleges, CEMEX would expect importers to be less able to compete vigorously and, therefore, to observe a decrease in market share. However, CEMEX finds the reverse, such that the CC's alleged finding that the importers' cost disadvantage has increased in recent years lacks empirical support.

15 EVIDENCE ON THE GENERAL COMPETITIVENESS OF IMPORTED CEMENT

Switching between GB produced and imported cement

15.1 In relation to customer switching to imported cement, CEMEX remains concerned that the CC continues to underestimate the following factors:

(a) the impact of the level of actual switching on the actions and pricing of domestic producers;

(b) the ability of imports to constrain pricing and the actions of domestic producers through customers threatening to switch to imported cement; and

(c) the constraint imposed by the combined effect of both actual and threatened switching on any alleged coordination surrounding the *market* price of cement in the GB market.

Actual switching

15.2 The CC's analysis of actual levels of switching between imported and domestically produced cement does not support the CC's conclusions at paragraph 7.100 of its Provisional Findings Report. In particular, CEMEX believes that much of the evidence put forward by the CC in its analysis of cement customer switching (the "Switching Analysis")[187] is in itself evidence of a genuine constraint imposed by importers. In particular, CEMEX notes the following:

15.3 First, the CC has found that importers are winning customers mainly from the Top 3, whereas the GB producers are both losing customers to importers and winning from them.[188] CEMEX notes that the CC acknowledges that this finding is consistent with an increase in importers' market share over time.[189]

15.4 Secondly, the CC has found that importers' average monthly wins appear to be higher than average monthly losses but that this is the other way round for the Top 3.[190]

15.5 Thirdly, the CC has found that importers appear to be getting more wins of independent customers than the Top 3 or Tarmac or Aggregate Industries (both in terms of volume won and as a proportion of total sales volume).[191]

15.6 Fourthly, the CC observes that wins by the Top 3 have fallen to relatively low levels in 2011.[192]

15.7 Furthermore, the CC's analysis of switching of GB cement customers finds that post-2009 the majority of cement customers that switched to importers benefitted from price reductions.[193] This clearly indicates that (a) increases in price incentivise customers to switch supplier; and (b) importers are able to compete on price with domestic producers.

15.8 The above evidence clearly indicates that importers are able to exert a significant competitive constraint on the Top 3. In particular, CEMEX notes that the CC's findings indicate that importers are more of a threat to the Top 3 than Tarmac, which the CC considers to be a "UK Major".

15.9 The levels of customer switching from domestic producers to imported cement (and vice versa), even before the significant impact of customer threats to switch is considered, reflect fierce competition on price between domestic and imported cement and are consistent with much of the evidence provided by the importers themselves:

[✂].

[187] CC slides on Cement Customer Switching, January 24, 2013.

[188] Slide 7, Switching Analysis.

[189] Slide 7, Switching Analysis.

[190] Slide 33, Switching Analysis.

[191] Slide 50, Switching Analysis.

[192] Slide 33, Switching Analysis.

[193] Provisional Findings Report, Appendix 7.9, para. 78.

[✂]

15.10 Further, CEMEX notes that a large proportion of wins of external customers from the importers analysed by the CC in its switching analysis are by CEMEX (and this is despite the fact that CEMEX has the high(est) costs of the GB producers).[194] This indicates that CEMEX, in particular, is competing hard with importers (by attempting to match them on price).

15.11 Furthermore, the CC's switching analysis is limited to only four importers (including AI). CEMEX considers every importer, of which there are around 11 operating in the UK, a competitive threat and submits that, a more extensive analysis of importers would indicate (a) greater switching than the CC has shown; and (b) that importers exert an even greater competitive pressure than indicated by the CC's present analysis.

15.12 In addition to the previous data provided by CEMEX to the CC, CEMEX includes below figures for importers wins and losses for the year up to May 2013. CEMEX's losses to importers are more than double those CEMEX has been able to gain. Combined, the volumes switched to importers in May 2013 account for [✂] of annualised volumes, which, when considered in combination with volumes defended (in **Table 3** below) equates to over [✂], showing significant competition between GB producers and independents in the first half of 2013.

Table 3 – recent losses (to May 2013)

Month	Customer	Location	Region	Tonnes (KT)	Lost to	Price When Lost
✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂

Table 4 – recent gains (to May 2013)

Month	Customer	Location	Region	Tonnes (KT)	Gained to	Price to Regain
✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂

Threatened switching

15.13 The CC suggests at paragraph 7.100 of the Provisional Findings Report that it found "*that there is some switching between GB producers and importers, but that this tends to be low as a proportion of each GB producer's annual sales.*" This repeats the CC's conclusions relating to defended volumes from its switching analysis and CEMEX is concerned that the CC has yet to address the short falls in its previous analysis. As CEMEX notes above, the CC's switching analysis is consistent with cement importers increasing their market share over time and exercising an increasingly significant constraint on GB producers. However, regardless of whether cement customers switch to a greater or lesser extent, the threat of switching alone is enough to induce a price reduction in a competitive market. CEMEX refers the CC to **Table 5** below, which illustrates very clearly that for each customer lost, a number of other customers are defended, but with a

[194] Slide 64, Switching Analysis.

consequent price reduction.[195] The Provisional Findings Report therefore fails to place sufficient emphasis on the indirect effect cement importers have on GB cement prices, with customers throughout the country consistently citing prices quoted by importers in an attempt to negotiate lower prices from GB cement producers. It is CEMEX's belief that every significant cement contract in GB is bid against imported cement. The effect of importers is very real in the market (and accordingly is a key factor in preventing CEMEX from recovering its cost of capital).

15.14 Further, commensurate with CEMEX's contention that the constraint placed on domestically produced cement by importers is growing (given that CEMEX must now compete against importers for every significant contract), [✂].

[195] The importers identified are [✂].

Table 5 - Price Erosion from Importers

✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂
✂	✂	✂	✂	✂	✂	✂	✂	✂	✂

* [✂]

15.15 The CC's market investigation has found widespread evidence that illustrates the significant constraint the threat of switching exerts on the prices of GB producers, such as the following statements made to the CC made by independent cement customers:

(a) "*Balfour Beatty told us that it had tended to buy small quantities of cement in the past (as it tended to buy RMX directly, instead of mixing it itself), but that nonetheless, it had considered imported cement and sought quotes from independent importers whenever it needed to buy cement, <u>in order to increase competition for its tenders</u>*."[196]

(b) "*Brett told us that one of the reasons why <u>it had an import terminal was 'to keep any cement supplier honest</u>*."[197]

<u>Importers ability to constrain coordination over the market price</u>

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[196] Provisional Findings Report, Appendix 7.5, para. 81.

[197] Provisional Findings Report, Appendix 7.5, para. 83.

15.16 In paragraph 7.100 of the Provisional Findings Report, the CC concludes that, "*GB producers offering customers who have switched to importers lower prices to win them back does not generate downwards pressure on prices for all of the GB producers' customers*".

15.17 CEMEX believes that the CC has fundamentally misunderstood the full impact of imports on the GB cement market, particularly their ability to constrain the prices of domestic producers. For example, the CC's analysis of the correlation between imports and the price of domestic cement seems to have been primarily confined to a consideration of the prices offered by domestic producers in an effort to win back volumes already lost to importers (which, as CEMEX has explained, is a natural reaction to losing volume in a competitive market and itself evidence of domestic producers engaging in vigorous competition with importers).

15.18 Whilst CEMEX believes that the price reductions to which the CC refers in paragraph 7.100 of the Provisional Findings Report do effect the market price as a whole, rather than just the prices offered to select customers, the CC has failed to acknowledge that the total price constraint offered by imports is not purely a product of price reductions offered to retrieve lost volumes, but rather, a combination of reductions to retrieve and reductions to directly (or pre-emptively) defend/maintain volumes. [✂].

15.19 CEMEX has previously explained to the CC that, "*in circumstances where every significant contract is contested by importers, there are no customers at the margins that CEMEX can serve at lower prices and, although there may be isolated cases where CEMEX can price close to average variable cost, this fact alone undermines the ability of GB producers to co-ordinate on prices*". [198]

15.20 In response, the CC suggests that the bilateral nature of price negotiations and the level of sales of importers into GB, "*gives cement suppliers the option of lowering prices selectively. In order to undercut an importer's price, a domestic producer would therefore not have to cut prices on all its sales. Individual importers have fairly limited sales. This suggests that, in order to price an importer out of the market, a domestic producer would have to sell only a limited fraction of its sales at a discounted price*". More specifically in relation to CEMEX, the CC notes that '*[i]n 2009, 2010 and 2011, less than 21% of CEMEX's annual volume of sales to independent customers was contested by importers.*'[199]

15.21 The implication – according to the CC – appears to be that CEMEX has the ability to draw a clear distinction between one larger group of customers (accounting for four fifths of all its cement customers), in relation to which importers pose no competitive threat ("captive" customers), and another smaller group of customers (accounting for approximately one fifth of all its cement customers) for which a certain competitive threat is present ("non-captive" customers). In other words, the CC appears to believe that CEMEX is capable of price-discriminating systematically between the two customer groups, based on their differing likelihoods of being targeted by independent importers.

15.22 The most obvious candidates for a price discrimination strategy would be customers that could not switch from a GB producer to an independent importer due to being too far away from an import terminal to make deliveries to such sites economically viable. However, the CC itself has acknowledged that importers are able to deliver GB-wide [200], meaning that no such customers exist in the GB market. Moreover, CEMEX has repeatedly emphasised, as the CC's own evidence (set out at paragraph 15.15 above) shows, that most customers sought quotes from importers and that there were no 'customers at the margin' that could be targeted.[201] Further, as CEMEX sets out in greater detail in **Annex 6**, the ability to price-discriminate along the aforementioned lines is

[198] Provisional Findings Report, Appendix 7.5, Para. 18(a).

[199] Provisional Findings Report, Appendix 7.5, Para. 20.

[200] Provisional Findings Report, para. 7.91.

[201] See, e.g., Appendix 7.5, Para. 18(a).

critically limited by the substantial uncertainty facing CEMEX in identifying any "captive" (or "infra-marginal") customers.

15.23 In summary, the CC's analysis of its evidence of customer switching to imported cement is insufficient for two reasons:

(a) given the CC has acknowledged that importers are able to deliver UK-wide[202] (and given that there are no customers at the margins that CEMEX can serve at lower prices), domestic producers *would* have to discount *all* their prices in order to price an importer out of the market; and

(b) in suggesting that domestic suppliers' prices can be lowered *selectively* in response to pressure from importers, the CC again fails to acknowledge (i) the significant amount of prices already lowered in an effort to maintain volumes or defend volumes from importers in the first instance; and (ii) the difficulties surrounding the uncertainty of identifying "captive" (or "infra-marginal") customers in any effort to selectively reduce prices.

Evidence from importers, GB producers and customers on the competitiveness of imports

15.24 CEMEX believes that the evidence the CC has collected from importers, producers and customers serves to highlight and reinforce the competitiveness of imported cement in the GB market. In particular, the evidence collected from importers and customers contains various examples of cement importers being able to (a) attract customers in the GB market and (b) compete aggressively on price with domestically produced cement.

<u>Evidence from importers</u>

15.25 As CEMEX sets out at 15.9 above, much of the evidence collected by the CC from importers suggests that they are able to effectively compete with domestic producers in terms of quality, security of supply and price.

15.26 In paragraph 7.100 of its Provisional Findings Report the CC alleges that, "*evidence from the importers suggests that switching from GB producers to importers tends to be temporary, and that GB producers tend to attempt to win back lost business by reducing prices*." This finding is *prima facie* incompatible with the CC's conclusion that importers have increased market share relative to GB producers across the period examined. [✂].

<u>Evidence from GB producers internal documents</u>

15.27 In relation to the evidence gathered from GB producers, the CC sets out the following at paragraph 7.97 of the Provisional Findings Report:

(a) *GB producers monitored imports in some detail.*

(b) *GB producers regarded imported cement to be substitutable—and highly competitive—with GB-produced cement.*

(c) *GB producers were concerned about the growth in imports and the effects of the ETS (see paragraphs 7.66 and 7.67, and 11.28 to 11.30).*

(d) *On occasion, GB producers acknowledged the logistics disadvantages faced by imported cement.*

(e) *There were cases of strategic behaviour by the GB producers aimed at containing the threat from cement imports (including consideration, and in some cases taking, of specific steps: to restrict the supply of cement to importers; to acquire import terminals*

[202] Provisional Findings Report, Appendix 7.5, Para. 18(a).

and/or importers; to leverage contacts with importers in other markets; and to target lower-priced cement selectively at customers of cement importers).

15.28 Whilst CEMEX has previously addressed many of these points, in relation to (b) and (c) above, CEMEX notes that the CC has recognised the plethora of evidence in the CC's internal documents of importers competing aggressively and effectively with domestic producers.

15.29 In relation to points (a), (d) and (e) above, CEMEX reiterates the following brief points:

(a) monitoring competitors is an entirely normal reaction to increasing competitive pressure in the market. However, as CEMEX has previously explained to the CC, the data CEMEX is able to obtain on importers is inherently imprecise;

(b) as CEMEX sets out in Section 14 above, whilst importing cement may be *logistically* more complicated, importers do not face a cost disadvantage which prevents them from competing on price with domestic producers; and

(c) CEMEX only has sufficient context to discuss its own actions in relation to the CC's comments here and is unaware of any evidence of CEMEX taking steps to restrict the supply of cement, acquire import terminals or leverage contacts in an effort to target importers. The CC notes in paragraph 8.74 of the PF that there is evidence of "*a step considered by*" CEMEX relating to leveraging its position in other markets. The document to which the CC refers was a document prepared for CEMEX, without CEMEX's direct input, by an external advisor. Any recommendations relating to leveraging CEMEX's position contained in this document were neither considered further, nor put into practice, by CEMEX. Further, regarding the CC's contention that domestic producers are able to target lower-priced cement selectively at customers of cement importers, CEMEX refers the CC to paragraphs 15.19 – 15.22 above and **Annex 6**.

Evidence from customers

15.30 The CC has found that, "*in general, customers felt that they were able to obtain what they considered to be competitive quotes from cement importers.*"[203]

15.31 CEMEX agrees with the CC's conclusion above based on the evidence it has obtained from customers. In view of this conclusion and given the body of the evidence the CC has reviewed from customers, it is perverse that the CC continues to underestimate the constraint placed on the prices of domestic producers by both the ability and willingness of customers to switch to imported cement.

15.32 Customers are consistently and increasingly able to leverage negotiations with domestic producers by threatening to switch to importers (the impact of which CEMEX believes the CC has underestimated, as set out in paragraphs 15.13 – 15.23 above):

> *"Customers were able to use quotes from cement importers and/or the threat of importing their own cement in their negotiations with the GB producers."*

15.33 CEMEX notes that the CC encountered "*some perceptions of possible quality concerns*" and a small amount of concerns over security of supply.[204] As borne out by the CC's discussion with importers, these minority views do not represent the reality of the situation:

> "*Any concerns expressed by customers about quality or security of supply were more perceived than real*."[205]

15.34 [✂]

[203] Provisional Findings Report, para. 7.98.

[204] Provisional Findings Report, para. 7.98(b).

[205] Provisional Findings Report, para. 7.94.

15.35 Whilst CEMEX is glad the CC acknowledges that customers are able to use the threat of switching to obtain more favourable terms from domestic producers, it does not fully understand the distinction being made by the CC in paragraph 7.98 of the PF:

> *"customers whose threats to import their own cement were particularly credible were able to gain unusually favourable terms for GB cement supply."*

15.36 In CEMEX's experience (and given the volumes that CEMEX has either lost to or had to defend from imports, as set out at in **Table 5** above), CEMEX is required to treat all threats to switching as *particularly credible*. CEMEX is under continuous and increasing pressure to deliver favourable terms to <u>all</u> its customers and would certainly not describe any of these as being *unusually favourable*.

16 AGGREGATE INDUSTRIES

16.1 The CC states that it considers that "*Aggregate Industries' actual imports, as well as the threat of further imports, could be used as leverage by Aggregate Industries in price negotiations with the GB producers*," but that this ability to leverage the prices that it receives for domestic cement was "*unlikely to have an impact on the prices paid for cement by independent customers, as Aggregate Industries sold very low volumes of cement externally in GB*."[206]

16.2 Whilst AI may not be competing for large volumes of market share in terms of its external sales of cement, CEMEX believes the CC has underestimated the significance of the AI (and the evidence on costs it has provided) as an example of how importers are able to win market share by undercutting domestic producers on price. In fact, the CC itself comes to the conclusion that AI could have actually been **more** profitable had it imported a greater proportion of its cement for internal consumption from outside GB.[207] This precludes any disincentive the CC may have found for AI not to sell cement to independent customers for fear of domestic producers raising their prices to AI.[208]

16.3 CEMEX contends that there is no reason for the CC to view AI as being inherently different in nature from other importers in terms of its ability to exploit the differential between the price charged for cement by domestic producers in order to cover their costs of capital and the total cost (i.e. landed price and haulage costs) of importing and delivering cement in GB. The CC in its analysis finds that AI is able to take advantage of a large differential even considering the costs of shipping, haulage and operating an import terminal.[209]

16.4 In CEMEX's view, the comparison the CC should be making is not between independent importers and the remainder of the market, but between all importers into GB and the alleged coordinating group. To put this into perspective, rather than assessing the effect of a group consisting of 9% of the overall market[210] on a group holding 71%, the CC should be looking at the ability of a group holding 13% of the market to constrain a group holding 71%.[211]

16.5 In addition, the CC must then necessarily consider how the competitive strength of this 13% increases when assessed in combination with HCM, which amounts to a substantial "competitive fringe" consisting of just under a third of the overall market.[212] Further, this percentage is likely to increase again when considering that, given the incentives created by phase III of the EU ETS (and as the CC itself acknowledges) the GB cement market may face increased imports from Ireland alone of up to [✂] % of current consumption in GB, which is likely to be further supplemented by additional imports of (at least) equal volume from other European countries such as Spain, Portugal and Greece.

[206] Provisional Findings Report, para. 7.104.

[207] Provisional Findings Report, Appendix 7.5, para. 115.

[208] Provisional Findings Report, para. 8.262.

[209] Provisional Findings Report, Appendix 7.5, para. 115.

[210] Provisional Findings Report, para. 7.8.

[211] Importers' total market share including to AI.

[212] [✂].

PART IV – HOPE CONSTRUCTION MATERIALS FUNDAMENTALLY UNDERMINES THE EXTERNAL STABILITY OF ANY ALLEGED TACIT AGREEMENT

CEMEX continues to have concerns over the failure of the CC to fully consider the probable effect of HCM on the functioning of the UK cement market. For reasons which CEMEX has previously outlined to the CC (and which it supplements and reiterates in this response), CEMEX believes the introduction of Hope Construction Materials ("HCM") (both in itself and in combination with other factors, including its contribution to a strengthened "competitive fringe") fundamentally undermines the external stability of any alleged coordination in the UK cement market. As the CC is aware, in assessing the possible existence of an AEC, it is under an obligation to consider the state of competition in the market as it currently exists. Whilst CEMEX continues to contest any finding of coordination between competitors prior to the creation of the Lafarge/Tarmac joint venture (the "JV") and the entry of HCM, it urges the CC to apportion adequate weight to the significant changes to the market brought about by both the JV and the acquisition by Mittal Investments Sarl of HCM. In particular, CEMEX criticises the CC's failure to fully consider the following:

(a) The entry of a new competitor, significantly 'longer' in cement than Tarmac pre-JV and incentivised to compete for volume in the market;

(b) The increased market uncertainty surrounding the behaviour of HCM <u>and</u> the future conduct of the new JV entity; and

(c) The change in the structure of the UK cement market and the significant growth of the '"competitive fringe",' both in terms of its market share and its share of capacity compared to pre-JV levels.

Further, CEMEX reminds the CC that any assessment of the conditions that existed in the UK cement market prior to the recent significant structural changes is of limited probative value in assessing or addressing any alleged coordination in the *current* market.

17 THE CC'S ANALYSIS OF THE POSSIBLE OUTCOMES OF MARKET DEVELOPMENTS

17.1 The CC in its Provisional Findings Report discusses three possible scenarios that could result from the acquisition by Mittal Investments Sarl of HCM:

(a) HCM behaves in a similar way to Tarmac preceding the JV, despite its larger capacity to produce cement. The CC notes in this scenario that, while HCM would act independently of the other three GB cement producers, it would not undermine coordination in the market because it would be a price taker, dependent on the actions of the other GB cement producers ("Scenario A");

(b) HCM competes vigorously in the GB cement market, which would undermine any potential attempt by other GB cement producers to coordinate ("Scenario B"); or

(c) HCM forms a coordinating group with the other GB cement producers ("Scenario C").

Scenario B: HCM most likely to compete vigorously for volumes

17.2 In relation to the three possible scenarios envisaged by the CC, the CC concludes the following:

> "*At this stage, it is not possible to say which of these scenarios is likely to prevail. The strategies of the other Majors are likely to have an impact on how Hope Construction Materials itself seeks to compete in the markets under investigation. We expect that our understanding of the competitive strategy and impact of Hope Construction Materials and Lafarge Tarmac will continue to develop though the investigation.*"[213]

17.3 Whilst CEMEX appreciates the uncertainties facing the CC's analysis, given the evidence set out below, CEMEX strongly disagrees that it is not possible to say which scenario is most *likely* to prevail (and to a large degree is now prevailing). In the light of HCM's structural differences to Tarmac pre-JV, its incentives to target volume by competing on price and the significant financial backing provided by its ultimate owner, it seems more *unlikely* from an evidential perspective that Scenario's A or C will prevail. CEMEX remains concerned that the CC's analysis of these factors has not developed since its working paper on the JV and the acquisition by Mittal Investments Sarl of HCM (the "HCM Working Paper") and urges the CC not to continue to overlook the significant market changes reiterated by CEMEX below.

17.4 There are a number of factors that, in contrast to the CC's findings, make Scenario B above the most likely outcome. In the Provisional Findings Report, the CC itself considers that "*Hope Construction Materials 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.* In the HCM Working Paper the CC concludes that, *"if this were to occur then this might undermine any potential attempts by other GB cement producers to coordinate*."[214] (Emphasis added)

17.5 HCM has significantly more capacity to produce cement than Tarmac pre-JV, as opposed to merely "some" additional capacity in the words of the CC.[215] CEMEX notes that the Hope plant can produce approximately [✂]% more cement than Tarmac's Tunstead plant, which CEMEX estimates equates to approximately an additional [✂] tonnes, giving HCM an overall production capacity of roughly [✂]mt per annum. Due to this *significant* additional capacity, HCM is now much "longer" in cement than Tarmac pre-JV. Based on the CC's analysis, after accounting for its downstream cement requirements, legacy Tarmac produced an additional [✂]kt of cement to sell on externally in 2011, which amounted to [✂] of Tarmac's overall capacity of around 0.8mt/annum. Conversely, based on CEMEX's estimate of an additional [✂] tonnes per annum, HCM will have a cement surplus of [✂] kt to sell on to the external market, which equates to [✂] % of HCM's total capacity of [✂] mt/annum. In essence, HCM's business in terms of external cement sales is

[213] *HCM Working Paper*, para. 69.

[214] *HCM Working Paper*, para. 68(b).

[215] Provisional Findings Report, para. 7.224.

almost four times the size of legacy Tarmac's equivalent business. Consequently, HCM is incentivised to seek new business from independent RMX producers in order to operate at full capacity and maximise its returns. The CC notes in the HCM Working Paper that the CC team in the JV investigation recognised that any risks associated with the divestiture needed to be weighed against "*the fact that the divestiture package included a larger cement plant than the Tarmac plant that was being contributed to the JV. The CC concluded that this, combined with the* ***strategic uncertainty*** *associated with the entry of a new player into the UK cement market, had some potential to* ***undermine coordinated behaviour****.*"[216] (Emphasis added)

17.6 HCM therefore introduces a fundamental change to the GB cement market: where the cement produced by Tarmac was almost exclusively used internally in its downstream RMX operations,[217] HCM has capacity to produce significantly more cement, which incentivises HCM to operate at full capacity and sell on excess volumes externally – which CEMEX notes has already begun to happen. [✂].

17.7 An additional incentive for HCM to seek volume in the market stems from it being a single plant operator. Such an operator has strong commercial incentives to operate its plant at full capacity owing to the significant cost of running a cement kiln.[218] Given the imperative to minimise fixed costs, CEMEX considers it implausible that HCM will seek to operate only one of the two kilns at the Hope plant. HCM's incentives to run the Hope plant at full capacity differ from those of a multi-plant operator, which has a wider set of objectives and, in particular, needs to consider utilisation across its plants (particularly where EU ETS credits are at stake).[219]

17.8 [✂].

17.9 CEMEX also reiterates that HCM is ultimately owned by Lakshmi Mittal, one of the richest men in Britain, whose personal wealth is estimated at $16 billion. It can be expected that HCM has substantial financial resources at its disposal, which it will use to invest and grow its business. Such significant financial backing provides both the ability and an additional incentive for HCM to compete aggressively and increase its market share in line with its capacity, as well as reducing likely barriers to expansion.

Scenario A: HCM will not step into the shoes of Tarmac

17.10 The CC identifies as its Scenario A that "*Hope Construction Materials might behave similarly to Tarmac prior to January 2013 but with additional cement capacity. Under this scenario it might seek to sell out its cement capacity, through both internal and external sales, but would act essentially as a taker of cement prices that were largely determined by the actions of the other three GB cement providers. Whilst Hope Construction Materials would act independently of the other three GB cement producers under this scenario, this may not be sufficient to undermine any potential attempts by other GB cement producers to coordinate, given the fact that Hope Construction Materials operates a single, fixed capacity plant.*"[220]

17.11 As described above, HCM is fundamentally different to Tarmac pre-JV. Any expectation that HCM now has the same incentives as those previously existing for Tarmac ignores these significant differences. In retaining this scenario from the HCM Working Paper, the CC continues to overlook the importance of the larger capacity of the Hope cement plant compared to Tarmac's pre-JV capacity. As set out by the CC in its JV Decision, "*the acquirer of the divestiture package would operate a larger cement plant than Tarmac has done to date*" which will act as an incentive to increase volumes by competing aggressively on price. This is now the case and a "feature" of

[216] *JV Decision*, para 8.144.

[217] JV Decision, para 8.50

[218] [✂].

[219] Provisional Findings Report, Appendix 7.5, para. 126.

[220] *HCM Working Paper*, para. 68(c).

the GB cement market which the CC cannot ignore (either in its consideration of the AEC or in its consideration of the proportionality of any proposed remedies).

17.12 HCM's increased capacity to produce cement (coupled with a lower proportion of this cement being required in its downstream RMX operations), together with its strong incentives to operate its single cement plant at full capacity (or at as close to full capacity as possible), leaves HCM with around [✂] of excess cement to sell on the external market annually, tending to push prices down. This is supported by [✂]. This is further evidence of HCM's intention to operate as a "price maker" and not as a "price taker" in the market. The CC likewise underestimates the downward pressure on prices for customers that may not even be approached by HCM, given that, if HCM takes volume in one area of the market, the supplier losing out to HCM will be incentivised to regain this volume elsewhere, which will often mean targeting customers of other suppliers.

Table 6 – [✂]

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[✂]

[✂]

[✂].

Scenario C: HCM unlikely to become part of a coordinating group

17.13 The CC continues to consider a third (highly unlikely) hypothetical scenario, Scenario C, in which HCM may join a coordinating group, either new or pre-existing:

> "*The cement market might become subject to some form of coordination involving Hope Construction Materials and other GB cement producers. This might involve Hope Construction Materials developing a shared understanding with other GB cement producers about their likely behaviour and might result in Hope Construction Materials producing at less than its available capacity. Under this scenario, any concerns about*

coordination that were based on evidence of the operation of the market up to January 2013 would be unlikely to be reduced and could increase."[221]

17.14 CEMEX reiterates that this is extremely unlikely to occur, in particular, because (a) as a new entrant HCM would not be able to enter into, or maintain, any tacit understanding with its competitors in the GB cement market and (b) the very structure of HCM makes its participation in any coordinated behaviour significantly less likely.

17.15 Unlike Tarmac, HCM is a new player in the GB cement market, which does not have any existing customer or commercial relationships with other GB suppliers. This makes it very difficult for HCM to enter into, understand the terms of, or maintain any tacit understanding with other GB cement producers.

17.16 As CEMEX sets out in greater detail in Section 7, the CC has failed to explain (a) on what basis the market shares are supposed to have been agreed between the alleged coordinating group; and (b) how such an agreement is supposedly amended to take account of changes in market shares and market conditions. To the extent that any alleged tacit understanding between GB producers had existed prior to the entry of HCM, this could only have been reached by observing, monitoring and reacting appropriately to competitor behaviour over a number of years. It would therefore be virtually impossible for a new player to join a coordinating group immediately, notwithstanding the fact that it is in the interests of HCM to seek to compete aggressively and increase its market share. This is again something the CC has failed to consider.

[221] Provisional Findings Report, para. 8.226(a).

18 THE CC'S FAILURE TO CONSIDER HOW INCREASED UNCERTAINTY IN THE GB CEMENT MARKET CAN UNDERMINE ANY ALLEGED COORDINATION

18.1 To the extent that the CC does not fully accept that we are now experiencing "*Scenario B*" in terms of HCM's behaviour in the market, CEMEX believes that any questions that do remain over HCM's behaviour will only serve to cause uncertainty amongst members of any alleged coordinating group, significantly affecting any ability to coordinate. In this sense, any ability for the GB cement producers to coordinate is not only undermined by the structural changes to the market but also by the uncertainty inherent in the entry of a new player to the market.

18.2 CEMEX notes that the CC's JV Decision states, "*assuming that the acquirer of the proposed divestiture package did not form part of any potential coordinating group, then it might be expected that, compared with the situation before the proposed JV […] there would be some uncertainty about how the new company would seek to develop its business over a longer time horizon.*"[222] (Emphasis added)

18.3 As the CC is aware, for any coordinating group to operate effectively it requires a considerable level of certainty that all the key market participants understand and will adhere to the tacit agreement in place. A coordinating group cannot operate effectively if there is uncertainty over the behaviour of a maverick. CEMEX submits that the uncertainty over how HCM will behave makes it a maverick, with significant potential to make coordination amongst other incumbents virtually impossible.

18.4 The CC notes in the Anglo/Lafarge Decision that "*the Hope plant has never been operated on a stand-alone basis and any purchaser of the divestiture package will not have a track record of operating a similar facility within the UK. The strategy of the new competitor may therefore, to some degree, be more uncertain than might otherwise be the case. The extent of such uncertainty may be affected by the identity of the purchaser of the divested business. Second, the acquirer of the divestiture package would operate a larger cement plant than Tarmac has done to date, such that any uncertainty about its strategic behaviour might potentially affect a larger share of the market*."[223] (Emphasis added) CEMEX agrees with the CC's conclusions here and notes that this finding is only enhanced by the fact that the purchaser is Mittal Investments.

18.5 Adding to this uncertainty is the fact that, as CEMEX sets out in greater detail in paragraph 7.7, the additional capacity of HCM compared to legacy Tarmac would necessitate any alleged coordinating group to reconsider the basis for coordination to take account of the additional market share captured by HCM. The CC has been unable to provide any explanation as to how any such adjustments would, or indeed could, be coordinated.

18.6 The entry and future conduct of HCM is not the only source of uncertainty in the GB cement market. The CC has also failed to fully consider that the structure and incentives of the newly formed JV entity differ greatly from those of its predecessor undertakings. The CC notes that it expects "*Lafarge Tarmac to follow broadly similar competitive strategies in cement to those pursued by Lafarge prior to 2013*." However, the CC appears to disregard Lafarge's submissions that the formation of the JV will also result in a substantial reduction in its variable costs, thereby altering its position and incentives in the market.[224] CEMEX considers that this reduction (a) provides the new JV entity with the incentive and ability to compete more vigorously on price and (b) reduces any incentive the CC may have previously identified for Lafarge to act as a leader within a coordinating group in relation to price increases.

18.7 Given the uncertainties discussed above, CEMEX appreciates the difficulties facing the CC in coming to any firm conclusions as to the impact of the JV and pursuant divestments on the UK market. Indeed, such difficulties were addressed by the CC in the HCM Working Paper:

[222] Provisional Findings Report, para. 8.133.

[223] Provisional Findings Report, para. 8.133.

[224] Provisional Findings Report, para. 8.265.

"*As was recognized in the Anglo/Lafarge final report, it is unlikely to be possible to predict the full implications of these recent developments with certainty. The competitive conditions that result from these developments will depend on a variety of factors that are difficult to predict, including the strategies of Lafarge Tarmac, Cemex, Hanson and Hope Construction Materials*."[225]

"*In relation to Hope Construction Materials, we have no experience of its past competitive behaviour on which to form any expectation of its future strategy. We have reviewed MI's initial business plans on acquiring the business (see paragraphs 28 to 41), though we are also mindful that these plans may be subject to change in the light of experience as the new company's owners and management develop their view about the strengths and weaknesses of their operations and about their strategic options in the markets in which they participate*."[226] (Emphasis added)

18.8 CEMEX notes that if the future strategy of HCM is uncertain to the CC, which has had access to HCM's business plan, it is even more uncertain to CEMEX and other existing producers, reinforcing CEMEX's contention that high levels of uncertainty as between competitors will play a significant role.

18.9 The CC goes on to say:

"*In relation to other aspects of our investigation, the formation of Lafarge Tarmac and Hope Construction Materials might be expected to change the structure of markets, with potential implications for providers' competitive strategies and future market outcomes. In relation to these aspects of our investigation, we will look to form a view about the weight that is to be attached to the most recent evidence about the current operation of the market as well to evidence about how markets have operated in the past. It is likely that our understanding of the full implications of these very recent developments will evolve during the remainder of our investigation.*"[227] (Emphasis added)

18.10 However, following this, at paragraph 8.225(f) of its Provisional Findings, the CC refers to its lasting difficulty in assessing the combined effect of the JV and the entry of HCM on the market:

"this development is too recent to observe any resulting effects in the evidence available to us"

18.11 Whilst CEMEX acknowledges the difficulties facing the CC, it is concerned that the CC's "*understanding of the full implications of these very recent developments"* has not evolved at all since the publication of its HCM Working Paper, and despite recent market evidence of HCM's competitive intentions. Particularly, given the continuing evolution of the market, CEMEX wishes to emphasise to the CC the need to proceed with caution in an uncertain market where recent significant structural changes, although beginning to take effect, have yet to fully crystallise. In this regard (and particularly in relation to the consideration of any possible remedies) CEMEX urges the CC to consider the current state of the market and not impose further structural upheaval on a nascent competitive landscape yet to be fully understood by regulators and producers alike. Given the timeline of the body of evidence analysed by the CC in the course of its investigation, one entirely plausible scenario is that any concerns the CC may have had over alleged coordination in the market have been fully, or at least predominantly, addressed by the remedies imposed following the CC's JV investigation. In this regard, CEMEX refers the CC to its Pay-TV Market Investigation decision:

"[a]t the time of reaching our findings there was necessarily limited empirical evidence on the implications of some of the recent developments which we took into account.... In particular, as the launch of new OTT services was relevant to our analysis, we could not

[225] Provisional Findings Report, para. 7.220.

[226] Provisional Findings Report, para. 7.223.

[227] *HCM Working Paper*, para. 63.

ignore or attribute no weight to them simply because we had less evidence relating to them."

18.12 CEMEX urges the CC to consider the above in assessing the proportionality of any possible remedy.

19 THE CC'S UNDERESTIMATION OF THE IMPACT OF CHANGES TO THE STRUCTURE OF THE MARKET AND THE EXPANSION OF THE "COMPETITIVE FRINGE"

19.1 The CC has previously recognised that the entry of HCM is likely to result in significant changes to the market, noting in particular that "*the proposed divestiture would replace Tarmac with a competitor with different characteristics from Tarmac in terms of key competitive variables such as size of plant, prospects for future expansion and, to some degree, the extent of its vertical integration. Some of these factors — in particular the size of the cement plant — might increase, relative to Tarmac, the external constraint posed by the new competitor on any coordinating group*."[228] (Emphasis added) CEMEX agrees with the CC's conclusions here.

19.2 In addition to this fundamental shift, the CC notes that the overall concentration in the GB cement market has reduced significantly as a result of the entry of HCM. The CC notes that "*[i]f Hope Construction Materials runs the Hope plant at, or near to, its capacity, then concentration may be expected to decrease on some commonly-used indicators—for example, the three-firm concentration ratio*."[229] CEMEX addresses this point in further detail at paragraphs 6.6 – 6.9 of above.

19.3 CEMEX also believes that this fundamental change in the structure of the market is having (and will continue to have) a noticeable impact on an already significant "competitive fringe", something which the CC also acknowledges in its JV Decision:

"*the acquirer of the divestiture package would operate a larger cement plant than Tarmac has done to date, such that any uncertainty about its strategic behaviour might potentially affect a larger share of the market".*[230] Further, that "*the size of any "competitive fringe" could increase in the short term, if the acquirer of the proposed divestiture package produced at or near the capacity of the Hope plant. This would tend to increase the extent of external constraints on any coordinating group […]*"[231] (Emphasis added)

19.4 As (by definition) HCM is not, and could not be, part of any existing coordinating group, CEMEX believes that its entry serves to increase significantly the extent of the external constraint on any such group, as explained above. However, the CC in its Provisional Findings Report considers that HCM's entry "*was likely to be insufficiently market disrupting on its own materially to reduce or disrupt concerns about coordination."* CEMEX disagrees with the CC's conclusions here. CEMEX believes that the CC has failed to consider the significant differences between HCM and Tarmac pre-JV, which serve to greatly increase its ability to disrupt any continuing coordination. However, given that the CC does envisage a degree of market disruption from the entry of HCM, CEMEX makes the additional point that, even if it fails to consider that the particular merits of HCM allow it to materially disrupt *on its own* (as discussed further below), it must acknowledge this additional disruption as supplementary and material to a pre-existing and already disruptive "competitive fringe".

19.5 Whilst the sheer size of the "competitive fringe" alone should be sufficient to curtail any attempted coordination amongst the remainder of the market, CEMEX believes that the constituent characteristics of this group, in particular HCM, make the fringe even more likely to act as an effective constraint than its large market share suggests. By the same thinking which led the CC to consider the use of cross-sales as a punishment mechanism amongst the alleged coordinating group (i.e., based on buyer power in the downstream arms of the coordinating firms), the CC must recognise that the vertical integration of HCM is significant in enabling it to constrain the success of any coordination, making it a true maverick as envisaged by the CC. HCM's RMX operations provide it with the rare ability for a member of a so called "fringe" to effectively foreclose a portion of the downstream market from its upstream rivals. Further, given that HCM is able to sell almost

[228] Provisional Findings Report, para. 8.141.

[229] Provisional Findings Report, para. 7.217.

[230] *JV Decision*, para. 8.86.

[231] *JV Decision*, para. 8.133.

four times the volume of cement to the external market as Tarmac was pre-JV, in the event that a coordinating group was maintaining an artificially high market price, HCM has the unique ability to both avoid paying these prices by internalising *or* switching to imports *AND* take volumes off GB producers by offering its excess cement to the market at lower prices than any alleged coordinating group. Indeed, if the CC considers that HCM will not act to internalise or switch volumes from the Top 3 in response to any artificially high coordinated price, the CC is necessarily saying that HCM is part of the alleged coordination, given that it produces sufficient cement to supply its downstream business and avoid any such imposition. Further, following any action to internalise or switch, the new HCM entity is then placed to take advantage of any persisting price inflation, which, as recognised by the CC, was something the previous Tarmac entity was unable to do:

> *"it will only sell cement when the price is sufficiently high, and it has limited ability significantly to increase sales of cement to external customers because of its high internal requirements and its lack of spare capacity."*[232]

19.6 Given the large increase in HCM's capacity on Tarmac's pre-JV levels, the above statement (upon which the CC largely based its finding that Tarmac was unable to sufficiently constrain the alleged coordinating group) is no longer true – which is something the CC must acknowledge. HCM's ability to offer almost four times the volume of cement to the external market than legacy Tarmac, together with its vertical integration, provide it with the ability to both resist and constrain coordination in a way that Tarmac was historically unable to do.

19.7 Further, CEMEX also notes that the very fact that HCM is longer in cement than Tarmac pre-JV (and by such a large margin) serves to increase buyer power in the market (both for HCM's downstream arm and for other independent purchasers) by increasing buyers' ability to react to any coordinated rise in prices by switching to HCM cement, of which there is at least [✂] kt available to independent customers. In its *Airtours*[233] decision, the European Court of First Instance (the "CFI") found the European Commission (the "Commission") to have underestimated the ability of customers to affect coordination by switching to other suppliers:

> *"the fact that consumers do not have significant buyer power because they act in isolation must not be confused with the question of whether they would be able to react to a price rise."*[234]

19.8 Following the impact that HCM is likely to have on the market, CEMEX urges the CC to be cautious not to repeat this mistake and underestimate the increased customer ability to switch to HCM or one of the numerous independents importing into the UK. Customers in the UK have time and time again shown a willingness and an ability to (a) switch supplier if they feel they are able to get a better offer elsewhere, and (b) drive down the price of their current supplier by threatening to switch. This ever increasing customer awareness is evident throughout the CC's analysis, including: (i) the CC's interviews with customers for the purposes of its imports analysis, with the majority view being that customers, "*would not have concerns about switching to imported cement*"[235]; (ii) the fact that 60% of customers multi-source for a given jobsite and (iii) that customers actively use the threat to switch as a method of driving down the price they pay for domestically produced cement.[236] [✂]. In the light of such evidence, CEMEX is concerned that, at present, the CC is repeating the Commission's mistake by underestimating the ability of customers to prevent coordination.

19.9 The CC MIR Guidelines observe that the CC should have regard to the number and size of the non-coordinating (or fringe) rivals and importantly their scope to expand output in relation to

[232] Provisional Findings Report, para. 8.254.

[233] Case T-342/99.

[234] Case T-342/99.

[235] Provisional Findings Report, Appendix 7.5, para. 88.

[236] Provisional Findings Report, Appendix 7.5, paras 81 and 83.

existing levels and to the levels of any alleged coordinating group.[237] The CC goes on to observe that if a firm "*has the capacity to take a significant share from any group of firms that tried to coordinate without its participation but also has substantially different incentives from those of the coordinating group, it can undermine a coordination strategy.*" [238]

19.10 Whilst CEMEX believes that the entry of HCM is of sufficient gravity in itself to preclude any concerns over coordination, in order for the CC to assess the total external constraint on any coordinating group, it must consider the possible impact of HCM in combination with other externalities which combine to form a larger "competitive fringe".

19.11 The 16% share of production held by HCM, together with its numerous incentives to operate as close to full capacity as possible, in combination with (at least) a 13% market share held by importers, is likely to result in a market share of around 30% being held outside the alleged coordinating group. Further, given the very significant increases in importers' market share (as well as the further EU ETS incentive for many European producers to overproduce), this figure is only likely to increase. Cement importers are able to expand easily by importing more cement (given the large amounts of excess capacity at import terminals) and can scale their operations quickly and effectively in response to an increase in demand, whilst HCM has already begun to target volume in the market. Such a significant market share cannot fail to have an impact on the ability of any alleged coordinating group to maintain coordination.

19.12 In its *Airtours* decision, the CFI stressed that, *"the issue here is not whether a small tour operator can reach the size necessary for it to compete effectively with the integrated tour operators by challenging them for their places as market leaders*,"[239] rather, the court clarified, the deciding factor was the effect of the non-coordinating group *"taken as a whole."*[240] Further, whilst the Commission has never set out a threshold market share for what it considers an "effective" "competitive fringe", *"an examination of its case law by comparing those cases in which fringe rivals were dismissed and accepted provides at least an indication of a threshold of a combined market share of such fringe rivals of approximately 20 per cent. In other words, if the combined market position of fringe rivals is greater than 20% and if such rivals are not subject to any significant barriers to expansion, the Commission is unlikely to dismiss the existence of a competitive fringe."*[241] This suggests that typically the Commission has found a fringe holding over 20% of the market to be sufficient to exert a competitive constraint on any alleged coordinating group. CEMEX notes that, following the entry of HCM and importers increasing their market share, the combined share of the "competitive fringe" is likely to be around 30%. Further, the CC itself acknowledges that as a result of the incentives created by phase III of the EU ETS, the GB cement market may face increased imports from Ireland alone of up to [✂] of current consumption in GB.[242]

19.13 As discussed in greater detail in Section 13 above, barriers to expansion for the great majority firms making up this "competitive fringe", taken as a whole, are low. Whilst HCM's ability to expand beyond its capacity limits, without further significant financial investment[243], may be limited, barriers to expansion for importers (which make up half of the "competitive fringe") are low, with significant expansion possible before reaching maximum capacity at the vast majority of import terminals (with most terminals operating [✂] capacity).[244] With this in mind and considering that the combined market share of HCM and the numerous importers is likely to be just under one third of the total market, the CC must seriously (re)consider the ability of this enlarged "competitive

[237] CC *Guidelines for market investigations,* April 2013, para. 247.
[238] CC *Guidelines for market investigations,* April 2013, para. 249.
[239] Case T-342/99.

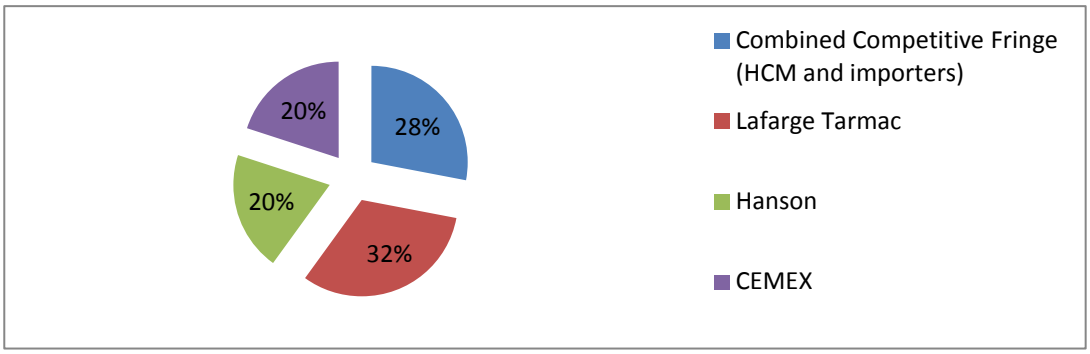
[240] Case T-342/99.
[241] Frances Dethmers *Collective dominance under EC merger control - after Airtours and the introduction of unilateral effects is there still a future for collective dominance?* E.C.L.R. 2005, 26(11), 638-649.
[242] Before taking into account imports from elsewhere in Europe where producers are subject to the same incentives to maintain levels of production.

[243] Which CEMEX points out is not unlikely given the significant financial resources of Mittal Investments.

[244] Provisional Findings Report, Appendix 7.5, para. 5.

fringe" (represented relative to the Top 3 in Figure 1 below[245]) to preclude future coordination in the UK market, or, at the very least, take this into account when considering the necessary scope and proportionality of any remedies. The presence of such a large group is in direct contrast to the CC's assertion in its Provisional Findings Report that competition in the GB cement market only exists "*within bounds"* and does not affect the market as a whole.

Figure 1 – Relative market share of combined "competitive fringe"



[245] [✂].

ANNEX 1

CEMEX'S OBSERVATIONS ON THE CC'S ANALYSIS OF GB PRODUCERS' PROFITABILITY

1 Industry profits are not higher than would be expected in a competitive market

1.1 The Competition Commission (CC) concludes that pricing has been excessive, partly on the basis of its analysis of the profitability of the cement producers. Here we comment on the CC's findings in relation to profitability. In particular:

1.2 We do not agree with CC's approach to measuring profitability for reasons discussed below. Further, even if the CC's analysis was reasonable, it does not support a conclusion that profits are excessive. Finally, we note that CEMEX's profitability is much lower than for the industry as a whole, suggesting that it is other producers that are driving the conclusions reached by the CC.

2 The CC's profitability analysis is novel, complex and sensitive to assumptions and methodological approaches used.

2.1 In our response to the CC's earlier "Current cost accounting profitability assessment for cement" working paper we commented at length on the methodology adopted by the CC for estimating profitability. Our comments focused on the unusual and untried approach the CC has adopted for calculating the CCA asset values and ROCE, noting that a number of the assumptions that the CC had made in the course of its analysis had not been robustly justified. In particular, we questioned:

(a) the CC's calculation of CCA asset values and its use of a declining balance depreciation curve;

(b) the CC's evaluation of EBIT;

(c) the CC's estimate of WACC; and

(d) the failure of the CC to apply further downside sensitivities to the ROCE based on CCA.

2.2 We note that in the Provisional Findings the CC acknowledges some of the uncertainties around its analysis and methodology. However, ultimately, the CC has adopted exactly the same approach as in its original working paper.

2.3 We do not repeat our critique of the CC's method again at length here, but we remain of the opinion that the CC's methodology is not robust enough for robust conclusions about excess profitability to be drawn on the basis of it. We do, however, reiterate some of the key points we made previously and where appropriate address updated comments and analysis presented by the CC.

2.4 Our principal overall concern with the CC's approach is that the CC's method is extraordinarily complex and depends on a large number of assumptions. The level of

complexity is greater than any we have encountered in these types of market investigations and is far beyond the complexity of the method adopted by the CC for the concurrent investigation into the private healthcare market. Given this complexity, the CC should take great care in interpreting its results, because the notional adjustments it makes to derive ROCE have a high potential for error.

2.5 We have a number of other concerns with the CC's approach, which are set out below.

2.6 The CC's rationale for assuming the new asset costs of £170m for a 1 Mt plant (2007 prices) is still not clear based on the evidence presented. For example, the specification of the plant is not in line with the characteristics of the plant used by CEMEX. Further, as noted previously, some of the evidence presented by the CC for justifying its assumption actually points to a higher cost for new assets. This may be why the CC has considered a sensitivity analysis where new assets are assumed to have a value of £200m (2007 prices) and which reduces average industry ROCE substantially to 11.4% from 13.3%.

2.7 The CC continues to assume a declining balance depreciation profile (with an annual diminution rate of 3.5%), but this approach is still not better justified than the use of a straight line depreciation profile. In this respect we note that the CC is considering "developing a custom depreciation profile to refine our analysis of GB cement producers' profitability" (Appendix 7.7, paragraph 118). If the CC does develop a bespoke depreciation profile we believe it should take into account that the value of a cement plant does not decrease rapidly with age:

(a) Because technology in the industry is not advancing rapidly there is no reason to assume that new plant should rapidly decrease in value.

(b) As the characteristics of plant currently (and recently) in use indicates, plant may have very long asset lives and can potentially continue to be operational even where the technology used has been superseded. This suggests that the value of older plant should only decrease slowly.

2.8 These factors point, in our view, to the possibility that the bespoke depreciation profile could make use of a straight line depreciation profile (assuming a 50 year asset life, assuming the CC retains this assumption) for the initial years of an asset's life before transitioning to a profile closer to the declining balance profile already used by the CC. We would suggest that the point where the two profiles cross would be an appropriate point to transition from one to the other in order to avoid step changes in asset lives.

2.9 The CC also continues to assume that expectations about production for a given year – which the CC uses to calculate annual asset revaluations - would be formed solely on the basis of the previous year's outturn production. However, factors such as expected economic and market conditions, asset condition and performance and the behaviour of competitors (which are amongst the factors considered by CEMEX when undertaking its

annual planning) are all likely to feed into expected production levels. The CC needs to take these factors into account in its methodology.

2.10 The CC may have continued to overstate asset price inflation in its calculations. As we noted in our previous response the CC's assumed asset price inflation rate does not appear to be based on any particular evidence, but our analysis of Output Price Index for New Construction data from the Office of National Statistics (ONS) suggests that asset price inflation was closer to 0.7% p.a. over the five year period. As we noted in our previous response, reducing the assumed asset price inflation rate to 1.5% p.a. (roughly half-way between the CC's assumption and the rate suggested by the ONS data cited above) reduces industry ROCE by around 70 bps (i.e. from [✂]), indicating that the results of the analysis are sensitive to this assumption and that the CC needs to justify its choice of assumed inflation more robustly.

2.11 The CC has retained its assumption that intangible assets have no value in the CCA calculation. While it might be anticipated that the magnitude of any intangible assets is small, there is likely to be some value attached to intangible assets like [✂]. The inclusion of these assets would increase the overall asset valuation, reducing the calculated ROCE. Whilst it might be difficult to value these costs, the CC must accept (under its CCA approach) that a new entrant is likely to incur additional costs to build its brand, to develop know how and processes. Hence, this factor must be considered when interpreting the gap between ROCE and WACC.

3 The CC's analysis does not support a conclusion of excessive profits

3.1 Noting all of the comments above it is clear that the CC's method is of questionable robustness – most of the assumptions made can be challenged on a variety of grounds. In addition, there are a number of methodological issues with the CC's approach to WACC that suggest a higher WACC range would be appropriate.

3.2 It should also be noted that even on the CC's own analysis the estimate of ROCE (13.3% on average for the industry over the 2007-11 period) is not significantly higher than the estimated WACC (8.2 – 11.5%). Sensitivity analysis illustrates the precariousness of the CC's conclusions - our analysis shows that the CC's results are sensitive to many of the assumptions that have been made and that under a range of plausible alternative assumptions the estimated ROCE does not exceed WACC. In this regard we note that the CC's own limited sensitivity analysis suggested that ROCE could be as low as 11.4%, inside the CC's WACC range.

3.3 In addition, on the application of further sensitivities described above and in CEMEX's response to the working paper on profitability on a CCA basis, we find that the estimate of ROCE falls even further.

Table 1: Sensitivity Analysis

Parameter	Original	Sensitivity	Average ROCE on a CCA basis
Cost of new plant	✂	✂	✂
Diminution Rate	✂	✂	✂
Asset price inflation rate	✂	✂	✂
Combined adjustments			✂

3.4 Overall, the sensitivity analysis illustrates that the estimated ROCE range is materially impacted by relatively minor changes in parameter values. For example, assuming asset price inflation of [✂] % p.a. instead of [✂]% p.a. reduces the average ROCE by around [✂] ppts to [✂].

3.5 If each of the reasonable downside sensitivities presented in the table above were combined (i.e. asset values of [✂], diminution rate of [✂] % p.a., and asset price inflation of [✂]) then the estimated ROCE falls to [✂], well below the CC's central estimate of the WACC ([✂]) and only slightly above the bottom end of the range – both of which we would say is likely to be too low for the reasons given earlier. In addition, we consider that further downside sensitivities could be modelled such as ascribing a value to intangible assets (see paragraph 2.11 above) and taking into account the uncertainties regarding cement production (see paragraph 2.9 above). This would further reduce the ROCE calculated by the CC.

3.6 There is further reason to be cautious about interpreting the CC's analysis: the gap between ROCE and WACC is too small to draw robust conclusions from. This is because in a competitive market we would expect to see observed returns in excess of WACC due to a survivor bias: the firms which are most efficient and profitable are the ones that are most likely to survive and consequently the most likely to be observed by the CC.

3.7 Overall, there is so much uncertainty around the estimates of ROCE and WACC presented (especially ROCE) that in our view it is not possible for the CC to draw a robust conclusion of high ('excess') profitability. In fact, the evidence suggests profitability has not been excessive. This is especially the case because of the CC uses an unusual and assumption-sensitive methodology to estimate CCA values which we have demonstrated can produce estimates of ROCE much lower than the CC's own estimates and lower than the estimated WACC under a range of plausible alternative assumptions. In these novel circumstances we think the results would need to have produced a much wider gap between ROCE and

WACC before any reasonably firm conclusions about excessive profitability could be inferred – in our opinion there is no obvious preponderance of evidence pointing in that direction.

4 CEMEX's contribution to industry profitability

4.1 Notwithstanding CEMEX's serious objections to the methodology used by the CC to arrive at this conclusion, it is clear that even using the CC's own methodology, CEMEX's individual profitability is not excessive.

4.2 In this regard CEMEX notes from Table 12c of the CC's working paper on CCA profitability that its ROCE on a CCA basis across 2007 – 2011 is, on average, [✂].[1] This is significantly lower than the average ROCE of the other GB cement producers of [✂] and below even the bottom end of the CC's WACC range, which is 8.2%.[2]

4.3 Further, Table 12c indicates that, even using the CC's ROCE figure reflecting all costs incurred, CEMEX's ROCE on this measure across 2007 – 2011 is [✂] compared to the [✂] average for GB cement producers.[3] This return on capital is within the range of the CC's estimate of the WACC (8.2%-11.5%) and is not materially different to the CC's midpoint WACC estimate.

4.4 CEMEX notes that no downside sensitivities[4] have been applied to the [✂] figure of ROCE (the CC's CCA estimate) and [✂] figure of ROCE (the CC's estimate reflecting all costs incurred). Keeping in mind that the GB cement producers' average ROCE on a CCA basis reduced from [✂] on the application of reasonable downside sensitivities,[5] it is reasonable to assume that both the [✂] and the [✂] CEMEX ROCE figures cited above would be considerably reduced on the application of these reasonable downside sensitivities.

4.5 Therefore, on the CC's own analysis, CEMEX's profitability is not higher than its cost of capital and may well be below its cost of capital. It is, in any case, the lowest profitability of all the GB cement producers.

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1 CC Working Paper on CCA Profitability Assessment for Cement, Table 12(c), p.55.
2 CC Working Paper on CCA Profitability Assessment for Cement, Annex 1, para 2.
3 CC Working Paper on CCA Profitability Assessment for Cement, Table 1, p.6.
4 CC Provisional Findings Report, at Table 7.12.
5 See Section 3 above.

ANNEX 2

EVIDENCE OF INTENSE COMPETITION BETWEEN UK MAJORS

[✂]

ANNEX 3

CEMEX UK OPERATIONS LIMITED

CC INVESTIGATION INTO AGGREGATES, CEMENT AND RMX MARKETS

CEMEX'S PRELIMINARY OBSERVATIONS ON THE CC'S WORKING PAPER ON THE ANALYSIS OF PRICE ANNOUNCEMENTS FOR BULK CEMENT (CEM I)

Introduction

1 CEMEX UK Operations Limited ("CEMEX") welcomes the opportunity to comment on the Competition Commission's ("CC") Working Paper on its analysis of price announcements for bulk cement (the "Working Paper"). These preliminary observations are designed to be supplemental and additional to CEMEX's previous submissions and responses and CEMEX reserves its right to supplement its comments in any future submissions, including in its response to the CC's Updated Issues Statement (the "UIS Response").

2 CEMEX rejects the notion that price announcements in bulk cement can in any way serve as a focal point for coordination or be used by incumbents to signal between them an expected outcome from any coordination. Not only do the wider conditions in the cement market not support a theory of coordination, but price announcements in bulk cement are in any event incapable of fulfilling such a role for two principal reasons:

(a) price increase announcements are met with stoic resistance by customers and will invariably only mark the beginning of bilateral price negotiations; and

(b) following the ensuing negotiation process the majors [✂].

3 As CEMEX notes in its response to the CC's Statement of Issues, dated 24 April 2012 (the "SI Response"), customers demand foreseeability and price increase letters have historically been sent in October to take effect on 1 January the following year. CEMEX generally tries to provide three months' notice of the intended change as requested by customers to allow customers to make consequential changes to their own conditions of supply.

Coordination and Signalling

4 CEMEX refutes the suggestion that the reason for, or the effect of, price announcement letters is to provide a focal point for coordination on prices. As the CC recognises in the Working Paper, the majors almost invariably fail to secure the price rises announced in the first instance, removing the possibility of price announcements serving as a focal point for existing or potential coordination. In reality, it is widely recognised that the [✂] represent a starting point for negotiations which will take place bilaterally with each individual customer from October to January (and often beyond). Customers are extremely cost sensitive and will often threaten to switch suppliers in the face of announced rises, meaning CEMEX has on average [✂] of announced rises in the past two years.

5 [✂][1], CEMEX disagrees with paragraph 90 of the CC's Updated Issues Statement that price increase letters could be used to signal the direction and magnitude of price changes. The combination of (a) the inability to secure announced rises and (b) high customer bargaining power maintaining the downward pressure on prices throughout the year makes actual prices difficult to predict and significantly reduces price transparency.

Parallelism in dates and levels of price increase announcements

6 The evidence does not support the notion that price announcements have played the role that the CC attributes to them:

(a) Out of twelve price increase dates presented in Table 1 of the Working Paper, eight were to become effective on 1 January of the subsequent year, one for each of the eight years within the sample. Price increase announcements of this kind are standard procedure in many industries, as acknowledged by the CC.[2] It is therefore not possible to draw any conclusions from this observation with regard to the likelihood of co-ordinated conduct by the majors.

(b) As for the remaining four dates, two of them were used for an announcement by CEMEX only, and one for announcements by CEMEX and Lafarge only. The only date, other than 1 January, for which all four majors made price increase announcements, was 1 August 2008.

7 In light of just a single 'mid-year' price increase announcement date 'shared' by all 'Majors', and either routine annual price increases or non-uniform price increases making up the remaining announcements, the CC has not been able to substantiate its claim of parallelism in price increase announcements.

8 The CC further claims that there is parallelism in the levels of announced price increases. The CC asserts that nominal announced price increases were very similar, but remarks that if there were small differences each year, the cumulative price increases would not be aligned. The CC does not comment on whether the series were diverging over time and the fact that Figures 1 and 2 in the paper have been redacted makes it impossible to ascertain this point.

9 However, according to the CC '*Lafarge was most often the first to announce a price increase, with the other Majors generally following with the same, or higher, announced price increases.*'[3] If this were indeed the case, the cumulative price increase announcements would in fact be diverging (Lafarge's being the lowest) and clearly there can be no parallelism in announced price increase levels.

10 In fact, Table 1 of the Working Paper shows that different suppliers announce different proposed price increases. For 1 January 2006, two suppliers announced one price increase and the other

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1 Ranging from [✂] according to the CC's in its putback '*Analysis of price announcements for bulk cement (CEM I)'.*

2 Paragraph 6 of the Working Paper.

3 Paragraph 3(b) of the Working Paper.

two announced a different proposed increase. For every subsequent date (eleven of the twelve dates shown in Table 1), no two suppliers have announced the same increase – instead the four suppliers have proposed four different price increases.

Existence of a Price Leader

11 CEMEX disagrees that the evidence gathered by the CC (for instance that Lafarge was first mover in five out of nine announcements) supports any finding that there is or has existed price leadership in the market for bulk cement. During the CC's hearing with CEMEX on 7 December 2012 (the "Hearing"), the CC itself acknowledged that since 2010 this supposed *partial pattern* "breaks down" and "doesn't wholly hold good."[4] CEMEX, which was the [✂] to announce its pricing strategy for January 2012 and [✂], makes its price announcement decisions unilaterally and is unconcerned with its order in any chain of announcements. Indeed, CEMEX is only aware that Lafarge subsequently made an announcement in respect of its pricing strategy for January 2013 and is not aware of any announcements by other majors having been made.

12 Further, CEMEX disagrees with the CC that the evidence it has gathered points to a tendency for increases announced later in the announcement round to be higher than those announced earlier. In particular, Table 1 of the Working Paper shows that in each year since 2009, the price increase (to become effective at the beginning of or early in the year) announced by the last mover was lower than the increase announced by the first mover, or was within the range of price increases announced by the latter.

13 The CC also refers in the Working Paper to the mid-year announcements made by each of the majors in 2008. As the CC noted during the Hearing, the increased number of announcements during this year, as well as the size of the increases announced, represent a reaction to the strong upward pressure on costs in 2008, such as a significant rise in energy prices. [✂]. In this regard, as explained to the CC during the Hearing, any correlation between the sizes of the rises sought by each major is unsurprising.

14 CEMEX refutes the CC's suggestion that, in the instances where Lafarge announced first, subsequent announcements by the other majors reflect an attempt to accommodate Lafarge's price rise rather than an effort to increase volumes by competing on price. Whilst CEMEX appreciates that it may be more likely to win volumes by maintaining its price and absorbing any increased costs within the business, as CEMEX stressed in its SI Response, a competitive cement producer will not always be in a position to prioritise volume over price given that margin and capacity utilisation do not have a straight line relationship in relation to cement (please see paragraphs 4.48 – 4.50 of the SI Response for further explanation).

Conclusion

[4] As per Mr Malcolm Nicholson, *CC Notes of hearing with CEMEX* dated 7 December 2012, lines 17 and 18, p. 83 and line 10, p. 84.

15 As the CC is aware, in an effort to differentiate its practices, [✂]. This illustrates the independent manner in which CEMEX approaches its price increase strategy.

16 CEMEX wholly refutes any assertion that price increase announcements can (or do) operate as a signalling mechanism for coordination and notes the CC's comments in the Updated Issues Statement that it is unlikely that such announcements could act as the single focal point for coordination. Indeed, any attempts to coordinate on such a basis would be rendered entirely useless by the aspirational nature of the initial price rises and the subsequent reductions that follow the wholly separate negotiations surrounding each individual order. On this basis, and in-keeping with CEMEX's comments to the CC during the Hearing, in the absence of price announcements CEMEX would nevertheless expect prices to follow a similar pattern given that the drivers behind these prices would not be affected.

CEMEX UK OPERATIONS LIMITED

4 January 2013

COMPASS LEXECON

ANNEX 4

Memorandum

Response to the CC's working paper on price parallelism

4 January 2013

1. Overview of the CC's working paper on price parallelism

As part of its aggregates, cement and ready-mix concrete market investigation, the Competition Commission ('CC') has issued a working paper on price parallelism in bulk cement (the "Working Paper"). The Working Paper assesses the relationships (i) between the Majors' prices, (ii) between the Majors' prices and importers' prices, and (iii) between each Major's price and its variable cost.

The main results presented in the Working Paper are the following:[1]

- Prices of CEMEX, Hanson and Lafarge are highly correlated with each other but not with Tarmac's prices;
- Prices of CEMEX, Hanson and Lafarge are correlated with two importers' prices but not with a third importer's price; and
- Changes in prices charged by CEMEX, Hanson, Lafarge and Tarmac are not explained by changes in their respective variable costs.

The CC considers that it is consistent with coordination if prices of producers are correlated with each other but not with their respective variable cost.[2]

In this memorandum, we assess the CC's analysis and the results presented.

2. Response to the CC's Working Paper

We have the following eight comments on the CC's analysis:

- Too few observations;

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1 Table 2 and paragraph 36.

2 Paragraph 2.

- The choice of the 'cut-off' point seems arbitrary and there are no robustness checks;
- Costs and demand might be affected by different shocks;
- Price and costs are calculated using different product mixes;
- Costs exclude raw material and delivery charges;
- Analysis too heavily focused on variable over fixed costs;
- Exclusion of sales to other Majors and internal sales; and
- The results are not consistent with an industry-wide coordination story.

Too few observations

The CC's analysis covers the period Q1 2007 to Q4 2011. This means that the CC draws conclusions based on only 20 observations (and even fewer when accounting for trend). Such a small sample size implies a low statistical power for all tests, including correlation analysis. One cannot exclude the possibility that the relationship between prices and costs is not captured as a result of the small number of observations used in the analysis.

The choice of the 'cut-off' point seems arbitrary and there are no robustness checks

When the CC controls for trend in the evolution of prices and costs, it splits the time period into two applying a cut-off point at Q1/Q2 2009.[3] This choice is not adequately justified in the Working Paper and seems somewhat arbitrary. In order to draw more robust conclusions on correlations, the CC should run sensitivity analyses (i) moving the cut-off point and/or (ii) not applying a cut-off point.

Moreover, the power of basic correlation analysis is limited as it is only capable of capturing whether costs and prices move together period by period; it does not identify co-movements between price and cost series that are not concurrent but occur only with a certain lag.

Costs and demand might be affected by different shocks

The CC observes that the average delivered prices and variable costs are negatively correlated, and notes that this may indicate increasing margins, as prices have tended to increase whilst average variable costs have tended to decrease. We consider that this observation is not necessarily indicative of competition not functioning well. The reason is that a negative correlation between price and cost can also result from negatively correlated cost and demand shocks (see Annex for details).

Prices and costs are calculated using different product mixes

The Working Paper compares prices of bulk CEM I cement to variable costs across all cement and blending plants, i.e. including bagged sales and non CEM I products (by producer).

[3] Footnote 8, page 6.

If the average unit cost of bagged vs. bulk cement and/or the average unit cost of CEM I vs. other products are different, and especially if such differences were to fluctuate over time, it cannot be ruled out that the small correlations between prices and costs are explained by the different product mixes used to compute prices and costs.

In particular, if the proportion of bulk CEM I sales in cement producers' all sales vary by quarter, the cost evolution of all products is likely to follow a different pattern from the price of bulk CEM I.

Costs exclude raw material and delivery charges

Variable costs included in the calculation are costs of fuel, electricity and labour.[4] The CC does not take into account the cost of raw material and delivery costs. These omissions may further explain why the CC finds a low correlation between prices and costs.

Analysis too heavily focused on variable over fixed costs

The CC assesses the relationship between a given Major's price and its variable cost. CEMEX contends that the CC's exclusive focus on variable cost only is misguided. Specifically, we understand from CEMEX that it has [✂].

For its analysis, the CC uses quarterly average prices and variable costs across the period Q1 2007 to Q4 2011, and finds that changes in prices charged by the Majors are not closely correlated with changes in their respective variable costs. It appears to be the CC's perception that competition cannot be at work in an industry unless firms immediately adjust their prices in response to shifts in short-run (e.g., quarterly) average variable cost. However, this perception is not correct, unless one considers an industry that is perfectly competitive, which the GB cement industry is not and cannot be.

Perfect ('atomistic') competition is generally incompatible with the presence of economies of scale, which also characterise the GB cement industry. The presence of scale economies implies that there is a minimum level of production that a company has to attain in order fully to exploit scale economies. Scale economies may result, for example, from the existence of fixed costs; producing on a large scale allows a firm to distribute fixed cost over a large number of output units. This limits the number of competitors that can profitably operate in the market, which in turn allows those firms that are active to generate prices that exceed their short-run variable costs.

For firms in such industries, pricing tends to be guided by the need to recover long-run average costs, which includes cost components that are – in the short run – generally considered as fixed (e.g., in the case at hand, capital expenditures, costs of environmental and planning regulations) and which, in the case of cement producers, are large. On this basis, there is no reason to expect that changes in prices should be driven by changes in short-term costs and, hence, no reason to expect that the degree of correlation between Majors' prices and their short-run variable costs are particularly high.

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4 Footnote 4, page 4.

In contrast, if all Majors' pricing is similarly driven by long-run cost considerations, and to the extent that Majors' long-run costs shift in tandem, one would expect to observe – as the CC apparently does – a relatively high degree of parallelism between the Majors' prices.

Exclusion of sales to other Majors and internal sales

The CC considers that it is relevant take into account sales to independents only, and to exclude sales to other Majors as well as internal sales from the analysis. The CC offers two reasons for doing so, both of which CEMEX rejects:

Firstly, the CC notes that internal pricing may not reflect market prices and may be used as a means of transferring profits. However, as previously explained to the CC, all transactions between CEMEX's relevant GB operations (including the sale of cement to its ready-mix business) are charged [✂]. Indeed, the CC's own analysis, set out in Appendix I of its margins putback, shows margins on internal and external [✂]. Accordingly, a [✂] has little impact on the margins of CEMEX's cement business (subject to adjusting for any differences in product quality or mix).[5]

Secondly, the CC goes on to suggest that, if coordination is present, sales to other Majors may not reflect market prices. The CC provides no evidence that this might be the case and CEMEX rejects any implication that cross-sales are used to facilitate coordination between Majors. Furthermore, CEMEX notes that cross-sales between Majors have been decreasing and the [✂]. In conclusion, CEMEX's policy is to make all external sales at [✂], whether to independents, other Majors or internal customers.

The results are not consistent with an industry-wide coordination story

The CC finds the price of three Majors and two importers are in line with each other but that one other Major's and one other importer's prices are not. The presence of one or two maverick firms substantially decreases the sustainability of any coordination. As such, the results of the CC's correlation analysis are inconsistent with its theory of harm.

3. Annex

Delivered prices and variable costs can be negatively correlated as a result of negative correlation between demand and cost shocks. We demonstrate this in a simple, stylised model of a market that has *N* firms with quadratic cost functions given by $c_0 + cq + (c_2/2)q^2$ for a given level of output q. A 'generic' firm maximises profit $pq - c_0 - cq - (c_2/2)q^2$ with respect to q, which yields $p - c - c_2 q = 0$, or $q = \frac{P-c}{c_2}$.

5 CEMEX's response to the CC's Financial Questionnaire, Stage 1, F6(c)(i).

This results in industry supply $Q = N\frac{P-c}{c_2}$, which in equilibrium has to equal industry demand, $p = a - bQ$ (assumed to be linear for simplicity). Substituting for *Q* in the demand function and solving for *p* we find the equilibrium price as

$$p = \frac{1}{1+\frac{bN}{c_2}}\left(a + \frac{bN}{c_2}c\right).$$

By appropriately intercept and slope parameters Ψ_a and Ψ_c, as well as time-indexing the price *p* and the demand shifter a, we can express this more generally as

$$p_t = \Psi_a a_t + \Psi_c c_t.$$

This expression suggest that, *all other things equal*, the relationship between the price and the linear cost component is positive, which *prima facie* appears to be at odds with the negative correlation observed by the CC. However, once we take account of the possibility of negative correlation between the demand shift parameter a_t and the cost parameter c_t, a negative correlation between price and cost can result. To see this, note that

$\mathrm{Cov}(p_t, c_t) = \mathrm{Cov}(\Psi_a a_t + \Psi_c c_t, c_t) = \Psi_a \mathrm{Cov}(a_t, c_t) + \Psi_c \mathrm{Var}(c_t) < 0$, if and only if

$\mathrm{Cov}(a_t, c_t) < -\frac{\Psi_c}{\Psi_a}\mathrm{Var}(c_t)$, which holds if and only if $\mathrm{Corr}(a_t, c_t) < -\frac{bN}{c_2}\frac{\mathrm{StdDev}(c_t)}{\mathrm{StdDev}(a_t)}$.

Thus, for a sufficiently low $\frac{\mathrm{StdDev}(c_t)}{\mathrm{StdDev}(a_t)}$, if cost and demand shocks are negatively correlated, it is possible that price and costs are negatively correlated.

ANNEX 5

ECONOMIC LITERATURE REGARDING THE ROLE OF LEADERSHIP IN COLLUSION

1 For example, Mouraviev and Rey (2011) study the role of price (or quantity) leadership in facilitating collusion in an infinitely repeated setting. CEMEX considers that the relevance of the paper is limited for the purpose of the CC's investigation:

(a) The possibility that players sequence their actions in every stage game while under price competition can help to sustain collusion (because followers can relatively easily punish defection by the leader), this works considerably less well under quantity competition. Due to strategic substitutability of quantities in Cournot competition, it is difficult to induce both the leader and the follower(s) to behave less aggressively.

(b) In their model, firms can choose whether to set their prices for a given period simultaneously or sequentially. However, once they have chosen the prices they are then committed to them for the entire period. The fact that, in the context of the GB cement industry, there is no such commitment and the suppliers, indeed, regularly deviate from their announced prices in a way that is not readily transparent to rivals, implies that the firms do not interact in the way described in Mouraviev and Rey (2011).

(c) For leadership to facilitate collusion, followers have to be granted a sufficiently large share of the market. This may lead to a somewhat asymmetric sharing of the benefits from collusion unless the alleged collusive mechanism randomly assigns the leadership role to the players in each period (which appears at odds with the CC's assertion that Lafarge often acts as the leader in setting the levels of price increases;[1] or allows for transfers designed to compensate for market share asymmetries. As the authors themselves point out, 'exactly how effective this can be will depend on the nature of transfers and the distortions they may generate, their visibility (particularly if they are deemed illegal), and so forth.' (page 708).

2 Another paper that the CC refers to, Harrington (2012) assumes that firms are rational in the sense of choosing a strategy to maximise the present value of their expected profit streams given their beliefs on other firms' strategies. This rationality is common knowledge. However, the author also assumes it to be common knowledge that firms' strategies satisfy a 'price matching plus' property (i.e., price increases – up to a certain point –are at least matched as long as past price increases have been at least matched in the past, and deviation from this price-matching behaviour results in reversion to non-collusive pricing). Harrington shows that the price can be supra-competitive but that there is also the possibility that only the ('competitive') Nash outcome is reached instead. Moreover, the strategies that lead to supra-competitive prices and satisfy the 'price matching plus' property are consistent with rationality (subgame perfect) only when firms are extremely patient, i.e., have a discount rate of close to zero.

[1] Coordinated Effects Working Paper, at para. 155 (c).

ANNEX 6

UNCERTAINTIES PRECLUDING ANY EFFORTS TO PRICE DISCRIMINATE

1 Uncertainty in customer base

1.1 The ability to price-discriminate along the lines set out in paragraph [x] above is critically limited by the substantial uncertainty facing CEMEX in identifying 'captive' (or 'infra-marginal') customers. Any supplier, in any market, may gather information about customers' requirements and characteristics including, e.g., their geographical location, likely purchasing volumes, and past procurement behaviour. However, such information may not necessarily reveal sufficient detail about those customers' outside options, in particular as to whether or not the customer might switch to an independent importer (or, indeed, any other alternative supplier).

1.2 A customer's degree of 'captiveness' may vary from application to application, end-user to end-user, and over time. Therefore, there is not likely to be a simple formula for knowing the impact of an attempted price increase. For CEMEX, gauging whether or not a customer would switch in response, would involve a great deal of 'guesswork'. However, below we show that an operator may not be able to afford many misjudgements without running the risk that a selective price increase turns out to be unprofitable in the end. We also argue and explain below that, even in an environment in which suppliers and customers interact repeatedly, suppliers are unlikely to be able to learn customers' true price sensitivity over time.

1.3 A Major GB producer such as CEMEX will have to take into consideration that it will 'get it wrong' and a customer will unexpectedly switch to an importer. Hausman et al (1996) present a simple model to identify the degree of certainty required to price discriminate in a profitable manner.[1] The model shows that in many cases it would only take a relatively small number of errors to make price discrimination unprofitable. For example, a supplier's attempt at a targeted 5% price increase is expected to be loss-making if the proportion of targeted customers that do not accept the price increase (the 'error rate') is 5%/(5% + m), where m is the supplier's percentage gross margin $(p-c)/p$.[2]

1.4 The gross margins of the Major GB producers tend to be relatively high because the cement industry is characterised by high fixed costs. For a cement producer to remain economically viable, it needs to generate relatively high gross margins to cover those fixed costs. As a consequence, the burden of guessing correctly, and the effect of 'getting it wrong' is particularly high in the cement industry. Specifically, with an average gross margin of [✂] over the relevant period,[3] an error rate[4] of less than 8% would render the attempted price increase unprofitable.

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1 Jerry A. Hausman, Gregory K. Leonard, Christopher A. Vellturo (1996), 'Market definition under price discrimination,' Antitrust Law Journal, Vol. 64.

2 To see this, suppose that the supplier targets n customers with a price increase of 5%. For a given error rate e, the supplier will increase profits on retained customer by $(1-e) \times n \times 5\%$ and lose profits $e \times n \times m$ on customer that do not accept the price rise. An error rate e of 5%/(5% + m) equates the two opposing effects.

3 Computed using CEMEX's Cement Division simplified P&L data: variable profit divided by net revenues.

4 The error rate is defined as the proportion of customers that do not accept the price increase.

1.5 It may be tempting to counter-argue that a supplier may be able to overcome this difficulty when there is repeated interaction with customers.[5] According to this argument, the supplier may be able to recapture lost customers at a later time by offering more favourable terms, so that the error rate above which the price increase is unprofitable might be higher than suggested above, since the loss is confined to a short period of time.

1.6 However, this potential counter-argument relies on the implausible assumption that customers' outside options (and, hence, price sensitivities) are public knowledge, or, at least, can be observed by the cement suppliers. In the realistic scenario, in which customers' respective degrees of price sensitivity are not known to the suppliers, customers have every incentive to pretend that they are highly price-sensitive even if they are not.[6] In particular, a relatively price-insensitive customer will want to avoid becoming a target for higher prices and, therefore, tend to mimic the behaviour of a price-sensitive customer. This makes it harder for a supplier to identify customers that would be more likely to accept price increases. This view is supported by the economics literature, which suggests that price discrimination is actually less likely in such a dynamic context.[7] In other words, customers' true price sensitivities are not readily learnt over time.[8]

2 Other sources of uncertainty

2.1 In practice, the challenge of distinguishing between 'captive' and 'non-captive' customers is exacerbated by the many additional sources of uncertainty confronting the Major GB producers, such as:

2.2 The producer having very limited knowledge of the FOB costs paid by individual importers. The CC states that there are variations in the FOB cost of imported cement,[9] but fails to acknowledge the sheer size of those variations across importers. In the data room we recall seeing differences between the highest and the lowest FOB cost in a given year in the order of size of around £20/tonne. Specifically, we recall that FOB costs for Quinn and Titan were not high, whereas those for Sherburn appeared very high.[10] As a result, the producer will be unable to establish which importer(s) are likely to pose the most direct threat in terms of securing sales to a particular customer;

2.3 The problem of a lack of transparency regarding importers' costs, demonstrated by the apparent variability across importers and volatility over time in margins of importers;[11]

2.4 Uncertainty in relation to importers' landed costs compounded by considerable variability of transport costs, both across importers and over time, combined with fluctuations in distribution

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5 Hausman *et* al. (1996), *op. cit.*, p. 376.

6 See, e.g., Hausman *et al.* (1996), *op. cit.*, p. 373.

7 See, in particular, Olivier Hart, Jean Tirole (1988), 'Contract Renegotiation and Coasian Dynamics,' Review of Economic Studies, Vol. 55, p.509; and Klaus Schmidt (1993), 'Commitment through incomplete information in a simple repeated bargaining game,' Journal of Economic Theory., Vol. 60, p.114.

8 As an illustration of the degree of uncertainty, we refer to examples of when customers appear to have ended up paying a higher price after switching (Para 73, Appendix 7.9).

9 Appendix 7.5, Para.12.

10 Appendix 7.5, Table 4.

11 As per para 33 of Appendix 6.6.

costs makes gauging a given importers' catchment area more difficult for a Major GB producer. There is also a very large variation in the geographic across importers, which adds to the uncertainty faced by the majors;[12] and

2.5 The is large variations in spare capacity at existing import terminals. Whilst some terminals utilised by the primary importers were running [✂] capacity, others have been confirmed as having utilisation rates of [✂]% or higher.[13] There are also recent examples of terminals being opened by importers as well as plans to open further terminals in other areas of the UK.[14]]

[12] See paragraphs 24 to 33 of Appendix 7.5

[13] Appendix 7.5, Para 5.

[14] Appendix 7.5, Para 7.