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Memorandum

Response to the CC's Provisional Findings on co-ordinated effects

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1. Introduction

On 23 February 2012, the Competition Commission ('CC') published its Provisional Findings report on the inquiry into the planned joint venture between Anglo American and Lafarge ('Provisional Findings'). The report puts forward, *inter alia*, a theory of harm based on co-ordinated effects in the interaction between UK cement producers.

Whilst not reaching a conclusion as to whether or not there was pre-existing coordination in the bulk cement market, the CC claims to have found evidence on market outcomes that, when taken together, was consistent with a degree of pre-existing tacit coordination. In addition, the CC concluded that it was likely that UK cement producers currently had the ability to reach and monitor the terms of co-ordination, and that such co-ordination was sustainable both internally and externally at present.

In this memorandum we respond to a range of issues that the CC has raised and the provisional findings it has arrived at. The principal focus of our comments is on points that we have made in our submission (responding to the CC putbacks) entitled 'Assessment of co-ordinated effects' of 26 January 2012 (the 'CL Submission') but with which the CC has either not engaged or has done so in an unsatisfactory manner. However, we also cover several additional issues where we believe that the CC's argumentation is lacking.

Based on our review of those parts of the Provisional Findings that deal with co-ordinated effects, we do not find that the CC's analysis has materially progressed from the putback stage. As a result, we do not believe that the CC's aforementioned claims and conclusions are justified.

2. Alleged indicators of pre-existing co-ordination

In this section we comment on two sets of (alleged) observations put forward by the CC as indicators of pre-existing co-ordination, namely the stability of market shares and the increase in cement margins despite depressed demand in recent years.

Market shares

The CC's Provisional Findings assert that market shares were stable,[1] concluding that '*[t]he degree of stability in shares of production at the time of large changes in demand, changes in ownership and, to a lesser extent, changes in capacity in the industry was consistent with the existence of a degree of tacit co-ordination between at least some of the UK producers over that time period.*'[2]

However, we submit that the CC fails to provide a relevant metric to measure the 'degree of stability'. It also fails to indicate a critical threshold for such a metric, based on which the CC could support its conclusion that market shares are sufficiently stable to suggest tacit co-ordination. As such, the CC's assessment standard lacks objectivity.

In addition, it is hard to see how it arrived at its conclusion in light of the evidence that confronted it:

- As pointed out in the CL submission, a variation of [≫]percentage points (for CEMEX) over the relevant timeframe strikes us as significant in relation to a market share of between [≫] and [≫]
- Despite noting that there was 'more variation' in shares by product type,[3] the CC has chosen to discount this finding and to place greater emphasis on the degree of variation in aggregate market shares, without explaining why the CC deems the latter measure to be superior;
- Changes in market shares appear to be more pronounced when focusing on relative market shares of total external sales and external sales to independents, respectively.

We also note that, in Appendix K, the CC has focused only on the share of the major UK cement suppliers relative to each other, whilst deferring the analysis of the constraint from importers on the UK cement producers to Appendix Q.[4] We submit that there is no basis for such a 'two-stage' approach and that, more importantly, it is misleading for at least two reasons:

- *First*, in light of the increased share of imports, the CC's approach disguises the actual changes in market share that have taken place; and

1 Provisional Findings, ¶6.107.

2 Ibid.

3 Provisional Findings, ¶6.106.

4 Provisional Findings, Appendix K, ¶K.10.

- *Second*, it distorts the reported evolution of majors' relative market shares if majors' respective sales losses to importers are not proportionate to their size (which, indeed, appears to be the case).

Cement margins

The CC finds that all four major UK producers' variable margins have increased during a period when demand was falling, and that this was contrary to what the CC would have expected to happen in a competitive market.[5] In light of the reduction in the demand for cement starting in FY08, the CC interprets this increase in margins as '*being inconsistent with UK cement producers strongly competing for customers in a homogenous product market with excess capacity.*'[6]

With regard to the stability of margins, the CC refers explicitly to the CL Submission.[7] The CC highlights and rejects three sets of arguments that we had put forward. However, the CC does not address a fourth argument in our response to the CC putbacks, namely our discussion of the implications of the literature on Bertrand-Edgeworth cycles.

In essence, that literature states that if capacity is limited, competition does not generally lead to a stable dynamic equilibrium outcome in which prices equal marginal costs, even if not all capacity is utilised.

The CC had previously failed to take note of this argument – which forms an integral part of our assessment of the CC's co-ordinated effects theory – in its revised putback on cement margins, by which time it had become aware of the CL Submission. Despite the fact that CEMEX's counsel had pointed out this omission to the CC, it has continued to ignore the issue in question.

Regarding the arguments that the CC has addressed, we make the following observations:

- By stating its belief that '*a reduction in the industry demand (rather than output) would not necessarily lead to an increase in margins other than when marginal or variable costs increase with output*',[8] the CC adopts a purely static and, hence, incomplete view of the world. The CC fails to address an important dynamic point made in the CL Submission, namely that a supplier's reduction in current output is a response to the low price realised in the past as a result of the negative demand shock.
- The CC states that the impact of CEMEX's cost-cutting efforts had to be assessed in light of the main parties' claims regarding input cost hikes. We do not understand why the CC conflates these two issues. [✂]

5 Provisional findings, ¶6.108 and ¶6.109.

6 Provisional Findings, Appendix L, ¶L.41.

7 Provisional Findings, Appendix L, ¶¶L.44-L.47.

8 Provisional Findings, Appendix L, ¶L.44(a).

- In relation to the CL Submission's argument that greater levels of financial distress tend to induce firms to compete less aggressively, the CC makes several claims, all of which we disagree with:
  - The CC claims that '*only similar changes in the level of indebtedness for all producers could explain whether UK cement producers may have competed less aggressively on prices*'[9] and that '*absent coordination the indebted firm would have to behave in the same way*'.[10] As a matter of economic theory this is not correct. If only a single producer experiences an increased level of financial distress and, as a result, competes less aggressively (for the reasons outlined in the CL Submission), the competitive pressure it exerts on its rivals is expected to decrease, regardless of whether or not they are also highly indebted;[11]
  - The alternative view put forward by the CC – that downward demand shifts inevitably lead to a decrease in margins – is rooted in a static economic theory of 'frictionless' production and exchange between agents. Such a theory is not adequate in the present context, because dynamic considerations relating to, e.g., firms' financing decisions, are ignored;
  - We disagree with the CC's claim that '*much of these fixed costs are likely to be sunk and therefore should not affect short-term pricing decisions*'.[12] Cement suppliers need to ensure that they cover their fixed costs in the short to medium run not only for the purpose of securing their financial viability at present but also for the sake of economic viability in the future. To preserve current levels of production capacity (in the expectation that demand in the construction sector will have recovered at some point in the future), cement producers have to make the necessary maintenance investments. In order to finance those investments, those producers seek to generate positive cash flows even in downturns, especially when confronted with tight conditions in capital markets.

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9 Provisional Findings, Appendix L, ¶L.45.

10 Provisional Findings, Appendix L, ¶L.47.

11 In other words, in a quantity-setting context, if one firm for some reason unilaterally decides to reduce its output, the best response of its rivals may be to expand their output, but in a way that will not be sufficient to prevent aggregate output from shrinking. In a price-setting context, if one firm for some reason unilaterally decides to raise its price, the best reply for its competitors is to do the same. See, e.g., M. Motta (2004), *Competition Policy: Theory and Practice*, Cambridge University Press, pp. 563-564.

12 Provisional Findings, Appendix L, ¶L.46.

3. Conditions to facilitate co-ordination

Adopting the framework set out in the Joint CC/OFT merger guidelines,[13] the CC has reviewed the evidence in relation to the four factors that it must assess to determine whether the proposed JV is likely to facilitate co-ordinated effects: (i) Will firms be able to come to an understanding regarding the terms on which they seek to co-ordinate? (ii) Will the firms be able to monitor their rivals adherence to those terms? (iii) What are the firms' incentives to deviate and what punishment mechanisms could and would rivals use to deter them from doing so? (iv) To what extent could outsiders to the agreement undermine a collusive outcome?

In this section we discuss the Provisional Findings that the CC has reached with regard to each of those questions.

Reaching an understanding

The CC concludes that UK cement producers had the ability to reach the terms of co-ordination.[14] Specifically, *'[t]he fact that shares of cement production had not changed much in the face of major changes in demand and when there has been significant excess capacity* […] *suggested to us that the main variables on which cement producers could coordinate were likely to be shares of production and/or wins and losses of customers.'*[15]

In addition, the CC claims that the parties to the alleged tacit agreement use price announcement letter as a means to support a collusive outcome: *'[P]rice announcement letters could assist the UK cement producers in coming to a common understanding on the timing and direction of price movements,'*[16] and *'[p]rice announcements provide information to cement producers as to the level of price increases from which each cement producer will start negotiating.'*[17]

As far as the alleged stability of market shares held by the majors is concerned, we refer to the comments that we have made on this claim in Section 2.

With regard to the role of the price announcement letters, the CL Submission explained why the evidence presented in the putbacks does not support the CC's claim that those letters facilitated the reaching of an agreement. The analysis presented in the Provisional Findings does not differ materially from that contained in the putbacks, which implies that the CC has failed to engage with the many points that our submission had raised.

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13 OFT/CC, Merger Assessment Guidelines, OFT 1254.

14 Provisional Findings, ¶6.140.

15 Provisional Findings, ¶6.127.

16 Provisional Findings, ¶6.133.

17 Provisional Findings, ¶6.134.

Instead, the CC has repeated certain inconsistencies in the various assertions contained in the putbacks, despite the fact that we had drawn attention to those inconsistencies. For example, in the main body of the Provisional Findings, the CC claims that Lafarge usually acted as the first mover'[18] This claim is at odds with Appendix M, which states that '*in five out of the ten price announcements, Lafarge is the first mover.*'[19]

The CC's views on what determines the relative bargaining power of negotiating parties are based on assertions that are counter to standard economic theory. In particular, it is a well-established insight from the literature on bargaining that the respective bargaining positions of the two sides will be affected by the seller's and buyer's outside options, rather than the stated level of a price increase that will be used as a 'starting point' in negotiations.[20]

Furthermore, in contrast to the CL Submission, the CC does not comment on the issue of asymmetries in terms of vertical integration. This is a serious omission, considering that the CC relies in part on the argument that a more balanced position in terms of the degree of vertical integration would result from the JV, compared with the present situation, to conclude that the JV would lead to an SLC. In other words, the CC uses an increased-symmetry argument to support its conclusions on an SLC, but ignores the implications of that argument when assessing pre-existing coordination.

Finally, a more fundamental problem with CC's approach to the issue of reaching an understanding is the fact that the parties would have to agree tacitly on which market-share they should agree on. For example, would an agreement most likely be on shares with regard to the total GB market including imports or excluding exports? Or would the parties to the understanding focus instead on their share of the market including sales to majors and independents or on those to independents only? Each of those metrics poses serious theoretical and practical measurement/estimation problems (see section below on monitoring), so that none of them can be considered as clearly superior to the others. Put differently, the parties would also have to reach a tacit agreement on which market share measure they are going to tacitly collude on, which appears very difficult to achieve.

Monitoring

The CC concludes that UK cement producers had the ability to monitor the terms of co-ordination.[21] We do not agree with this conclusion.

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18 Provisional Findings, ¶6.133.

19 Provisional Findings, Appendix M, ¶M.7.

20 See, e.g., Martin J. Osborne and Ariel Rubinstein, *Bargaining and Markets*, Academic Press, 1990. With regard to the realisation of announced price increases, the position adopted by the CC in its Provisional Findings is unclear, as the most relevant pieces of information have been redacted. However, the analysis in relation to CEMEX does not appear to have changed, so that the relevant comments that we have made in the CL Submission remain valid.

21 Provisional Findings, ¶6.140.

As explained in the CL Submission, the information available to a given major on sales made by a certain rival (e.g., customer volumes stolen by that rival), is likely to be subject to significant distortions, so that it cannot be reliably used to monitor the compliance of that rival with the tacit understanding.

Table 1 below contains a detailed analysis of the different types of 'noise' contained in the various signals received by majors, and how these types of noise interfere with tracking cement suppliers' conduct. The analysis shows that each of the measures is subject to a lack of precision.

Table 1 – Can cement suppliers' 'market' shares be monitored to detect deviation?

	Total market incl. imports	Total market excl. imports	External sales market incl. sales to majors	External sales market excl. sales to majors
Own share	NO[a b d e i]	NO[a d e i]	NO[a f g h]	NO[a f g h]
Competitors' share	NO[a b c d e i]	NO[a c d e i]	NO[a f g h]	NO[a f g h]
Importers' share	NO[a b j]	N/A	NO[a f g h j]	NO[a f g h j]

Notes: Several sources of noise can be distinguished:

a. *Any measure used for monitoring is also affected by factors other than deviation from agreement, including supply-side issues (e.g., disruptions of production etc.),*[22] *short-term fluctuations resulting from customer switching, etc.*

b. *The total market size provided by the MPA does not include imports.*[23] *This makes monitoring of own share, competitors' shares, and importers' share impossible.*

c. *The MPA data does not provide individual competitors' shares.*

d. *MPA data are provided with a delay of one month, reducing their usefulness for monitoring in real time.*

e. *The MPA data are based on surveys (N.10), not management accounts. As a result, reported quantities may be inaccurate, and the methodology for calculating total sales may not be consistent across competitors.*

f. *There are a large number of customers, which makes monitoring of individual customers impractical.* [✂]

g. *Around 20% of customers do not have a fixed delivery point, which makes it difficult to determine when customers switch (Appendix N, ¶N.78).*

h. *According to the GfK survey, only 61% of local RMX businesses (more likely to have a single site only) bought regularly from one supplier (Appendix N, ¶N.82), implying that 39% of those customers multi-source. Suppliers of these customers*

22 See Provisional Findings, Appendix N, ¶N.7, Footnote 17.

23 We note that the CC would have the requisite information to compare the sum of actual outputs (as reported to it by each of the four cement majors) with the estimated values published by the MPA. However, we are not aware of such a comparison having been carried out by the CC.

therefore may find it difficult to determine when customers switch.

i. *Non-MPA sources used for estimating total market size, such as company filings, published press, environmental permits, press releases, registers, planning applications etc. provide only relatively rough estimate of production volumes or capacities.*

j. *Methods used to estimate import volumes, such as tracking shipping movements, can only give rough estimates.*

Incentives to deviate and availability of a punishment mechanism

The CC claims that there is sufficient (average) spare cement capacity to enable punishment strategies to be effective, and that there were very few long-term contractual arrangements for cement purchasing which might undermine such strategies[24]. The CC considered the feasibility of two punishment strategies in detail, namely (i) targeting the cement customers of the deviator and (ii) repatriating cement volumes.[25]

- With regard to the first punishment strategy (targeting the cement customer of the deviator), the CL Submission has previously pointed out the weaknesses with CC's underlying analysis of switching data. The CC has not engaged with our critique, however.
- With regard to the second punishment strategy (repatriating cement volumes), the CL Submission noted that if, for example, CEMEX decided to sell less to any of the other cement-producing majors, the latter could simply offset this move by decreasing its sales to CEMEX by the same amount. This renders the second alleged punishment strategy entirely ineffective. The CC does not address this point either.

Both punishment mechanisms rely on the availability of sufficient spare capacity among the coordinating firms.[26] Whilst the CC claims that such spare capacity is available,[27] the CC acknowledges that – as pointed out in the CL Submission – '*the existence of spare capacity would increase the incentives to deviate from coordination as well as increasing the ability to punish deviations.*'[28]

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24 Provisional Findings, ¶6.154.

25 Provisional Findings, ¶6.148. The CC, at ¶6.120(c), hints at the possibility for the repatriation of small volumes to be used '*as a signal to potential deviators to stop current deviations without necessarily getting into costly retaliatory actions,*' and at the same time suggests that '*[d]eviations could be punished by lowering cement prices to independent cement customers, or by reducing prices charged by integrated RMX businesses to RMX users.*' However, the CC's point is vague and, in any event, it is not clear to us why the lowering of cement prices to independent cement customers or the reduction of prices to RMX users should be considered as a retaliatory action that is not costly. In addition, we note that [✂].

26 Provisional Findings, ¶6.149.

27 Provisional Findings, ¶6.150.

28 Provisional Findings, ¶6.154.

The CC also acknowledges our point that '*there were limitations to these punishment mechanisms that would make them logistically difficult and costly due to (a) a free-riding problem, in that each coordinating firm would prefer others to punish, to avoid incurring the costs of punishment itself; (b) there would be a lack of clarity in that non-punishing firms would not be able to monitor whether punishment had taken place; and (c) there would be a significant lag between the decision to increase capacity (to enable punishment) and when capacity became available.*'[29]

However, in response to Point (b), the CC considers that '*it was likely to be understood that the punisher would be the firm that had suffered the reduction in its share of production,*' and that '*non-punishing firms would therefore not need to be able to monitor whether punishment had taken place.*'[30] We submit that, on the contrary, in light of Point (a), the willingness of the would-be punisher to actually carry out the punishment is not a foregone conclusion as the CC appears to suggest.

Outsiders

The CC notes that the evidence that it has reviewed '*shows that imports of cement into the UK were somewhat of a constraint in Great Britain.*'[31] Nevertheless, the CC concludes that '*coordination was likely to be externally sustainable at present.*'[32]

The CC acknowledges that imports have increased their share of cement sales.[33] On the other hand, the CC claims that the evidence shows that imports do not exert a sufficiently strong constraint on UK majors, as imports did not prevent those majors from increasing average variable margins (and, in some cases, prices).[34] However, we consider this argument to be weak, as it neglects the possibility that absent the imports prices/margins might have increased by more.

The CC considers that there are high barriers to entry into cement production.[35] However, the analysis does not suggest that there are also high barriers to expansion,[36] and the CL Submission had previously pointed out that independent cement suppliers had been able to gain significant market shares in recent years. The CC appears to ignore this development.

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29 Provisional Findings, ¶6.154, Footnote 154.

30 Provisional Findings, ¶6.154, Footnote 154.

31 Provisional Findings, ¶6.172.

32 Provisional Findings, ¶6.183.

33 Provisional Findings, ¶6.173.

34 Provisional Findings, ¶6.174.

35 Provisional Findings, ¶6.175.

36 Provisional Findings, Appendix S, ¶¶S.22-S.28.