

Anglo American/Lafarge Response to Provisional Findings

This document contains the joint response of Anglo American and Lafarge (together the “**Main Parties**” or the “**Parties**”), to the provisional findings published by the Competition Commission (“**CC**”) on 21 February 2012 (“**Provisional Findings**” or “**PFs**”), in relation to the proposed Anglo American/ Lafarge construction materials joint venture (the “**JV**”).

1 Executive summary

The Main Parties consider that a number of the CC’s conclusions in the PFs are unfounded, and further consider that, for the reasons given below, the CC fails to discharge the applicable legal standard for a finding of a substantial lessening of competition (“**SLC**”) based on co-ordinated effects in bulk cement. The PFs also fail to take account of, or give due weight to, relevant pro-competitive impacts of the proposed JV.

1.1 The JV would achieve important efficiencies

While the JV involves the merger of some competing activities, it is fundamentally a merger of players with complementary activities to create a single player with a more efficient supply chain and which is more competitive overall than the Main Parties are individually. In light of the present and mid-term economic climate, the need to maximise efficiency and competitiveness is particularly critical in order to achieve financial returns conducive to on-going investment. In addition, an important driver for the proposed JV is the delivery of a more diversified product mix to customers, including value added products (“**VAPs**”) in relation to RMX in particular, through a better network of sites.

The Main Parties submit that the CC does not properly take account of the pro-competitive benefits of the transaction and resulting benefits to customers: for example improving economies of scale and scope; removing double marginalisation at different levels of the supply chain and improvements to the consumer offer via a better range of products (in particular VAPs in RMX, which bring efficiencies in cost in use). Around [X] per cent of Lafarge’s current RMX sales are VAPs, whereas these account for less than [X] per cent of Tarmac’s despite its significantly larger RMX operations.

The Main Parties have quantified these synergies as a minimum of £60 million per annum; representing almost 30 per cent of combined EBITDA; [X]

Prohibition of the JV, aside from being disproportionate, would deny the market and customers significant efficiencies and other benefits. So too would excessive or poorly crafted remedies.

1.2 The CC does not demonstrate that the JV would give rise to tacit coordination or make this more stable or effective

The Main Parties note a number of the findings reached in the PFs with regard to the market for bulk cement:

- First, the CC “did not come to a conclusion whether there was pre-existing coordination in the bulk cement market”;¹
- Second, the CC accepts that “profits are not excessive”;² and

¹ PFs, at paragraph 6.117.

- Third, the CC “noted that some of the evidence could also be consistent with non-coordinated behaviour”.³

The Main Parties submit that the argument set out in the PFs that the proposed JV would be likely to make tacit coordination in the market more likely, as well as increasing the effectiveness and sustainability of any pre-existing coordination, is flawed for the following reasons:

First, the CC reaches no conclusion as to pre-existing coordination and therefore: (i) has no basis for a finding that the JV would strengthen pre-existing coordination; and (ii) faces a high threshold requiring cogent evidence to demonstrate, to the requisite legal standard, that the JV will bring about a change in the market such as to bring about a likelihood of tacit coordination arising.

Second, the Parties submit that the JV does not bring about such a change as:

1.2.1 The number of firms that need to reach a tacit understanding is unaffected by the JV

Tarmac is not alleged to be part of any putative coordinating group and is not in any way a maverick in the supply of bulk cement (as the CC acknowledges, Tarmac uses its capacity to the full, [X]). The JV therefore does not affect the number of firms in any putative coordinating group.

1.2.2 Relative to Lafarge’s existing position, the change in the RMX position brought about by the JV does not increase transparency in relation to cement supplies

The change in the RMX position is above all an efficient consequence of the JV. It is not plausible, in view of the facts of the marketplace, that it would have the anti-competitive side effect of facilitating coordination in cement via informational effects. The CC considers that the bulk cement market is in any event characterised by significant transparency and that [X]. This suggests that the addition of formerly Tarmac RMX sites would yield very little incremental information even if they were a good source of information of rivals’ cement supplies. In fact, they are not a good source of such information. RMX is but one use for cement, and cement accounts for only part of RMX’s input cost. Further, wins and losses of RMX customers near the additional sites would provide no sound basis for inferences about wider market developments (given cheaper RMX prices could reflect a number of factors, including cheaper aggregates as an input). Any incremental information arising from the sites can, therefore, only have at most a de minimis effect on improving the scope to monitor the terms of hypothetical coordination.

1.2.3 Relative to Lafarge’s existing position, the change in RMX concentration does not increase the scope for “punishment”

Additional RMX sites do not provide enhanced scope for effective punishment. Coordination that relies on reaching and monitoring the terms of coordination at the hundreds of sites at the RMX level would be undermined by the additional complexity involved, the increased lack of transparency, and also by the strength of

² PFs, at footnote 137.

³ PFs, at footnote 139.

Aggregate Industries (“AI”) and independents. Deviation at the cement supply level could not be met by targeted punishment at the RMX level.

Moreover, the JV makes punishment strategies involving a lower cement price on the external market (even) *less attractive* for the JV because it would have more RMX sites than Lafarge, thereby accentuating the negative profit effect in the downstream market.

1.2.4 The CC’s theories in relation to symmetry and “vertical balance” vis-à-vis Hanson and Cemex are not borne out by the evidence and lack weight

The Main Parties note that the JV increases asymmetries in market shares both at the upstream level of cement production *and* (contrary to the CC’s assertion) at the downstream GB RMX level (to the extent that this can be considered a meaningful “market” share given that it aggregates over hundreds of markets found elsewhere by the CC in the PFs to be local only in scope). Specifically, the JV will have a production share of more than 20 percentage points greater than that of Hanson or Cemex, increasing from approximately 10 percentage points. Accordingly, theories to the effect that symmetry assists coordination count against a finding of an increased likelihood of coordination, if they apply at all.

Further, Cemex and Hanson in fact exhibit significantly different commercial behaviour.⁴ This market evidence indicates that there is no reason to presume similarity in vertical structure would lead to alignment in behaviour.

1.2.5 Importers provide an effective alternative source of bulk cement for RMX customers.

Importers account for between 22 and 26 per cent of all sales to non-integrated RMX suppliers. This indicates that even at current prices a significant proportion consider importers to represent an effective alternative to UK cement producers. The CC’s own consumer survey indicates that this is the case. Moreover, the PFs acknowledge that the proportion of customers and competitors that have purchased cement from importers was likely to be even higher than reported by the survey.⁵ The evident ability of RMX suppliers to source cement from importers is a further reason to doubt the likelihood of post-JV price increases.

1.2.6 The PFs do not give weight to factors that suggest that the formation of the JV will decrease the scope for reaching coordination.

If there were pre-existing coordination, formation of the JV could well be disruptive of it. For example, if there were pre-existing coordination, the proposed JV would increase the efficiency of the JV relative to Lafarge, and would increase the asymmetries between the coordinating group because, relative to Lafarge today,

⁴ First, there are differences in the evolution of cement capacity over the 2007-2010 period. Second, the evolution in the share of supply of bulk cement externally shows substantial differences for Cemex and Hanson. This is important because the PFs note explicitly that coordination might arise over share of supply (or customer wins and losses) to this channel (PFs, at paragraph 6.120b). Third, Cemex and Hanson have demonstrated different strategies in relation to the internalisation of volumes. Fourth, Hanson is not present in VAPs at the downstream RMX level while Cemex is present. Fifth, there are differences between Cemex and Hanson as regards their operations in cementitious products, with Hanson focusing on GGBS and Cemex on PFA. These points are elaborated at section 4 below.

⁵ See paragraph 92 of Appendix Q to the PFs. Between 21 per cent and 47 per cent of RMX competitors had bought from importers, where the upper bound takes into account the likelihood (acknowledged in the PFs) that the category “other UK-based producers” would typically be the UK subsidiaries of pure importers.

the JV would have a greater share of total cement production. All this would tend to be disruptive of – not conducive to – hypothetical coordination.

1.3 The Impact of the JV on local markets for aggregates, asphalt and RMX

The CC has taken an unjustifiably conservative approach in looking at competition within segments of the relevant market it has defined for primary aggregates (i.e. by looking at sand and gravel and crushed rock separately). The CC has taken this approach based upon an assessment of substitutability by end use application. The Main Parties consider that this approach is unwarranted given the limited overlap between the Main Parties in the supply of aggregates to non-integrated asphalt producers (where there is no overlap at all) and in the supply of aggregates to non-major RMX producers (where the overlap is minimal). In the general construction application (which accounts for the large remainder of aggregates used), the CC and also third parties have recognised that there is scope for switching to recycled/secondary aggregates.

The JV will continue to face competition from other suppliers (including non-majors and local/regional players). Furthermore, the JV will be constrained by significant overcapacity in the hands of third parties in each of the local markets in which it operates (the existence of third party overcapacity in every local market has been empirically demonstrated, as set out below). There is a competitive selling process for aggregates where jobs and prices are invariably determined via negotiation or tender and this will impose a constraint on the proposed JV. The CC must take into account the constraint imposed by recycled and secondary aggregates producers on the JV at the local level (as recycled and secondary aggregates were excluded from the relevant market definition). For these reasons, the Main Parties believe that the CC has adopted an unjustifiably conservative approach by applying in effect a 33 per cent screen on a primary aggregates only basis and also on a sand and gravel and crushed rock split in concluding on SLCs in the problem areas identified. The Main Parties note that 40 per cent is the indicative threshold set out in the CC/OFT Merger Assessment Guidelines.

The Main Parties would submit that there are no SLCs arising from the JV in the local aggregates radials described below. If the output of [X] were re-classified to exclude specialist products from generic construction aggregates volumes, the overlap between the Main Parties would be [X] of the share of supply in each of the following radials[X] A number of the sites in relation to which the CC has identified an SLC (Ashbury depot (Lafarge), Agecroft Aggregates Handling (Tarmac), Bredbury Aggregates Handling (Tarmac), Dowlow (Lafarge) and Tunstead (Tarmac)) compete for sales in the Greater Manchester area. There are 16 different recycled aggregates operators producing a combined annual volume of 1,500kt within a 10 mile radial of Manchester city centre [X]. The CC has informed the Parties that it no longer considers the radial around Bury St Edmunds (Tarmac) to be problematic, due to a data calculation error.

In asphalt, the JV will continue to be constrained by alternative suppliers.

In RMX, the JV will face competition from alternative suppliers, including suppliers using volumetric trucks (which have been excluded from the relevant market definition). There is excess capacity in the hands of third parties in RMX and there are low entry barriers into the production of RMX. An additional competitor (the Concrete Company), has been identified in the radial around Great Yarmouth (Tarmac/Carter JV), such that there is no SLC in this radial.

1.4 The Impact of the JV on ancillary markets

1.4.1 High Purity Limestone for FGD purposes

The Main Parties disagree that the proposed JV represents a reduction of suppliers from 3 to 2. On the evidence provided to the CC by third parties, at a minimum there are 4 producers with rail linked quarries which are potential suppliers of HPL for FGD purposes so that, at most, the JV will result in a reduction from 4 to 3 and a lesser reduction if non-rail linked suppliers are taken into account.

As the CC acknowledges, the markets in question are bidding markets such that the relevant question is whether there are a sufficient number of suppliers to ensure competition at the time of tenders. The Parties submit that there are.

1.5 Vertical effects

The CC's assessment of vertical effects resulting from the JV in the supply of aggregates to asphalt and RMX producers is consistent with the Main Parties' own views and analysis that the JV would not have the ability to foreclose customers downstream. However, the Main Parties submit that the application of the 30 per cent threshold used by the CC to identify market power upstream is far too low, particularly given the existence of overcapacity in the relevant markets and the fact that the products in question are homogenous.

The Main Parties have provided evidence to the CC that the JV would not have the ability to foreclose RMX producer customers of cement supplies. This is true in relation to integrated RMX producers (which will be unaffected by the JV) and also in relation to non-integrated RMX producers, as the JV will not have the market power upstream to foreclose access to inputs to these customers.

2 Due process and procedural fairness issues

As indicated in previous correspondence with the CC on 20 January, 26 January and 8 March 2012 and as discussed with the CC staff team on 23 January 2012, the Main Parties have not been provided by the CC with analysis of:

- (a) co-ordinated effects in relation to product markets other than cement;
- (b) unilateral effects in relation to cement; or
- (c) vertical effects in relation to cement as an input to RMX (other than as a collection of thoughts in outline, several weeks following publication of the PFs).⁶

These theories of harm are referred to in paragraph 6.2 of the PFs and also in the statement of issues published on 11 October 2011. However, contrary to the statement in paragraph 6.3 of the PFs, no analysis of the theories of harm set out in (a) - (c) above is in fact provided in the PFs.

As confirmed by the inquiry staff team,⁷ the Main Parties have responded to the PFs on the understanding that the CC cannot as a matter of due process and procedural fairness

⁶ We refer to the CC's slide presentation on Anglo American/Lafarge JV: CC thoughts about vertical effects, received on 8 March 2012. We also refer to Linklaters' email of 8 March 2012 which refers to the requirements of the CC's rules of procedure, section 104 of the Enterprise Act 2002 and the judgment of the Competition Appeal Tribunal in *Sports Direct International v Competition Commission*.

⁷ [X]

reach any adverse conclusions in relation to these issues without putting any analysis and provisional conclusions back to the Main Parties for comment.

However it is a matter of great concern that, more than six months into the reference period, no analysis or provisional findings have been provided to the Main Parties in relation to significant areas of the four theories of harm being considered by the CC.

In addition, despite numerous requests by the Main Parties' legal and economic advisers to access certain of the data relied upon by the CC in its conclusions (with the proffered protection, for example, of a confidentiality ring), with the exception of some minor un-redactions of the Main Parties' own data (erroneously redacted) these data and analysis have not been provided. This is information which ought to have been provided to the Main Parties but has not.

The data and analysis to which the Main Parties have sought access are relied upon by the CC in its preliminary conclusions on coordinated effects in cement. It is therefore necessary to the proper exercise of the Main Parties' procedural rights that they be properly able to: (i) comprehend the nature of the SLC theories advanced by the CC; (ii) understand the evidential basis of the CC's preliminary conclusions in relation to those theories; and (iii) respond both to the PFs and, as necessary, to propose suitable remedies to the CC.

The following comments in response to the PFs are therefore made by the Main Parties against the backdrop of the significant data and methodological limitations identified above.

3 The CC's findings in relation to coordinated effects in cement

In assessing coordinated effects in respect of the bulk cement market, the CC explains its theory of harm by reference to the ability, in times of excess capacity, to coordinate on the basis of shares of production and/or wins and losses of customers, rather than directly on price⁸ or on capacity levels⁹. The CC argues that the proposed JV would result in an SLC in the bulk cement market on the basis that:

- Increased concentration in the number of UK cement producers will make it easier and/or swifter for the JV, Cemex and Hanson to reach and sustain a tacit understanding relative to the current ability of Lafarge, Cemex and Hanson;
- Increased concentration in RMX production at a UK level would increase the scope for the JV to monitor the competitive conduct of Cemex and Hanson relative to the ability of Lafarge currently to do so, resulting in swifter punishment of "deviating" behaviour; and
- There would be a more "balanced" position in respect of the degree of vertical integration between the proposed JV, Cemex and Hanson, thereby enhancing the ability of the members of the alleged coordinating group to align their incentives and increasing their ability to punish deviation (both on the upstream cement and downstream RMX markets).

The Main Parties submit that the provisional finding of an SLC in the bulk cement market on the basis of the theory of harm put to them in the PFs is not supported by the evidence either to any degree or to the required standard of the balance of probabilities.

⁸ PFs, at paragraph 6.120.

⁹ PFs, at Appendix K, paragraph 57(d).

In particular:

- Far from demonstrating to the legal standard of proof required that there is existing coordination in the bulk cement market, the CC has not come to a conclusion about whether or not such coordination exists;¹⁰
- Nor has the CC shown to the required standard that, as a result of the proposed JV, the propensity of the bulk cement market to coordination, if any, would be sufficiently enhanced to give rise to an SLC;¹¹
- In assessing whether there is pre-existing coordination in the bulk cement market, the CC has misapplied its own Guidelines in relation to the market characteristics conducive to coordinated effects by reference to the three conditions identified in *Airtours v Commission*;¹²
- The CC fails to satisfy the requirement of cogency and consistency as regards its analysis and findings in respect of existing coordinated effects; a finding of coordinated effects must be supported by cogent and consistent evidence;¹³ and
- In reaching no conclusion on pre-existing coordination, the CC bears a heavier burden in establishing, on a prospective analysis, that the proposed JV is likely to give rise to or increase the likelihood of coordination - the CC therefore fails to demonstrate to the requisite standard that the creation or strengthening of coordinated effects would arise as a result of the proposed JV.¹⁴

Moreover, the CC has failed to take account of a number of relevant considerations and evidence which support the Main Parties' position.

Attached at Annex 1 is the Economic Response to the PFs assessing the likely impact of the proposed JV on competition in the supply of bulk cement, prepared by RBB Economics ("**RBB Economic Response**"). Where appropriate the economic analysis referred to in that paper is referred to below.

3.1 Conditions for finding coordinated effects

The Main Parties have a legitimate expectation that the CC, in making a determination on coordinated effects, will adhere to its Guidelines on the market characteristics conducive to coordination,¹⁵ reflecting the three conditions for collective dominance identified in *Airtours v Commission*.¹⁶ The Main Parties submit that the CC has made several material errors of fact, law and methodology in applying these criteria.

The relevant case law is clear that a finding of coordinated effects must be supported by a cogent and consistent body of evidence.¹⁷ It is not enough for the CC to assert that a

¹⁰ PFs, at paragraphs 38 and 6.117.

¹¹ PFs, at paragraph 6.231.

¹² Case T-342/99 *Airtours plc v Commission*, at paragraph 62.

¹³ Case T-342/99 *Airtours plc v Commission*, at paragraphs 63 and 294 and Joined Cases C-68/94 and C-30/95 *France and Others v Commission* ("*Kali und Salz*").

¹⁴ Case T-342/99 *Airtours plc v Commission*, at paragraphs 58 and 82.

¹⁵ CC2 Merger Assessment Guidelines, at paragraphs 5.5.9 – 5.5.19.

¹⁶ Case T-342/99 *Airtours plc v Commission*, at paragraph 62.

¹⁷ Case T-342/99 *Airtours plc v Commission*, at paragraphs 63 and 294 and Joined Cases C-68/94 and C-30/95 *France and Others v Commission* ("*Kali und Salz*"). While this case law has mostly been decided at the European level, there is no reason to believe that the application of equivalent provisions of the Enterprise Act 2002 should result in reduced evidential requirements.

finding of coordinated effects is a matter of judgement,¹⁸ that judgement must be supported by evidence. The requirement for cogency and consistency is not fulfilled in the PFs since, as set out in the analysis below, there are significant factual and analytical errors and omissions in the CC's analysis.

The Main Parties accept that the Competition Appeal Tribunal¹⁹ and Court of Appeal²⁰ decisions in *British Sky Broadcasting plc v Competition Commission* provide that the CC is not required to find that every hypothecated example of the theories of harm it sets out in its decision will occur on the balance of probabilities. Nevertheless, given that the three conditions for coordination must each be present for a finding of an SLC based on coordinated effects, the CC must be satisfied on the balance of probabilities that all three conditions set out in *Airtours* and in its Guidelines exist and, in light of the finding at paragraph 6.117 that the conditions are not met pre-JV, the CC must be satisfied on the balance of probabilities that the SLC on the basis of coordinated effects is a result of the formation of the JV.

The Main Parties submit that the CC has failed to demonstrate to the requisite legal standard that the creation or strengthening of coordinated effects is causally linked to the formation of the JV, having regard to current market characteristics.²¹

As set out in *Airtours*: "if there is no significant change in the level of competition obtaining previously, the merger should be approved because it does not restrict competition. It follows that the level of competition obtaining in the relevant market at the time when the transaction is notified is a decisive factor in establishing whether a collective dominant position has been created".²² In this regard, the Court of First Instance concluded in *Airtours* that the test was whether the merger "would alter current conditions in such a way that the leading operators would no longer act in the same way as they have done in the past".²³ It follows that, to the extent that there is no substantial alteration in competition as it stands as a result of the JV, there can be no finding of an SLC.

The Main Parties further submit that the CC has not discharged its obligation to base its conclusions on clear reasoning:

- If the CC believes that, in fact, there is existing coordination (which it variously and inconsistently refers to as "possible";²⁴ as "consistent with a degree of pre-existing coordination";²⁵ and as "likely"²⁶), then it has failed to show any credible grounds for concluding that the JV will cause any change in such a position, still less meet the *Airtours* requirements; and
- Since the CC does not conclude that there is existing coordination, it fails to show the degree of change required to support a finding that the JV will create a situation

¹⁸ PFs, at paragraph 6.121.

¹⁹ *British Sky Broadcasting Group plc v Competition Commission* [2008] CAT 25, at paragraph 75.

²⁰ *British Sky Broadcasting Group plc and Virgin Media Inc v Competition Commission* [2010] EWCA Civ 2.

²¹ Case T-342/99 *Airtours plc v Commission*, at paragraphs 58 and 82.

²² Case T-342/99 *Airtours plc v Commission*, at paragraph 82.

²³ Case T-342/99 *Airtours plc v Commission*, at paragraph 81.

²⁴ PFs, at footnote 150, page 120.

²⁵ PFs, at paragraph 6.119.

²⁶ PFs, at paragraphs 6.140, 6.166 and 6.183.

of tacit coordination (and a finding that all conditions are satisfied is by no means sufficient to establish coordinated effects²⁷).

The Main Parties make the following submissions in respect of the CC's analysis of the *Airtours* conditions:

(i) **Ability to reach and monitor the terms of the coordination (“Condition 1”)**

The Main Parties note that it is not clear what the terms of the expected coordination are. The CC dismisses coordination on price and capacity.²⁸ Instead it postulates that coordination is “most likely”²⁹ in relation to “shares of production and/or wins and losses of customers”.³⁰ The CC takes the view that cement shares are stable, even though the evidence is that Lafarge's [REDACTED]. Such variation in share is not consistent with the PFs' theory on alignment on market shares. Moreover, it would seem irrational for Lafarge to coordinate with Cemex and Hanson so as to [REDACTED] percentage points of share in 3 years. [REDACTED]

In any event, the question to be determined is whether the evidence before the CC supports a finding that it is *probable* that the alleged coordinating group can and will be able to meet the *Airtours* test in relation to a coherent (and specified) form of coordination.

Ability to “reach” the terms of coordination

The Main Parties submit that the PFs fail to identify how the JV would increase the scope to “reach” the terms of coordination in respect of shares of production and/or wins and losses of customers in times of excess capacity. As set out in Sections 4 and 6.1 of Annex 1, there is considerable economic evidence demonstrating that, by virtue of it [REDACTED].

Further, the CC has failed properly to weigh the factors that suggest that the formation of the JV will disrupt the scope for reaching coordination.

In particular:

- The formation of the JV will increase, not reduce, asymmetry in shares of total cement production (on the basis of total sales of bulk cement), and will also increase asymmetries in the share of supply of total and bulk cement,

²⁷ PFs, at paragraph 6.121. Moreover, the Main Parties note that in assessing whether there is existing coordination the CC has failed to give consideration (either duly or at all) to a number of observed market outcomes which are more likely to be explained by unilateral behaviour. Specifically: market shares are volatile particularly in relation to the external supply of bulk cement (a key relevant segment); stable market shares following demand shifts are not in themselves probative of coordination; observed movements in margins can be explained by unilateral behaviour; prices are not excessive on a ROCE measure; and customer switching patterns and the PCA results are also similarly consistent with unilateral behaviour. This is explained in detail in the Annex to the RBB Economic Response.

²⁸ PFs, at paragraph 6.120 and Appendix K paragraph 57d.

²⁹ PFs, at paragraph 6.227.

³⁰ PFs, at paragraph 6.120 and 6.227.

which generally runs counter to theories of tacit coordination. These facts are ignored in the PFs and the contrary is in fact alleged.³¹

- The JV will, through increased focus on RMX and VAPs, have different incentives in the RMX market to other cement and non-major RMX producers.
- Contrary to the PFs' claim, a punishment strategy of offering a lower cement price on the external market becomes even *less attractive* for the JV because it would have more RMX sites than Lafarge, thereby accentuating the harmful effect on its profit in the downstream market.
- Post-JV, and contrary to the PFs, spare capacity will be less balanced between Hanson, Cemex and the JV. Post-JV, internalisation of volumes by the JV will have the effect of reducing spare capacity of the JV entity (leaving the aggregate capacity of the market as a whole unchanged) and therefore make the JV less "similar" to Hanson and Cemex, which the Main Parties understand to have substantial spare capacity.
- Following the JV, the combined entity would no longer have a downstream presence in the manufacture of concrete products or mortar in contrast to the position of Cemex and Hanson.³² This asymmetry is not discussed in the PFs.

Ability to "monitor" the terms of the coordination

As stated by the Court of First Instance in *Impala v Commission*, in order to establish market transparency sufficient to warrant a finding of coordinated effects, the level of transparency must "*be sufficient to allow each member of the dominant oligopoly to be aware, sufficiently precisely and immediately, of the development of the conduct on the market of each of the other members*".³³

The PFs fail adequately to address either of the conditions of *precision* and *immediacy* for the following reasons:

- *Instability in market shares*: There is a substantial body of observed market evidence consistent with non-coordinated behaviour, including the evolution of market shares and capacity which demonstrates that Lafarge, Hanson and Cemex have not aligned their competitive behaviour³⁴ and growth in GB share of supply by non-major RMX producers at the expense of the majors (i.e. the opposite of what one would expect to see if the PFs' theory of coordination were correct). Further, excluding the period 2007 from the analysis causes fluctuations in shares to be significantly understated, as

³¹ PFs, at paragraph 6.104. The CC states that "[t]here had been some variation in the shares of Great Britain production held by the major UK cement producers over the past ten years: Lafarge had lost share (from [X] to [X] per cent) as has Hanson (from [X] to [X] per cent in ten years). Cemex and Tarmac have both increased their share (from [X] to [X] per cent for Tarmac and [X] to [X] for Cemex). Nevertheless, the data shows a degree of stability in the shares of the cement majors in the face of major changes in demand, capacity and ownership from 2007 to 2010. The relative share of Hanson and Lafarge in relation to each other has remained broadly stable, with Lafarge consistently having almost [X] the share of Hanson since 2003"

³² [X]

³³ Case T-464/04 *Impala v Commission*, at paragraph 440.

³⁴ PFs, at Appendix K paragraphs 9, 12, 16, 22 and 24. As the CC is aware, the Main Parties do not have access to the actual numbers, specifically in relation to Table 10 in the main body of the PFs and Tables 1-19 of Appendix K, but the trend comments appear to support the points made in the text.

does taking a longer timescale. Indeed, the dramatic changes in demand over the period since 2007 together with the uncertainties of any recovery³⁵ (or increases in relevant Government spending) themselves suggest that monitoring and transparency are difficult or that market conditions are not conducive to coordination (taking a longer timescale, for example ten years, would render the loss of Lafarge's share even more marked). The PFs fail adequately to deal with these counter arguments.

- *Price announcement letters and MPA data are an ineffective means to monitor "deviation":* neither price announcement letters, which are generally annual and, at most, intermittent, nor MPA data which have at least a one-month lag and do not disclose individual "winners" and "losers", are particularly strong evidence for "immediate" monitoring capability, or even signalling, especially given that price announcement letters do not provide an indication of actual price changes and in some cases, the outcome is a net average price which goes in the opposite direction to the announcement. In particular, MPA data based on relative production is aggregated and by no means *precise*.³⁶ At the least, the lack of transparency and immediacy rules out coordination in relation to customers (even before the evidence on switching and attempted switching is taken into account).
- *Realised prices are not transparent:* As set out at paragraph 6.158 of the PFs *"realized prices for cement were not very transparent, which would reduce the risk of such price 'leakage' because customers would not usually be aware of the prices being paid by other customers"*. Producers are, and would remain, likewise unaware. The Main Parties consider that any concern that cement producers would have any greater transparency in relation to realised sale prices and thereby identify "deviators" is unfounded; and the ability to "monitor" would appear to be limited to the assumption that there are: (i) general price trends in price increase letters; and (ii) an ability to monitor generalised and aggregated market share data. The Main Parties do not consider that these are sufficient means to monitor tacit coordination with sufficient immediacy or precision either individually, or cumulatively. The CC observes that *"[e]ven without knowing the market shares of competitors, this may in many cases be sufficient to detect whether a deviation is likely to have occurred"*,³⁷ but the Main Parties are not clear how this may be the case, nor what "deviation" is being detected,

³⁵ Please refer to the Main Parties' Initial Submission of 30 September 2011, paragraph 3.1.4 where it is noted that industry forecasts from September 2011 did not predict a recovery in cement until at least 2014.

³⁶ As the Main Parties stated in their response to the CC's working paper on *Detecting Deviation from the Coordinated Outcome*, the monthly MPA data would only allow a cement producer to determine its relative market share amongst MPA members, and would not allow a cement producer to calculate its market share of a wider cement market which includes non-MPA imported cement sold in GB. Consequently, an MPA cement producer would not be able to identify with certainty whether any change in share was a result of potential "deviation" or customer switching to a non-MPA cement importer. As noted by the CC at paragraph 16 of the aforementioned putback: *"[i]n terms of ability to monitor the terms of coordination, the information on total cement production and total sales of cement by MPA members, which is received monthly one month in arrears, would enable cement producers to monitor their share of the cement market compared to the total share of the other majors and thereby provide information on whether a competitor may have deviated. Such information alone would not be sufficient to detect who the deviator was, and because it is received one month in arrears, cement producers may be able to increase the probability of detection by monitoring customer/supplier relationships as well."*

³⁷ PFs, at paragraph 6.137.

and would note that any variations could well be due to other factors such changes in overall supply and demand.

- *The activity of importers is not transparent:* furthermore, imports (which represent 13 per cent of bulk external sales and 18 per cent of bulk external sales to non-major customers) are not captured by the MPA monthly data and MPA data are not split between internal and external sales. Consequently, MPA data cannot tell members of a supposed coordinating group whether observed share changes are due to a change in the proportion of internal-to-external volumes of competitors, total market change, import penetration or “cheating”, nor can they indicate which firm has “cheated” with the “immediacy” required, if at all.
- *Lack of transparency in and from the RMX market:* there is much less transparency in relation to RMX than the PFs assume. Only around half of cement production is sold into this channel so that it can only give limited information to a group seeking to coordinate on volumes. Second, changes in the volumes of competing RMX plants may be due to changes in the prices of aggregates or other inputs, rather than any change in relation to cement (the CC will recall that cement represents only a small component of the cost of RMX). The RMX markets themselves are numerous and characterised by the presence of both national and local competitors so that changes in the process of RMX competition will not be distinguishable from “cheating” in relation to cement coordination. The condition of transparency is therefore not met.

The CC’s assertion is that the JV is likely to increase transparency and promote monitoring³⁸ on the basis that the JV entity will have access to more information via: (a) a reduction in the number of producers;³⁹ and/or (b) the addition of about [X] RMX plants, which would allegedly allow “more information on the RMX market to flow to the JV”.⁴⁰ However, this would resolve neither the precision nor the immediacy issues raised above.

With regard to the requirement for precision, Tarmac is a minor presence in the external market for cement and thus unlikely to be able to contribute significant market information to that which Lafarge or the other members of the alleged coordinating group, according to the PFs, would already have access. Tarmac currently has little reason to collect cement market information, for example in respect of switching data, given its limited external market position.⁴¹

In particular, it is unclear how the reduction in the number of producers materially adds to transparency when: (a) Tarmac only supplies a small number of bulk external customers (annually less than [X] of over [X] tonnes of bulk cement sold externally in Great Britain, representing just [X] per cent of the external sales market); and (b) there are approximately [X] RMX sites owned by non-majors alone across the market as a whole and many of these, even on the CC’s narrow

³⁸ PFs, at paragraph 6.200.

³⁹ PFs, at paragraphs 6.196 to 6.198.

⁴⁰ PFs, at paragraph 6.199.

⁴¹ Appendix O to the PFs, at paragraph 4.

approach, are within economically reasonable reach of import terminals and so capable of being supplied from outside the allegedly coordinating group.

Furthermore, the CC's suggestion at paragraph 6.198 of the PFs that Tarmac's independence and incentive to expand "*introduces some additional uncertainty*" is incorrect since the CC accepts that Tarmac cannot, to the extent that it is currently producing at near capacity levels, expand volumes in the short term, which would be the only relevant point in relation to coordination on volumes/customers (as opposed to capacity in the longer term).

As to "*increased market information*",⁴² it is not clear why an increased RMX footprint should result in increased market information to the JV and no evidence has been presented to suggest how this may arise or occur. Non-major RMX producers accounted for 43 per cent of non-major purchases of bulk cement in 2010. Further, substantial volumes of bulk cement are also used in downstream activities such as producing concrete products (where the JV would be absent) and the PFs fail to take this into account.

Further, as noted in Appendix N to the PFs⁴³ [§]; and it does nothing for the other members of the alleged coordinating group, for which the reasoning above will continue to apply. [§].

Consequently, the addition of (formerly) Tarmac RMX plants to the JV would not add materially to the JV's "knowledge" or represent a credible additional source of information, contrary to the analysis set out in the PFs. Moreover, the increase in vertical integration from the JV and likely reduction in cross supplies may well lead to *less* information being available to the JV, a point overlooked by the PFs in this context: see further Section 3 of Annex 1.

In addition the JV could make it *more difficult* to monitor putative deviation (discussed further below). For example, pre-JV (and operating from a single plant) Tarmac's volumes have been stable and the vast majority of sales have been internal (external sales also being stable). Post-JV, the predictability associated with Tarmac's cement activities disappears. The JV would have greater scope to flex the mix of internal and external sales, making it harder for firms in the alleged coordinating group to identify "deviation" from published data sources, such as the monthly MPA statistics which do not provide a breakdown between internal and external sales.⁴⁴ It follows that, contrary to the analysis contained in the PFs, Condition 1 is not met. The Main Parties submit that the JV makes no relevant difference to the satisfaction of this Condition. In this context, Tarmac's limited position in the external market means its "loss" of independence makes no difference to the ability of any other cement producer putatively to coordinate tacitly.

Consequently, the CC's conclusion at paragraph 6.200 of the PFs that "the proposed JV was likely to increase the ability of UK cement producers to reach and monitor coordination in the bulk cement market" is not supported by the evidence and fails to meet the required standard of proof.

⁴² PFs, at paragraph 6.199.

⁴³ PFs, at Appendix N, paragraph 23.

⁴⁴ The Main Parties repeat their arguments that the appropriate basis for calculating market shares is external sales of bulk cement. This is discussed further in Section 7 of Annex 1.

(ii) **Internal Sustainability (“Condition 2”)**

In relation to the requirement that coordination must be internally sustainable, the CC’s analysis in the PFs relies upon:

- number of producers;
- cost similarities;
- vertical integration;
- cross sales; and
- punishment mechanisms.

The Main Parties submit that the evidence before the CC does not support a finding that the JV will create or strengthen the internal sustainability of the alleged potential for coordination.

The first point the CC notes on internal sustainability at paragraph 6.165(a) of the PFs is about the lack of differentiation. In this context, the Main Parties submit that the CC has failed to consider how Lafarge’s significant investment and development globally of VAPs has given it a differentiated position in the market in relation to other UK producers, while bringing substantially greater choice and cost saving opportunities to downstream customers. Further, the CC is aware that the JV’s future plans (including a material proportion of the accepted synergies from the JV) envisage building on this differentiation.⁴⁵ The investment in this differentiation is an important part of Lafarge and the JV’s future market positioning and significantly undermines the CC’s characterisation of the market.

Historically, the evidence submitted to the CC supports a lack of internal sustainability. This is clearly demonstrated by the movements in market share which the CC has failed to take into account. Horizontally, the JV makes the bulk cement market *less*, not more, symmetric so that the CC’s theory of harm that greater symmetry increases the probability of coordination is inapplicable to the JV or otherwise suggests that the JV reduces the probability of such harm emerging in the first instance.

Specifically, the JV results in greater asymmetries in market shares both at the upstream level of GB cement production *and* (contrary to the CC’s assertion) at the downstream RMX GB level (to the extent that this can be considered a meaningful “market” share given that competition in RMX occurs at a local level). According to the PFs measure of symmetry, the JV makes total cement production shares less symmetric: the JV would have a total GB production share around [X]. Therefore, on the analysis presented in the PFs, the JV could not be expected to make tacit coordination more likely via enhanced “symmetry”.

In addition, given the CC’s theory of harm of coordination on volumes/customers, the PFs fail to give any or to give appropriate weight to the different positions of UK

⁴⁵ See for example, Anglo American/Lafarge Merger Inquiry, Notes of a Hearing with Anglo American on 19 January 2012, page 115, line 9 to page 118, line 2; page 130 line 22 to page 140 line 14.

producers in the different types of cement, as set out in Appendix K. Paragraphs 24⁴⁶ to 26 of that Appendix state:

“24. Overall we observe that there has been some variation in the majors’ relative shares of cement sales and production over time. Between 2001 and 2010, Lafarge and Hanson have been losing share of total production, and Tarmac and Cemex have increased their share over time.

25. In terms of shares by product, Lafarge is the largest seller of CEM I, followed by Hanson and Cemex. When we exclude internal sales, the relative shares of [redacted] and [redacted] increase while those of [redacted] and [redacted] drop.

26. Looking at external sales only, Lafarge accounts for almost [redacted] of all CEM I external sales, followed then by Hanson and Cemex. When looking at cement other than CEM I, then Lafarge has an even larger relative market share between [redacted] and [redacted] per cent”.

This suggests movements in relative shares which are consistent with competition and inconsistent with the CC’s theory of harm, and in particular the theory of harm based on customer allocation advanced by the CC at paragraph 22 of Appendix K, where it contends that it does not agree that the asymmetry in portfolio necessarily makes coordination harder and that, in fact, it *“thought it could go the other way, and facilitate coordination by enabling majors to engage in some sort of customer allocations based on types of products”*.

The discussion of internal sustainability in the PFs also fails to give any or due consideration to the supply of bulk cement outside the RMX channel. As Annex 1 points out, this is around 50 per cent of external supply, (and the four major UK producers and AI have different positions in those downstream sectors) which compromises the assumptions made by the CC. For example, the JV would have no downstream concrete product or mortar operations, while Tarmac at present has concrete product operations in the form of Tarmac Building Products,⁴⁷ as do Cemex and Hanson. This is an asymmetry which the CC has failed to consider or address.

Indeed, at paragraph 6.146 of the PFs, the CC acknowledges that “the fact that coordination profits are potentially much larger than profits from competition is not sufficient for coordination to be internally sustainable: firms must also have the incentive to adhere to the coordinated outcome” and “[c]oordination will be internally sustainable if coordinating firms believe that deviations will be followed by a period of punishment, such that the loss of profit due to punishment are larger than the benefits of the deviation”.

If there is pre-existing coordination, the JV does not alter the number of firms in the coordinating group. Thus a larger share for the JV entails a *smaller* share for Cemex and Hanson; accordingly, by the PFs’ internal logic, Cemex and Hanson would thereby have a *weaker* incentive to coordinate. Coordination cannot, therefore, be presumed to become more stable. Moreover, the PFs appear to mis-apply the theory that as the number of players in a coordinating group falls, then a given “collusive pie” is shared among fewer players. However, as the number of

⁴⁶ The Main Parties note that, in relation to packed cement, an analysis of packed cement market share over a longer period, [redacted].

⁴⁷ See footnote 32 above.

players in an alleged coordinating group does not change, this theory does not apply.

(a) **Number of producers**

The Main Parties repeat their submission that, given that Tarmac [REDACTED] Therefore, if shorthand terms are to be used, the JV should not be characterised as a 4 to 3 but rather a 3 to 3 merger and this in itself ignores the impact of importers including AI/Holcim.⁴⁸

(b) **Cost similarities**

In relation to cost similarities, the suggestion at paragraph 6.203 of the PFs that the JV's costs will now be more like the average is not factually evidenced and not based on sound economic principles. The costs similarities suggested at paragraph 6.203 are irrelevant to assessing whether incentives are aligned. What is relevant is the impact on marginal cost not the impact on average cost⁴⁹. The Main Parties have seen no evidence to demonstrate that Lafarge plant costs are or are materially different from the current average. [REDACTED] In the most recent correspondence, the CC states "[REDACTED]".⁵⁰ The Main Parties do not accept this reasoning. First, this assertion is unsubstantiated by any empirical evidence made available to the Main Parties to respond to⁵¹ and the Main Parties note that corrections to the CC's analysis are required, which, at present, overstates Lafarge's costs⁵². Factually, therefore, the CC's analysis is likely to be flawed (the Main Parties refer to the cost data submitted to the CC on 12 March 2012).

Second, the analysis contained in the PFs is based upon an assessment of costs which excludes distribution costs, even though the PFs acknowledge that these distribution costs are an important part of a cement producer's overall costs.⁵³ The Main Parties submit that it is incorrect to exclude distribution costs as a relevant factor in variable costs. In particular, these costs are likely to be important given the differentiation in both plant and customer locations observed in GB.

Further, the CC's analysis fails to recognise the efficiency improvements that the JV will facilitate. The CC's approach amounts to suggesting that improvements in absolute and relative efficiency (see the Main Parties' estimates of variable cost synergies) will be anti-competitive in effect. As explained in section 6.2.2 of Annex 1 this is not supportable.

Insofar as RMX is concerned, the CC does not appear to take account of the significant investment by Lafarge in its VAPs. This is one of the value drivers in the

⁴⁸The Main Parties note that there are also a large number of competing suppliers, in the form of importers, including AI/Holcim and repeat their arguments that it is inappropriate for the CC not to attribute a greater competitive effect to importers than that which is currently attributed to Tarmac. AI/Holcim is a major player, supplied from its parent own international network of cement plants. This model is asymmetric and different from the domestic producers, but notwithstanding that AI/Holcim does not produce domestically, its model is consistent with being a market player. For this reason, the JV could be characterised as 5 to 4 or 4 to 4.

⁴⁹The Main Parties note that the marginal cost per tonne to supply internal RMX when demand increases will be highest for AI (importing or buying from local producers) and Tarmac (buying from local producers), followed by Lafarge when spare capacity is consumed and importing becomes necessary, and subsequently Hanson and Cemex.

⁵⁰Letter from Caroline Wallace to the Main Parties' advisers of 8 March 2012.

⁵¹The Main Parties are denied access to the underlying data, specifically in relation Appendix L, paragraphs 49 to 52.

⁵²[REDACTED]

⁵³Appendix L to the PFs, at paragraph 9.

synergies underlying the JV (enabling deployment of the VAPs across a broader RMX network) and the CC has failed to consider the dynamic of value in use to customers [§]. The Main Parties note that this will have a positive effect on market behaviour and is a further basis for asymmetry.

(c) **Vertical integration**

With regard to vertical integration, the PFs' discussion focuses on the CC's belief that vertical integration facilitates alignment, detection and punishment.⁵⁴ This reasoning is flawed in the current case. As with the upstream (cement) level, at the downstream (RMX) level asymmetry would likewise increase (as set out in section 2 of Annex 1). Following the JV there will be differences in share of supply between the JV and Hanson and the JV and Cemex at the RMX level. Such asymmetry in shares is likely to be a factor which would undermine coordination post-JV.

Further, the sustained growth in the market shares of non-major RMX producers at the expense of integrated producers indicates that the coordinated outcome postulated by the CC has not currently been achieved. Coordination on sales to this segment would imply that external non-major customers (notably non-major RMX producers, which accounted for 43 per cent of the non-major purchases of bulk cement in 2010⁵⁵) are paying inflated prices for cement and are thus disadvantaged relative to the downstream RMX operations of the majors. On this basis, the market shares at the RMX level of non-major RMX producers would be expected to decline over time. However, the RMX GB share of supply for non-major RMX producers has grown substantially in recent years at the expense of majors (from 25 per cent to 34 per cent over the period 2007-2010 when including supply from volumetric trucks⁵⁶).⁵⁷ It is surprising that this fact is not taken account of by the CC in its analysis. Once again, the picture of non-major RMX producer's market share growth is even more marked over a ten year time horizon.

Approximately 90 per cent of non-major RMX producers are found within 10 miles of a cement major's RMX site. This indicates that non-major RMX producers are able to obtain their cement requirements at competitive prices, either from GB-based cement producers or from importers. Indeed, cement importers are a key source of supply for the non-major RMX channel (in this regard, the market share held by importers is much higher than for the GB market for external cement as a whole: it was as high as 26 per cent in 2009 and has remained at or above 22 per cent).⁵⁸

In addition, the focus of the JV on making VAPs available to customers on a more widespread basis will also result in a divergence in alignment. [§]

Although Cemex and Hanson may appear similar with respect to their share of GB bulk cement volumes and their share of GB RMX sales in 2010, they in fact exhibit

⁵⁴PFs, at paragraphs 6.205 to 6.210.

⁵⁵Specifically, for bulk cement supplied externally in 2010 to non-major cement customers in GB, sales to the RMX sales channel accounted for 43 per cent of these sales.

⁵⁶The finding that non-major RMX producers have grown share is not dependent on the inclusion of supply from volumetric trucks; excluding supply from volumetric trucks, share for non-majors grew from 21 per cent to 27 per cent over the same period.

⁵⁷See RBB's economic response to the CC's proposed theory of tacit coordination submitted on 27 January 2012, section 2.4.3.

⁵⁸See RBB's economic response to the CC's proposed theory of tacit coordination submitted on 27 January 2012, Annex 1.

different commercial behaviour.⁵⁹ This market evidence indicates that there is no reason to presume similarity in vertical structure would lead to alignment in behaviour.

(d) **Cross sales**

Paragraph 6.211 of the PFs assumes “greater” cross sales following the JV on the basis of insufficient evidence. [REDACTED]⁶⁰⁶¹

Further, the CC places considerable emphasis on an apparently novel theory of coordination based on the notion of “repatriation”. Even if the JV retained some material scope for repatriation (which the Main Parties consider to be unlikely), the CC accepts that repatriation is not a credible punishment mechanism.⁶²

The assertion that repatriation could give rise to a clear and credible signal that would facilitate punishment lacks both empirical support (the JV may have no scope to repatriate) and theoretical merit (the harsher punishments allegedly being threatened via signalling are not credible). Repatriation actions by producers since 2006 reflect rational competitive behaviour to boost profitability by producing internally.

Moreover, the CC has not explained how maintaining [REDACTED] post-JV would provide the JV with an additional effective punishment mechanism, given that the arrangement is an even volume swap to secure logistical benefits.

(e) **Punishment mechanisms**

The CC concludes that the repatriation of cement volumes is potentially an effective mechanism for signalling and/or punishing deviation. The CC arrives at this conclusion on the basis of its analysis that repatriation is a swift, targeted mechanism, which, if used on a small scale for signalling (i.e. by repatriating small quantities), could reduce the risk of more costly punishment being required and, if used as a punishment mechanism on a large scale (i.e. by repatriating all or virtually all of volumes previously supplied) could inflict heavy economic damage on deviating firms whilst posing a low risk of destabilising the market.

⁵⁹ First, there are differences in the evolution of cement capacity over the 2007-2010 period; the Main Parties estimate that Cemex has increased capacity following its Tilbury investment while Hanson’s capacity has remained largely constant (indeed the PFs state that there is no suggestion of current or future capacity coordination (Appendix K to the PFs, at paragraph 57d). Second, the evolution in the share of the external supply of bulk cement shows substantial differences for Cemex and Hanson. The share of supply of bulk cement externally to non-major customers in the RMX channel has increased for Cemex by 3.3 per cent over 2007-2010 and has decreased for Hanson by 6.5 per cent over this period (see RBB’s economic response to the CC’s proposed theory of tacit coordination submitted on 27 January 2012, Annex 1). This is important because the PFs note explicitly that coordination might arise over share of supply (or customer wins and losses) to this channel (PFs, at paragraph 6.120b). Third, Cemex and Hanson have demonstrated different strategies in relation to the internalisation of volumes. The Main Parties estimate that Cemex has maintained a similar proportion of internal-to-external sales of bulk cement over 2007-2010. However, the Main Parties estimate that Hanson has increased its proportion of bulk GB sales which are internal from around [REDACTED] per cent in 2007 to over [REDACTED] per cent in 2010. Fourth, Hanson is not present in VAPs at the downstream RMX level while Cemex is present. Fifth, there are differences between Cemex and Hanson as regards their operations in cementitious products, with Hanson focusing on GGBS and Cemex on PFA.

⁶⁰[REDACTED].

⁶¹See Anglo American response to CC’s additional putback working paper on coordinated effects, comments at paragraph 6.98: [REDACTED]. See also Lafarge’s response to the CC’s additional working paper on analysis of cross sales of cement between the majors, comments at Footnote 13: [REDACTED]

⁶²PFs, at paragraph 6.216.

The Main Parties submit that the CC's analysis of repatriation is flawed and unsupported by the evidence presented in the PFs (and further does not appear to be supported by any economic theory that the Main Parties are aware of). The CC's analysis in respect of the identified punishment mechanisms is flawed for the following reasons:

- Lafarge currently sources an insignificant amount of cement externally and therefore does not have the ability to punish any "deviation" via repatriation.
- The CC's focus on repatriation as a mechanism for punishing deviations does not consider that repatriation is, by its very nature, a one-off punishment mechanism. Once volumes have been repatriated, they can no longer be used to deter subsequent deviation.
- An effective mechanism to punish deviations must be sufficiently plausible and effective to counterbalance the "*incentive and abilities to deviate*".⁶³ As repatriation is, in effect, a one-off punishment, the use of repatriation alone is unlikely to be a credible deterrent to deviation in the long term.
- The use of limited repatriation as a "cheap" signalling mechanism to warn deviating firms is predicated on the assumption that detecting deviations is a precise and immediate process.
- The assertion that repatriation was found to occur "*regularly in the last three years*"⁶⁴ is not substantiated by evidence presented in the PFs. The cited incidence of repatriation [§] contrary to the CC's speculation at paragraph 18 of Appendix O. [§]
- Moreover, the recognition at paragraph 6.216 of the PFs that repatriation may not be "particularly effective as punishment" leaves the CC's conclusions lacking a credible punishment mechanism.

In any event, repatriation is likely to be *less* effective post-JV, since the JV entity can be expected to internalise all cement and fully self-supply its downstream operations. Accordingly, there should be fewer cross-sales between the majors (and, therefore, less mutual market information) and, on this basis, the effectiveness of a deterrent system based on cross-sales would be undermined (and less mutual information exchanged).

In addition, as for incentives to deviate, the PFs assert⁶⁵ that *more* efficient cement providers may *gain* more from deviating and *less* efficient providers may find it *more* costly to punish *more* efficient deviating firms. However, were the JV to become more efficient (as the PFs suggest) this may mean that the JV gains more (compared to Lafarge) from *deviating* since, all things equal, a higher margin is earned following any given price cut. A gain in efficiency can also make a punishment phase more attractive for the same reason. In other words, a priori, it cannot be presumed that coordination becomes more or less stable as these effects work in different directions. Moreover, the reverse may apply for *other* members of a coordinating group. In other words, the impact of cost changes is

⁶³Case COMP/M.2389 *Shell/DEA*, at paragraph 121.

⁶⁴PFs, at paragraph 6.165.

⁶⁵PFs, at paragraph 6.203.

complex and ambiguous. It cannot be presumed that any change in the JV's cost structure would facilitate coordination without very careful analysis. The Main Parties note that the PFs have not provided a theoretical basis from which any asserted change in the JV's cost structure facilitates coordination.

The PFs conclude that if the JV punishes Cemex or Hanson by lowering the external price of bulk cement, the punishment mechanism is less costly than before.⁶⁶ This is flawed since such a strategy actually becomes *less* attractive for the JV because it would have more RMX sites than Lafarge does currently, thereby accentuating the harmful effect on its profits in the downstream market. Specifically, the inclusion in the JV of RMX sites formerly owned by Tarmac makes an across the board price cut *less* attractive because non-major RMX producers would be more competitive vis-à-vis RMX sites formerly owned by Tarmac. Further, the Main Parties note that RMX VAPs, which are a key component to the JV, [REDACTED] further differentiates the incentives of the JV.

Targeted price cuts are also less effective because, to avoid reducing profits earned by the JV's RMX sites, such price cuts would have to be targeted on local areas where the JV has no RMX presence. The addition of Tarmac RMX sites to the Lafarge cement and RMX portfolio therefore weakens the scope for effective punishment – it limits the range of areas where targeted price cuts would be attractive.⁶⁷ These points are developed further at section 3 of Annex 1..

The CC's assertion that "the proposed JV will also provide the JV entity with an additional tool to punish deviations which Lafarge currently does not have: the ability to punish other UK producers by lowering the RMX prices charged by its integrated RMX business"⁶⁸ is fundamentally flawed in that:

- The punishment mechanism would add substantial complexity to the terms of coordination which would need to extend to hundreds of local RMX markets: [REDACTED]. The CC has failed to consider how the alleged coordinating group would reach an understanding on the punishment mechanism or how this could credibly be targeted on a local or regional basis. Given the CC's analysis that "*realised prices for cement were not very transparent*" which is further compounded in the RMX market, it is not clear how a cement "deviator" might determine that it has been subject to punishment.
- It would be very costly for the punisher without necessarily having a marked impact on the deviating firm because the deviating firm's customers cannot be targeted due to the transitory nature of RMX contracts.
- Its use as a punishment mechanism would be significantly more costly for the proposed JV than it is for Lafarge today on account of the JV's significantly expanded RMX presence.

⁶⁶PFs, at paragraph 6.206.

⁶⁷The flipside of a weaker incentive to punish could be a greater incentive to foreclose non-major RMX producers. However, the PFs do not put forward a theory of harm in relation to unilateral or coordinated input foreclosure. In any event, both theories have been addressed by the Main Parties. Unilateral input foreclosure was addressed at Annex 1 to the Main Parties' Initial Submission of 30 September 2011; coordinated input foreclosure was addressed at Annex 7 to the Main Parties' Submission and in RBB's economic response to the CC's proposed theory of tacit coordination submitted on 27 January 2012, section 3.4.

⁶⁸PFs, at paragraph 6.209.

- It would often punish a member of the coordinating group that did not deviate (and thereby potentially destabilise tacit any alleged tacit coordination).
- It would impact on RMX producers outside the coordinating group and thereby risk causing a price cut that is hard to reverse (adding to the reduction in profits for the punisher).
- It would provide an additional mechanism by which cheating could occur (i.e. a feature that undermines coordination).

The PFs acknowledge that costly punishment strategies are *less likely* to be pursued as a punishment mechanism than as a signal to other members of the coordinating group that deviation has been detected.⁶⁹ The PFs' focus on repatriation as a punishment mechanism was due to the concern that other punishments would be far more costly to the punisher and thus less attractive.⁷⁰ Given that lowering RMX prices is likely to harm the punisher far more than the deviating firm (as explained above), the assertion that the JV materially increases the risk of this form of punishment being adopted is flawed and not based on economic analysis.

Moreover, if it were credible that lowering prices for RMX would have a marked and targeted impact on another party to the alleged coordinating group, this would then provide the JV with an enhanced tool for *deviating* as well as punishing. It therefore cannot be presumed that coordination would be made more likely or more stable even in this (unlikely) circumstance.

Consequently, whether the CC takes the view that the condition of internal sustainability is met already or not (and the Main Parties submit the evidence as a whole does not support such a finding), the evidence does not support even an expectation, still less a conclusion, that the JV makes such sustainability more durable and the PFs fail properly or at all to consider the evidence which supports the Main Parties' arguments.

The PFs suggest⁷¹ that “[o]ne available mechanism for punishment would be to reduce prices to the deviator’s customers so as to reduce the deviators’ sales volumes and margins. Such a mechanism appeared likely to be effective in this market given the lack of long-term contracts, regularity of cement purchasing, and customer price sensitivity. The scope for such a punishment mechanism to disrupt the market in general (in pushing industry prices down) was limited by the limited transparency of realized prices for cement, and it would therefore not be particularly costly to the punishing firm to implement”.

This seems to suggest that if a domestic cement producer offers a lower cement price to a competitor’s customer, this could be viewed as evidence of punishment of a deviator in the alleged coordinating group. This is perplexing, since such activity is presumably what would be expected in a competitive market and, of course, is currently taking place, on a regular basis today as demonstrated by the successful and failed switching data.

⁶⁹PFs, at paragraph 6.229.

⁷⁰CC’s coordinated effects putback working paper, at paragraph 64. See also Annotated Issues Statement, page 14.

⁷¹PFs, at paragraph 41c.

(iii) **External sustainability**

The CC concludes that coordination is likely to be externally sustainable at present on the basis that:

- In relation to the “competitive fringe” the evidence of the constraint imposed by importers was not sufficient to prevent UK majors exercising a degree of collective market power;⁷²
- It is likely that Tarmac at present does not have the same incentives to coordinate as other cement producers and it is therefore likely to be part of a competitive fringe. However, the CC acknowledged that [X] and therefore would not at present be able to further undermine the coordinated outcome other than by expanding its current capacity.⁷³
- As Tarmac has, to date, expanded its capacity on two occasions in the past 10 years, Tarmac may be perceived as a longer term potential threat to any possible coordination. After the proposed JV, the threat that the JV will expand capacity will be lower.

The PFs’ conclusions are not supported by the evidence and fail to give due weight to evidence which supports the Main Parties’ case that coordinated effects will not arise or be strengthened by the JV. In particular:

- The CC fails to give due weight to the role of imports as an external constraint;
- The PFs overstate the effect of the merger by mischaracterising the role of Tarmac and its impact on any coordination absent the merger (currently or prospectively);
- The CC’s assertion that Tarmac is part of the “competitive fringe” and therefore an external constraint on the alleged coordinating group is in direct contradiction to the statement that the removal of Tarmac improves internal sustainability reducing from 4 to 3 suppliers within the alleged coordinating group.
- The CC fails to give due weight to the Main Parties’ stated intention and desire to maximise VAPs in the RMX channel, an important differentiated approach which will result in a more focussed sales strategy based on the inherent value in use of VAPs to customers.

The CC fails to give due weight to imports

The CC’s analysis fails properly to take into account the potential impact of cement importers on competition in the market for cement. In particular, the CC’s conclusion that cement importers do not impose a sufficient constraint on the UK majors⁷⁴ is inconsistent with market shares for the supply of cement supplied to bulk non-major customers at both the GB and EPR level, which have been submitted to the CC. The Main Parties consider this to be relevant evidence demonstrating the substantial competitive constraint posed by importers on

⁷²PFs, at paragraph 6.171.

⁷³PFs, at paragraphs 4.10 and 6.221.

⁷⁴PFs, at paragraph 6.174.

domestically-produced cement, which shows that the market share of importers has been steadily increasing. In 2010, the share of supply of external bulk cement to non-major customers was approximately 18 per cent, which broadly accords with the 20 per cent share which the European Commission has typically regarded as being sufficiently significant to constrain leading suppliers from acting in concert,⁷⁵ particularly where there is evidence of such firms having competed with the leading suppliers.⁷⁶

The CC's disregard of import competition is also at odds with the European Commission's consideration of the UK market in its review of Heidelbergcement/Hanson where it considered that "any attempt to coordinate may be destabilised by the increasing constraint of imports, either by other competitors or by some customers. Currently there are some 20 cement terminals in Great Britain allowing for the discharge of cement and cement additives, not only owned by the major players but also by those with smaller presence such as Titan or Holcim or by independent undertakings or customers. The capacity of all of these import terminals account for around 6 million tonnes (representing around 35 per cent of the cementitious market) and it is only used at about 25 per cent".⁷⁷

Furthermore, several of the importers are international cement companies with tied producing plants (CRH, Titan, Cementos Portland Valderrivas, Quinn). These players have the incentive that the marginal cost of production is the variable cost + CO2 + freight, while their marginal capital employed is very low (for an import terminal). In some cases (Greece, Ireland and Spain), these companies are struggling to secure 100 per cent of their free CO2 allocations, since their domestic demand has fallen below the level where domestic demand allows them to exceed the 50 per cent historic production threshold. In this case, the economic incentives for exporting become even stronger. This provides an asymmetric dynamic, which is very different from domestic GB producers.

Crucially, in order properly to assess the merits of the theory of harm identified by the CC, it is important to understand competitive conditions among suppliers of bulk cement to non-majors; importers are key suppliers to this segment (and are individually far more important than Tarmac). As it is clear from Appendix O to the PFs that the Main Parties compete with importers in cement; the CC has in this case incorrectly disregarded the competitive effect of cement importers on the majors.⁷⁸

Further, the CC has failed properly to take into account the effect of importers on the market for cement for the following reasons:

- The PFs asserts that importers are a relatively weak constraint due to a higher cost base.
- The PFs' finding that the total costs of delivering cement to Great Britain are substantially higher for importers than for UK cement producers is

⁷⁵See, for example, Case COMP/M.1539 *CVC/Danone/Gerresheimer*.

⁷⁶See, for example, Case COMP/M.3216 *Oracle/PeopleSoft*, at paragraph 209.

⁷⁷Case COMP/M.4719 *Heidelbergcement/Hanson*, at paragraph 88.

⁷⁸Appendix O to the PFs, at paragraphs 9, 10, 12, 14, 20, 21, 22, 33, 48 and 51 and at Table 6. At paragraph 51, the CC concludes that "switching to/from importers is higher than we would expect from diversion ratios. Importers appear proportionally to be more active in gaining customers from the majors than other majors"

based upon an analysis in which the CC has not compared like-with-like. Specifically, the Main Parties note that the PFs inconsistently assess GB domestic producers' costs to supply on the basis of variable cost pricing, but assess importer costs to supply on the basis of pricing in excess of variable costs. This inconsistency has important consequences, since a like-for-like comparison would result in a decrease in estimated importer total costs to serve GB customers by [REDACTED].

- The PFs also fail to take into account [REDACTED]⁷⁹. As a result, the Main Parties consider that the analysis contained in the PFs of the cost to serve for a GB producer is not appropriate for the cement industry.
- The PFs' dismissal of imports on the basis of exchange rate risks is speculative and selective. The analysis contained in the PFs overlooks the ability of importers to gain market share over the period of 2007-2010. Further, the PFs speculate on cement industry demand over the long term, and ignore the most recent industry forecasts.⁸⁰The CC moreover speculates on exchange rate changes in the future but notably fails to take into account potential changes in the level of imports and the incentives of cement producers in the UK and outside of the UK arising from substantive regulatory change due to the introduction of the EU ETS Phase III in 2013.
- The PFs also fail to take into account internal documents on the importance of importers as a constraint, and which are inconsistent with the conclusion in the PFs that *"the UK major cement producers perceive imports as a significant threat, though this threat varies by region"*.⁸¹
- Even when examining the proportion of Lafarge and Tarmac external bulk delivered volumes supplied to non-major customers sold within a [REDACTED] mile radial of an import terminal, analysis shows that the majority (two thirds) of each of the Main Parties' relevant volumes are within close proximity to import terminals which do not belong to one of the major cement suppliers. The Main Parties note that a [REDACTED] mile radial is at the low end of the PFs' range of catchment area of importers (40-100 miles), with the 40 mile figure apparently based on two importers submitting that *"most of their customers were located within 25 to 40 miles"*.⁸²
- The PFs also note that two importers "served customers up to 100 miles away, and one importer told us that, although its customers tended to be local, it had a few small customers over 100 miles from its import terminal".⁸³ Consequently importers are able to compete over a greater distance than 50 miles.
- Moreover, Lafarge's estimates for GB importers (which cover all importers, not merely the delivery distances of individual importers submitting evidence to the Commission) indicate that around 80 per cent of bulk

⁷⁹See RBB's economic response to the Commission's proposed theory of tacit coordination submitted on 27 January 2012, section 2.4.4.

⁸⁰See Main Parties' Initial Submission of 30 September 2011, section 3.1.4.

⁸¹Appendix Q to the PFs, at paragraph 76.

⁸²Appendix Q to the PFs, at paragraph 43.

⁸³Appendix Q to the PFs, at paragraph 43.

cement volumes supplied by importers were distributed within [X] miles of import terminals.⁸⁴

The PFs therefore fail to give due consideration to imports, including to the continuing investment by Dudman in import facilities, which suggests their relative economic importance will increase.

Tarmac's participation in the JV cannot make a difference to the likelihood of Coordinated Effects

Since it is clear that Tarmac has not been and is not likely to be an effective external constraint on the allegedly coordinating group,⁸⁵ it is not credible to suggest that there is any change in the operation of this condition as a result of the JV.

Tarmac poses no material constraint on Lafarge (and by implication does not constrain an alleged coordinating group comprising Lafarge, Hanson and Cemex), not least because of the fact that, as the PFs accept, [X].

The PFs appear to argue that because [X], Tarmac is a fringe competitor with a strong incentive to expand (rather than reduce) its output.⁸⁶ However, the PFs accept that Tarmac has no ability to expand now, as it operates at full capacity.⁸⁷ Further, the PFs acknowledge that Tarmac has no incentive to expand [X] in the future⁸⁸ and is unlikely to do so.

It follows, therefore, that the CC's conclusion at paragraph 6.226 of the PFs that the JV would increase external sustainability "*because it would eliminate an existing market participant with a strong incentive to expand (rather than reduce) output*" are neither sustainable nor consistent with the evidence presented in the PFs.

Finally, in relation to RMX, it is noted that there has been an increase in competition from non-major RMX producers in recent years. The Main Parties submit that this evidences a lack of external sustainability in this market and further undermines any concerns the CC may have in respect of vertical integration and that the JV may attain greater symmetry with Hanson and Cemex.

3.1.1 Conclusions on the CC coordinated effects theory of harm

In this submission the Main Parties have shown that the many aspects of the CC's analysis of the impact of the JV on the likelihood of coordinated effects are flawed and that, taken as a whole, the findings of the PFs, including its Appendices, do not support the conclusions reached. In particular:

⁸⁴Appendix Q to the PFs, at paragraph 49.

⁸⁵PFs, at paragraphs 6.179 – 6.181 and 6.219.

⁸⁶PFs, at paragraph 46.

⁸⁷PFs, at Appendix K, paragraph 57(b): "[s]ince 2009, capacity utilization has generally reduced. Lafarge, Hanson and Cemex are currently operating with substantial excess capacity. Tarmac is still operating close to full capacity at present."

⁸⁸PFs, at paragraph 4.10: "we did not consider that Anglo American's potential expansion plans at Tunstead were sufficiently certain or near-term to form part of an appropriate and foreseeable counterfactual, given the lead time to bring the second kiln into operation and the prevailing market conditions." A further inconsistency in the PFs is the statement that: "[a]fter the proposed JV, the threat that the JV entity may expand its capacity further will be lower as it will already benefit from Lafarge's excess capacity" (at paragraph 6.221). However, this is a redundant claim since the PFs accept that neither Tarmac nor Lafarge would expand their capacity in the counterfactual, as noted in PFs, at paragraphs 4.10 and 4.12.

- (i) Reaching and Monitoring Coordination
- There are good grounds for concluding the JV would on balance destabilise any coordination, if such existed;
 - There is significantly less transparency than the CC asserts; such transparency as exists is neither immediate nor precise and does not therefore facilitate the theory of coordination postulated; and
 - Such transparency as exists now (through Lafarge's approach to gathering market intelligence) is unchanged by the JV and the postulated increase in transparency adds nothing to Lafarge's current market intelligence or to transparency within the market as a whole.
- (ii) Internal Sustainability
- The PFs give no or insufficient weight to the likelihood that the JV increases the incentives of Hanson and Cemex to compete more aggressively;
 - The PFs' analysis of cost similarities is likely to be flawed; the Main Parties repeat again their concerns that they and/or their advisors have not been given access to the relevant evidence in order properly to assert their procedural rights;
 - The PFs' analysis of the impact of increased vertical integration and greater RMX presence gives no weight to the dynamics of RMX supply and of competition among producers and importers to supply that channel; and
 - The PFs' analysis of punishment mechanisms is fundamentally flawed.
- (iii) External Sustainability
- On external sustainability the PFs conclusions are simply not supported by the underlying analysis on Tarmac's relative external importance.

It thus follows that there is insufficient analysis and reasoning to support a finding that the formation of the JV has any adverse effect on the likelihood of coordination in this market, and certainly not a finding to this effect to the requisite legal standard of the balance of probabilities.

4 Comments on the Provisional Findings

The following responds to the PFs in relation to matters other than co-ordinated effects in cement.

4.1 Market definition

4.1.1 Aggregates

The Main Parties have explained to the CC that they consider the relevant market to be that for all aggregates (i.e. including primary, secondary and recycled

aggregates).⁸⁹ The Main Parties strongly believe that recycled and secondary aggregates should be considered as part of the relevant market for all aggregates⁹⁰ and not simply considered after filters based on segments of primary aggregates have been applied. Moreover, it appears that in its analysis the CC has not considered in full the competitive constraints from recycled and secondary aggregates even as “out-of-market” constraints (see 4.2.3 below).

Furthermore, the Main Parties do not consider that it is appropriate to look at competition for the supply of sand and gravel and crushed rock separately and consider that such an approach to assessing competition within segments of the relevant market is extremely cautious.⁹¹ However, the CC has made an assessment of substitutability of sand and gravel and crushed rock by application in the PFs and has decided to assess competition for the supply of sand and gravel and crushed rock separately, as segments within the market for primary aggregates⁹² (and accordingly has applied a fascia reduction filter to sand and gravel and crushed rock separately to identify problem areas⁹³). In particular, the CC has noted that crushed rock is the aggregate type most used in the production of asphalt.⁹⁴

In considering the use of aggregates by application, the CC should note that the Main Parties do not currently compete to any significant extent to supply aggregates to non-integrated asphalt producers. The CC has recognised in the context of its vertical effects analysis that “*the main parties’ supply shares in all primary aggregates [including crushed rock] to non-integrated asphalt producers are negligible.*”⁹⁵ Therefore, for the purpose of considering the competitive impact of the JV it is not necessary to consider any aggregates market definition derived from concerns relating to asphalt end use. Similarly, it is not necessary for the CC to consider narrower product segmentation (e.g. by considering crushed rock separately) in order to consider the effect of the proposed merger on non-integrated asphalt producers.

Similarly, the Parties are not major suppliers of aggregates to non-major RMX producers. According to a recent BDS report,⁹⁶ Tarmac and Lafarge together accounted for only around [X] per cent of aggregates supplied to all GB non-major RMX producers and there are no overlaps in many regions.⁹⁷ This is consistent with the CC’s finding as part of its vertical effects analysis that “*the parties’ shares*

⁸⁹See in particular Anglo American’s submission of 9 January 2011 on relevant product market definitions for non-cement products and also Anglo American’s and Lafarge’s submissions of 6 January 2012 in response to the putback on product market definition for non-cement products.

⁹⁰The Parties note that third parties have also explained to the CC that they consider recycled/ secondary aggregates to be substitutable with primary aggregates, consistent with this view. In particular, see the submission of Hanson (31 October 2011) and the summary of the hearing with Cemex held on 12 October 2011 (paragraph 6), amongst others.

⁹¹See in particular Anglo American’s submission of 9 January 2011 on relevant product market definitions for non-cement products.

⁹²As set out in paragraph 5.32 of the PFs: “*in view of the limited substitutability between crushed rock and sand and gravel for certain applications (especially asphalt production), in the competitive assessment we consider the possible different competitive constraints arising for these two market segments, as well as specific products within these segments.*”

⁹³As part of the CC’s “catchment area analysis”.

⁹⁴PFs, at paragraph 5.29.

⁹⁵Appendix R to the PFs, at paragraph 37.

⁹⁶Aggregates supplies to ready mixed concrete plants, BDS, November 2011.

⁹⁷Tarmac and Lafarge do not overlap in sales to independent RMX producers in the South West, East Anglia, Yorkshire & Humberside, the North West and the Northern EPRs.

*in the supply of 'crushed rock' to non-integrated RMX suppliers do not exceed 20 per cent even if the more conservative measure of supply share in all external sales of crushed rock is used.*⁹⁸ In addition, as argued previously by the Main Parties, given that crushed rock and sand and gravel of the same grades are functionally substitutable, no preference for a specific type of primary aggregate exists for RMX or concrete product producers.⁹⁹ As a result, a narrower segmentation by aggregate type in the competitive assessment is not justified.¹⁰⁰

Apart from the use of aggregates in the production of asphalt and RMX (where the Main Parties do not overlap in external sales to independent producers to any significant extent), the other main application for aggregates is in general construction use.¹⁰¹ In general construction applications, primary aggregates face direct competition from recycled/secondary aggregates. The Main Parties have made a number of submissions to the CC which demonstrate that recycled/secondary aggregates directly constrain primary aggregates.^{102,103} The CC's survey produced evidence of actual switching from primary to secondary/recycled aggregates (mainly driven by price)¹⁰⁴ and other third party producers of aggregates have provided evidence to the CC supportive of this view (e.g. Al and Breedon).^{105,106}

For these reasons, the Main Parties continue to consider that it is not appropriate for the CC to assess competition within any segment of the market narrower than that of all aggregates. The fact that the CC has taken a cautious approach in focusing on narrow segments of the relevant markets should be reflected in the assessment of local competitive effects (i.e. the threshold for identifying an SLC should be significantly higher as a result of the unduly narrow lens adopted).

⁹⁸Appendix R to the PFs, at paragraph 39.

⁹⁹The same point can be made with regard to functional substitutability between primary and recycled/ secondary aggregates by grade. See, for example, sections 2.1 and 2.2 of Anglo American's submission of 9 January 2011 on relevant product market definitions for non-cement products.

¹⁰⁰In relation to the use of aggregates in concrete products, the Main Parties note that concrete products account for only around 11 per cent of construction aggregates usage (excluding specialist aggregates) by volume (please refer to Table 4 of Appendix G to the Provisional Findings). Moreover the Main Parties have provided evidence that sand and gravel and crushed rock are functionally substitutable in concrete products end uses (as explained to the CC in response to the putback on the relevant market definition for aggregates, asphalt and RMX).

¹⁰¹General construction accounts for around 80 per cent of the non-asphalt and non-RMX construction aggregates usage by volume in Great Britain See Table 4 of Appendix G to the PFs.

¹⁰²See, for example, sections 4.1.1 – 4.1.2 of the Main Parties' Submission of 30 September 2011 ("**MPS**").

¹⁰³In particular, around 47 per cent of all aggregates used in general construction are from recycled secondary sources See, for example, Table 5 of Appendix G to the PFs. Paragraph 50 of Appendix G states that "the main motivation for this switching was price."

¹⁰⁴As summarised in paragraph 47 of Appendix G to the PFs, 49 per cent of respondents had switched from primary to recycled/ secondary aggregates in the last three years.

¹⁰⁵As summarised in paragraph 53 of Appendix G to the PFs.

¹⁰⁶A separate assessment of competition for the supply of sand and gravel and crushed rock is also inconsistent with OFT and European Commission precedents on the relevant market definition, as summarised in paragraph 102 of Appendix G to the PFs.

4.1.2 Asphalt

The Main Parties support the CC's conclusion that there is a single relevant market for the supply of asphalt and that it is not appropriate to define a separate market for asphalt produced by 24/7 plants for the reasons previously stated.¹⁰⁷

4.1.3 RMX

For reasons previously given to the CC, the Main Parties disagree with the treatment of volumetric trucks as being "outside" of the relevant product market for RMX.¹⁰⁸ In the experience of the Main Parties, volumetric truck operators compete directly with them for small scale jobs, as well as high specification work.¹⁰⁹ The Main Parties are not aware of any quality issues associated with concrete produced from volumetric trucks, strength and specification for RMX being a function of the inputs used in production (which can be flexed to meet different strength requirements and specifications) and any such claims in relation to quality issues are unsubstantiated.¹¹⁰ The evidence provided by Cemex, Allen Newport and Hillhouse¹¹¹ is supportive of the Main Parties' view that volumetric trucks can supply RMX to the same specifications as fixed RMX plants.

The Main Parties do not regard fixed and site plants as being in direct competition with each other due to the different competitive processes involved in relation to the decision to use a site plant. In particular, RMX site plants are set up to supply specific construction projects and therefore the vast majority of sales are not supplied to the general market (i.e. there is competition "for" rather than "in" the market). Whilst the CC has treated fixed and site RMX plants as part of the same relevant market, this significant competitive difference should be taken into account in the local competition assessment (see further section 4.2.3(iii) below).

4.1.4 Cement

The Main Parties consider that the relevant market is the market for the supply of grey cement.

For the reasons previously explained, in the Main Parties' view, it is not appropriate to look at competition for the supply of CEM I and domestically produced cement separately. From a demand side perspective, customers are able to switch from other types of cement. Cement producers are able to source those cementitious products required to produce CEM II and CEM III, such as PFA and GGBS. Producers are able to switch from producing CEM I to other types of cement. For example, cement works which have milling and blending facilities and storage for cementitious products and the end products could readily switch production to blended cements. This was supported by third party views.

¹⁰⁷Section 4.2.2 MPS and Anglo American's response to Question 13 of the CC's Market Questionnaire, submitted 24 October 2011.

¹⁰⁸See in particular Anglo American's submission of 9 January 2011 on relevant product market definitions for non-cement products and also Anglo American and Lafarge's submissions of 6 January 2012 in response to the putback on product market definition for non-cement products.

¹⁰⁹The Parties provided examples of jobs lost to volumetric trucks in response to question 17 of the Market Questionnaire. [X].

¹¹⁰Paragraph 5.51 of the PFs.

¹¹¹As summarised in paragraph 99 of Appendix G to the PFs.

Relying on the GfK survey, the CC concludes that the ability and willingness of customers to switch from CEM I to other types of cement appeared to differ depending on application. For the reasons previously explained by the Main Parties, inferences drawn by the CC in respect of its customer survey data are biased in relation to the use of evidence of customer switching, subjective assessments and customer and competitor behaviour.

4.2 Unilateral effects

4.2.1 The CC's catchment area analysis for aggregates, asphalt and RMX

The Main Parties remain of the view that the CC has failed to establish an economic basis for applying different average radials to Lafarge and Tarmac sites. In particular, the CC has justified its approach by arguing that "the confidence intervals around the mean radii of each of the Main Parties are fairly narrow, indicating little variation in the averages of individual sites of the Main Parties".¹¹² However, the Main Parties note that the CC has obtained narrow confidence intervals around the mean catchment because its calculations were based on a methodology that likely underestimates the true variations in catchment radii across sites.¹¹³

Moreover, even if the confidence intervals estimated were relatively narrow, it does not necessarily follow that a Lafarge site could not compete over the same distance as a Tarmac site and vice versa.¹¹⁴ The approach also implicitly assumes that third party competitors would compete over differing distances when competing against Tarmac or Lafarge. The result that very different competitive constraints are apparently imposed on Lafarge and Tarmac sites which are located in close proximity (for example, Dowlow and Tunstead) is clearly not credible in this regard; the CC has not put forward any evidence to demonstrate why, intrinsically, one of the Main Parties can compete more effectively over a wider distance than the other.

In addition, the CC has not put forward any evidence to justify the distinction between the catchment areas of urban/non-urban sites, in asserting that "there are reasons to expect competition to take place over a shorter distance in urban areas due to slower travel speed due to congestion".¹¹⁵ As previously indicated by the Main Parties,¹¹⁶ actual delivery distances are affected by the relative locations between a site and the point of demand, and the fact that a site based in an urban area typically has a delivery distance smaller than that of a site based in a non-

¹¹²PFs, at paragraph 6.14.

¹¹³Specifically, as noted in the email from RBB Economics to the CC on 23 January 2012, the underlying data for the CC's estimation of confidence intervals around the mean radii is disaggregated at a customer, easting/northing and supplying site level (rather than only at site level). As a result, there are duplicate entries for the 80th percentile catchment distance estimated for each site which has led to a substantial underestimation of the true variations across sites. The Main Parties note that if the confidence intervals had been correctly estimated on data aggregated at a site level (i.e. keeping only one observation per supplying site), the variations in the catchment across sites would have been considerably larger.

¹¹⁴For example, for primary aggregates the CC has applied an [] mile radial for Lafarge Thrislington and a [] mile radial for Tarmac Coxhoe, even though the quarries are located relatively close to each other (c. 2 miles) and they should therefore be subject to constraints from a similar set of competitors.

¹¹⁵PFs, at paragraph 6.14.

¹¹⁶Please refer to the email from RBB Economics and the associated note entitled "Anglo American plc/Lafarge S.A./JV: CC's catchment area analysis" sent to the CC on 4 January 2012.

urban area does not mean that the urban site could not compete over the same distance as a non-urban site. Neither does it imply that a non-urban site would not constrain the urban site.

Similarly, the fact that products distributed from rail-linked depots are transported over shorter distances does not justify the use of narrower individual radials for each depot.¹¹⁷ In general, although depots are located closer to the demand locations (thus leading to shorter distances), they compete for customers with quarries that are located further afield.

Moreover, the CC has not considered the scope of the “true” relevant geographic market of the “possible problem areas” filtered by the catchment methodology. In particular, in determining the relevant geographic scope, the CC has not taken into account the economically viable delivery distances of the products and how they are affected by transport costs, nor has the CC assessed how the geographic scope will be affected by a small but significant non-transitory increase in prices (SSNIP). As noted in the CC/OFT Merger Assessment Guidelines, “*the geographic market identified using the hypothetical monopolist test will typically be wider than a catchment area*”. Indeed, the catchment distances estimated by the CC in Table 1 of Appendix I to the PFs are in most cases narrower than 30 miles, which the Main Parties consider to be the approximate distance that aggregates can be delivered economically.

4.2.2 The CC’s price concentration analysis as a filter for SLC assessment¹¹⁸

The methodology of the CC’s catchment area analysis relies on the results of its price concentration analysis (“PCA”). In that regard, the Main Parties strongly disagree with the CC’s conclusion that “in terms of the primary aggregate products considered, Lafarge’s plants tend to have a negative effect on Tarmac’s prices”¹¹⁹ and that “Lafarge’s presence nearby currently appears to constrain Tarmac’s pricing for a number of primary aggregates products, this analysis suggests that the disappearance of Lafarge as a competitor would be likely to lead to an increase in Tarmac’s prices”.¹²⁰

First, as noted by the CC, the effects found are not observed for all primary aggregate products and some results are counterintuitive,¹²¹ and therefore the generalisation in the CC’s statements above is inconsistent with the findings of the CC’s analysis.

Second, in relation to the only two Tarmac products (roadstone sub-base and graded 40mm max) for which the CC has found some “statistically significant” negative price effects due to Lafarge’s presence, the magnitude of the effects (at 2 - 3 per cent and 1 - 2 per cent respectively) is small (i.e. not economically significant). These two products are used in construction applications and are substitutable with recycled and secondary materials. Graded 40mm is also used in

¹¹⁷According to paragraph 8 of Appendix I to the PFs, the CC has “*computed individual averages for each rail-linked depot, as products distributed from depots can be transported over shorter distances*”. It is still unclear to the Main Parties how the CC has accounted for third-party depot volumes in determining the shares around depots.

¹¹⁸Further comments on the CC’s price concentration analysis in particular in relation to the assessment of coordinated effects in cement are provided in Annex 1 below).

¹¹⁹PFs, at paragraph 6.10.

¹²⁰PFs, at paragraph 6.10.

¹²¹PFs, at paragraph 6.10.

the production of RMX and concrete products and can be substituted with slag aggregates, recycled asphalt products (RAP) and other secondary aggregates in these applications. The Main Parties are of the view that a filter to identify problem areas based on such weak effects found in the PCA is not justifiable.

4.2.3 Local competitive analysis

(i) Aggregates

The Main Parties have explained that they expect that the JV will continue to be constrained post-completion within each local market for aggregates, in particular due to:

- Competition from other primary aggregates suppliers, including independents and regional/local producers, which are effective competitors in every local market in which the JV will operate.
- Significant excess capacity in the hands of competitors, which could be utilised should the JV seek to increase prices – please refer to Annex 2 to this submission which sets out the levels of estimated third-party excess capacity in each of the problem radials identified by the CC.¹²²
- Competition from recycled and secondary aggregates producers: the CC has stated in the PFs that although recycled/secondary aggregates are excluded from the relevant market for primary aggregates, they would be considered in the local competitive effects analysis.^{123 124} Recycled aggregates, in particular are a significant source of competition especially in areas close to the major conurbations, where they are often produced in close proximity to customer locations (thereby enjoying an additional cost advantage over primary aggregates delivered from quarries located at greater distances). When recycled and secondary aggregates producers are taken into account, the JV's shares of production are generally (and sometimes very significantly) lower in most radials. Moreover there are a large number of competing suppliers to the JV in every local market.

Significantly, it is not clear from the PFs the extent to which the CC has considered secondary and recycled aggregates in the local competitive effects analysis. In paragraph 6.27 of the PFs, the CC explained that it has not pursued possible problem areas with

¹²²Given the lack of meaningful capacity measures for aggregates, the Main Parties proxy capacity for each individual site with the site's maximum annual output between 2007-2010. Within each radial, the per cent of third-party excess capacity in 2010 (the latest year for which data is available) is calculated as the total excess capacity of all third-party sites (i.e. total capacity minus 2010 output) divided by the total capacity. Please note that as a site may have operated below capacity even at the peak 2007-10 output level, this methodology is conservative and may underestimate the level of true excess capacity. Please also note that the Main Parties have only been able to estimate capacity for production sites (and for radials defined around production sites), as volume data is not available for third-party rail depots.

¹²³As set out in paragraph 5.27 of the PFs.

¹²⁴The level of spare capacity held by third parties represents on average over 40 per cent of the JV's volume in 2010 across all problem areas identified by the CC.

combined shares of production of less than 33 per cent on a primary aggregates basis.¹²⁵

- The highly competitive selling process where jobs and prices are invariably determined via negotiation or tender (whether formal or otherwise): suppliers in construction material markets face large and experienced buyers that establish customer specific terms and are accustomed to multi-sourcing and shopping around for the best terms of supply. These types of customers have sophisticated procurement teams that obtain competitive terms of supply through effective negotiation or via competitive tenders (e.g. formal requests for proposals to suppliers). Further, many customers are repeat buyers, often with a regional or GB-wide scope, and thus have a good knowledge of prices across any particular region or across GB more generally, which can be used to negotiate competitive terms of supply.

For these reasons, the Main Parties are of the view that the CC has adopted an unjustifiably conservative approach by applying in effect a 33 per cent screen on a primary aggregates only basis and by segmenting between sand and gravel and crushed rock in concluding on SLCs in the problem areas identified. Based on the share of production ranges provided by the CC,¹²⁶ of the 22 aggregates “problem” areas identified by the CC, at least two areas¹²⁷ have combined shares of production below 30 per cent on an all aggregates basis and below 40 per cent in at least ten other areas.¹²⁸ Even considering “primary aggregates only” more conservatively, of the 22 local “problem” areas, seven have combined shares of production below 40 per cent,¹²⁹ the indicative threshold set out in the CC/OFT Merger Assessment Guidelines below which unilateral effects concerns in homogenous products should not arise.

Site specific comments

In relation to the problem radials listed below, the Main Parties consider the JV will not result in an SLC for the following reasons:

- (a) Wensley (Tarmac); Swinden (Tarmac); Clitheroe (Tarmac) Dry Rigg (Lafarge) - product reclassification

In their meeting with the CC on 28 February 2012, the Main Parties explained that certain high PSV products produced by [X] were incorrectly classified as generic construction aggregates in the transaction data provided to the CC. Lafarge has provided the CC with the information to correct this data error. The implication of this

¹²⁵According to the CC’s clarification subsequent to the publication of the PFs, the 33per cent screen referred to primary aggregates (please refer to email from David du Parc Braham to Simon Bishop on 28 February 2012).

¹²⁶Appendix I to the PFs.

¹²⁷Tarmac Agecroft and Bredbury.

¹²⁸Lafarge: Cadeby, Dowlow, Whitwell and Ashbury and Tarmac: Clitheroe Bankfield, Hendre, Holme Hall, Swinden, Tunstead, Wensley.

¹²⁹Lafarge: Thrislington; Tarmac: Ballidon, Caldon Low, Dene, Wensley; Scorton, Swansea.

reclassification is that¹³⁰. The small increment, when considered together with the high prevailing levels of excess capacity and the significant competitive constraint from secondary and recycled aggregates, means that the JV would not give rise to a substantial lessening of competition in these areas.

- (b) Ashbury depot (Lafarge) Agecroft Aggregates Handling (Tarmac); Bredbury Aggregates Handling (Tarmac); Dowlow (Lafarge); Tunstead (Tarmac)

As set out above, the Main Parties do not believe the CC has given sufficient consideration to the competitive constraints of recycled aggregates in its local competitive assessment. As explained in the submission by the Main Parties on 1 February 2012, the [redacted] of the sales from Ashbury, Agecroft, Bredbury, Dowlow and Tunstead¹³¹ are made into the Greater Manchester area, which is the largest conurbation area and biggest demand centre served by these sites. The Main Parties estimated that within a very conservative 10 mile radial of Manchester city centre, there are 18 third party fixed recycling sites operated by 16 different operators producing a combined annual volume of 1,500kt [redacted]. This demonstrates a very significant presence of recycled aggregates within these radials. A number of the recycled aggregates sites within the Greater Manchester area are fixed installations, which are not transient in nature. Secondary aggregates predominantly from slate works located in North Wales are also sold in Greater Manchester.

Furthermore, the Main Parties note that a number of local authorities within the Greater Manchester area (whose projects give rise to some of the largest contracts) have stated a preference for using recycled material over primary aggregates.¹³²

- (c) Bury St Edmunds Aggregates Handling (Tarmac)

The Parties note that the CC no longer considers the radial around Bury St Edmunds to be problematic, which was due to an error in the calculation of the radial around this site, which led to a miscalculation of shares of production within this radial.¹³³

The Parties understand the CC is checking whether such errors affect other areas which the CC has identified as problematic and would welcome confirmation of this.

(ii) Asphalt

The JV will continue to be constrained post-completion within each local market for asphalt, in particular due to competition from alternative

¹³⁰[redacted]

¹³¹[redacted].

¹³²For example, John Hopkins Contractors and ARM (Alternative Recycled Materials), both suppliers of recycled aggregates, have secured contracts for Trafford and Manchester City Councils respectively. Similarly, United Utilities (a major utilities provider in the North West), has publicly committed to using recycled products in its CSR report.

¹³³The Main Parties refer to the email from David du Parc Braham of 2 March 2012.

suppliers, which are effective competitors and will remain in or just outside the radials of those areas where the number of competing fascia has been reduced from three to two as identified by the CC.

(iii) RMX

In RMX, the JV will continue to be constrained post-completion within each local market, in particular due to:

- Competition from volumetric trucks: the Main Parties have explained to the CC that they face direct competition from volumetric trucks and consider that they should be treated as forming part of the relevant market for RMX (see section 4.1.3 above); competition from volumetric trucks will continue to constrain the JV post-completion. The CC has recognised that volumetric trucks constrain RMX suppliers operating from fixed plants and has stated in the PFs that it will take into account the competitive constraint exerted by volumetric trucks in its competitive assessment.¹³⁴
- Competition from other RMX producers.
- Significant excess capacity in the hands of competitors, which could be utilised should the JV seek to increase prices.¹³⁵
- Relatively low costs of entry into the production of RMX, as acknowledged in the PFs.¹³⁶

Site plants vs. fixed plants

The Main Parties disagree with the CC's approach to assessing competition between RMX site plants and fixed plants. The Main Parties submit current or historic RMX site plants should not be included for the purposes of calculating radial shares of production.

Competition for the establishment of an RMX site plant takes place at the point when the customer puts the job out to tender, i.e. at the point which a customer can consider using fixed plants as alternatives. However, once a customer has decided to use a site plant for a construction project (usually a large scale or long life project¹³⁷), the site plant being set up will not compete for other jobs in the local vicinity (and will usually, under contract terms supply only to the customer on site: i.e. the plant is captive to the customer in question and does not compete in the external market).

¹³⁴PFs, at paragraph 5.51.

¹³⁵According to the customer survey (paragraph 51 of the GfK report), "[v]irtually no RMX Competitors said they had been operating at full capacity, just over half (56per cent said they had some spare capacity and 41per cent said they had a lot of spare capacity."

¹³⁶Appendix S to the PFs, at paragraph 102 states: "we concluded that the initial capital requirement for a new RMX plant of between £0.3 million and £3 million was generally not considered to be a significant barrier to entry, in particular since the range of capital costs for 'efficient' sized entry was considerably lower for RMX than for any of the other relevant products."

¹³⁷Evidence submitted to the CC by Hanson, Breedon and Aggregate Industries is consistent with the Main Parties' experience that RMX site plants are only suitable for large projects.

Therefore, the Main Parties submit that a site plant should be excluded from the local share assessment, similar to the approach adopted by the CC in the calculation of catchment distances.¹³⁸

Site specific comments

In relation to the Great Yarmouth (Tarmac/Carter JV) problem area, the Main Parties consider the JV will not result in an SLC for the following reason: there is an additional site operated by The Concrete Company within the Great Yarmouth radial which has not been identified within the CC's analysis. Including this site, the fascia reduction is only 4 to 3 (and not 3 to 2).¹³⁹

4.2.4 High purity limestone

The Main Parties maintain that the JV will be constrained by alternative potential suppliers when the next power station contract for the supply of high purity limestone ("HPL") for flue gas desulphurisation ("FGD") comes up for renewal. Given the long term nature of supply agreements for HPL for FGD (generally between five and ten years), competition occurs at the point of re-tender. Whilst the agreements are on-going, [REDACTED].

It is noted that Cemex have provided evidence to the CC that they could potentially supply HPL for FGD from the Dove Holes quarry (which is rail linked) and also from their Raynes and Halkyn sites.¹⁴⁰ Hanson has also provided evidence that it could supply HPL for FGD from Batts Combe, Shap, Horton and Pateley Bridge.¹⁴¹ Hanson's Shap quarry at Penrith, Cumbria is rail linked and currently supplies HPL for sinter application to Tata Steel at Teesside (Hanson also used to supply and will shortly resume supply to the new owners of Teesside Steelworks SI UK Ltd). The Shap quarry has sufficient capacity to supply HPL to Tata and also to supply power stations with HPL for FGD.

The Main Parties expect that Cemex and Hanson are likely to bid for the next power station supply contracts which come up for renewal (E'ON has told the CC that it asked for quotes from Tarmac, Lafarge and Hanson¹⁴² and Cemex has told the CC that it has tendered to supply HPL for FGD in the past¹⁴³).

The CC has redacted what it considers to be the number of possible suppliers of HPL and its assessment of the reduction in the number of suppliers resulting from the JV from paragraph 6.76 of the PFs. The Main Parties understand that there are currently four producers with rail linked quarries which are potential suppliers for HPL for FGD: Tarmac (from Tunstead); Lafarge (from Dowlow); Cemex (from Dove Holes); and Hanson (from Shap quarry). Therefore, at the most the JV will result in a reduction in the number of potential suppliers of HPL for FGD from rail linked quarries from four to three (and a lesser reduction if non-rail linked suppliers, which

¹³⁸PFs, at paragraph 6.23(h).

¹³⁹We refer to the submission of 8 March 2012 providing further information on The Concrete Company in this radial.

¹⁴⁰PFs, at paragraph 6.56.

¹⁴¹PFs, at paragraph 6.56.

¹⁴²Appendix J to the PFs, at paragraph 11.

¹⁴³Appendix J to the PFs, at paragraph 15.

in practice constrain the Parties in setting prices for HPL for FGD, are taken into account).

The CC's statement that the source of HPL for FGD has to be located close to the power station is incorrect.¹⁴⁴ Transport by rail enables transport over greater distances than by road. The Parties have explained that they transport HPL up to [X] miles¹⁴⁵ and consider that it would be economic to supply over greater distances as evidenced by Hanson's supply to Tata Steel at Teesside.

With regards to the CC's approach to the assessment of competition for the supply of HPL for FGD, the CC has not defined a separate relevant market for HPL for FGD but has conducted an assessment of competition within this narrow segment. This approach is extremely cautious and the CC should be conscious of that in determining the extent of any SLC identified.

As a final point, the Parties note that the overall size of the market for HPL for FGD is small (estimated at [X] kt in 2010). Furthermore, [X]¹⁴⁶

4.3 Vertical effects

4.3.1 Aggregates into asphalt and/or RMX

The CC has considered whether the JV could lead to full or partial input foreclosure in relation to the supply of aggregates to downstream asphalt and RMX producers and has concluded that the *"JV was not likely to result in an SLC as a result of vertical effects in relation to aggregate supply into asphalt and/ or RMX"*.¹⁴⁷ The CC's finding that the JV will not be in a position to foreclose downstream asphalt and RMX producers by any means (such as price discrimination or by refusal to supply) is thus clear and this finding is supported by the Main Parties.¹⁴⁸

The Main Parties note that in response to their submissions on the CC's working paper on the vertical theory of harm – aggregate supply into asphalt and/or RMX, the CC no longer refers to the existence of "significant" market power as a condition to establishing a vertical effect resulting from the JV (the CC now only refers to the existence of market power, rather than significant market power).¹⁴⁹

The Parties maintain that it is an unduly cautious approach to set the filter for establishing an ability to foreclose using a market share threshold of 30 per cent, particularly given the very cautious approach adopted by the CC in looking at competition within segments of the relevant market identified for primary aggregates. It is not credible to suggest that a player with 30 per cent of a very narrowly defined market segment would have the ability (or incentive) to operate

¹⁴⁴Contrary to comments from E'ON, as set out in Appendix J to the PFs, at paragraph 11. Anglo American previously asserted that it was incorrect that the source of HPL for FGD had to be located close to a power station in response to the CC's putback on unilateral effects in HPL.

¹⁴⁵See Annex B2 to the OFT submission.

¹⁴⁶As explained to the CC in Anglo American's submission of 2 February 2012.

¹⁴⁷See PFs, at paragraph 6.238.

¹⁴⁸This is consistent with submissions of the Main Parties that the proposed JV does not enhance the ability of the Parties to engage in input foreclosure, given that they do not compete to any substantial degree to supply non-integrated and asphalt and RMX producers and that the JV would not result in a material change to the ability of the Parties to withdraw material volumes from integrated producers given the small volumes supplied to such customers at present. See section 8.2.1 of the MPS.

¹⁴⁹Appendix R to the PFs, at paragraph 11(b).

an input foreclosure strategy where, by implication, 70 per cent of the market is held by competitors.

The 30 per cent market share threshold referred to in the European Commission's guidelines on the assessment of non-horizontal mergers¹⁵⁰ (the "EC Guidelines") does not suggest that market power exists at this level. Rather, the EC Guidelines merely state that an individual assessment of vertical effects must be undertaken once this "safe harbour" is exceeded.¹⁵¹ The CC/OFT Merger Assessment Guidelines establish that it is necessary to show sufficient market power, which, specifically in relation to mergers presenting vertical issues, the EC Guidelines consider to be "a significant degree of market power";¹⁵² on this basis, the Parties do not consider that, at a 30 per cent market share, such a "significant degree" of market power exists, in particular due to the existence of significant excess capacity in the upstream market.

Such a position is also contrary to suggestions in the CC's Guidelines that a combined market share of 40 per cent is unlikely to lead to an SLC for undifferentiated products on a unilateral basis (from which it follows that the CC does not consider market power exists in undifferentiated products at the 40 per cent market share level).¹⁵³ Moreover, given the overcapacity in the hands of third party competitors, customers could credibly switch to alternative suppliers if the JV were to engage in any foreclosure strategy, and therefore even high historical shares are not necessarily indicative of the existence of "significant" market power.

4.3.2 Cement into RMX

As indicated at Section 2 above, the CC has not provided the Main Parties with any meaningful analysis of vertical effects relating to the supply of cement used as an input in the production of RMX. The most that the Parties have been provided is an outline of the CC's thoughts which does not reach a view on the appropriate market share threshold or measure to identify a provisional SLC.¹⁵⁴ No analysis of vertical effects relating to cement used as an input in RMX appears in the PFs.

The Main Parties presented evidence to the CC in the MPS that the JV would not have the ability to foreclose downstream RMX producers from access to cement inputs, such that no vertical effects concerns should arise as a result of the creation of the JV.¹⁵⁵ In particular, the Main Parties have explained to the CC that the JV is unable to foreclose integrated rivals, i.e. those RMX producers with their own in-house source of supply. In relation to non-integrated RMX producers, the Parties' analysis supports a conclusion that the JV transaction will not give rise to any likely input foreclosure concern. [✂] ¹⁵⁶

¹⁵⁰Commission Notice (2008/C 265/07).

¹⁵¹Commission Notice (2008/C 265/07), at paragraphs 25 and 27.

¹⁵²Commission Notice (2008/C 265/07), at paragraph 23.

¹⁵³CC2 (Revised) Merger Assessment Guidelines, at paragraph 5.3.5.

¹⁵⁴We refer again to the CC's slide presentation on "Anglo American/ Lafarge JV: CC thoughts about vertical effects", received on 8 March 2012.

¹⁵⁵We refer to the RBB note "Vertical unilateral effects: cement inputs into ready-mix concrete" at Annex 1 to the MPS.

¹⁵⁶OFT decision of 2 September 2011 under section 33 of the Enterprise Act 2002, ME/5007/11, at paragraph 256.

4.4 Countervailing factors

4.4.1 Efficiencies and Relevant Customer Benefits

As previously explained to the CC, the synergies which underpin the proposed JV are considerable.¹⁵⁷ It is expected that customers will benefit from the logistics savings and enhanced product portfolio of the JV (including the introduction of Lafarge's technology for the production of RMX VAPs to Tarmac's current RMX offering), which are central to the expected synergies.¹⁵⁸

[REDACTED]¹⁵⁹.

4.4.2 Expansion

The Main Parties have submitted throughout the review process that there are low barriers to expansion in each of the relevant markets in which the JV will operate, such that the JV will not be in a position to raise prices.¹⁶⁰ In particular, the Main Parties have explained that they estimate [REDACTED]¹⁶¹¹⁶². The Main Parties consider their utilisation levels to be indicative of overcapacity in the relevant markets as a whole. Similarly, the CC also found that there is substantial excess capacity at a national level for all the relevant markets.¹⁶³

RBB Economics has calculated the extent of overcapacity held by third parties in each of the local markets for aggregates in which the CC has identified an SLC in the PFs.¹⁶⁴ The estimated level of overcapacity held by third parties within each of the relevant radials is set out in Annex 2 below. Based on this evidence, the Main Parties would refute the CC's provisional finding that competitors might not have the ability to expand in each local market given that these capacities are determined (very conservatively) from peak estimated output from recent years.¹⁶⁵

The CC states that it did not find evidence of specific expansion plans that might offset an SLC. However, as demonstrated by the estimated level of overcapacity in each radial in Annex 2 below, even in the absence of specific expansion plans, competitors could easily increase production from existing production facilities without the need to expand capacity and the existence of this overcapacity would constrain the JV's activities within each local market.

With regard to cement, the CC has not put forward any evidence that there is coordination on capacity within this market and, consequently, the CC's conclusion

¹⁵⁷ See, for example, Sections 1.1 and 3.2.3 MPS, where it was explained that the expected synergies represent 30 per cent of the combined EBITDA of Tarmac and Lafarge.

¹⁵⁸ As touched upon by each of the Main Parties during the hearings with the CC.

¹⁵⁹ See Notes of hearing with Lafarge, 18 January 2012, page 19, lines 2 – 23.

¹⁶⁰ Sections 5.5.1 – 5.5.3, 7.5 and 7.7 MPS.

¹⁶¹ Section 3.1.1 MPS.

¹⁶² Section 3.1.3 MPS.

¹⁶³ PFs, at paragraph 6.245.

¹⁶⁴ See footnote 122 above on the capacity proxy methodology. It has not been possible to estimate capacity with this methodology for RMX, due to the absence of site level third party data from BDS in this market, but the Main Parties would expect such analysis to show significant overcapacity within each of the RMX radials within which the CC has identified an SLC, given that the Main Parties themselves are operating at [REDACTED]. Moreover, according to the GfK customer survey, RMX plants are rarely capacity constrained; see footnote 135 above.

¹⁶⁵ PFs, at paragraph 6.243.

that “any coordinating group of firms would be likely to recognize that expansion of production would undermine the coordinated outcome”¹⁶⁶ is unfounded.

4.4.3 Entry

The Main Parties note that the CC’s statement that a minimum efficient sized entry into cement production would be 1MT for a minimum capital cost of around £250 million relates only to the construction of a new cement plant.¹⁶⁷ Conversely, entry via the acquisition of an existing cement works could achieve effective entry at a lower fixed capital cost. Third party evidence, provided by Cemex and an anonymous source,¹⁶⁸ is consistent with the Main Parties’ submissions that barriers to entry in cement imports are relatively low, with a new import terminal costing around £[redacted] /annual tonne of capacity, as opposed to up to £[redacted] /annual tonne of capacity for a grinding station and £[redacted] /annual tonne of capacity for an integrated cement plant. The risk involved with import facilities is also lower since the time for obtaining consents and construction will typically be under two years for an import terminal, around four years for a grinding station and approximately ten years for an integrated plant. Furthermore, the Main Parties have emphasised the incentives for importers to enter the UK (and expand sales) which will result from the introduction of the EU ETS Phase III in 2013.¹⁶⁹

The Main Parties disagree with the CC’s view that an import terminal would need to be rail-linked.¹⁷⁰ The Main Parties are not aware of any rail-linked independent cement import terminals. Given that independent cement importers currently provide a competitive constraint on domestically-produced cement (for example importers account for between 22 and 26 per cent of all cement sales to non-integrated RMX producers) without use of rail transport, it cannot be the case that import terminals require a rail-link to compete effectively. Indeed, in 2010, CPV, Dudman and Titan each supplied greater volumes than Tarmac of bulk cement externally to non-major customers, without use of a rail link. Moreover, major industrial ports where cement import terminals could be opened (and in fact currently operate) have established transport infrastructure, either by connection to the rail network or being linked to motorways, such that a new import terminal in those locations would have access to either rail or road transport for distribution to customers inland.

The PFs state that “the supply of raw materials (i.e. feedstock) for the production of secondary and recycled aggregates would be finite and would be specific to the geographic location in which they arose.”¹⁷¹ However, the Main Parties disagree with this statement, consider it incorrect to bracket secondary and recycled materials in this way, and maintain that barriers to entry into the production of

¹⁶⁶PFs, at paragraph 6.242.

¹⁶⁷Appendix S to the PFs, at paragraphs 23 - 24.

¹⁶⁸As referred to in Appendix S to the PFs, at paragraphs 12 - 14. Cemex has explained to the CC that it most recently opened a grinding mill at Tilbury with ability to process imported clinker.

¹⁶⁹As referred to in Anglo American’s submission of 27 January 2012.

¹⁷⁰Appendix S to the PFs, at paragraph 28.

¹⁷¹Appendix S to the PFs, at paragraph 61.

recycled aggregates are low, as evidenced by the growth in the share of supply of recycled/secondary aggregates in the period since 1985.¹⁷²

4.5 Observations/ clarifications on the Provisional Findings

Included in Annex 3 to this submission are a number of observations on the information presented in the PFs. The observations include errata and comments regarding the use of third party evidence in the PFs.

Annex 3

5 Comments in relation to use of third party evidence within the PFs

The Parties have been unable to verify the accuracy of the majority of the third party statements included in the PFs, as against the evidence posted on the CC's website (namely the initial third party submissions and summaries of hearings with third parties). The detailed third party statements which appear in the PFs do not appear in the evidence posted on the CC's website or in material putbacks to the Parties via CC working papers.

To the extent that the third party statements quoted in the PFs are indeed verifiable, the Parties note the following (and request these references be corrected in the CC's final report, as appropriate):

- With regard to the relevant market definition for cement, Hanson is quoted in the PFs as having said that *"there used to be quality differences between imported and UK-produced cement, but the gap had closed"*.¹⁷³ Moreover, the hearing summary states that Hanson said that *"the quality of imported cement was now comparable to cement produced in the UK"*.¹⁷⁴
- In relation to the relevant product market for aggregates, reference is made to a statement of Aggregate Industries that *"secondary and recycled aggregates tended to be substitutes for primary aggregates in low-specification applications (such as sub-base)"*.¹⁷⁵ However, the CC omits the fact that Aggregate Industries also said: *"[h]owever, recycled aggregates included material (for example, asphalt planings, incinerator bottom ash and crushed glass) that could be used as substitutes in fairly high-specification areas. Further, china clay by-products from Devon and Cornwall, a secondary aggregate, were pretty much used as a complete substitute for primary aggregates across all applications (for example block manufacture and RMX in the South-West)"*.¹⁷⁶
- Also in relation to the product market definition for aggregates, the PFs state that *"Breedon [...] suggested that switching from primary to secondary or recycled aggregates was difficult due to the tight specification of the final product"*.¹⁷⁷ However, according to the hearing summary, Breedon did not say that switching

¹⁷²The Parties refer to a diagram included as Figure 5 of the MPS, which plots the growth of recycled/secondary aggregates.

¹⁷³Appendix G to the PFs, at paragraph 29.

¹⁷⁴Paragraph 19 of the hearing summary with Hanson.

¹⁷⁵Appendix G to the PFs, at paragraph 53.

¹⁷⁶Paragraph 8 of the hearing summary with Aggregate Industries.

¹⁷⁷Appendix G to the PFs, at paragraph 57.

was difficult, instead Breedon said: “*Breedon did use recycled asphalt planings (or reclaimed asphalt planings (RAP)) in its asphalt mix and RMX. It was possible to recycle 5 to 10 per cent of total product output, if the asphalt planings were available and if specifications allowed*”.¹⁷⁸

- As commented in response to the putback on the relevant product market definition for aggregates, asphalt and RMX, the statement that “*blending primary and secondary aggregates increases cost*”¹⁷⁹ in the production of RMX was attributed to Costain in the putback. However, Costain is not an RMX producer, such that this account should not be relied upon in the PFs.
- As previously explained to the CC the statement that “*different grades of crushed rock, and sand and gravel are used in particular proportions, and secondary and recycled aggregates are not suitable*”¹⁸⁰ is not consistent with the evidence set out in the summary of the hearing with Hillhouse, which only states that Hillhouse does not use recycled or secondary materials in the production of RMX.
- Previously in the putback “Product Market Definition – Aggregates, RMX and Asphalt” the CC attributed the following statement regarding the use of recycled/secondary aggregates in the production of RMX to Allen Newport “*concerns regarding the quality of recycled aggregates, and a lack of technical resources to test recycled aggregates and to ensure they met the customer requirements*”.¹⁸¹ However, the Parties explained in response to the putback that Allen Newport has an aggregates quarry and given its ability to self supply with primary aggregates it may not have incentives to use recycled aggregates. In the PFs, the CC no longer attributes this statement to Allen Newport, but it is unclear what evidence the CC then has to support this claim.
- With regard to market definition for RMX, Costain (amongst others) is referenced as having said that “*volumetric trucks produced a product that was of a poorer quality, in particular it did not meet high specification requirements and was characterized by lower strength*”.¹⁸² However, the summary of the hearing with Costain merely notes that “*it was difficult to determine the quality*”.¹⁸³
- In relation to the relevant product market for rail ballast, the PFs say that: “*Network Rail told us that there were no substitutes for rail ballast (in particular within secondary and recycled aggregates), due to its technical characteristics and the critical importance of safety in this application*”.¹⁸⁴ However, the hearing summary states that: “*Network Rail said that secondary and recycled aggregates were not full substitutes for the primary aggregates it acquired for railway ballast, but their use, although limited, was increasing. Railway ballast deteriorated over time, so ballast already used for a period of time could not be recycled for use on high-*

¹⁷⁸Appendix G to the PFs, at paragraph 8.

¹⁷⁹Appendix G to the PFs, at Paragraph 55(a).

¹⁸⁰Appendix G to the PFs, at paragraph 55(b).

¹⁸¹Appendix G to the PFs, at paragraph 55(c).

¹⁸²Appendix G to the PFs, at paragraph 99.

¹⁸³Paragraph 12 of the hearing summary with Costain.

¹⁸⁴Appendix G to the PFs, at paragraph 80.

speed lines but used aggregate could be used on lower-speed routes or lower category routes".¹⁸⁵

- In relation to cement imports, we note that according to the summary of the hearing with Costain: "*Costain said that it currently imported cement from the Republic of Ireland*"¹⁸⁶ (contrary to the statement in Appendix Q to the PFs, at paragraph 86 that Costain no longer imports cement, for reasons relating to foreign exchange risks, transportation time and logistics and delivery uncertainty).
- In relation to entry barriers, we note that Asphalt Works mentioned that planning permission was required,¹⁸⁷ but did not say that obtaining planning permission was difficult (as quoted in Appendix S to the PFs, at paragraph 39). Furthermore, this hearing summary makes no comment as to whether or not aggregates quarries are available for sale (as quoted in Appendix S to the PFs, at paragraph 47).

6 Errata

- Paragraph 6.29 of PFs: the Main Parties note that whilst Hanson is currently only active in rail ballast through MQP, it has previously supplied rail ballast from Penmaenmawr Quarry, North Wales (which is rail linked) and from Swinburne Quarry, Northumberland (not rail linked).¹⁸⁸
- Paragraph 6.29 of PFs: Aggregate Industries has three rail ballast quarries, including Bardon Hill, Meldon and Glensanda (Glensanda is missing from the PFs).¹⁸⁹ Figure 1 in Annex J should be amended accordingly.
- Paragraph 6.47 of PFs: the Main Parties maintain that imports of rail ballast are credible and would occur if the price of rail ballast were to increase (notwithstanding the comments of by Stema, as summarised in paragraph 6.41, that they are not currently importing rail ballast).¹⁹⁰
- Paragraph 5.42 of PFs: it may be useful to clarify that the CC is looking at high purity limestone used for industrial purposes (as opposed to high purity limestone used as a construction aggregate) as the relevant market.¹⁹¹
- Appendix G of PFs, table 7.a: the Main Parties note that the figure representing those who "cannot switch any purchases" is 57 per cent (not 59 per cent), according to slide 33 of the GfK presentation.
- Appendix G of PFs, Paragraph 42: the Main Parties also made the following points in relation to the customer survey in response to the putback on the relevant

¹⁸⁵Paragraph 3 of the hearing summary with Network Rail.

¹⁸⁶Paragraph 21 of the hearing summary with Costain.

¹⁸⁷Paragraph 17 of the hearing summary with Asphalt Works.

¹⁸⁸As explained in Anglo American's response to the putback paper on unilateral effects in rail ballast submitted on 4 January 2012.

¹⁸⁹As explained in Anglo American's response to the putback paper on unilateral effects in rail ballast, submitted on 4 January 2012.

¹⁹⁰As explained in response to the putback paper on unilateral effects in rail ballast, submitted by Anglo American and Lafarge on 4 January 2012.

¹⁹¹As explained in Anglo American's response to the putback on unilateral effects in high purity limestone, submitted on 11 January 2012.

market definition for aggregates, asphalt and RMX,¹⁹² which have not been summarised in this paragraph:

- The Main Parties noted that the questions asked in the customer survey in relation to switching between primary and recycled/ secondary aggregates were not appropriately framed. For example, the term “switching” may have been unclear to a respondent.
- The percentage of respondents who indicated they were able to switch in response to the survey questions does not represent (and could potentially understate) volumes of switching.
- The survey failed to ask customers how they would have reacted in response to a change in prices (for example, whether a customer would switch to recycled and secondary aggregates if prices of primary aggregates were to rise 5 per cent), despite price being referred to as a key factor determining the choice of aggregate. The survey ignores evidence of actual switching driven by price and places unduly greater weight on answers to a hypothetical question of past ability to switch.
- Appendix G of PFs, paragraph 42(a): the Main Parties note that the point summarised here does not relate to the customer survey, but rather makes reference to BDS data (as presented to the CC in Anglo American’s response to question 2 of the Market Questionnaire).
- Appendix G of PFs, paragraph 64: the reference to the evidence provided by the Main Parties in this paragraph is incorrect. The final sentence should say: “The main parties also submitted that crushed rock and sand and gravel are used interchangeably in concrete product *and* RMX production depending upon regional availability and that this is demonstrated by an analysis of their external aggregate sales to concrete product *and* RMX customers”.¹⁹³
- Appendix G of PFs, paragraph 65: the summary of the comments made by the Main Parties on the GfK survey results in relation to the interchangeability of sand and gravel and crushed rock should refer to the comments made regarding inappropriately framed questions (asking customers only purchasing crushed rock about switching from sand and gravel to crushed rock,¹⁹⁴ for example) and in relation to the limited sample sizes used in the survey.¹⁹⁵
- Appendix J of PFs, figure 1: the figures for Tarmac sales of bagged cement in 2009 and 2010 require correction. [⌘] (due to rounding).¹⁹⁶
- Appendix J of PFs, figure 2: the map of HPL production sites does not include Tarmac’s HPL production site at Swinden.

¹⁹²As set out in Anglo American’s submission of 6 January 2012 and Lafarge’s responses.

¹⁹³As corrected in Anglo American’s submission of 2 February 2012.

¹⁹⁴As set out in table 8 of Appendix G to the PFs.

¹⁹⁵A sample of only 12 customers who could not switch from crushed rock to sand and gravel and 23 who could not switch from sand and gravel to crushed rock (as commented by both of the Main Parties on paragraph 54 of the putback on the relevant product market definition for aggregates, asphalt and RMX). Paragraph 54 of this putback now appears as paragraph 70 in Appendix G to the PFs.

¹⁹⁶As explained to the CC in response to the putback on supporting material for unilateral effects assessment in bagged cement, rail ballast and high purity limestone.

- Paragraph 6.60 of PFs: the Parties wish to note in relation to the statement that “HPL used for FGD applications is always delivered by rail to power stations” that suppliers of HPL that do not have rail linked quarries can load to the rail network via a depot, for delivery to power stations.¹⁹⁷
- Paragraph 6.71 of PFs: the Parties note that only power stations fitted with flue gas scrubbing equipment require HPL for FGD. There is an alternative process for sea water scrubbing, which some power stations use to comply with environmental regulations regarding sulphur dioxide emissions.
- Appendix R of PFs, footnote 6 of the PFs: this footnote should refer to the BDS report for 2010 (rather than BDS 2009).¹⁹⁸
- Appendix R of PFs, footnote 10: the second sentence of this footnote should be corrected as follows “[t]he definition of marginal cost is broadly raw material costs and variable production costs”.¹⁹⁹
- Appendix R of PFs, paragraph 14: the Main Parties disagree with the statement that “sand and gravel aggregates are the primary component of RMX”. A wealth of evidence has been provided to the CC that sand and gravel is interchangeable with crushed rock in the production of RMX, depending upon local availability.²⁰⁰
- Paragraph 6.152 of PFs: the Main Parties note that as previously explained to the CC, Tarmac [REDACTED].
- Appendix L of PFs, *passim*: the Main Parties note that the CC has incorrectly not considered the margins of AI on the basis that it does not have its own cement production in the UK.
- Appendix L of PFs, paragraph 10: the Main Parties note that excluding transport costs when calculating variable profit margin leads to a finding of a greater similarity in cost levels between the “majors” which is not reflective of the true cost position. Excluding transport costs inflates the measure of the percentage margin substantially by using the incorrect denominator (i.e. the ex works price, instead of the delivered price).
- Appendix G of PFs, paragraph 15 and footnote 6: the Main Parties note that the questions asked in the customer survey give rise to bias results due to, for example, over-representation of certain groups of the respondent. The CC has not appropriately addressed these concerns which were raised by the Main Parties.
- Appendix G of PFs, paragraphs 18 and 19: the Main Parties note that independent evidence that there is little quality differential between CEM I, CEM II and CEM III for most RMX applications has not been considered by the CC.
- Appendix G of PFs, paragraph 20: the CC appears to have wrongly downplayed the evidence that RMX producers frequently find it economical and efficient to

¹⁹⁷As explained in Anglo American’s response to the putback on unilateral effects in high purity limestone, submitted on 4 January 2012.

¹⁹⁸As explained in response to the putback relating to vertical theory of harm – aggregates supply into asphalt and/or RMX.

¹⁹⁹As explained in response to the putback relating to vertical theory of harm – aggregates supply into asphalt and/or RMX.

²⁰⁰See in particular the RBB notes included in Annex B1 to the OFT submission of 10 June 2011 and the RBB note accompanying Anglo American’s submission of 9 January 2012 and Lafarge’s submission of 6 January 2012 on the relevant product markets for aggregates, asphalt and RMX.

switch between the various sub-varieties of cement, in particular, between CEM I, CEM II and CEM III.

- Appendix G of PFs, paragraph 31: the CC does not take into account the Main Parties comments and feedback from independent third parties that the quality of imported cement is broadly speaking comparable to that of domestically produced cement.
- Appendix M of PFs, paragraph 7: in the context of its analysis of price announcements the Main Parties note that the CC does not take into account those occasions on which only one firm increased prices.
- Appendix M of PFs, paragraph 21: the Main Parties note that the CC has not considered that a calculation of the average realised change in price is informative only of the magnitude by which prices changed on average; and it does not provide information on the dispersion of price increases on an individual customer basis.
- Appendix M of PFs, paragraph 33: the CC has not taken into account the Main Parties submissions in respect of the methodology used in relation to the CC's price dispersion analysis and the additional evidence submitted to the CC demonstrating that few announced price changes were implemented in full and in many cases, no price increase was achieved at all.
- Appendix N of PFs, paragraph 77: the Main Parties note that the questions asked in the customer survey give rise to bias results due to, for example, over-representation of certain groups of the respondent. The CC has not appropriately addressed these concerns which were raised by the Main Parties.
- Appendix Q of PFs, footnote 2: the Main Parties note that the CC incorrectly excludes AI as an importer.
- Appendix Q of PFs, *passim*: the Main Parties note that the CC appears not to have appropriately considered the Main Party and third party evidence, that there is no appreciable difference in the quality of imported and domestically produced cement.
- Appendix Q of PFs, paragraphs 58 to 69: the Main Parties note that the CC has not identified what it considers to be the baseline for switching which should be observable in relation to importers.
- Appendix Q of PFs, paragraph 87: the Main Parties note that the references to third party evidence should accurately reflect the context in which they were made. The Main Parties note that there are 11 independent importers of cement into GB, confirming that there are plentiful alternative suppliers of cement. The Main Parties note that in the course of CC hearings other third parties, have confirmed the view that importers are viable alternative suppliers.