

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

### Cement imports

#### Introduction

1. In this paper, we review the evidence on imported cement and the strength of the constraint from imports on GB-produced cement.
  
2. The paper is set out as follows. First, we provide details of the ownership, market shares and capacity of importers. Next we consider evidence on the costs of importing cement into GB and how these compare with the variable costs of producing cement in GB. This section also includes an assessment of the evidence on the geographic scope of imports. We then present evidence on the general competitiveness of cement imports, including evidence on the amount of switching by customers between GB producers and importers of cement, the views of importers, evidence gathered from internal documents from the GB producers, and the views of cement customers on imported cement respectively. Finally, we consider Aggregate Industries as an importer of cement, and its ability to constrain prices in GB.

#### Background on importers and market shares

3. Bulk, and to a smaller extent bagged, cement is imported to GB through import terminals. There are around 30 import terminals in GB, of which around 16 are operated by GB producers of cement and Aggregate Industries, and the remaining 14 by independent importers.<sup>1</sup>

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<sup>1</sup> By independent importers, here and in the rest of this paper, we mean importers which are not a subsidiary of one of the Majors. Therefore we do not include imports by Aggregate Industries and affiliated companies as independent importers, though we discuss more specifically imports by Aggregate Industries in this paper.

4. We are interested in the extent to which imported cement is a constraint on the price of cement produced/supplied by GB producers. We mainly focus on independent importers in this paper, as Aggregate Industries sells low quantities of cement in GB.<sup>2</sup> However, we do include some data on Aggregate Industries for completeness, and analyse any constraint from Aggregate Industries on GB producers in a separate section below.

### ***Importers and location of terminals***

5. Table 1 lists the 11 independents importing cement into GB, and their terminal locations. We note that Dragon Alfa Cement and Southern Cement are both owned by the largest player in the Spanish market, Cementos Portland Valderrivas (CPV). There are 14 import terminals operated by independents around the GB coastline, and one in Northern Ireland. In addition, one importer (Quinn) imports by both ferry and via import terminal from the Republic of Ireland.
6. We understand that all the cement which is currently imported into GB is CEM I. We were told that there were no imports of CEM II/III into GB, but that it would be possible for importers to blend CEM I with cementitious products (eg PFA or GGBS) to produce CEM II and CEM III. In addition, some independents import GGBS and/or PFA.

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<sup>2</sup> We note that Aggregate Industries is usually classified as a Major due to the size of its aggregates and RMX operations. However, Aggregate Industries do not have any cement production in GB, and instead import cement almost exclusively for internal use. Therefore, in this paper, we include Aggregate Industries in cement importers.

TABLE 1 **Independent cement importers**

<i>Importer</i>	<i>Location</i>	<i>Cement type</i>	<i>Notes</i>
Brett Concrete	[☒]	GGBS	All Brett imports are for own use only.
Channel Cement	[☒]	[☒]	
Premier Cement Ltd (formerly Dan Morrissey Concrete (UK) Ltd)	[☒]	CEM I	Imports cement from Ireland Owned by CRH
Dragon Alfa Cement	[☒]	CEM I	Owned by CPV
Dudman Group	[☒]	[☒]	[☒]
Lagan Group	[☒]	Unknown	Imports cement from Ireland
Thomas Armstrong	[☒]	CEM I	Imports to GB from Germany and Ireland, predominantly for own use
Titan Cement	[☒]	CEM I	Titan Cement is owned by Titan Cement Company SA, a Greek cement and building materials producer and imports cement from Titan's Kamari plant Greece
Sherburn Stone	[☒]	CEM I	
Southern Cement	[☒]	CEM I	Owned by CPV
Quinn	[☒]	CEM I	Imports to GB by ferry and via an import terminal. Imports a mixture of bagged and palletized cement.

Source: Cement importers.

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### **Volumes and market shares**

7. Table 2 shows each independent importer's annual volume of imports of bulk cement for the period 2007 to 2011 inclusive, alongside imports by Aggregate Industries and GB producers. We also show the estimated total annual imports by independents based on the data they submitted to us, as well as estimates of total annual imports by independents as provided by the MPA. The figures suggest that annual imports by independents total between [☒] and [☒] million tonnes, and these have increased between 2007 and 2011.

TABLE 2 Volume of cement imports by cement importers and GB producers, 2007 to 2011

Importer	2007	2008	2009	2010	2011	tonnes
Aggregate Industries	[☒]	[☒]	[☒]	[☒]	[☒]	[☒]
Titan	[☒]	[☒]	[☒]	[☒]	[☒]	[☒]
Dragon Alfa	[☒]	[☒]	[☒]	[☒]	[☒]	[☒]
Southern Cement	[☒]	[☒]	[☒]	[☒]	[☒]	[☒]
Thomas Armstrong	[☒]	[☒]	[☒]	[☒]	[☒]	[☒]
Dudman Group	[☒]	[☒]	[☒]	[☒]	[☒]	[☒]
Sherburn Stone	[☒]	[☒]*	[☒]*	[☒]*	[☒]	[☒]
Premier Cement	[☒]*	[☒]*	[☒]*	[☒]	[☒]	[☒]
Quinn†	[☒]	[☒]	[☒]	[☒]	[☒]	[☒]
Channel Cement	[☒]*	[☒]*	[☒]*	[☒]*	[☒]*	[☒]*
Lagan	[☒]	[☒]	[☒]	[☒]	[☒]	[☒]
<b>Total non-domestic importers</b>	[☒]	[☒]	[☒]	[☒]	[☒]	[☒]
Total non-GB-producer importers excl Aggregate Industries	[☒]	[☒]	[☒]	[☒]	[☒]	[☒]
MPA estimates of imports by non-members	1,121,000	1,084,000	1,086,000	1,153,000	1,173,000	
MPA estimates of imports by GB producers	255,000	283,000	100,000	61,000	86,000	

Source: Written and oral responses to MQ and FQ by GB producers and cement importers, MPA data, and CC analysis.

\*Estimated by the CC based on other submitted data.

†Includes sales of bagged cement.

8. Table 3 shows total GB cement (bulk and bagged) sales, broken down between sales of cement produced in GB, cement imports by GB producers and imports by non-GB producers, over the period 2007 to 2011. We also show separately imports by Aggregate Industries. We then calculate market shares of imports by Independent importers and those of Aggregate Industries. We see that the Independents' market share of all cement has increased over time, from [☒] per cent in 2007 to [☒] per cent in 2011. Aggregate Industries' share has also grown, from [☒] per cent to [☒] per cent over the same period. Table 3 also shows the Independents' market share of bulk cement, which has increased from [☒] per cent in 2007 to [☒] per cent in 2011, alongside Aggregate Industries' share of bulk cement, which has remained at [☒] per cent across the period.

TABLE 3 GB bulk and bagged cement sales by origin and importers' market share, 2007 to 2011

<i>Importer</i>	2007	2008	2009	2010	2011
MPA estimates of its members'* cement sales from GB production ('000 tonnes)	11,649	9,861	7,474	7,767	8,317
MPA estimates of its members' cement imports ('000 tonnes)	255	283	100	61	86
MPA estimates of imports by non-members ('000 tonnes)	1,121	1,084	1,086	1,153	1,173
Of which Aggregate Industries ('000 tonnes)	[☒]	[☒]	[☒]	[☒]	[☒]
<b>MPA estimates of total GB cement sales† ('000 tonnes)</b>	<b>13,025</b>	<b>11,228</b>	<b>8,657</b>	<b>8,980</b>	<b>9,575</b>
Independents' market share of all cement (excl Aggregate Industries) (%)	[☒]	[☒]	[☒]	[☒]	[☒]
Aggregate Industries' market share of all cement (%)	[☒]	[☒]	[☒]	[☒]	[☒]
<b>Total GB bulk cement sales‡</b>	<b>[☒]</b>	<b>[☒]</b>	<b>[☒]</b>	<b>[☒]</b>	<b>[☒]</b>
Independents' market share of bulk cement (excl Aggregate Industries) (%)	[☒]	[☒]	[☒]	[☒]	[☒]
Aggregate Industries' market share of bulk cement (%)	[☒]	[☒]	[☒]	[☒]	[☒]

Source: MPA, Aggregate Industries, Lafarge, Tarmac, Cemex, Hanson and CC analysis.

\*MPA members are Lafarge, Cemex, Hanson and Tarmac.

†Figures include bagged cement, and may include other cementitious products.

‡Based on data from Cemex, Hanson, Lafarge and Tarmac for bulk cement and MPA estimates of imports by non-members.

## Capacity

9. Import capacity depends both on the amount of spare production capacity in the countries of origin and on the availability (and ease of expansion) of capacity to store cement at import terminals.<sup>3</sup>
10. Since 2008, demand for cement has fallen dramatically in many countries, in response to adverse macroeconomic conditions, and several countries have significant excess capacity at a national level. For example, in an internal document from 2011, Hanson mentions [☒]. In its response to the issues statement, Cemex stated that there was significant excess capacity in some EU countries after the collapse of their construction booms (eg Spain, Portugal and the Republic of Ireland).<sup>4</sup>
11. The evidence we received from importers which answered our questionnaire confirmed that they had spare capacity for importing cement at their terminals. Brett told us that it was operating at around [☒] per cent capacity at its terminal;<sup>5</sup> Thomas

<sup>3</sup> We note that it is also possible to import some cement via ferry, using trucks.

<sup>4</sup> [Cemex response to the issues statement](#), p6.

<sup>5</sup> [Summary of hearing with Brett held on 19 September 2012](#).

Armstrong told us that its annual capacity utilization was around [§] per cent, while Sherburn told us that its capacity utilization was around [§] per cent at present based on current machinery and staffing. Premier Cement was operating at around [§] per cent of capacity, and Lagan at [§] per cent of capacity. Titan told us that its capacity utilization [§] in 2007 [§] in 2011. Dragon Alfa and Southern told us that their terminals were restricted by capacity to hold stock, time taken to discharge vessels, quay availability in discharge ports, and ability to move cement internally within terminal and tidal conditions, and estimated that the maximum volumes of cement that could be imported through the terminals were around [§] at Dragon Alfa's terminal and [§] at Southern's terminal. Based on import volumes in 2011 (see Table 2), this implies that Dragon Alfa is operating at round [§], and Southern at around [§].

12. Hanson told us that at the time of the Heidelberg/Hanson acquisition in 2007, the capacity of import terminals in GB (including those held by GB producers and Aggregate Industries) was around 6 million tonnes.<sup>6</sup>

### **Competitiveness of imports and costs of imported cement**

13. The ability of imports to compete successfully with GB-produced cement depends mainly on the price at which imports of cement can be sold profitably in GB. This in turn depends primarily on the costs of producing cement in the country of origin, the exchange rate,<sup>7</sup> the cost of transporting to, and storing the cement in GB import terminals, any other import costs (such as import levies) to the extent they apply, and the additional costs of transporting the cement to customers within GB.

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<sup>6</sup> This figure was also provided to the European Commission during its investigation of the Heidelberg Cement/Hanson merger [http://ec.europa.eu/competition/mergers/cases/decisions/m4719\\_20070807\\_20310\\_en.pdf](http://ec.europa.eu/competition/mergers/cases/decisions/m4719_20070807_20310_en.pdf).

<sup>7</sup> [§]

14. We observe that there are imports into GB which shows that, at the current level of GB cement prices, it is possible profitably to import cement into GB.<sup>8</sup> However, the extent of the constraint imposed from imports on GB prices will depend also on whether importers would be able significantly and profitably to expand sales by undercutting the GB producers of cement. This will depend, among other things, on the relative costs of importing cement into GB compared with the costs of producing cement in GB. If importers are able to expand sales in GB at similar, or lower, costs than GB producers, they may have an incentive to significantly undercut GB producers in order to gain sizeable share of the GB market. However, if importers operate at higher costs than GB producers, it may not be in their interest to undercut GB prices, as they will anticipate that GB producers have lower costs and therefore can price them out of the market. If importers face significantly higher average variable costs to serve GB customers, it may therefore be in their best interests to remain fringe players and set import prices in line with GB producer prices.
15. In this section, we first review evidence on various elements of cost that are expected to affect the final price of imported cement. We then review evidence on the catchment area for imports (ie the distance from import terminals over which imports appear to be price-competitive against GB-produced cement). We then present evidence on the competitiveness of imports more generally, including customer views on the attractiveness of imports and evidence of customers switching to imports, and views from importers on their ability to compete with GB-produced cement.

### ***Costs of imported cement***

16. There are various cost elements that we might expect to influence the final price of imported cement. We summarize the evidence we have obtained regarding the various elements of variable costs and assess how the costs of importing cement to

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<sup>8</sup> Hanson told us that the presence of importers in the GB market had grown from [§§] in the 1980s to some [§§] per cent today.

GB and delivering it to GB customers compares with the variable cost of producing cement in GB and delivering it to GB customers.

17. We first review the evidence we received on the costs of producing cement in provenance countries. We next review the evidence on the costs of shipment of imports to GB. We then review evidence on the total costs of producing and shipping imports to an import terminal, and compare this with evidence on the ex-works costs of producing cement in GB.<sup>9</sup>

#### *Price of cement internationally*

18. We obtained data from independent importers on the average costs to them of sourcing cement in the provenance countries (before shipment, ie FOB costs). We also obtained data from the GB cement producers on the average FOB costs to them of sourcing cement produced in other countries.<sup>10</sup> It is worth noting that, in addition to importing cement and possessing knowledge of import costs directly, the GB producers (excluding Tarmac) are part of global groups that have international cement trading operations through which they would have good information about the FOB prices (as well as shipping costs) in other countries. The various estimates of sourcing cement from outside of GB are presented in Table 4.

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<sup>9</sup> This analysis does not take into account the costs of transporting cement from import terminals to customers in GB, or from GB cement plants to customers. Import terminals may be located close to centres of cement demand, such that delivery costs from import terminal to end customers may be low. This is not always the case with cement plants, though we note that GB producers tend to have depots close to demand centres, and that these depots are connected to cement plants via rail links, which makes transport of GB-produced cement to depots relatively cheap. Any further transport costs from depots to the end customer are then likely to be comparable with those faced by importers.

<sup>10</sup> Lafarge Group provided costs on a CIF basis, which we understand to be costs of cement landed in GB, including shipping costs, insurance and any other handling charges. We have calculated FOB costs for Lafarge Group by subtracting average shipping costs (provided by Lafarge Group) from the CIF costs. However, this may overestimate the FOB costs somewhat, as we were unable to subtract insurance costs, and any other costs which are included in the CIF estimate. Where costs were provided in €, we have converted these to £ using average exchange rates for the year. Where more than one cost was provided for a given country of origin and year (because the port of entry into GB differed), we have calculated a weighted average (using volume) cost for the country of origin and year.

TABLE 4 Estimated average FOB cost of cement

Source of estimate	Provenance country	Destination	Year	FOB cost (per tonne)(£)*
Aggregate Industries‡	Germany	[£]	2007	[£]
Cemex	Egypt	[£]	2007	[£]
Lafarge†	Germany (External)	[£]	2007	[£]
Lafarge	Spain (External)	[£]	2007	[£]
Lafarge	Greece (Internal)	[£]	2007	[£]
Lafarge	Greece (External)	[£]	2007	[£]
Quinn Cement	Ireland	[£]	2007	[£]
Dragon Alfa/Southern Cement	Spain	[£]	2007	[£]
Dragon Alfa/Southern Cement	Netherlands	[£]	2007	[£]
Dragon Alfa/Southern Cement	Portugal	[£]	2007	[£]
Titan	Greece	[£]	2007	[£]
Sherburn Stone	Belgium	[£]	2007	[£]
Aggregate Industries‡	Germany	[£]	2008	[£]
Hanson§	Germany	[£]	2008	[£]
Lafarge	Greece (Internal)	[£]	2008	[£]
Thomas Armstrong	Germany	[£]	2008	[£]
Quinn Cement	Ireland	[£]	2008	[£]
Dragon Alfa/Southern Cement	Spain	[£]	2008	[£]
Dragon Alfa/Southern Cement	Netherlands	[£]	2008	[£]
Dragon Alfa/Southern Cement	Portugal	[£]	2008	[£]
Titan	Greece	[£]	2008	[£]
Sherburn Stone	Belgium	[£]	2008	[£]
Aggregate Industries‡	Germany	[£]	2009	[£]
Lafarge	France (Internal)	[£]	2009	[£]
Lafarge	Greece (Internal)	[£]	2009	[£]
Thomas Armstrong	Germany	[£]	2009	[£]
Quinn Cement	Ireland	[£]	2009	[£]
Dragon Alfa/Southern Cement	Spain	[£]	2009	[£]
Titan	Greece	[£]	2009	[£]
Sherburn Stone	Belgium	[£]	2009	[£]
Aggregate Industries‡	Germany	[£]	2010	[£]
Lafarge	France (Internal)	[£]	2010	[£]
Thomas Armstrong	Germany	[£]	2010	[£]
Quinn Cement	Ireland	[£]	2010	[£]
Dragon Alfa/Southern Cement	Spain	[£]	2010	[£]
Titan	Greece	[£]	2010	[£]
Sherburn Stone	Belgium	[£]	2010	[£]
Aggregate Industries‡	Germany	[£]	2011	[£]
Lafarge	France (Internal)	[£]	2011	[£]
Thomas Armstrong	Germany	[£]	2011	[£]
Thomas Armstrong	Ireland	[£]	2011	[£]
Quinn Cement	Ireland	[£]	2011	[£]
Dragon Alfa/Southern Cement	Spain	[£]	2011	[£]
Premier Cement Limited	Ireland	[£]	2011	[£]
Titan	Greece	[£]	2011	[£]
Sherburn Stone	Belgium	[£]	2011	[£]
Sherburn Stone	Spain	[£]	2012	€[£]
<b>Average of the direct evidence from independent importers on their costs in 2011 (£)</b>				[£]
<b>Average of the direct evidence of all cement imports on their costs in 2011 (£)</b>				[£]

Source: Data from GB producers (excluding Tarmac) and cement importers.

\*Where relevant, costs have been converted from € to £ using the average exchange rate for the year in question from [www.oanda.com](http://www.oanda.com).

†Weighted average.

‡Aggregate Industries figures are weighted averages.

§[£]

19. We therefore found that the costs of imported cement are of the order of £[£] to £[£] per tonne on average before shipping to GB import terminals, before delivery to

GB customers. Costs of imported cement have increased over time, from an average of £[§] (all imports) or £[§] (independent importers) per tonne in 2007.

20. Dudman Group (an independent importer) told us [§]. We note that there are variations between the FOB costs of cement which is imported, but find that on average, the FOB cost of imported cement is higher than the variable cost of GB produced cement (see Table 6).<sup>11</sup>

#### *Shipping costs*

21. Shipping is a significant additional cost for importers compared with GB producers of cement. Table 5 provides estimates by the GB producers and cement importers of the cost of shipping cement to GB terminals from several locations.

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<sup>11</sup> We note that the FOB cost of imported cement will typically reflect the ex-works variable cost of producing cement in provenance countries, and is therefore likely to contain a margin paid to the originating cement producer. However, from the viewpoint of the (independent) cement importer, this is the price at which it purchases cement, and is therefore a purely variable cost.

TABLE 5 Estimated cost per tonne of shipping cement, provided by the GB producers and cement importers

Source of estimate	Provenance country	Destination	Year	Cost £
Aggregate Industries*	Germany	[£]	2007	[£]
Sherburn Stone	Belgium	[£]	2007	[£]
Quinn Cement††	Ireland	[£]	2007	[£]
Titan‡	Greece	[£]	2007	[£]
Lafarge	France	[£]	2007	[£]
Lafarge	Greece	[£]	2007	[£]
Lafarge	Spain	[£]	2007	[£]
Cemex	Egypt	[£]	2007	[£]
Aggregate Industries*	Germany	[£]	2008	[£]
Sherburn Stone	Belgium	[£]	2008	[£]
Quinn Cement††	Ireland	[£]	2008	[£]
Titan‡	Greece	[£]	2008	[£]
Thomas Armstrong†	Germany	[£]	2008	[£]
Lafarge	Greece	[£]	2008	[£]
Hanson	Germany	[£]	2008	[£]
Aggregate Industries*	Germany	[£]	2009	[£]
Sherburn Stone	Belgium	[£]	2009	[£]
Quinn Cement††	Ireland	[£]	2009	[£]
Titan‡	Greece	[£]	2009	[£]
Thomas Armstrong†	Germany	[£]	2009	[£]
Lafarge	France	[£]	2009	[£]
Aggregate Industries*	Germany	[£]	2010	[£]
Sherburn Stone	Belgium	[£]	2010	[£]
Quinn Cement††	Ireland	[£]	2010	[£]
Titan‡	Greece	[£]	2010	[£]
Thomas Armstrong†	Germany	[£]	2010	[£]
Lafarge	France	[£]	2010	[£]
Aggregate Industries*	Germany	[£]	2011	[£]
Sherburn Stone	Belgium	[£]	2011	[£]
Quinn Cement††	Ireland	[£]	2011	[£]
Titan‡	Greece	[£]	2011	[£]
Thomas Armstrong†	Germany	[£]	2011	[£]
Premier Cement Limited	Ireland	[£]	2011	[£]
Lafarge§	Spain	[£]	2011	[£]
Lafarge	France	[£]	2011	[£]
<b>Average estimate for 2011</b>				[£]

Source: Data from GB producers (excluding Tarmac) and cement importers.

Note: Where relevant, costs have been converted from € or \$ to £ using the average exchange rate for the year in question from [www.oanda.com](http://www.oanda.com).

\*Aggregate Industries figures are weighted averages.

†Thomas Armstrong figures are weighted averages.

‡Titan figures are averages.

§GGBS only.

¶Figures in the table relate to bulk cement only. Quinn Cement has also provided costs of shipping palletized cement, which are around £[£]/t across the period.

22. The estimates above suggest that, on a simple average, importers incur a freight cost of £[£] per tonne overall, though this varies by country of origin. The average is the same when we look at independent importers only and when we include all imports. There have been fluctuations in the cost of freight over time, from a low of £[£] (£[£]) in the case of all imports (independent importers) in 2007 to a high of £[£] (£[£]) in 2008, before falling to £[£] in 2011.

23. Dudman Group told us that [§]. This appears consistent with an average shipping cost of £[§], based on Table 5. [§] told us that, in addition to shipping costs which are included in Table 5, it incurred an additional £[§]/t in ancillary costs.

*Overall costs of imported cement*

24. As set out above, we found the overall average variable costs of importing cement to be of the order of £[§] to £[§] per tonne to GB terminals in 2011. This compares with average variable ex-works costs for GB-produced cement of the order of £[§] to £[§] per tonne (see Table 6) for the same year.<sup>12</sup> Therefore, this suggests that GB producers have a [§] cost advantage over importers, in that, at the margins, they can serve customers at [§] lower prices than importers would be able to. Given the cost disadvantage of importers, the fact that there are [§] importers [§] in GB in current times of excess capacity<sup>13</sup> could suggest that prices in GB may be high.
25. It is worth noting that GB producers have higher fixed costs than several importers for which we have detailed data, and therefore long-run marginal costs of production may not be as dissimilar between the GB producers and importers. However, the relevant cost concept for this analysis is the average variable cost, as these costs will determine the ability of the GB producers to price importers out of the market.
26. Table 6 summarizes the various estimates of the costs of importing cement that we received, and compares the overall cost of importing cement (using these estimates) with our estimates of the variable costs to GB producers of selling cement.

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<sup>12</sup> We have defined variable costs as those costs that necessarily vary in line with small changes in production volumes at an active production site, and to a lesser extent, sales volumes.

<sup>13</sup> For example, in its [response to the issues statement](#), Tarmac Group stated that it estimated average capacity utilization across the industry to be below 60 per cent.

TABLE 6 Cost comparison between GB and imported cement, 2011

	Cost element (per tonne)	
	GB cement	Imported cement
FOB cement cost (average)	-	£[ <del>XX</del> ]
Freight shipping cost (average)	-	£[ <del>XX</del> ]
Variable cost of production ex works	£[ <del>XX</del> ]*	-
Depot cost	£[ <del>XX</del> ]	N/A
Port dues	-	£[ <del>XX</del> ]
Estimated total (average variable costs to GB customers)	£[ <del>XX</del> ]	£[ <del>XX</del> ]

Source: GB producers' and cement importers' data, and CC calculations.

\*Estimates include the following cost categories for each company: Raw Materials & Consumables, Cement Purchases, Process Fuels, Power and Variable Stock Movement in the case of [~~XX~~]; Raw Materials, Admixtures, Cost of Purchased Cement, Cost of Purchased Clinker, Internal Freight Raw Materials, Fuel Oil, Coke, Gas, Coal, Diesel, Alternate Fuels, Other Fuels, Electric Power, Castables, Explosives, Bags, Other Variable Costs and Grinding and Crushing Media in the case of [~~XX~~]; Raw Materials, Resale Purchases, Electricity, Kiln Fuels, Consumables, Other Variable, Packaging and Inventory Change in the case of [~~XX~~]; and Aggregate Materials, Lime, Packaging, Resale Products, Other Materials, Electricity, Gas, Other Power, Other Variable Costs and Complaints in the case of [~~XX~~].

27. Titan told us that [~~XX~~].

28. Dragon Alfa and Southern Cement told us that inherent in the operation of an importer were higher costs, and that importers had only been able to achieve temporary reductions in base cost due to exchange rate movements along with internal economic factors affecting production costs in the country of manufacture.

#### *Geographic scope of imported cement*

29. We also considered evidence on the geographic scope of imported cement.
30. Titan told us that a distance of up to [~~XX~~] miles from the import terminal covered [~~XX~~] per cent of total volumes shipped from its terminal during all quarters from Q1 2007 to Q4 2011.
31. Thomas Armstrong told us that a distance of [~~XX~~] miles covered [~~XX~~] per cent of its total volumes shipped from its import terminal.

32. Dragon Alfa told us that a distance of [§] miles covered [§] per cent of total volumes shipped from its import terminal, while Southern Cement told us that a distance of [§] miles covered the [§] of total sales from its terminal.
33. Dudman Group [§].
34. Premier Cement told us that its customer catchment area (covering [§] per cent of customers) was circa [§] miles around [§], and that it could compete with GB producers up to a distance of about [§] miles around [§].
35. Aggregate Industries have provided the quantity-weighted average of the median and 95<sup>th</sup> percentile distances across all of Aggregate Industries' cement sites, separately for external and internal customers. The data shows that the quantity-weighted average of median is [§] miles for external customers and [§] miles for internal customers. Aggregate Industries noted that its cement sales to third party customers were limited and did not constitute a focus for the Aggregate Industries business. [§]
36. Lafarge told us that the distances (in radial miles) from its [§] import terminal to external customers were on average [§] miles for bulk customers, with a maximum distance of [§] miles for bulk customers in 2011. The 80<sup>th</sup> percentile distance for bulk customers was [§] miles in the same year. However, we think that these distances may not be representative of the distances over which Lafarge could profitably deliver imported cement, as Lafarge has a national network of cement plants and depots, and delivery distances will be influenced by strategic decisions to optimise plant/depot usage, as well as import terminal usage.
37. Lafarge also told us that it estimated the distance between import terminals (excluding Aggregate Industries) and the customers believed to be sourcing bulk

grey cement from them (based on estimates in January 2011), and found that around 80 per cent of bulk cement volumes supplied by importers were distributed within 80 (road) miles of import terminals.

38. Hanson told us that historically imports only competed on a 50-mile radius from the port, but that Hanson was increasingly witnessing imports moving large distances by road. Hanson provided an example where it recently lost a contract to an importer for a customer [§] which was supplied from a port [§].<sup>14</sup>

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

39. In this section we present evidence from importers on their perceived competitiveness compared with GB producers. We then look at evidence from the GB producers in relation to imports. Finally, we present evidence from customers.

#### *Evidence from importers on their competitiveness*

40. Titan told us that [§].
41. Titan also told us that [§].
42. Quinn Cement told us that it had a small presence in bulk cement in GB due to the very competitive nature of the sector which was dominated by GB producers. Quinn Cement also told us that it had found it difficult to compete in bulk cement with the lower prices set by competitors. Quinn Cement also stated that there was no difference in either the quality or security of supply between GB-produced and imported cement.

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<sup>14</sup> [Hanson response to the issues statement](#), paragraph 12.25.

43. Sherburn Stone told us that it was currently competitive on prices compared with GB producers. Sherburn Stone also told us that as an importer, its position was vulnerable because it could not lower prices as much as the Majors in order to retain or win new customers.
44. Thomas Armstrong told us that its imported cement had not competed with cement produced in GB, rather, the imported cement had replaced that previously imported from Greece. However, Thomas Armstrong also told us that it considered its prices to be competitive compared with GB producers, and that there were no differences in quality and security of supply between imported and GB-produced cement.
45. Dudman Group [☒].
46. Dragon Alfa and Southern Cement have told us that they have had reasonable success in competing for business on a quality perspective, though they did note that they had been sensitive to exchange rate fluctuations and had had to build a safety net into prices which has sometimes excluded them from competing for higher-volume/lower-priced business. Dragon Alfa and Southern Cement also told us that there had been inherent difficulties for importers competing with local producers in consideration of increased logistics costs, as well as quality issues due to increased handling and the consequent exposure to atmosphere which could produce issues with lumps in the product. Dragon Alfa and Southern Cement further stated that many larger customers had tended to take supplies from both GB producers and importers initially fearing that tidal issues, shipping problems, storage and distribution facilities may expose them to excessive risk of supply interruption. Dragon Alfa and Southern Cement also told us that GB producers had the ability to price at levels which would leave Dragon Alfa and Southern Cement in a loss-making position.

*Evidence from internal documents by GB producers on imports*

47. Lafarge told us that it considered that imported grey cement and domestically-produced grey cement had been substitutable and had competed directly with each other. Lafarge also told us that importers had been competing strongly with Lafarge and other players with regard to the supply of cement to bulk non-major customers, and that the importers' share of external bulk sales to non-majors was estimated to have grown over recent years to be 18 per cent of external bulk sales in 2010, and even higher (ranging between 22 and 26 per cent over the period 2007 to 2010) in relation to supply to non-major RMX producers.
48. In relation to its own imports of cement and clinker, Lafarge told us that [§].
49. In its response to the issues statement, Lafarge stated that in 2010, Cementos Portland Valderivas (CPV), Dudman Group and Titan each supplied greater volumes of bulk cement than Tarmac externally to non-major cement customers.<sup>15</sup>
50. Lafarge monitors [§].
51. One internal document submitted by Lafarge mentions that the: [§].
52. Another internal document submitted by Lafarge said: [§]. While another internal document by Lafarge from the same year stated that: [§].
53. In an internal document from 2008, Lafarge states: [§]. In another document from 2005, Lafarge [§].
54. Another Lafarge document from 2008 was [§].

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<sup>15</sup> [Lafarge response to the issues statement](#), paragraph 53.

55. Hanson stated:

The volume of imports and number of importers has increased over the last 5 years. The import share of the UK market has increased, despite a 25% drop in market size over the last five years. ... Barriers to the expansion of imports are very low and there is currently significant excess capacity at UK important terminals. Imports thus impose a direct competitive constraint on Hanson's cement business.

Hanson also stated that: 'Historic perceptions regarding perceived quality differentials in imported cement and the resulting quality premium on domestic product price have disappeared.'

56. In its response to the issues statement, Hanson stated: 'Cement importers now routinely compete with Hanson on a daily basis in the sales of bulk cement, winning a growing proportion of business, and putting competitive pressure on Hanson to reduce prices.'<sup>16</sup>
57. In an internal document provided by Hanson, it stated: [§]. Another internal document from Hanson, under the heading [§] states: [§], and then goes on to state: [§].
58. An internal document by Hanson from 2008 provided [§].
59. Another Hanson document discussed [§].
60. A further Hanson document contained [§].
61. A series of Hanson documents cover [§].

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<sup>16</sup> [Hanson response to the issues statement](#), paragraph 10.8.

62. [§§]
63. Hanson told us that as [§§] Hanson further stated that [§§] In addition, Hanson told us that [§§].
64. In its response to the issues statement, Cemex stated:
- Cement is reasonably straightforward to import and consequently actual volumes of imports have increased over the past five years despite considerable contraction of the overall British market. New entry or expansion is particularly likely by importers able to source cement from EU locations where there is significant excess capacity and significant incentives for importers to maintain production levels above the minimum required in order to avoid losing EU Emissions Trading Scheme Credits (eg Spain, Portugal and Ireland after the collapse of their construction booms). In addition, excess capacity amongst existing producers can be used to compete hard for additional customer volumes wherever possible.<sup>17</sup>
65. A forward-looking internal document by [§§]. Another internal document from late 2010 [§§].
66. An internal document by Cemex from 2008 [§§].
67. Several other Cemex documents [§§] one document states: [§§]. Another document states: [§§].
68. Another Cemex document [§§].

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<sup>17</sup> [Cemex response to the issues statement](#), p6.

69. A further Cemex document [§§].
70. Another Cemex document from 2006 states: [§§].
71. A further Cemex document from 2006 describes [§§]. The document states: [§§]. The document also states: [§§].
72. Another Cemex document from 2006 states: [§§] the document also states [§§].
73. A Cemex internal document from 2003 [§§].
74. In its response to the issues statement, Tarmac told us that imported and GB-produced cement were fully substitutable and competed directly.<sup>18</sup> Tarmac also told us that it focused on self-supply to its downstream activities, but to the extent it sold cement externally, it competed with the Majors as well as several importers.

*Evidence from cement customers on imported cement*

75. BP Mitchell told us that it had been purchasing most of its cement from [§§] for several years, and that it had been purchasing smaller quantities from Hanson (alongside the GGBS which it purchased from Hanson). It also told us that it had been approached by the Majors during this time with quotes, and had found that the price it paid to [§§] had been comparable with the quotes from Majors.
76. Balfour Beatty told us that it had tended to buy small quantities of cement in the past (as it tended to buy RMX directly, instead of mixing it itself), but that nonetheless, it had considered imported cement and sought quotes from independent importers whenever it needed to buy cement, in order to increase competition for its tenders.

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<sup>18</sup> [Tarmac response to the issues statement](#), p5.

77. Brett told us that one of the reasons why it had an import terminal was 'to keep any cement supplier honest', [§].
78. In 2010, Brett entered into a [§] agreement with Lafarge in relation to its purchases of cement. [§]
79. [§]

### ***Switching between GB-produced cement and imports***

80. In this section we look at customer switching between GB producers and independent importers. We first look at the extent of switching using data provided by GB producers and some importers, and then we summarize evidence of the GB producers' reactions to customer switching to importers. We find that there is some switching between GB producers and importers, but that this tends to be low as a proportion of each GB producer's annual sales. Also, evidence from the importers suggests that switching from GB producers to importers tends to be temporary, and that GB producers tend to attempt to win back lost business by reducing prices. Lafarge told us that attempting to win back lost business by lower prices was a normal part of the competitive process, and that while Lafarge may have attempted to win back lost business, it had not always been successful.

#### *Extent of switching*

81. Titan told us [§].<sup>19</sup>
82. Dragon Alfa and Southern Cement have told us that they have tended to only lose business to GB producers, not gain, though they have occasionally gained transient business as it chased lower prices.

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<sup>19</sup> [§]

83. Lafarge told us that it competed actively with imported grey cement, and provided data on losses to these rivals each year: Lafarge told us that it had lost nearly [X] per cent of non-repatriated lost volumes<sup>20</sup> over 2007 to 2011, and over [X] per cent of lost volumes in the year to July 2011, to importers other than Aggregate Industries. Lafarge has also provided figures on the volumes of losses and gains of bulk and bagged cement from cement importers, which are shown in Table 7. We have combined these figures with Lafarge's transaction data in order to calculate volumes lost to, and gained from, importers as a proportion of Lafarge's annual sales of bulk and bagged cement, as shown in Table 7.<sup>21</sup>

TABLE 7 Lafarge volumes of bulk and bagged cement lost to, and gained from importers

	2007	2008	2009	2010	2011
Volumes lost to importers (tonnes)	[X]	[X]	[X]	[X]	[X]
Volumes gained from importers (tonnes)	[X]	[X]	[X]	[X]	[X]
<b>Annual cement sales (tonnes)</b>	[X]	[X]	[X]	[X]	[X]
Volumes lost to importers as a proportion of annual sales	[X]%	[X]%	[X]%	[X]%	[X]%
Volumes gained from importers as a proportion of annual sales	[X]%	[X]%	[X]%	[X]%	[X]%

Source: Lafarge and CC calculations.

84. Hanson provided figures on the volumes of losses and gains to cement importers, which are shown in Table 8. We have combined these figures with Hanson's transaction data in order to calculate volumes lost to, and gained from, importers as a proportion of annual sales of cement, as shown in Table 8. Hanson has told us that the switching data in Table 8 only includes year-end figures, and does not include mid-year wins and losses which result in price reductions and thus act as pricing constraints.

<sup>20</sup> By repatriated volumes, Lafarge refers to instances where an integrated cement producer had a downstream operation that switched from sourcing cement from Lafarge to in-house supply, or where Lafarge's downstream units were sourcing cement from a competitor and switched to sourcing cement in-house.

<sup>21</sup> Lafarge provided additional figures showing volumes of bulk cement lost to, and won from, importers, as a proportion of annual bulk cement sales to non-majors, showing that non-major volumes lost to importers as a proportion of bulk sales to non-majors varied between [X] per cent over the period 2007 to 2011, while non-major volumes gained from importers as a proportion of bulk sales to non-majors varied between [X] per cent over the period.

TABLE 8 Hanson volumes of bulk and bagged cement lost to, and gained from importers

	2009	2010	2011
Independent customer volumes lost to importers (tonnes)	[X]	[X]	[X]
Independent customer volumes gained from importers (tonnes)	[X]	[X]	[X]
Hanson gains from imports as % of total gains	[X]%	[X]%	[X]%
Market share of imports	[X]%	[X]%	[X]%
<b>Annual cement sales (tonnes)</b>	[X]	[X]	[X]
Independent customer volumes lost to importers as a proportion of annual sales	[X]%	[X]%	[X]%
Independent customer volumes gained from importers as a proportion of annual sales	[X]%	[X]%	[X]%

Source: Hanson and CC calculations.

Hanson further told us that some [X] per cent of key customer relationships in 2011<sup>22</sup> were adversely impacted (for Hanson) by cement importers (either by customers switching to importers a part, or all, or their business, or by Hanson offering price reductions in order to keep the customers), and Hanson told us that this showed that importers acted as a constraint on Hanson's pricing.

85. Cemex gave us figures for the number of customers lost to, and gained from importers, alongside the volumes. The information is summarized in Table 9 below. It told us that this may not be a comprehensive dataset, as in some cases it did not know who a customer was lost to, or won from, but Cemex told us that it represented a large majority of customer switching to/from importers. Cemex also told us that actual switching only told one part of the competitive dynamic in the cement market, and that significant further customer volumes were contested, where a customer threatened to switch, but Cemex kept, or defended that customer's volume (usually by offering a further discount).

<sup>22</sup> Defined by Hanson as the top [X] RMX customers by volume and top [X] concrete products customers by volume, accounting for a significant proportion of Hanson's business.

TABLE 9 Cemex customers and volumes of bulk and bagged cement lost to, and gained from importers

	2008	2009	2010	2011
Number of customers lost to importers	[☒]	[☒]	[☒]	[☒]
Number of customers gained from importers	[☒]	[☒]	[☒]	[☒]
Volume of cement lost to importers (tonnes)	[☒]	[☒]	[☒]	[☒]
Volume of cement gained from importers (tonnes)	[☒]	[☒]	[☒]	[☒]
<b>Annual cement sales (tonnes)</b>	[☒]	[☒]	[☒]	[☒]
Volume of cement lost to importers as a proportion of annual sales	[☒]%	[☒]%	[☒]%	[☒]%
Volume of cement gained from importers as a proportion of annual sales	[☒]%	[☒]%	[☒]%	[☒]%

Source: Cemex and CC calculations.

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86. Tarmac provided a list of the customers which it has gained and lost since 2009, but without specifying who the customer was won from/lost to, because this information was not known to Tarmac. Therefore, it is not possible to produce figures on the number of customers, of volumes of cement won from/lost to importers.

*Evidence of GB producers' reactions to customer switching*

87. Titan told us that following a switch of a customer from the Majors to Titan, the Majors usually reacted by going back to the customer in question and trying to win the work back with lower prices. [☒]
88. Quinn Cement told us that, in response to (potentially) losing customers to Quinn Cement, the Majors tended to push back by offering cheaper pricing. Quinn Cement also told us that the Majors had on occasion leveraged their ability to provide alternative products in their portfolio in order to ensure a customer continued to purchase cement from them instead of switching to Quinn Cement.
89. Sherburn Stone told us of one example where it had won a customer from [☒] by offering a lower price, and which was then followed by [☒] reducing its price significantly in order to win the customer back. According to Sherburn Stone, [☒]

sales representative had justified this aggressive pricing to the customer by saying that they had been advised to gain back customers and market share from importers.

90. Dragon Alfa and Southern Cement told us that in many cases the winning of a new customer from the GB producers had been a temporary situation, as if the customer was well established and offered good financial credentials, the incumbent supplier had tended to reduce prices in order to win the customer back.

### ***Aggregate Industries***

91. Aggregate Industries has four import terminals in GB, which are located in the North-West, South-East, South-West and Scotland. Aggregate Industries has not provided the capacities at its import terminals, stating that it could not 'provide any meaningful estimate of the limits on the amount of cement that AI can import through each of its four import terminals'.
92. Aggregate Industries told us that it imported cement into GB from Holcim's [§] plant in Germany. Aggregate Industries imported around [§] tonnes of cement in 2011, almost exclusively for internal use ([§] were for internal use and [§] tonnes were sold externally, [§]). In addition, Aggregate Industries purchased around [§] tonnes of cement in 2011 predominantly from GB producers ([§]).

### ***Aggregate Industries' purchases of cement***

93. As noted above, Aggregate Industries purchased [§] tonnes ([§] per cent of its purchases) of cement from its parent company Holcim, and [§] tonnes ([§] per cent) externally. In Figures 1 to 4 below, we shows Aggregate Industries purchases of cement on a map of GB, divided into purchases from its parent company (labelled as internal purchases), purchases from each GB producer, and purchases from

others.<sup>23</sup> Each circle represents an Aggregate Industries plant which purchased cement in that year, with the sizes of the circles denoting the annual value of purchases by each plant.

94. The figures show that Aggregate Industries tends to purchase cement internally (ie use imported cement from its parent company Holcim) [☒].

FIGURE 1

**Aggregate Industries' purchases of cement, 2008**



Source: Aggregate Industries and CC calculations.

FIGURE 2

**Aggregate Industries' purchases of cement, 2009**



Source: Aggregate Industries and CC calculations.

FIGURE 3

**Aggregate Industries' purchases of cement, 2010**



Source: Aggregate Industries and CC calculations.

FIGURE 4

**Aggregate Industries' purchases of cement, 2011**



Source: Aggregate Industries and CC calculations.

*Constraint from Aggregate Industries on GB-produced cement*

95. We are of the view that actual imports, as well as threat of further imports, could be used as leverage by Aggregate Industries in price negotiations with the GB producers, but are unlikely to have an impact on prices faced by independent RMX purchasers, as Aggregate Industries sells very low volumes of cement in GB.

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<sup>23</sup> Aggregate Industries has told us that supply agreements with its parent company Holcim [☒].

96. Based on the data provided by Aggregate Industries on the costs of importing cement into GB (see Tables 4 and 5 above) we see that Aggregate Industries paid £[~~XX~~]/tonne for the cement it purchased in Germany (on an FOB basis) and a further £[~~XX~~]/tonne for shipping in 2011 (ie total price of £[~~XX~~]/tonne for cement landing in GB).
97. This is [~~XX~~]. According to Lafarge transaction data, Aggregate Industries paid around £[~~XX~~]/tonne (delivered) in 2011; according to Cemex transaction data, Aggregate Industries paid around £[~~XX~~]/tonne (delivered) in 2011; according to Hanson transaction data, Aggregate Industries paid around £[~~XX~~]/tonne (delivered) in 2011; and according to Tarmac transaction data, Aggregate Industries paid around £[~~XX~~]/tonne (delivered) in 2011. We have received data from Aggregate Industries which confirms these figures.
98. This gives a differential of between £[~~XX~~]/tonne and £[~~XX~~]/tonne between the price at which Aggregate Industries can import cement to GB and the price which it pays to GB producers.<sup>24</sup> [~~XX~~]<sup>25</sup>
99. We note that this calculation needs also to cover the costs of operating import terminals, as well as delivery charges. Aggregate Industries told us that the annual operating costs of its import terminals totalled at least £[~~XX~~], which is equivalent to around £[~~XX~~]/tonne on the volumes imported in 2011 (and would have been lower per tonne if the imported volumes had been greater).
100. Subtracting the costs of operating the import terminal from the £[~~XX~~]–[~~XX~~]/tonne differential, we are still left with a differential of £[~~XX~~]–[~~XX~~]/tonne which would need to cover the costs of delivering cement to the customer (or internally) [~~XX~~].

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<sup>24</sup> Though we note that the price paid to other Majors includes delivery from plant to customer.

<sup>25</sup> [~~XX~~]

101. Aggregate Industries has provided a copy of the haulage costs that it has agreed with [X] for the delivery of cement from each port to an Aggregate Industries site. These charges imply that, at a differential of £[X]/tonne, Aggregate Industries could profitably deliver imports up to [X] miles from its import terminals, while at a differential of £[X]/tonne, Aggregate Industries could profitably deliver imports up to [X] miles from its import terminals.
102. This suggests that it could have been [X] for Aggregate Industries to import more cement into GB, either for [X] or for [X] customers, such as in areas close to its import terminals ([X]).

## Conclusions

103. This working paper reviewed the evidence on imported cement and the strength of the constraint from imports on GB-produced cement. We find that, whilst there is evidence that the GB producers regard imported cement as a competitive threat and that the share of imported cement has increased in recent years, imported cement only constrains GB-produced cement to a limited extent because:
  - (a) as set out in paragraphs 24 to 28, the GB cement producers have a substantial cost advantage over cement importers in competing for customers at the margins;
  - (b) the higher costs faced by cement importers create incentives for them to price their cement just below the price of GB-produced cement;
  - (c) the majority of imported cement is sold within a limited distance of the terminal through which it is imported ; and
  - (d) some of the GB cement producers consider, and in some cases take, specific steps to undermine the viability of imported cement, such as targeting selectively the customers who switch, or threaten to switch, to cement importers with lower cement prices, and purchasing of import terminals.