

Aggregates

Report on the market study and proposed decision to make a market investigation reference

August 2011

OFT1358

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1 EXECUTIVE SUMMARY

- 1.1 The aggregates, cement and ready-mix concrete sectors, with turnovers of about £1.4bn, £0.9bn and £1.0bn respectively, are key contributors to the construction sector, which represents some seven per cent of GDP or £110bn a year of expenditure. The public sector accounts for around 40 per cent of construction expenditure – for schools, hospitals, roads and other physical and social infrastructure – with central Government being the industry's biggest customer. The construction industry is therefore highly significant for the country's economic and social development.
- 1.2 Over the last couple of decades the aggregates, cement and ready-mix concrete sectors have experienced substantial consolidation, mainly through acquisition. Five major multinational companies – Lafarge, Hanson (part of HeidelbergCement), Tarmac, Aggregate Industries (part of the Holcim Group) and Cemex – account for the majority of sales in each of these markets.
- 1.3 In September 2010 the OFT launched a market study into the aggregates sector.¹ We wanted to look at conditions of competition in the market and at whether the market delivered good value for money.
- 1.4 Our study of the aggregates sector revealed concerns among stakeholders about how competition operates. While we heard a range of views on planning and other issues, most concerns about competition in the market related to the extent of vertical integration between the aggregates, cement and ready-mix concrete sectors and to the conduct of the vertically integrated majors. A particular source

¹ Please see www.of.gov.uk/news-and-updates/press/2010/93-10

of concern was an alleged squeeze between the price of cement upstream (supplied by the majors) and the price of concrete downstream. We therefore extended the scope of the study to cover cement and ready-mix concrete.

1.5 Our report concludes that the industry displays a number of features which may adversely affect competition. These include:

- Barriers to entry: both the aggregates sector and the cement sector feature high barriers to entry in terms of the difficulty of obtaining planning permission and physical capital requirements. Elements of the planning system for aggregates in particular create substantial barriers to entry by favouring incumbents over new entrants. In addition, we understand that fear of retaliation and fear of predation from the major companies may deter entry into the cement and ready-mix concrete markets by independents looking to either self-supply or expand their operations.
- Concentration: all three product markets are highly concentrated with five major players accounting for upwards of 90 per cent of the cement market, 75 per cent of aggregates sales and 70 per cent of ready-mix concrete production. There is a considerable drop in scale between the majors and the largest independent in each market – there is no comparably large independent producing any one of the three products.
- Vertical integration: the major firms are integrated across aggregates, ready-mix concrete and cement. We have received complaints about vertically integrated firms refusing to supply or discriminating against non-integrated competitors through their pricing.

- Homogeneous products: aggregates, cement and ready-mix concrete are to, a large extent, homogeneous products with little differentiation by firm in terms of brand or quality.
- Transparency: there is a high degree of transparency in all three sectors. Cross-trading between the major firms means that they receive advance warning of each others' pricing intentions; industry reports contain detailed information on market shares, sales volumes and reserves; the planning system makes capacity intentions transparent; and there are industry associations and working parties which may involve additional sharing of information.
- Multi-market contacts: although vertically integrated, the major firms supply one another upstream and downstream (both for cement and aggregates) to serve local markets. There are also a significant number of joint-ventures and asset swaps in the three product markets.

1.6 The combination of barriers to entry, transparency, homogeneous products and multi-market contact has the potential to reduce competition in settings with high levels of concentration. Taken in the round, we are concerned that competition is not working well in these markets, and that competition problems are rooted in underlying features of the market that could only be addressed by the kinds of remedies available to the Competition Commission. We are concerned that there may be consumer harm through higher prices in the short term, possibly exacerbated by further erosion of independent competition in the medium to long term.

Performance indicators

1.7 Data received from firms as well as publicly available data appears to confirm that there has been a 'squeeze' between the price of cement

(which has risen in recent years) and the price of ready-mix concrete (which has fallen, then stabilised). We also have evidence that independents may be charged higher prices for cement than the majors charge each other.

- 1.8 On the basis of the evidence that we have reviewed, we found no correlation between price and concentration in local aggregates markets.
- 1.9 On balance, limitations in the data available to the market study mean that we are unable to come to a firm assessment of whether competition has been adversely affected but in our view the question merits further investigation.

Minded to refer decision

- 1.10 Taking the above findings in the round, we have reasonable grounds to suspect that there are features of this market that prevent, restrict or distort competition in the UK.
- 1.11 We are minded to exercise our discretion to refer the supply of aggregates, ready-mix concrete and cement in the UK to the Competition Commission for further investigation on the basis that:
- The industry is large and important and the three sectors are critical for the national economy.
 - There is a reasonable prospect of finding appropriate remedies to the concerns outlined, for example by considering structural or behavioural remedies to address the features which facilitate coordination or exclusionary behaviour.

- A Market Investigation Reference is the most appropriate tool for investigating and potentially remedying the features of a market that underlie persistent competition problems.
- 1.12 The purpose of an MIR is to determine whether the process of competition is working effectively in markets as a whole. We believe this is the best course of action to address endemic competition problems rooted in the underlying features of the market.

Other market study findings

- 1.13 We found some evidence to suggest there may be room for improving efficiency in the procurement of aggregates, particularly by the public sector. Aggregates are often procured as part of a construction contract. It is not clear that rebates associated with bulk purchases of aggregates are passed directly back to buyers. Some heavy users of aggregates have made significant savings by bringing procurement of aggregates directly under their own control.
- 1.14 This aspect does not form part of the basis for the proposed reference. We simply recommend that large users of aggregates – in particular public sector buyers – consider whether it may be possible to make savings by bringing procurement of aggregates directly under their own control.
- 1.15 We have also highlighted a number of aspects of the planning system that the Government should consider in its forthcoming review of the Managed Aggregates Supply System.

Consultation

- 1.16 The OFT is required to consult on its decision to refer any feature, or combination of features, of a market in the UK for goods or services which it has reasonable grounds for suspecting prevents, restricts or

distorts competition in connection with the supply or acquisition of any goods or services in the UK or part of the UK.

- 1.17 We believe that the statutory test in section 131 of the Enterprise Act 2002 (the Enterprise Act) for making a reference is met and that, having taken account of the relevant factors set out in the OFT's guidance document on market investigation references, on balance the evidence points in favour of exercising our discretion to make a reference to the CC of the supply of aggregates, cement and ready-mix concrete in the UK.
- 1.18 We invite comments by **30 September 2011**. Comments should be sent to:

Aggregates Market Study

Office of Fair Trading
Level 4
Fleetbank House
2-6 Salisbury Square
London EC4Y 8JX

aggregates@oft.gsi.gov.uk

2 INTRODUCTION

- 2.1 The aggregates, cement and ready-mix concrete sectors, with turnover of £1.4bn, £0.9bn and £1.0bn respectively, are key contributors to the construction sector, which is itself a major part of the UK economy, representing some seven per cent of GDP or £110bn per annum of expenditure. The public sector accounts for around 40 per cent of construction expenditure – for schools, hospitals, roads and other physical and social infrastructure – with central Government being the industry's biggest customer.² The construction industry is therefore highly significant for the country's economic and social development.
- 2.1 Over the last couple of decades the aggregates, cement and concrete sectors have experienced substantial consolidation, mainly through acquisition. Five major multinational companies – Lafarge, Hanson (part of HeidelbergCement), Tarmac, Aggregate Industries (part of the Holcim Group) and Cemex – account for the majority of sales in these markets.
- 2.2 In September 2010, the OFT launched a market study into the aggregates sector. We wanted to look at conditions of competition in the market, and at whether the market delivered good value for money. Our study of the aggregates sector revealed a range of concerns among stakeholders about how competition operates in this sector. While we heard views on planning and other issues, most concerns about competition in the market related to the extent of vertical integration between the aggregates, cement and ready-mix concrete sectors, and to the conduct of the five 'majors'. For this

² Government Construction Strategy, Cabinet Office, May 2011

reason, in February 2011 we extended the scope of the market study to include cement and ready-mix concrete.

- 2.3 In May 2011 the OFT received notification of a proposed merger between Lafarge and Tarmac after the parties requested that the European Commission refer in full the transaction to the OFT for investigation. This is currently being assessed with an extended statutory deadline for decision of 5 September 2011.
- 2.4 This report presents the findings of our market study and our recommendations as to next steps. In particular it presents the evidence and reasoning behind our proposed decision to refer the markets to the Competition Commission. It is structured as follows:
- Chapter 3 provides an overview of the three markets
 - Chapter 4 looks at the features of the industry and the impact on competition
 - Chapter 5 reports the competition concerns raised by parties that we spoke to in the course of the study
 - Chapter 6 covers other issues in relation to the planning system for aggregates and procurement
 - Chapter 7 provides the reasoning behind the proposed decision to make a Market Investigation Reference in this case.

3 OVERVIEW OF THE INDUSTRY

- 3.1 This section provides an overview³ of the industry looking at each of the three products, covering what they are, how they are made, and who makes them.

Aggregates

- 3.2 Aggregates are the granular raw materials that are used to make construction products which are used to build our houses, roads, schools, office, hospitals, and other developments within our urban and rural environments.
- 3.3 Aggregates broadly come from three sources:
- **Primary aggregates**, which are newly extracted from the ground or sea bed
 - **Secondary aggregates**, which are the by-product either from the extraction of other materials or a manufacturing process, and can either be either natural (such as china clay waste) or manufactured (for example power station ash and steel slag)
 - **Recycled aggregates**, which are produced from crushed demolition waste.
- 3.4 Secondary and recycled aggregates make up about 28 per cent of the total aggregates supply.⁴

³ Please note that whilst this report covers the whole of the UK, data availability means that it has not always been possible to obtain information for Northern Ireland.

⁴ Mineral Products Association, 'Summary Sustainable Development Report 2010'.

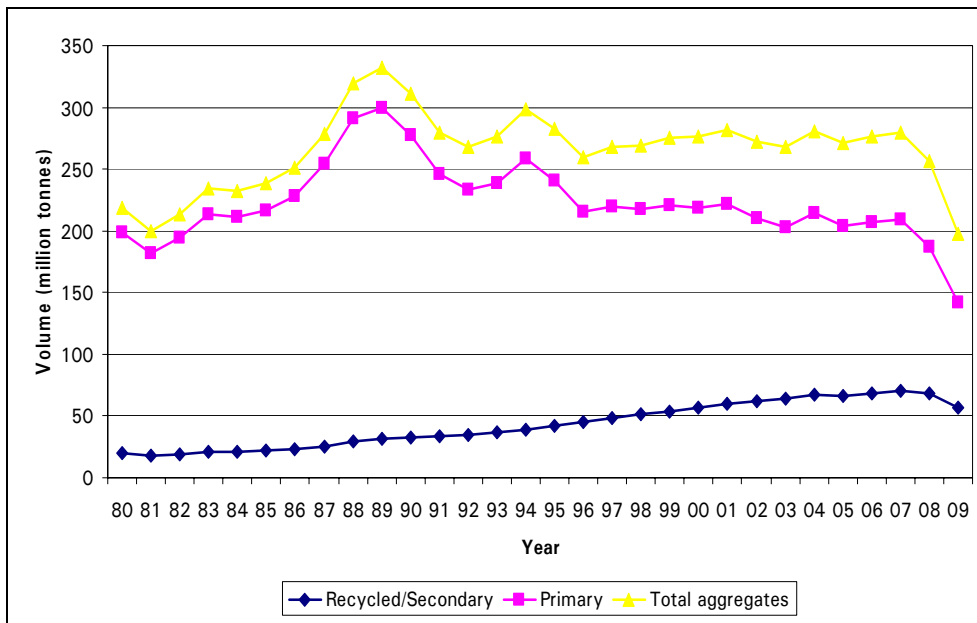
- 3.5 For many purposes aggregates from these different sources can be substituted for one another, for example gravel or crushed rock can be used for concrete. However some end uses, such as rail ballast and roadstone, require particular types of aggregate due to requirements on size, strength and durability. For example, aggregates used in asphalt for road surfaces must have a high Polished Stone Value (high PSV) to ensure that tyres will grip the surface, and such aggregates only come from certain types of rock.
- 3.6 The value of primary aggregates produced in the UK was £1.425bn in 2009, representing nearly a 30 per cent drop from values seen in 2006 through to 2008 of around 1.8bn.⁵
- 3.7 Total aggregates sales in Great Britain in 2009 was 198 million tonnes. This is down from a peak in the late 1980s of 330 million tonnes of which 300 million were primary aggregates, as illustrated below.⁶ Sales of recycled and secondary aggregates have grown steadily now accounting for just over 50 million tonnes.
- 3.8 In Northern Ireland, average annual production has been fairly constant at 25 million tonnes over the last 15 years but this fell to 20 million tonnes in 2009.⁷

⁵ British Geological Survey

⁶ Mineral Products Association

⁷ Department Enterprise, Trade and Investment Northern Ireland; Minerals Branch, annual minerals statements

Figure 3.1: Primary aggregate sales, GB



Source:

Mineral Products Association

3.9 90 per cent of all aggregates are used by the construction sector which has been badly hit by the recession. Demand for aggregates has been similarly affected – the chart above shows significant falls in volumes in both 2008 and 2009. The industry forecasts a return to growth in 2013 after the bulk of public spending cuts have taken place.⁸

3.10 There may also be a longer term, structural decline in primary aggregates demand due to an increasing trend to newer construction materials and the shift towards using secondary and recycled

⁸ BDS Marketing Research, 'Estimated market shares of pits, quarries and marine wharves in Great Britain (2009)'

aggregates following the introduction of the landfill tax in 1996 and the aggregates levy in 2002.

- 3.11 There are approximately 235⁹ operators in the industry, supplying primary aggregates from more than 1200 sites including quarries and wharves. Five firms account for nearly 75 per cent of primary aggregate output, with a large number of significantly smaller firms making up the remainder. The table below lists the top 10 aggregates firms.

Table 3.1: Top 10 aggregates firms (GB)

Company	Share of primary production (%) 2009
Tarmac	20.8
Aggregate Industries	17.8
Hanson	14.2
Cemex	11.5
Lafarge	9.0
Breedon	2.3
Brett	1.9
Marshalls	1.1
Others	21.4

Source: BDS Marketing Research, 'Estimated market shares of pits, quarries and marine wharves in Great Britain' (2009)

- 3.12 Aggregates are a low value and heavy raw material, which means that transportation costs can make up a significant proportion of the final price the customer pays. For this reason aggregates are typically not transported more than 30 miles, with an average distance travelled in 2009 of 24 miles.¹⁰ Within a 30 mile radius,

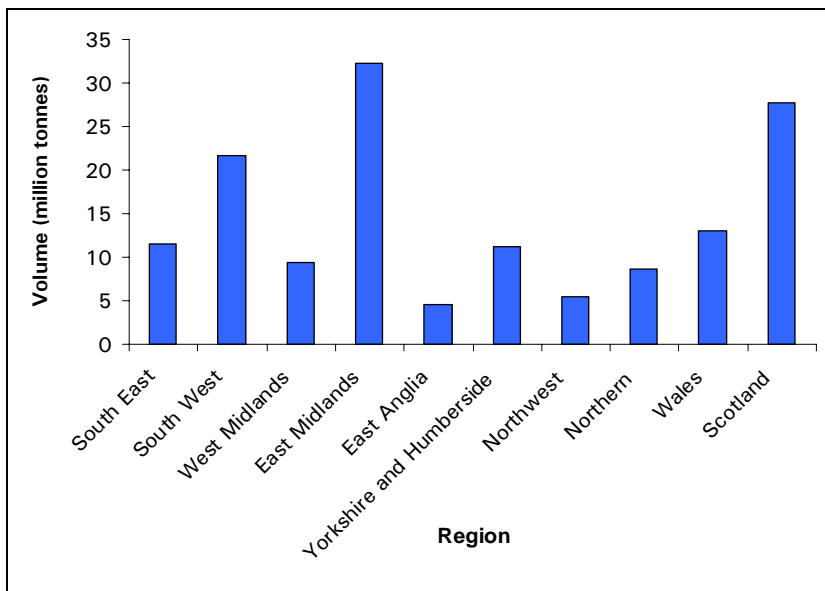
⁹ BDS Marketing Research

¹⁰ Mineral Products Association, Sustainable Development report, 2009

concentration is typically much higher than the national market share figures above suggest. Concentration is examined in more detail in the next chapter.

- 3.13 The availability of primary aggregates is determined by geology. In England for example, land based aggregates are broadly split by a line going from the south west in Devon and Somerset to the north of Norfolk and south of Lincolnshire. To the south of this line, sand and gravel is predominantly found with some soft rock (such as limestone), whilst to the north it is predominantly hard rock with some sand and gravel deposits. Marine sand and gravel is dredged off the South coast, the East Anglian coast, the Thames Estuary and parts of the Welsh Coast.
- 3.14 This means that demand for aggregates is not necessarily in the same place as supply – in particular the South East of England has little hard rock. The imbalance between geographical availability of aggregates and sources of demand results in inter-regional flows, which occur where it is economically viable to transport over longer distances, as in the case of crushed rock transported by rail and sea from the North to the South East.

Figure 3.2: Primary land won aggregates output, by region, GB 2009



Source: BDS Marketing Research, 'Estimated market shares of pits, quarries and marine wharves in Great Britain (2009)'

3.15 However the pattern of trade is not wholly determined by market forces – the planning system also has a key role in controlling supply. The Managed Aggregates Supply System (MASS) sets out the amount of aggregates to be provided in England in each region.¹¹ A detailed description of the planning system for aggregates is provided in Chapter 6 and Annexe B.

¹¹ England and Wales share a broadly common system that allows for national management of aggregates supply, while Scotland and Northern Ireland take separate approaches.

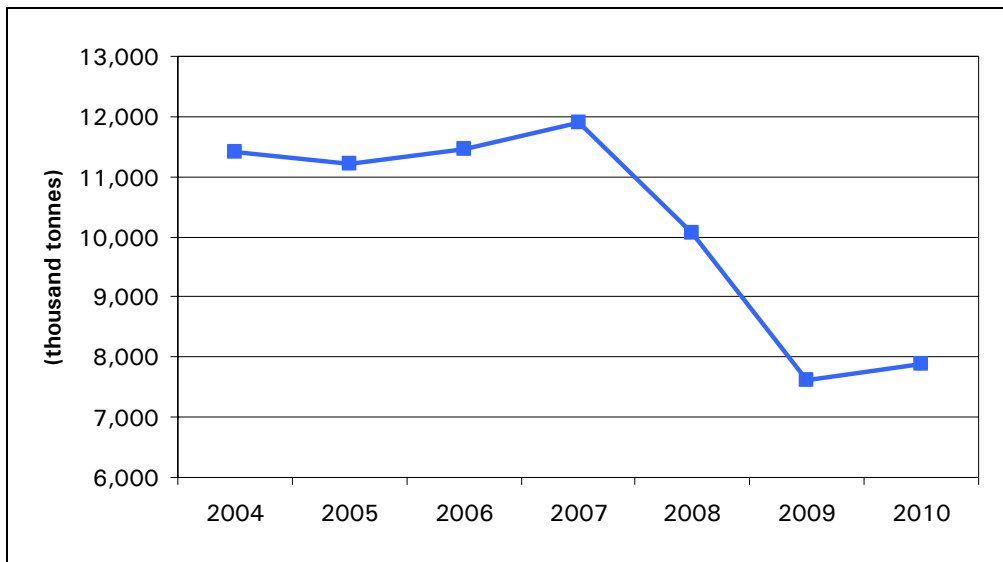
Cement

- 3.16 Cement¹² is a fine powder that acts as a binder. Cement is mainly used for producing concrete, by mixing it with aggregates and water, but it can also be used to manufacture mortar for bonding bricks. Some 52 per cent of cement is used for making ready-mix concrete, with the remaining being sold to merchants and building products manufacturers.¹³
- 3.17 Cement is made by heating pulverised limestone in a furnace to 1480 °C (2700 °F) to form clinker. The clinker is then ground with gypsum to a fine powder which forms cement. Its characteristics allow it to be stored dry in silos for many months. Unlike aggregates, cement's relatively high value per tonne means that it can be profitable to transport over longer distances and to trade it internationally.
- 3.18 Total GB domestic production in 2010 was about eight million tonnes which represents a three per cent increase from 2009 levels. However, the financial crisis at the end of 2007 saw output fall from 12 million tonnes in 2007 to below eight million in 2009, as illustrated in the chart below. Production started to grow again in 2010 although it is still far below the levels prior to 2007 which had been fairly stable at over 11 million tonnes.

¹² We refer throughout this document to grey Portland cement when we talk about cement. The OFT is aware that cementitious products such as pulverised fly ash and ground granulated blast furnace slag (GGBS) are partially substitutable for cement in the production of ready-mix concrete or concrete products. However for the purpose of this market study we have looked at grey Portland cement only.

¹³ Mineral Products Association, Cement Statistics January 2011

Figure 3.3: Cement production GB



Source: BIS 'Monthly statistics on building materials and components', May 2011

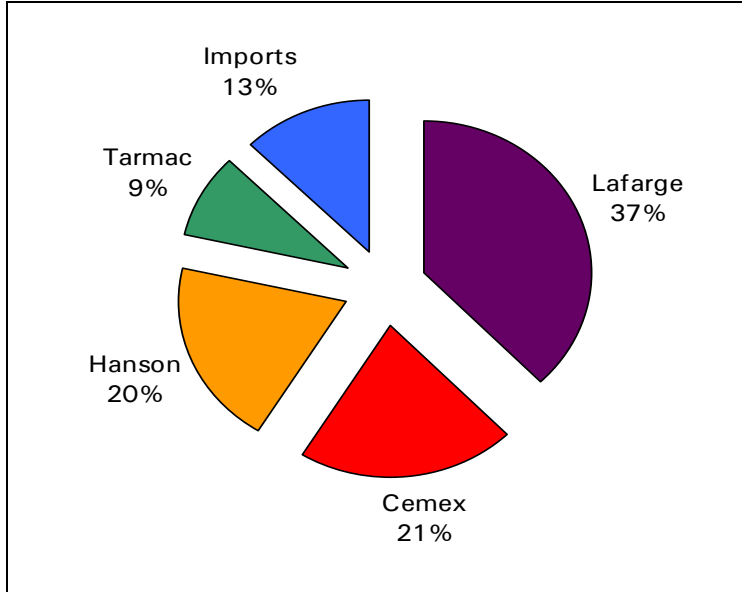
- 3.19 Imports of cement into GB in 2010 were 1,200 tonnes, a decline of 13 per cent from the previous year.¹⁴
- 3.20 The value of cement sales was estimated to be £900 million in 2009. This represents a decline in sales of 11 per cent from 2008.¹⁵
- 3.21 There are four cement producers in the UK, all of which are owned by multinational companies also involved in the extraction of aggregates and production of ready-mix concrete. The only one of the five major aggregates firms that does not manufacture cement – Aggregate Industries – is the largest importer. It imports cement from its parent company (Holcim) through its subsidiary Paragon, with an estimated 4 per cent of the total market (and 30 per cent of the

¹⁴ BIS 'Monthly statistics on building materials and components', May 2011

¹⁵ PRODCOM, National Statistics website, intermediate final estimates 2009

imported cement market). The graph below shows the market share of each firm and that of importers.

Figure 3.4 Cement estimated market shares, 2010



Source: OFT estimates & BIS 'Monthly statistics on building materials and components', May 2011.

3.22 There are 11 operational cement manufacturing plants and two grinding and blending plants located across Great Britain. Tarmac is the smallest producer with a single cement plant with a capacity of over 800,000 tonnes per year, mostly for internal use. Lafarge is the largest with six million tonnes capacity at six plants. Hanson and Cemex each have three plants.

3.23 There have been some closures and mothballing of cement plants in recent years.¹⁶ CEMEX closed its Barrington cement plant in South

¹⁶ Civitas, 'Rock solid?' An investigation into the British cement industry', David Merlin-Jones

Cambridgeshire in November 2008. In February 2009 Lafarge initially mothballed its Westbury plant before later dismantling it. In July 2009, Hanson's Flintshire site stopped production.

- 3.24 In 2008 there were at least 22 dedicated cement importing terminals in the UK with 12 owned by the large firms¹⁷ and eight independent importers.

Table 3.2: Number of operating cement plants and import terminals operated by majors

Company	Number of cement plants	Number of import terminals
Cemex	3	6
Aggregate Industries	0	4
Hanson	3	2
Lafarge	5	3
Tarmac	1	0

Source: Companies websites

Ready-mix concrete

- 3.25 For the purpose of this study we have focused our attention on the ready-mix concrete market. However, concrete can also be sold in pre-cast form, for example blocks, roofing tiles, floor tiles, paving, pipes, and precast structural products. These are excluded from the scope of this market study.
- 3.26 Ready-mix concrete is a mixture of coarse and fine aggregates, cement and water. It is delivered wet and can be moulded into any form. It is the most common form of concrete and is highly versatile

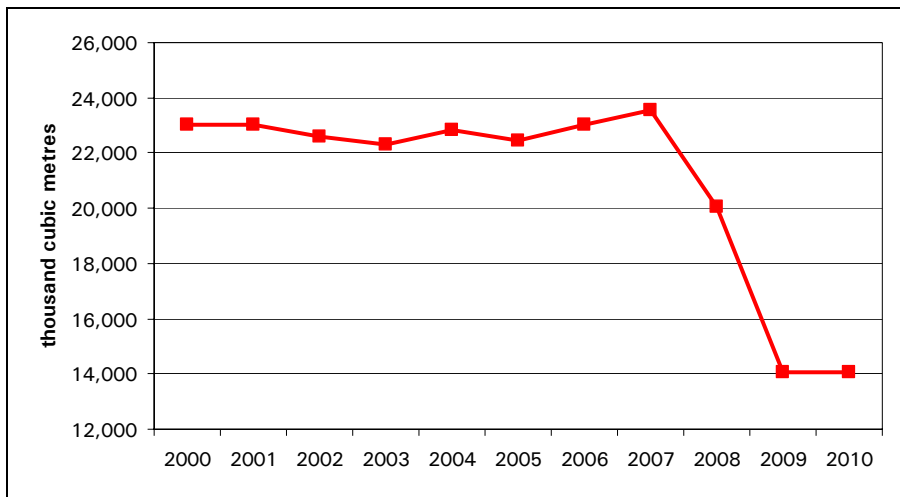
¹⁷ Lords Select Committee on European Union written evidence: Memorandum by the British Cement Association, 2008

lending itself to a wide range of applications in the construction of buildings, roads and other infrastructure.

3.27 There are several approaches to manufacturing and delivering ready-mix concrete including plant batched, on-site batched and on-site plant. Plant batched is the most common, where the raw ingredients are mixed at a fixed location before dispatch by special lorries to the site to be poured. With this approach, only relatively short transport distances are possible due to the highly perishable nature of liquid concrete. On-site batched concrete is mixed on the back of a vehicle at the customer's site. On-site plants are used where large volumes of concrete are required for a particular project with the raw materials delivered separately.

3.28 Fourteen million cubic metres of ready-mix concrete were delivered in the UK over 2009, a fall of 30 per cent from the previous year and 40 per cent since the market peak in 2007. As the chart below shows, before 2007 deliveries had remained fairly constant with minor fluctuations.

Figure 3.5: Ready-mix concrete deliveries UK



Source: BIS

'Monthly statistics on building materials and components', May 2011

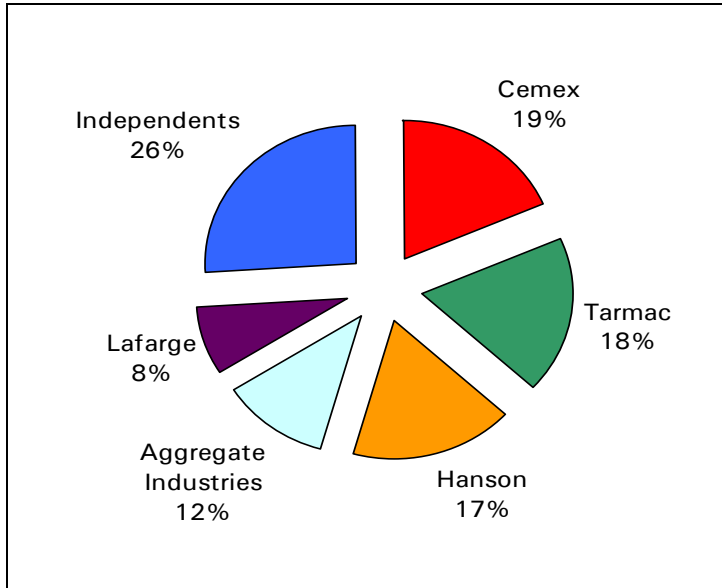
- 3.29 The total value of sales in the ready-mix concrete market in 2009 was estimated to be £1.01bn,¹⁸ a fall of 26 per cent on the previous year.
- 3.30 In 2009 there were 47 companies in Great Britain that produced 30,000m³ or more, along with 159 smaller companies that operate their own concrete batching plant.¹⁹ However, the top five firms in the ready-mix concrete market have a combined share of over 70 per cent.²⁰ Outside the top five, the next largest firm has a 1.4 per cent share with most other firms having shares of less than one per cent and covering only a small geographic area.

¹⁸ PRODCOM, National Statistics website, intermediate final estimates 2009

¹⁹ BDS Marketing research 'Estimated market shares of ready mixed concrete companies in Great Britain (2009)'

²⁰ This does not take into account on-site batched ready-mix concrete which has been growing in popularity over the last few years. If on-site batched concrete is taken into account, the overall market share of the majors in 2009 is in the region of 68 per cent.

Figure 3.6: GB shares of ready-mix concrete volumes, 2009



Source: BDS Marketing Research, 'Estimated market shares of ready mixed concrete companies in Great Britain (2009)'

3.31 The distance ready-mix concrete can travel from a plant is limited by the time it takes to set and so the market for ready-mix concrete tends to be geographically small. As a result, market shares can be much higher at the local level than the national picture might suggest, with only a few firms operating in each county. The presence of the major producers is also notable with at least one major in every county and in some cases no independents present. For example, in Buckinghamshire there are no independent operators, only the five majors, while in the Scottish Borders there are only two operators, both of which are majors.²¹

²¹ Analysis of BDS Marketing Research ready-mix concrete data

Summary

- 3.32 This chapter has looked at the overall industry characteristics of the aggregates, cement and ready-mix concrete markets and current market conditions. Notable amongst these are the presence of the five majors in all three product markets (AI through its subsidiary Paragon) and the high market shares collectively enjoyed. Features of the market that may have an impact on competition are explored in more detail in the following chapter.

4 INDUSTRY FEATURES AND IMPACT ON COMPETITION

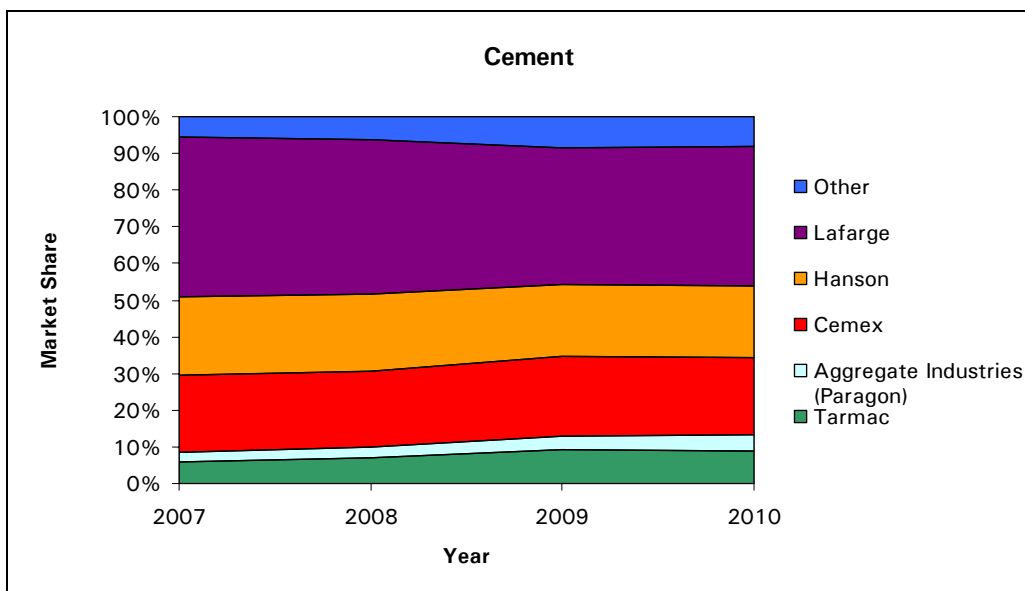
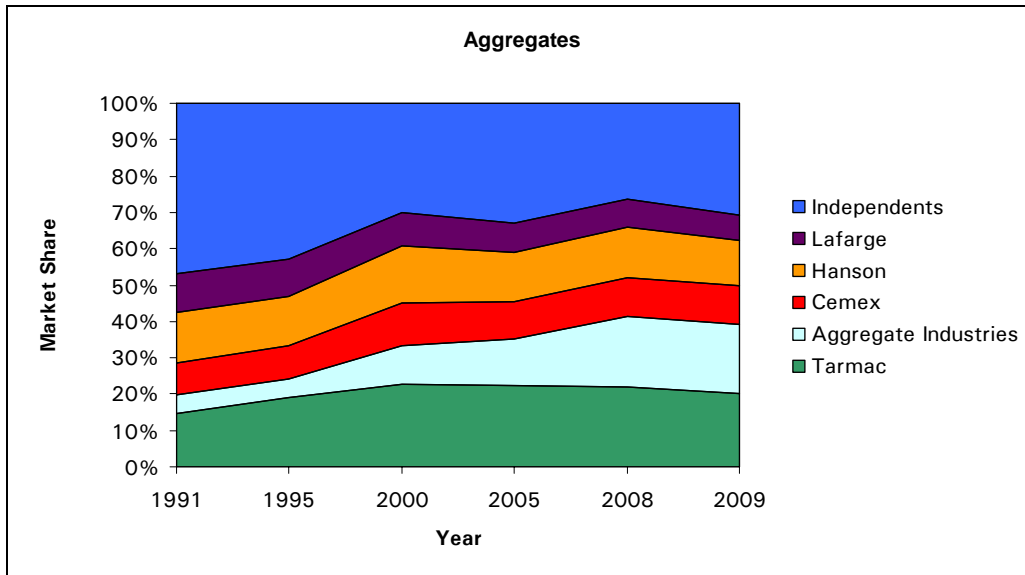
- 4.1 In this section we explore in more detail those features of the industry that could potentially give rise to competition problems. These are concentration, vertical integration, high barriers to entry, homogeneous products, market transparency, and multi-market contact.

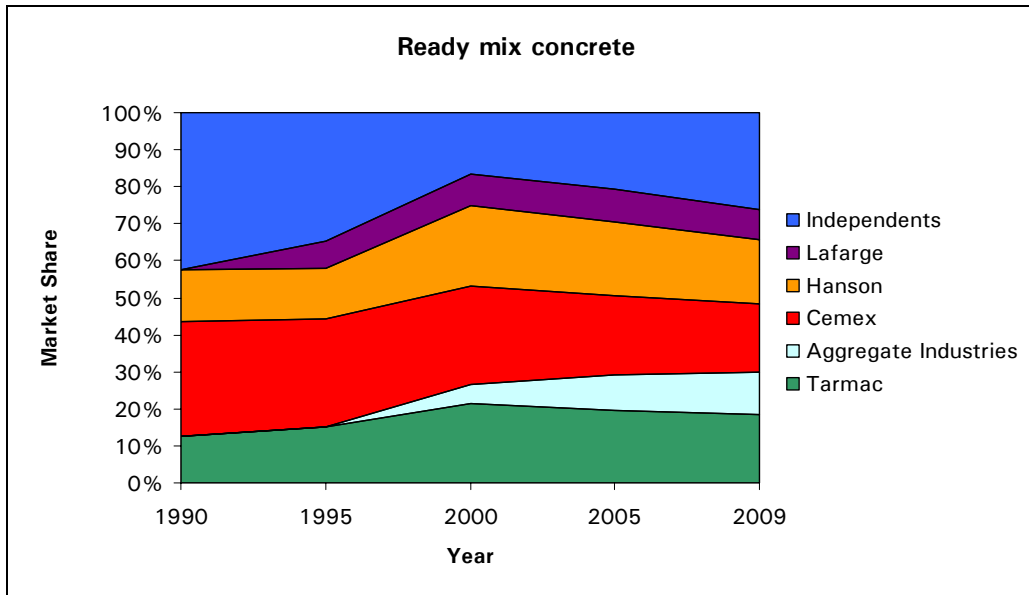
Concentration

National level

- 4.2 As outlined in the previous chapter, all three product markets are highly concentrated at a national level with five major players accounting for upwards of 90 per cent of the cement market, 75 per cent of aggregates sales and 70 per cent of ready-mix concrete production. There is a considerable drop in scale between the majors and the largest independent in each market – there is no comparably large independent producing any of the three products.
- 4.3 The figures below show the movement in market shares over time for the three products. Concentration has increased steadily in the aggregates sector over the last two decades, mainly due to the expansion of Aggregate Industries in recent years. For cement we have figures only for the period since 2007, in which time concentration (in terms of market shares though not the number of firms) has decreased slightly. Concentration in ready-mix concrete is a more complex story, with the entry of Lafarge and Aggregate Industries, but the market share of independents declined sharply in the 1990s then has risen since 2000.

Figure 4.3-4.5: Market shares of top five firms and independents





Source: BDS Marketing Research and OFT information submissions

Local level

- 4.4 However, national market share figures mask significant local variations. For aggregates and ready-mix concrete, we have also examined concentration in local markets by looking at the concentration ratio²² (CR5) and Herfindahl-Hirshman Index (HHI).²³
- 4.5 CR5 for aggregates in Great Britain as a whole increased from just over 50 per cent in 1991 to over 70 per cent in 2009. In Scotland over the same period concentration moved from just under 20 per

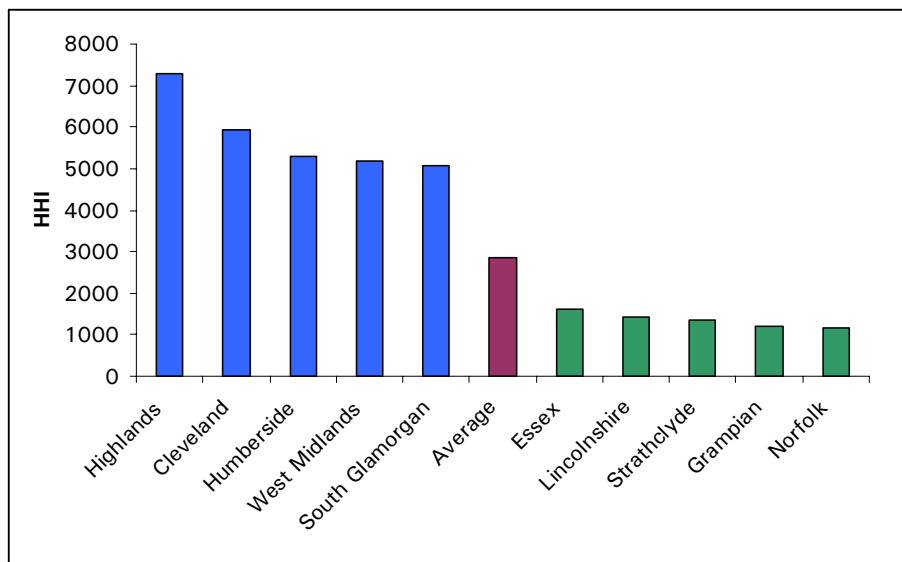
²² Concentration ratios measures the total output in an industry by a given number of firms. In this case we are interested in the five largest firms' share of production.

²³ The HHI is a measure of market concentration that takes account of the differences in the sizes of market participants, as well as their number. The HHI is calculated by adding together the squared values of the percentage market shares of all firms in the market.

cent to over 50 per cent and in Wales from 45 per cent to over 80 per cent. Within England, the South West and East Midlands are particularly concentrated with more than 80 per cent of output accounted for by the five largest firms since 2000.

- 4.6 Figure 4.6 shows the HHI at county level for those counties with the five highest and lowest values. With an average county level HHI of over 2,800, the sector could be regarded as highly concentrated at the local level.²⁴ We note that county-level concentration figures may yet understate the concentration within local geographical market areas, which are likely to be smaller still.

Figure 4.6: HHI aggregates by county, 2009

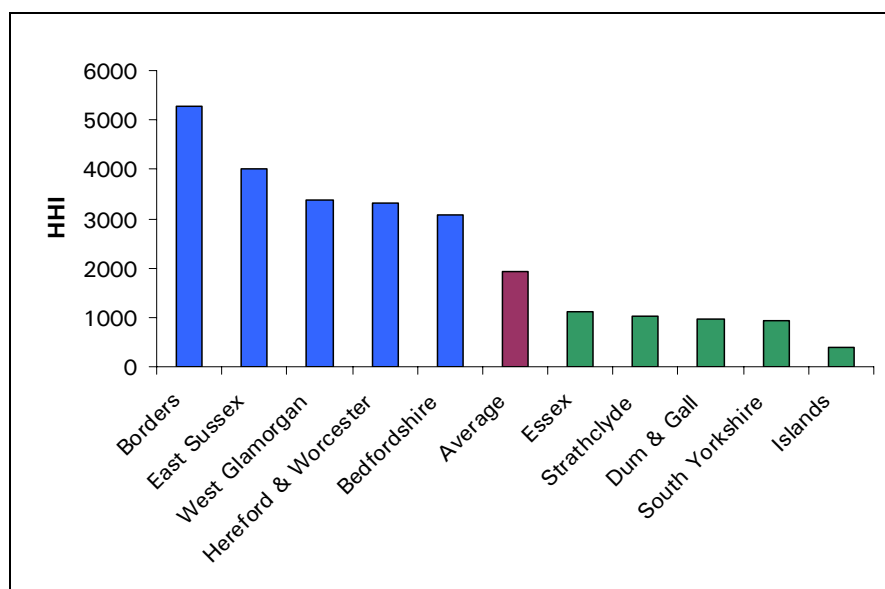


Source: Analysis of BDS Marketing Research data

²⁴ The level of the HHI ranges from zero (ultra-fragmented) to 10,000 (pure monopoly). The OFT/CC Merger Guidelines 2010 regard any market with an HHI exceeding 1,000 as concentrated and any market with a HHI exceeding 2,000 as highly concentrated.

- 4.7 The market for recycled aggregates is much more competitive with an estimated 650 plants recycling construction demolition and excavation waste, operated by more than 450 companies in Great Britain.²⁵ The top 10 companies produce an estimated 25 per cent of recycled aggregates in Great Britain.
- 4.8 In the ready-mix concrete sector, concentration has also increased overall since 1990, with CR5 moving from under 60 per cent of the market to around 75 per cent. At county level, the average HHI shows the ready-mix concrete sector to be highly concentrated with an average HHI of 1,960. For some counties this figure is much higher, as illustrated in Figure 4.7.

Figure 4.7: HHI ready-mix concrete by county, 2009



Source: Analysis of BDS Marketing Research data

²⁵ BDS Marketing Research, 'Aggregates recycling in Great Britain', 2010. These figures exclude plants that recycle for a company's own use only and plants that recycle other types of waste and mobile plant.

4.9 We also looked at the relationship between prices at quarry level and concentration in local aggregates markets.²⁶ We found no clear correlation between price and the degree of market concentration. This finding could be consistent with several hypotheses:

- Threat of entry perfectly constrains competition – we consider this is unlikely, given high physical entry barriers.
- Two players are sufficient for competition and additional players have no impact on price – this is plausible to the extent that parts of the aggregates sector could be characterised as bidding markets. However, whether two players are all that is needed for effective competition depends on the two firms being genuinely identical and genuinely competing, just as in non bidding markets.²⁷ Nevertheless, a high proportion of aggregates are not sold through tendered contract.
- There may be tacit coordination.

Conclusion on concentration

4.10 Increased concentration does not necessarily lead to anti-competitive outcomes. There are many industries in which a small number of large firms compete actively, and the exit of inefficient competitors can result in increased consumer welfare.

4.11 However, concentration can be a factor facilitating coordination. In markets comprising a small number of firms each firm might find it

²⁶ Note we could not undertake the same assessment for ready-mix concrete due to data availability

²⁷ Paul Klemperer, Bidding Markets, Report for the Competition Commission, June 2005

relatively easy to predict the reaction of its competitors to any action it might take. This could provide an opportunity for firms to coordinate their behaviour for mutual advantage or it could simply dull the incentive to compete, leading to a situation in which rivalry to attract new customers becomes muted.²⁸

Vertical integration

- 4.12 Aggregates, by and large, are a low value product which is used as an input to higher value added downstream products such as concrete and asphalt.²⁹ Over the last couple of decades there has been a trend towards vertical integration between the upstream and downstream product markets.
- 4.13 The trend towards vertical integration is particularly notable with the entry into the UK market of international cement manufacturers which have purchased domestic building materials firms. These UK firms had already started to integrate their operations vertically, and were then in turn acquired by international cement manufacturers.
- 4.14 The table below shows the most significant transactions in recent years, covering both vertical integration and horizontal consolidation in the industry.

²⁸ Paragraph 5.5, OFT, 2006, Market investigation references: *Guidance about the making of references under Part 4 of the Enterprise Act*, OFT 511. Available at: www.of.gov.uk/shared_of/business_leaflets/enterprise_act/oft511.pdf

²⁹ Asphalt is a mixture of aggregate and bitumen used in road laying

Table 4.1: Recent Transactions

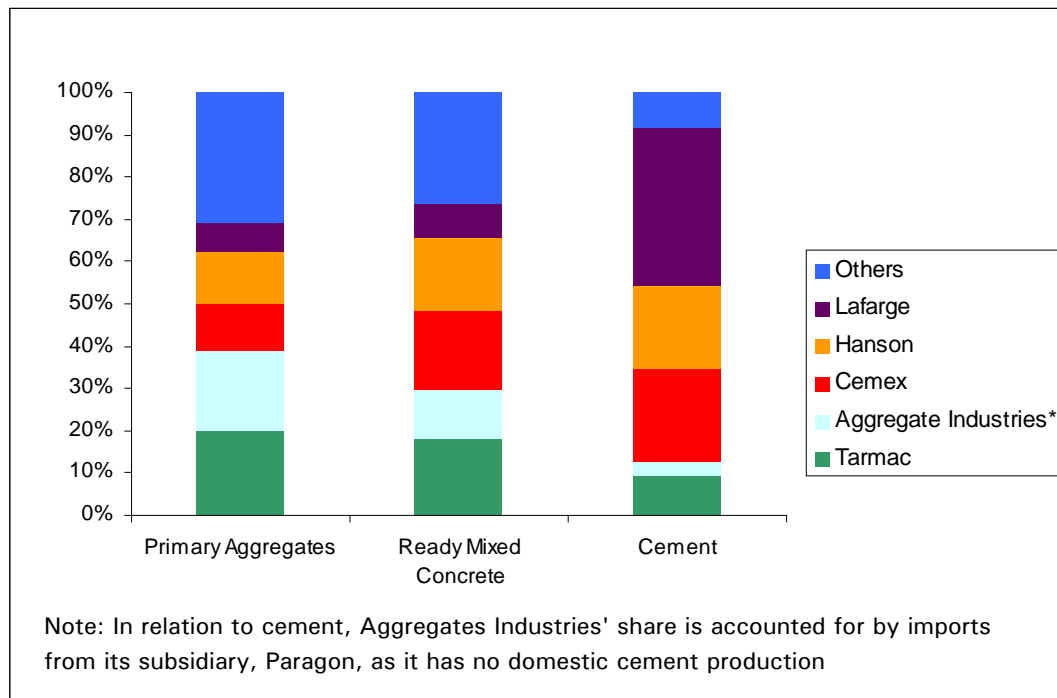
Acquirer	Target	Effect	Year
Aggregate Industries	Atlantic Aggregates	Horizontal, aggregates	2009
Holcim	Aggregate Industries	Vertical - international cement firm buys UK aggregates and ready-mix concrete	2005
Anglo American	Tarmac	Vertical - international mining firm buys UK aggregates and building materials	2000
Heidelberg Cement	Hanson	Vertical - international cement firm buys UK aggregates and ready-mix concrete	2007
Aggregate Industries	Foster Yeoman	Horizontal, aggregates	2006
Hanson	Civil and Marine	Horizontal, aggregates	2006
Cemex	RMC	Vertical - international cement firm buys UK aggregates and ready-mix concrete	2005
Lafarge	Castle Cement - West Thurrock Cement Terminal	Horizontal, cement	2005
Lafarge	Port Land Cement Company	Horizontal, cement	2005

Acquirer	Target	Effect	Year
Midland Quarry Products (Tarmac/Hanson JV)	Hanson Quarry Products Europe - Griff Quarry	Horizontal, aggregates	2004
Lafarge	Blue Circle Industries	Horizontal, cement	2001
Heidelberg Cement	Castle Cement	Horizontal, cement	1999

Source: Company websites, OFT merger decisions.

- 4.15 This pattern of consolidation has resulted in five major firms with a large network of aggregates and ready-mix concrete operations throughout the country. By contrast, independent producers tend to be regional, if not locally based. Some independents may be integrated in aggregates and ready-mix, while others may produce only one or the other.
- 4.16 The figure below illustrates the extent of vertical integration in terms of the market shares of each of the majors in aggregates, cement and ready-mix concrete.

Figure 4.1: Market shares, 2009

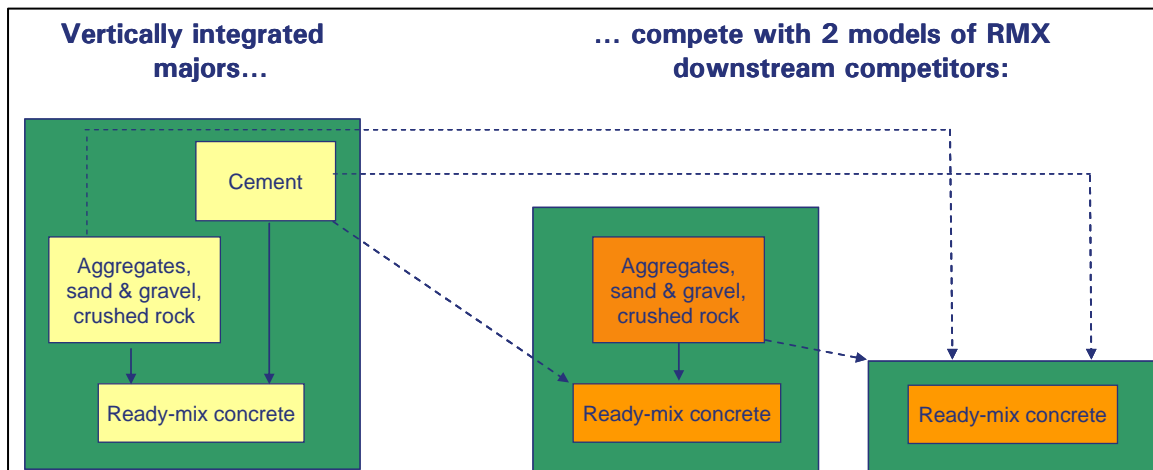


Source: BDS Marketing Research and OFT information submissions

4.17 Vertically integrated firms will sell a proportion of their cement and aggregates internally, selling the remainder to external customers. They may also be in competition with these customers in local aggregates, ready-mix concrete or asphalt markets. We have been told that internal sales of aggregates can range from between 20 per cent up to 90 per cent depending on the aggregate type and company.

4.18 Figure 4.2 illustrates how vertically integrated majors compete with two types of independent producer in the ready-mix concrete market –aggregates firms which also have ready-mix concrete plants (often on site at quarries), and independent ready-mix concrete producers, which have to buy in both aggregates and cement.

Figure 4.2: Models of vertical integration



- 4.19 In some cases it may not be feasible for the downstream operations of the vertically integrated firms to purchase aggregates internally, where they do not produce the right type of aggregate in the right quantity in the right place. In this case they will purchase from nearby competitor quarries. Cross supply of aggregates is therefore a common feature of the market. Cement is also cross-supplied, with cement manufacturers purchasing between eight and 25 per cent of their requirements from one another.³⁰
- 4.20 Vertical integration is not of itself anti-competitive, and can be pro-competitive, as economies of scale and scope can lead to a direct reduction in costs where firms operate at more than one level of the supply chain. Vertical integration may also improve the coordination of upstream production and downstream distribution, leading to lower transaction and inventory costs, and may allow the firm to

³⁰ OFT Information requests

remove the double-marginalisation that occurs where the different stages in the supply chain are served by separate firms.³¹

- 4.21 However, vertical integration can also have anti-competitive effects as integrated firms can raise input prices for their downstream competitors, reducing their rival's ability to compete downstream and hence resulting in softened price competition. Vertically integrated firms can also foreclose non-integrated competitors either by refusing to supply them or by discriminating against them through input pricing.
- 4.22 We come on to discuss the concerns raised by independents about the behaviour of the vertically-integrated majors in the next chapter.

High barriers to entry and expansion

Aggregates

- 4.23 Barriers to entry into land-based primary aggregates are high – aggregates can only be quarried where they are available which, together with public opposition to quarries, limits the number of new quarries that can be exploited.
- 4.24 We review in detail the barriers to entry in relation to the planning system for land-based primary aggregates later in this report. In summary, the main effects are that aspects of the planning system favour incumbents over new entrants. The planning system favours

³¹ For example, where an independent ready-mix producer buys cement and aggregates from a major, both the major and the ready-mix producer will set their prices independently and both charge a mark-up. This results in higher prices than the case where a single firm produces both the inputs and the final product and so sets a single mark-up in relation to the price of final product alone

extensions of existing permissions over permissions for new sites. Furthermore, the minimum reserves target imposed by the Managed Aggregates Supply System (MASS) is often treated as a cap, meaning that it is unlikely that new permissions will be granted while existing reserves exceed the target level. Lastly, the costs and complexities of the planning system favour larger firms with well resourced planning teams and incumbents with connections in the local area.

- 4.25 Barriers to entry into marine aggregates are also high given the costs of vessels.³² As a result, new entrants are deterred by the significant up-front costs involved. Permission for dredging marine aggregates is a requirement but this is mainly based around the environmental acceptability of the proposal rather than limitations in terms of marine aggregates availability. It is cost rather than availability or the planning system which creates barriers to entry.
- 4.26 Barriers to entry into secondary and recycled aggregates are lower and we note the rapid expansion of recycled aggregates in particular in recent years. However, availability and uses of secondary and recycled aggregates are patchy. For example, china clay requires access to a source of material not widely available; demolition waste is more likely to be found in urban areas, and is not suitable for all uses.
- 4.27 Secondary and recycled aggregates account for only a quarter of aggregates use at present and are by no means perfect substitutes

³² Crown Estates estimates between £30 to £50 million per vessel

for primary aggregates³³ so the lower barriers to entry in this segment of the market provide only limited comfort.

Cement

- 4.28 Barriers to entry into cement are also high as evidenced by the lack of new entry into the market from a domestic manufacturer and by the small number of firms in the UK, all of which are big international companies. Factors inhibiting entry include not only the actual costs of a cement plant, which could be in the region of £100 million, but also the need to have access to a lime quarry to manufacture cement. Planning permission for a new cement plant is also seen in the industry as very unlikely.
- 4.29 As noted earlier, cement can be imported but this is not a purchasing strategy attractive to many customers due to distance to sea, economies of scale, concerns over exchange rate, reliability and quality of supply.

Ready-mix concrete

- 4.30 For ready-mix concrete, barriers to entry are much lower in that financial resourcing and the planning process are relatively straightforward. However we have evidence to suggest that fear of predation can be a significant barrier for either aggregate producers wanting to enter the ready-mix concrete market or existing ready-mix concrete producers looking to expand their operations. A more detailed account of this evidence is provided in the next chapter.

³³ Some people in the industry are of the view that recycled and secondary aggregates are pretty much at maximum and that future demand will continue to be largely dependent on primary land-won aggregates – see Nigel Jackson, Chief Executive, Mineral Products Association, Agg-net, 7 July 2011

Summary of barriers to entry

- 4.31 Barriers to entry are high in aggregates, because it is difficult and expensive to get permission to quarry. In particular it is easier for incumbents to extend existing permissions than for new entrants to gain new permissions. Financial barriers are high in cement, and there may also be reputational barriers to this market. Physical and financial barriers to entry are lowest in ready-mix concrete but again there may be reputational factors deterring new entry.

Product homogeneity

- 4.32 Product homogeneity is a market feature that can tend to assist with coordinated behaviour. Where the various firms in a market essentially sell the same product, it is easier to arrive at an understanding, say on price, and for that understanding to be sustained. Homogeneity can also create more intense competition. However where there is high concentration, frequent interaction (see below) and high barriers to entry, then homogeneity may facilitate coordination.
- 4.33 All three products can be characterised as homogeneous. Whilst there are various types and grades of aggregates, there are no significant differences in quality between producers (for example Type-1 aggregate is the same product whether purchased from one company or another). The same could broadly be said for cement and ready-mix concrete.

Market transparency

- 4.34 Market transparency helps oligopolistic firms predict and monitor the reactions of their competitors, which can assist with coordinated behaviour or may simply dull the incentive to compete.

4.35 A range of factors contribute to market transparency in this sector:

- Many firms, including the majors, are customers of one another up and down the supply chain and in different local markets. As discussed in more detail in the following chapter, as customers they receive advance notice of other firms' pricing intentions.
- There is a high degree of transparency over capacity planning, for both aggregates and cement, as the length of time and consultation needed to get planning permission mean capacity intentions are highly visible. The planning system is discussed in more detail later in this report.
- There are also detailed market reports available, which provide information on market shares down to the local level, production volumes, level of aggregate reserves as well as more site specific information. In addition, the particular nature of the planning system for aggregates means that a number of detailed reports are generated.

Multi-market contact

4.36 Multi-market contact increases the frequency of interactions between the firms. As with transparency, this may help firms predict and monitor the reactions of their competitors. Multi-market contact may also soften asymmetries in market share that arise in individual markets. For example, one firm may have a competitive advantage in one local market and its rival can have its own competitive advantage in another local market. While a local market analysis

might suggest that collusion is difficult to sustain, multi-market contact restores in such a case an overall symmetry.³⁴

- 4.37 Multi-market contacts are extensive in this industry, notably because firms compete in local markets up and down the supply chain, but also because they buy from and sell to one another in many of these markets.
- 4.38 A further source of contact between firms is joint ventures (JVs). The major companies are involved in around 30 JVs at present. These exist in both the operation and ownership of quarries, marine aggregates dredgers, ready-mix concrete plants, asphalt plants, and infrastructure such as marine wharves. Annexe A provides a list of JVs known to the OFT. Some of the JVs between the major firms are a legacy of predecessor companies that used such ventures to extend their product or geographic scope. However the majors have also entered into new JVs in recent years.
- 4.39 We have also been told that asset swaps are common and we have evidence of firms exchanging plants/quarries in different parts of the country, instead of buying and selling assets through cash sales. For example we are aware of one case where a ready-mix concrete plant in one part of the country was swapped for a sand and gravel quarry in another, with the result that the firms had almost identical ready-mix concrete output in the county where the ready-mix concrete plant had changed ownership. In another asset swap, two majors swapped ready-mix concrete plants resulting in one of them gaining production in an area they were not previously operating.

³⁴ The Economics of Tacit Collusion, Final Report for DG Competition, European Commission, Marc Ivaldi, Bruno Jullien, Patrick Rey, Paul Seabright, Jean Tirole, March 2003

4.40 The significance of asset swaps in our view is two fold:

- They illustrate the extent of multimarket contact. The exchange of these assets must be negotiated nationally given the different local and product markets involved, and so indicate the extent to which these firms are in close contact with one another.
- Asset swaps may be used to increase the symmetry of market shares in local markets (this is a possible interpretation of the examples mentioned above) which may assist coordination or at least dull the incentive to compete.

Conclusion

4.41 This section has discussed a number of features of this industry that can in principle give rise to competition concerns. In the next chapter we discuss the concerns raised by parties in the course of the study.

5 ISSUES RAISED DURING THE COURSE OF OUR STUDY

- 5.1 Our study of the aggregates sector has revealed a range of concerns among stakeholders about how competition operates in this sector. We also heard a range of views on planning and other issues. However, most concerns about competition in the market were related to the extent of vertical integration between the aggregates, cement and ready-mix concrete sectors, and to the conduct of the vertically-integrated majors. This was the reason for extending the scope of the study into cement and ready-mix concrete.
- 5.2 This chapter sets out the main concerns that were raised with us during the course of our market study in relation to competition in the sector. Specific issues about planning and procurement are discussed in the next chapter. This chapter begins by summarising the concerns raised and anecdotal evidence presented to the study. It then goes on to cover the analysis we have undertaken to substantiate the anecdotal evidence received.

Anecdotal evidence

- 5.3 During the course of the market study we have spoken to a diverse range of stakeholders including producers and customers of aggregates, and to a lesser extent of ready-mix concrete and cement products. We have met directly with 19 companies, received written information from over 50 firms (comprising both competitors and customers) and received a further 13 submissions from other parties, some of them anonymous.
- 5.4 We heard a range of accounts, most of which related to the behaviour of the vertically integrated majors. These included comments on a perceived 'squeeze' between the high price of cement and the low price of ready-mix concrete, the difficulty of obtaining competitive quotes for cement, aggressive pricing in ready-

mix concrete, and the fact that the major firms announce price rises at the same time as one another and of similar amounts. We discuss these issues in more detail below.

- 5.5 The complaints and allegations received were for the most part made anonymously. Little written evidence was submitted. We were told that there was reluctance on the part of independent firms to provide evidence, particularly in writing, for fear of commercial retaliation. For example one letter (from an aggregates customer) read:

'sorry this has to be anonymous which is not my style but I would not be able to ever gain competitive prices ever again from these internationally huge businesses.'

- 5.6 Given the lack of detail provided and the difficulty of following up to substantiate particular accounts (notably those made anonymously) it is very difficult to come to a firm conclusion as to whether individual allegations might represent potential infringements of competition law. Individually, each account is insufficient to form the basis of, or justify prioritising, an investigation under the Competition Act 1998 (Competition Act). Collectively, however, the evidence does seem to indicate competition problems in the market. The fact that we received a significant number of accounts which are broadly consistent with one another, suggests that independents perceive a serious threat from the behaviour of the vertically integrated majors.
- 5.7 We provide more detail on the various accounts we have received below.

'Squeeze' between cement and ready-mix concrete prices

- 5.8 Independent ready-mix concrete operators report suffering a margin squeeze between the consistently high price of cement (an input to ready-mix concrete) and the low price of ready-mix concrete. Quite a

number of independent operators in the aggregates and ready-mix concrete industries are of the view that the majors are willing to lose money in ready-mix concrete knowing that they make profits in cement.

5.9 Some ready-mix concrete producers and aggregate producers have attempted to set up buyer consortia in order to import cement and some have even considered opening their own cement plant in order to reduce reliance on the majors. However, risk of exchange rate fluctuations and the fear of retaliation from incumbents during the set up process (as they would still need to rely on the majors for cement during that time) give rise to squeeze concerns which have prevented these from going forward.

5.10 Comments received from customers and competitors include:

'The large companies such as Lafarge, Hanson and Cemex are 'within pennies of each other' as prices of cement go up, but these cement prices are not reflected in the general market for concrete.'

'We have found in recent times that purchases of cement from xxx were having to be made at higher prices which were not reflected in the market price of the concrete product. This had the effect of reducing the margin obtainable on concrete by an independent producer such as ourselves.'

'I am particularly concerned at the move within the vertically integrated major companies producing and selling cement to push up the price of cement to independent companies whilst reducing the price of their own concrete products (such as ready-mix concrete) to the market...This is unfair competition and clearly could lead to less competition in the market place once all of the independents suppliers' costs are pushed above the selling price for concrete.'

Whilst initially this gives good value to customers, in the longer term it will reduce competition.'

'Independents have not gone out of business yet, mainly because they have been able – particularly in the downturn where there has been excess aggregates capacity – to make up for expensive cement by squeezing their aggregates supply chain but it is merely a matter of time.'

5.11 The anecdotal evidence suggests that majors are not competing with one another to supply independents even in areas where they do not have a ready-mix concrete presence – this implies they are passing up an opportunity to make cement sales without cannibalising their own downstream customer base or indeed their rivals' customer bases. This implies that the behaviour is coordinated or at least that competition is muted in these markets.

5.12 Possible hypothesis for this include:

- The majors have some kind of understanding that they will not supply cement to independents in non-presided areas. This enables incumbent suppliers to extract rent, while containing the common competitive threat posed by downstream independents.
- Complaints may simply reflect difficulties faced by independents in competing against more efficient vertically integrated companies. Operating multiple concrete plants allows economies of scale by logistically coordinating deliveries of a highly perishable product on short notice to consumers at multiple locations. More generally, vertically integrated players may be able to offer better prices for ready-mix concrete because they avoid double marginalisation.

- 5.13 Our analysis appears to confirm that there has been a divergence between the price of cement and the price of ready-mix concrete, and that the price charged to independents for cement exceeds the price the majors charge themselves and each other. The analysis is consistent with but in no sense conclusive proof of the hypothesis described above. The analysis is described in detail later in this chapter.

Difficulty obtaining competitive quotes

- 5.14 As noted above, the margin squeeze allegation implies a lack of rivalry between the majors – if this were not the case, independents facing a cement price increase from their supplier could source cement at a competitive price from a different firm.
- 5.15 In connection with the margin squeeze issue we heard a range of accounts as to why independents were not able to obtain a competitive price elsewhere. We were told that either the other majors are not interested in quoting, or else provide quotes which are no better than, if not far higher than, their existing rate. We were told that the majors explain this by citing production shortages. However, at present there appears to be excess capacity in the cement sector (as evidenced by falling production volumes and the number of recently closed or mothballed plants) which does not, prima facie, support the explanation of production shortages.
- 5.16 The comments we received on refusal to supply included:
- 'We are not able to play one cement supplier off against another to obtain a better price, you have to rely on your relationships with your current supplier to keep you competitive.'

'We have tried but can't get any 'sensible' prices out of xxx or xxx. Consequently we are very reliant on xxx as a source and feel very exposed in terms of supply risk.'

'We have to buy from xxx; other companies won't give you a price or will quote double the market price. The official reason given is no capacity, but in reality it's because the big companies don't want to undermine xxx's price.'

5.17 As noted earlier, the geographic market for cement is considerably wider than that for aggregates or ready-mix. In theory it is hard to see why any one of the majors could not offer a price for delivering cement in most parts of the country, given that it can be economic to transport cement over large distances. Refusal to supply cement to an independent firm at a reasonable price therefore suggests a lack of rivalry among the majors.

5.18 Comments from independents about their perception of rivalry between the majors included:

'During lean times majors frequently target volume which is inevitably held by small independent companies such as my own so as to avoid commercial conflict with other major suppliers.'

'We have heard of incidents where a salesman has said that he is not allowed to quote and the customer should go to company xxx instead. Also we have heard of agreement between companies whereby one supplies aggregates and another read-mix concrete in a certain area and they do not compete with one another.'

'The price differential between the main operators is very similar as they don't want to upset each other as they also trade with each other across a portfolio of products behind the scenes. For example, xxx has a deal but buys off xxx. Due to this reciprocal trading, how

aggressive are they? If one upset the market by taking a customer through aggressive pricing, how might they be treated if they need supply later? It is an incestuous relationship.'

Aggressive pricing

5.19 In addition to margin squeeze via input foreclosure, we also received a number of complaints of aggressive downstream pricing in ready-mix concrete and asphalt.³⁵

5.20 It has been reported to us (though we have not been able to confirm it) that the majors are supplying ready-mix concrete below cost and to a level at which independents cannot compete. Similarly, there was a claim that some major aggregate producers have taken 'a hit' on asphalt, with majors reducing the price at the last minute in order to win the contract, to levels competitors could not match (and allegedly a price level at which majors would incur losses).

5.21 The comments on aggressive pricing included:

'Majors are charging prices that do not cover their costs which I believe is predatory and if it continues many of us will go out of business which in the long term will reduce competition.'

'My only conclusion is that xxx are trying to drive us out of business as it is not commercially viable for them to supply concrete at these prices.'

³⁵ Aggregates are a key input into asphalt (the other being bitumen). Whilst asphalt is not directly in scope, we have included in our study accounts involving supply of aggregates to asphalt contractors.

- 5.22 This behaviour would not constitute predatory pricing in the sense of being an abuse of dominance unless a single firm was found to be dominant. We have reviewed the information received and have not found this to be the case. However, it may be a further indication of a common strategy on the part of the majors to limit the competitive threat from independents.

Threat of retaliation

- 5.23 We were also told of threats to cut off supply of aggregates or cement as a means of retaliation by the majors for behaviour perceived to be contrary to their commercial interest. For example, we heard that an independent had been warned off supplying ready-mix concrete in areas outside its 'normal' market territory.

Parallel pricing

- 5.24 We understand from discussions with a range of firms that it is common practice across the industry to send price increase letters to customers in advance of implementation. These price letters detail the amount by which product prices will rise and the timing of such increases.
- 5.25 We note two points in relation to these letters. The first is that to the extent that firms in these markets are customers of each other, they receive advance notice of each others' price increases.
- 5.26 The second is that we have been told that the majors tend to put prices up by similar amounts and at the same time. We have also been told that sometimes a major may take the lead in terms of announcing a price rise, with the others following closely behind, or that quotes have been delayed until there was a clear indication of what others may do regarding their price increases. We have also heard that letters used to be sent once or twice a year on 1 January

and 1 June, but recently have been sent more often, sometimes monthly.

- 5.27 We have collected a sample of around 50 price letters from the majors to diverse customers including house builders, asphalt contractors and independent aggregates and ready-mix concrete suppliers, dated from January 2010 to April 2011. The letters contain details of future price increases of products including aggregates, ready-mix concrete, asphalt, cement and other building products.
- 5.28 The letters within this sample were sent at very similar times, often with the same implementation date. Usually they were sent about a month in advance, with a range of between three months' and two weeks' notice being given.
- 5.29 Some letters outline price rises for a single product, while others include a range of products such as aggregates, asphalt and ready-mix concrete. Cement prices seem to be sent separately. The price increases tend to be relatively close in terms of amount. On one occasion within the sample, letters from two firms were sent very close to one another in time, and contained the same price increases for the same products, set out in the same order.
- 5.30 Some of the comments we have received on this issue are as follows:

'There is never any notification of price reductions and often the letters will include increases with ancillary items like plant opening charges, increases in haulage costs etc which are all in line with each other.'

'Our contractors are frustrated in trying to achieve a competitive price as the prices charged by suppliers are so close together: they

observe annual pricing rounds where one supplier will put their price up and the others will then follow suit within weeks.'

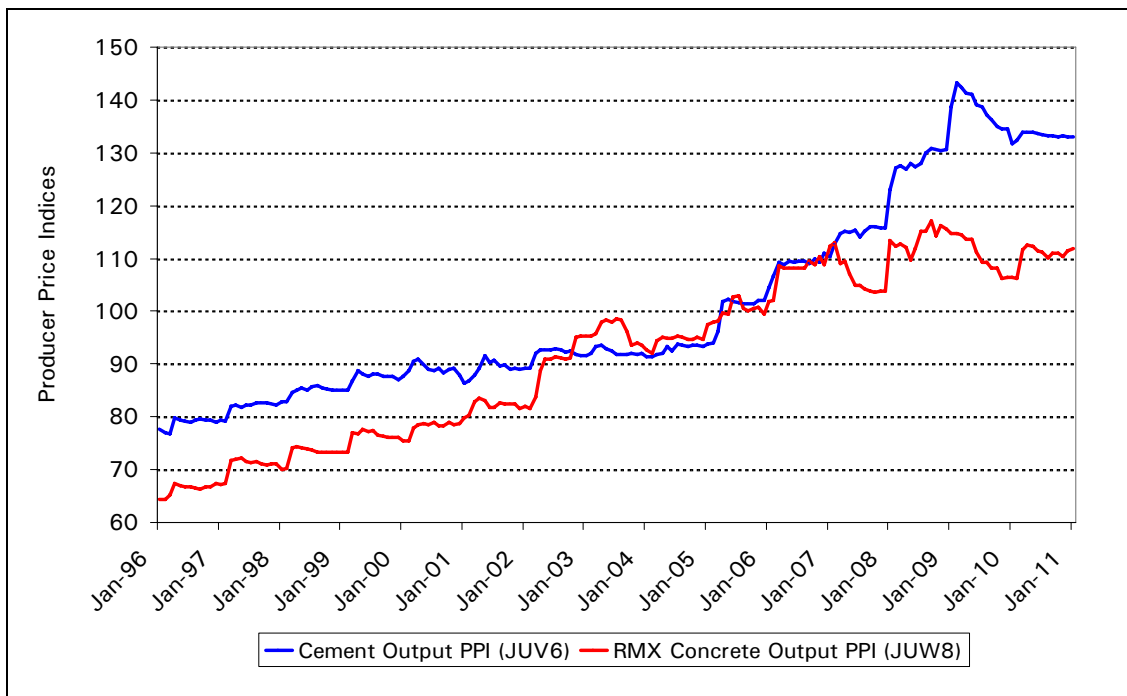
- 5.31 We understand, however, that the prices set out in price increase letters are in practice used as a starting point for negotiations with customers and that firms generally fail to achieve the prices set out in the price letters, in part because of the rebates offered to large customers. This failure to achieve 'list' prices suggests that prices are not simply fixed through this mechanism. Nonetheless, these letters may have a role in signalling price intentions, thus softening competition. Furthermore, some customers do pay 'list' prices, as discussed in more detail in the next chapter.

Performance indicators

- 5.32 We looked to see whether the data available to us support the suggestion that there has been a squeeze between the price of cement and of ready-mix concrete.
- 5.33 Publicly available data from ONS appear to confirm that there has been a 'squeeze' between the price of cement (which has risen in recent years) and the price of ready-mix concrete (which has fallen then stabilised). Figure 5.1 shows output Producer Price Indices ('PPIs') for cement and ready-mix concrete.³⁶ The two price series are more or less in line until around 2007. From around 2007, the price of cement seems to have increased faster than the price of ready-mix concrete. Moreover, there was a sharp increase in the price of cement around 2009 that is not mirrored in the price of concrete.

³⁶ Output PPIs show the prices received by manufacturers for the goods they produce

Figure 5.1: Output PPIs for cement and ready-mix concrete (2005 = 100)



Source: OFT analysis using data from ONS.

5.34 Since cement is a major cost component of ready-mix concrete (around 45 per cent), it is surprising that price changes in cement do not appear to be fully reflected in ready-mix concrete in the period since 2007. This pattern of prices would be consistent with margin squeeze in the market for ready-mix concrete, though it is, of course, not conclusive evidence of this.

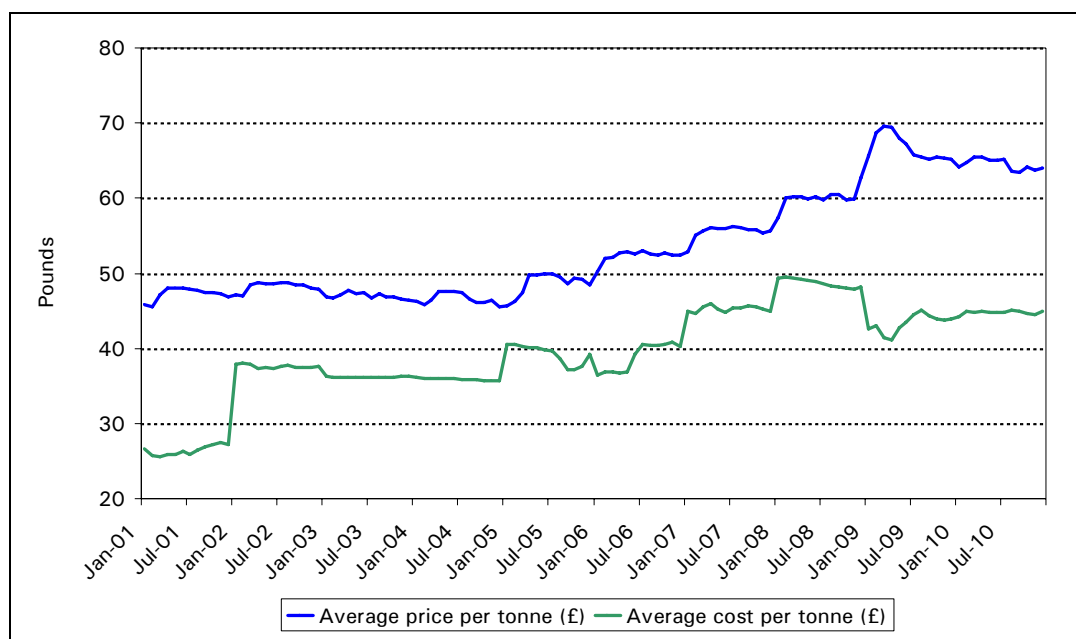
5.35 Firm-level data supplied by two of the majors³⁷ provide further corroborative evidence of a divergence between cement prices and ready-mix concrete prices and a consequent possible squeeze.

³⁷ Where data were supplied by the other majors, these were not of sufficient quality and/or did not cover a sufficient period of time.

5.36 For one major, monthly data on volumes, costs and prices allowed us to estimate its average prices and average total costs for both cement and ready-mix concrete. These data also allowed us to estimate the firm's marginal costs in relation to ready-mix concrete. Both of these analyses – described in more detail below - suggested that ready-mix concrete margins fell in late 2009 and 2010.

5.37 Figures 5.2 and 5.3 below show the average price and average cost for cement and ready-mix concrete, respectively, over time. For cement, the gap between average price and average cost has widened from 2009 onwards. For ready-mix concrete, over the same time period (from 2009 onwards), average cost is actually higher than average price, suggesting that margins may even be negative. Moreover, during 2009 ready-mix concrete average price fell while average cost increased (possibly reflecting the increase in the average price of cement, since this is a major cost component).

Figure 5.2: Cement – average price and average cost per tonne



Source: OFT analysis

Figure 5.3: Ready-mix concrete – average price and average cost per cubic metre



Source: OFT analysis

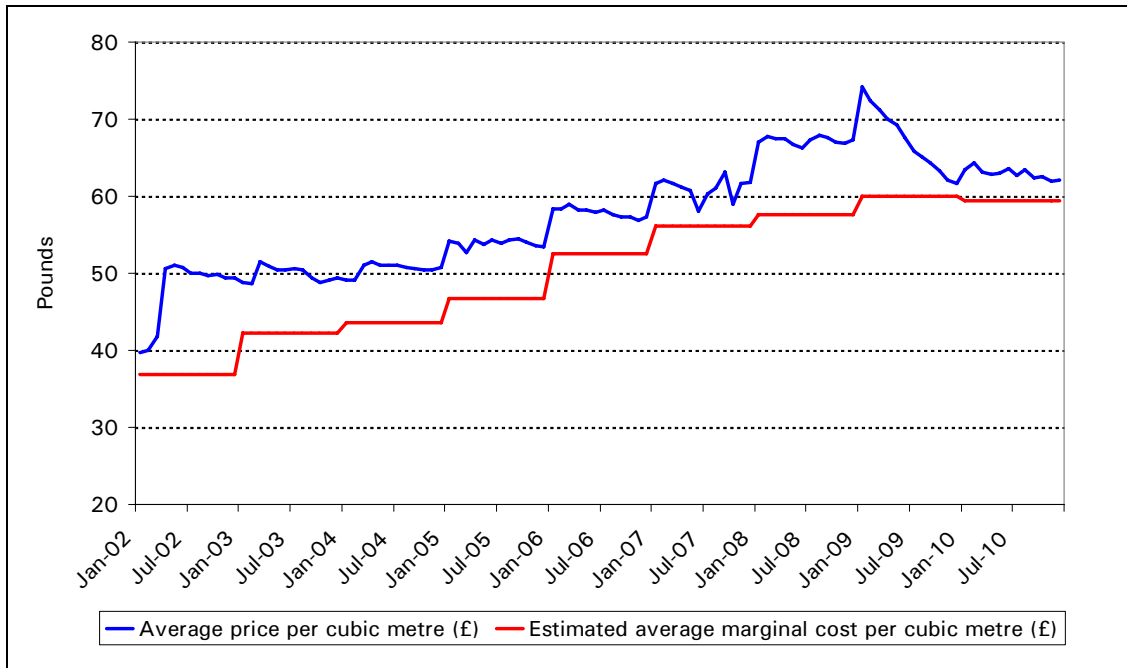
5.38 We also used the data to estimate the average marginal cost of ready-mix concrete for this firm. An econometric analysis was conducted using the total cost and total quantity of ready-mix concrete produced by the firm and this produced estimates of marginal cost for each of the years 2002 to 2010.³⁸

5.39 Figure 5.4 below shows actual average price over time and estimated average marginal cost for ready-mix concrete for each year. Again, these results suggest that margins have been falling in 2009 and 2010 compared to earlier years. Alternatively they could

³⁸ All of these marginal cost estimates were significant at the 99 per cent confidence level.

be a consequence of the recession with lower demand and constant supply leading to lower margins.

Figure 5.4: Ready-mix concrete – price and average marginal cost



Source: OFT analysis

- 5.40 Annual data supplied by a second firm suggested that its margin on ready-mix concrete was significantly lower in 2009 and 2010 than in previous years, falling by 75 per cent between its 2008 level and the level in 2009 and 2010.
- 5.41 These results are indicative but not determinative of a margin squeeze.
- 5.42 Furthermore, in relation to the analysis that we have conducted, we note that there are serious limitations in the data available to us. In particular, the analysis is based on accounting costs, rather than economic costs. Moreover, the estimates are based on national

averages and this further complicates their interpretation, as ready-mix concrete markets are local in scope.

- 5.43 Data problems notwithstanding, these findings could be considered consistent with a concerted effort by the majors to exclude or contain the competitive threat from independent ready-mix concrete operators. We do not rule out the possibility that these results could simply reflect competition in the context of rising input prices and falling demand for concrete due to the slow-down in construction. Nonetheless the slow down affected both sectors, so we might have expected cement and ready-mix concrete prices to follow a similar trajectory. If anything, we might have expected a sharper fall in the price of cement than in the price of ready-mix, since cement has higher fixed costs of production. On balance we consider the observed falls in ready-mix concrete margins to be potentially indicative of margin squeeze by the majors but not to represent definitive evidence of this.
- 5.44 We also examined differentials between cement prices that the majors charge themselves for cement, the prices they charge each other, and the price charged to independents. We found that independents may be charged higher prices, in the region of 14 per cent more. On the basis of the data available, we calculated the average price charged per tonne of cement internally, to other majors and to independents – these are shown in Table 5.1 below. We additionally ran econometric analysis to control for the fact that independents are, on average, smaller volume customers and to assess whether the price difference was due to volume. This analysis also suggested that independents pay on average 13 per cent more than other majors and that volume differences are not

driving prices.³⁹ Such price discrimination could be consistent with an attempt by the majors to squeeze the margins achieved by independent ready-mix concrete producers.

Table 5.1: Average cement price and volume per type of customer

Customer	Average price (per tonne)	Average volume (tonnes)
Internal	£81.45	625,702
Major	£80.70	68,950
Independent	£92.28	31,483

Source: OFT information requests

5.45 We consider that limitations in the data available to the market study means that the above analysis is not conclusive, but that it provides reasonable grounds for suspecting that competition is adversely affected.

Conclusion

5.46 We have described above the representations and accounts we have received about competition in these markets. These indicate, at a minimum, that there is real concern among independent operators about exclusionary or exploitative behaviour by the majors. If true, this indicates a lack of rivalry between the majors.

5.47 In terms of data analysis, limitations in the data mean that we are unwilling to draw firm conclusions in this respect but what analysis

³⁹ The coefficient on the independent dummy variable is statistically significant at the 95 per cent confidence level.

we were able to conduct is consistent with the hypothesis that the major firms may collectively be squeezing the independent sector.

- 5.48 The analysis and evidence in this chapter and the preceding one lead us to believe that competition in the aggregates, cement and ready-mix concrete sectors does not appear to be working well. There may be a lack of rivalry rooted in underlying and persistent features of the market. These features may enable the vertically-integrated major firms to pursue a joint strategy of containing or excluding independent competition.
- 5.49 We are concerned that the lack of rivalry may result in consumer harm through higher prices in the short-term, and the squeeze may lead to erosion of independent competition in the medium to long term. The effect in the long run could be a further weakening of competition between the majors, resulting in higher prices for aggregates, cement and ready-mix concrete.

6 OTHER FINDINGS FROM OUR MARKET STUDY

- 6.1 During the course of our market study we also examined the planning system in relation to aggregates as we wanted to look at whether high barriers to entry and Government involvement influenced competitive conditions. We set out our findings on this area below. We also cover issues in relation to the procurement of aggregates which have emerged during our work.

The planning system

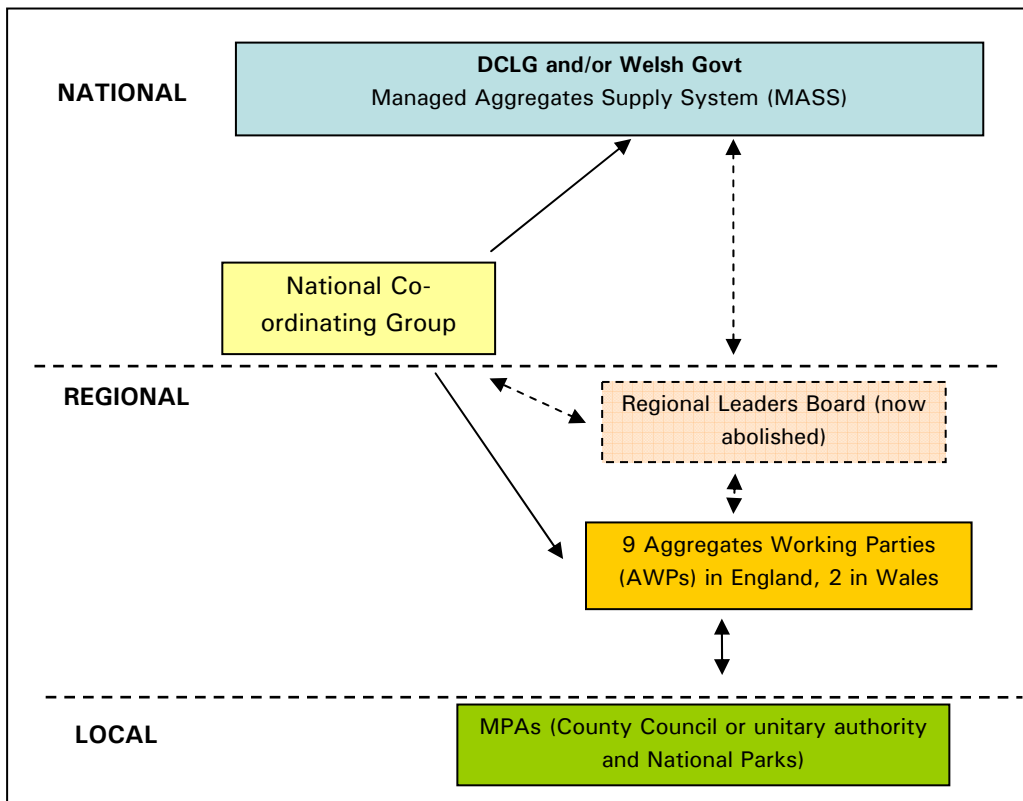
- 6.2 The planning and environmental permitting systems in the UK, which govern how land can be used, are significant factors in the operation of the aggregates market. Their effect varies according to the type of aggregate: primary (land-won and marine), secondary, or recycled. Variations also exist by territory: England and Wales share a broadly common system that allows for national management of aggregates supply, while Scotland and Northern Ireland take separate approaches. The rest of this chapter covers the planning system for England and Wales although many of features discussed are also applicable to other parts of the UK. A more detailed outline of these planning systems, including information on the recent and anticipated changes to the planning system such as the removal of the regional planning layer, can be found at Annexe B.
- 6.3 Land-won primary aggregates are subject to both town and country planning restrictions for land use and a Managed Aggregates Supply System (MASS) that seeks to reconcile supply and demand requirements, setting targets for reserves of permitted supply

(landbanks)⁴⁰ based on econometric modelling of demand in Great Britain which is then disaggregated into England, Wales and Scotland and then into the different English regions. Minerals Policy Statement 1 (MPS1) states that Mineral Planning Authorities (MPAs) should ensure a landbank of 'at least 7 years for sand and gravel and at least 10 years for crushed rock', and that these levels should be an 'indicator of when new permissions for aggregates extraction are likely to be needed'.

- 6.4 Within England and Wales, a supporting infrastructure has evolved to enable MASS, led by the Department of Communities and Local Government (DCLG) with a National Coordinating Group acting at national level, Aggregates Working Parties to advise on the apportionment of supply across different regions, and local Mineral Planning Authorities. MPAs are responsible for reconciling the requirements of both town and country planning and MASS, and delivering and enforcing the actual local planning decisions to implement these. Figure 6.1 illustrates how MASS works.

⁴⁰ A land bank – measured in years – is the stock of permitted reserves that have valid planning permission, and is calculated by dividing the volume of existing permitted reserves by the average annual provision in the area. Landbanks link demand forecasts and supply expectations, and are therefore key when MPAs consider planning applications.

Figure 6.1: The MASS in operation



6.5 Numerous changes have recently occurred and are yet anticipated to the planning system, particularly with regard to increasing local empowerment. The major structural consequence has been the intention to remove the regional planning tier. DCLG has also announced a review of planning policy, designed to consolidate policy statements, circulars and guidance documents into a single concise document that sets out the Government's priorities for the planning system, covering all major forms of development proposals handled by local authorities. This will be called the National Planning

Policy Framework. A draft Framework document was put out to public consultation on 25 July 2011.⁴¹

- 6.6 Marine, secondary and recycled aggregates are subject to different planning regimes which are explained in Annexe B. Here we concentrate on land-won aggregates as this is the main area where concerns have been raised during the course of the study.
- 6.7 Stakeholders' views suggest that the planning system may create significant barriers to entry to the aggregates market. It may also increase market transparency – particularly as regards capacity planning – and entrench existing supply patterns. These concerns are outlined below.

Barriers to entry

- 6.8 The potential barriers to entry that we have considered are threefold: aspects of the planning system that favour incumbents over new entrants; the potential for incumbents to hoard landbanks in order to exclude new entrants; and the barrier represented by the costly planning application process. We discuss each in turn.

Favouring incumbents over new entrants

- 6.9 The planning system appears to favour incumbents in several ways: most notably by favouring extensions of existing quarries over new applications on greenfield sites, but also by treating land bank target levels as a ceiling or cap for the amount of aggregates to be extracted at the local level, and finally because the complex and

⁴¹ www.communities.gov.uk/publications/planningandbuilding/draftframeworkconsultation

costly process of applying for planning consents favours larger, more experienced firms. We look at each in turn.

- 6.10 Generally, planning permissions are not typically granted for the whole life time of a site in terms of available aggregates but instead are for a specific period of time, though the length of that period varies case by case. We understand that, for social and environmental reasons, MPAs generally favour extending the time period on existing planning permissions for quarries as opposed to granting permissions for new ones. Data from CLG confirms that from 2000 to 2010 extensions were more readily granted than greenfield developments, while the 2005 Aggregates Mineral Survey showed that 68 per cent of sand and gravel applications and 89 per cent of crushed rock applications granted in England between 2002 and 2005 were for extensions.
- 6.11 Extensions are both more commonly granted and cheaper than starting a new site, so incumbents have a clear advantage over new entrants when it comes to securing reserves for aggregates extraction.
- 6.12 Although the policy intention is for landbanks to be designated minimum thresholds of permitted reserves,⁴² we understand that, being unwilling to permit more quarrying than is necessary, MPAs sometimes treat their land bank target as a maximum or cap. In such cases, where a landbank target is met, entry or expansion will effectively not be possible until such time as the landbank falls beneath target levels. Meanwhile the market is essentially closed to new entry. For example, one asphalt plant operator we spoke to commented that they would like to have their own supply of

⁴² Paragraph 4.1 of Annex 1 (Aggregates) of Minerals Policy Statement 1, Nov 2006

aggregates but that it is impossible for them to secure a planning permission for a site as the landbank is fully allocated.

- 6.13 Lastly, incumbent firms can over time build up a strong network of relationships with planning authorities and the local community more broadly. By contrast, newcomers may be put off by the costs in time and money of seeking planning permission.

Landbanks and mothballing sites

- 6.14 As discussed above, MPAs sometimes treat landbanks as a cap, so that a large landbank can act as an absolute barrier to entry. Furthermore, not all of a landbank need be actively operated at any time, nor is it necessary that operators extract the amount permitted. It would therefore, in theory, be possible for operators to hoard land strategically to bar a competitor or new entrant from gaining permission for another site in the same area. This may be more likely where ownership of the landbank is highly concentrated.
- 6.15 Whilst there is some provision for competition effects to be considered when evaluating a planning application (there is provision to review the appropriateness of the landbank), this does not appear to be systematically taken into account or carried out in practice. Furthermore, planning permission is linked to the land rather than to the company extracting the minerals.
- 6.16 In theory it would be possible for a landbank to be controlled by a single operator. We have not been able to fully analyse the pattern of landbanks and the extent to which they may be controlled by one or two companies with the data we have available. However we have been told about the existence of landbanks that are controlled by one or two operators, for example in Oxfordshire and Durham. We understand there are landbanks in other parts of the country that are dominated by a single company.

- 6.17 We have also been told that aggregate producers are currently mothballing some of their sites, a strategy which may well be explained by a drop in construction demand.⁴³ We also understand that there is little incentive for operators to return sites they do not – operate - minimum royalty fees apply, but these are low relative to the cost of new planning if they want to start supplying again.
- 6.18 We undertook some analysis to test whether the planning system might create incentives for incumbent firms to mothball sites for strategic rather than pure economic reasons – in other words to hoard landbank and create a barrier to entry.
- 6.19 Certain conditions need to prevail for strategic mothballing of sites to work. The firm mothballing its quarry must be large enough to survive losing production capacity and must operate another quarry able to serve the same area in order to gain from the higher prices. There must be few other competitors in the area and any competitors must be producing near to full capacity so they lack the ability to increase output and mitigate the other firm's actions of increasing prices. As noted, the landbank itself could then act as a barrier to entry to prevent new businesses, attracted by higher prices, from entering the market.

⁴³ 'The term 'mothballed' or 'inactive' is used to describe a site that is not currently in operation but that is closed temporarily with the intention or possibility of re-commencing extraction in the future. The reserves at these sites still count towards the land bank in that area. By contrast the reserves at 'dormant' sites as defined under the Environment Act (1995) or the Planning and Compensation Act (1991) no longer count towards the land bank.'

- 6.20 We ran a number of tests on data from AWP annual reports and OFT information request responses, looking at the link between the number of inactive sites and the level of landbanks and reserves in an area. Overall, the analysis was inconclusive, with no clear indication that the planning system has the effect of encouraging incumbents to hoard land by mothballing sites. However, there were serious limitations in the data available to us – more detailed analysis may yield clearer results.

Costly applications

- 6.21 The planning system entails significant costs and time delays to entry. This may favour those with deeper pockets who can afford to wait longer, as well as those with better resourced planning teams, greater expertise, and better connections in the local area. Costs include permission fees, fees for preparing the application, commissioning environmental and expert reports, time costs of extensive lobbying and consultation, recurring archaeological costs to maintain special features of interest to the site during development, and restoration costs once the mineral workings have been completed. In addition, a number of firms told us that the planning system is contributing to higher land costs as minerals royalties payable to land owners are driven upwards by the scarcity of suitable land identified by the planning system.
- 6.22 Increasingly the trend towards more inclusive community consultations on permissions may be exacerbating the costs associated with planning. In particular, we heard numerous comments that the plan-led system introduced by the Planning and Compulsory Purchase Act 2004 has been detrimental, with slow adoption of plans under extensive consultation requiring significant duplicative detail to be submitted both at plan and application stage.

- 6.23 We have been told that small operators in particular try to avoid engaging with the planning system, preferring to buy existing sites that come onto the market, for example due to the sale of a family-run business.
- 6.24 We recognise that there is of course a trade-off in planning between speed and ease of process on the one hand, and giving due weight to environmental and community concerns on the other. Identifying the right trade-off is a matter for community policy and local government. We aim here only to highlight some of the considerations relevant to competition in these markets, and in particular barriers to entry. We have fed the views gathered in the course of this work into Government policy on planning through channels such as the growth review.

Market transparency

- 6.25 To operate the MASS effectively, there is a high degree of transparency within the industry as to patterns of demand and supply. Detailed data is regularly gathered from producers and market reports published. Information on planning applications is published and development sites are heavily trailed from an early stage through development plans. Although sensitive information such as updated sales and reserves data by site are not included in market reports, by tracking and combining the available information over time, an informed guess of competitive positions is likely to be possible and indeed companies exist that specialize in drawing together the industry picture and selling this market analysis. While the collection and analysis of market data serves an important purpose, a high degree of market transparency can also have the effect of dampening competition.

- 6.26 It is also possible that there is a degree of information sharing within the Aggregate Working Parties (AWPs),⁴⁴ where the close relationship between industry individuals and those involved in planning policy could create relationships which, whether or not intended, may indirectly benefit the companies attending. We note that stakeholders did not raise any concerns in this regard, instead emphasising the technical role of the AWPs. However, we have been told that some AWPs, for example the West Midlands AWP, have been delegated the authority to undertake the apportionment process, which appears to go beyond the technical, advisory role envisaged and into decision-making.
- 6.27 Furthermore, we understand that the majors are more likely than independents to send representatives to the AWPs, as expected from large companies with significant head office resource. We found that some of the small independents are not aware of the MASS or the role of AWPs.
- 6.28 Overall, whilst a degree of sharing information on aggregates supply and permitted reserves is deemed necessary for the functioning of the MASS, it is possible that this level of information sharing could have detrimental effects on competition within the industry.

Entrenching existing supply patterns

- 6.29 The planning system has also been criticised for entrenching existing supply patterns by basing apportionments on historical data. The allocation of supply targets by area has tended to follow past

⁴⁴ AWPs (previously known as Regional Aggregate Working Parties, or RAWPs, until the regional layer was abolished in July 2010), comprise MPAs and industry and advise on how regional aggregates levels should be apportioned sub-regionally. AWPs also produce monitoring reports on aggregates production and the level of reserves or landbanks.

production patterns rather than take into account factors such as sustainability, availability and expected location of anticipated demand. We note in particular that allocating supply targets of land-based aggregates based on historical production may limit the scope for marine, secondary, and recycled aggregates to play a greater role in meeting demand for aggregates over time.

- 6.30 We are aware that some regional bodies have been testing new methods of apportionment which are not based on historical data. This has the potential to change the requirements allocated to different parts of the country. We understand that industry received the new method with mixed views as there were concerns that operators might no longer get permission in an area where they previously quarried. Reviewing how apportionments are undertaken may have an effect on possible entrenched patterns of supply.
- 6.31 While MASS clearly imposes a degree of central planning on aggregates supply, it is a matter for policy makers as to whether alternative solutions better meet the social, environmental and economic needs of the country.

Conclusion on planning

- 6.32 The planning system for aggregates is designed to secure supply where, in the face of public opposition to minerals extraction, supply might otherwise not be naturally forthcoming.
- 6.33 The Government aims to consult on the future of the Managed Aggregates Supply System later this year, as part of the National Planning Policy Framework. Here we highlight a number of issues which may be considered in any review of the MASS system:
- Recommended minimum landbank levels may be rigidly observed, creating an absolute barrier to entry: Where MPAs apply land

bank targets as a strict cap, entry or expansion will effectively be barred until such time as the landbank falls beneath target levels. Furthermore this may – under certain, fairly restricted conditions - incentivise the hoarding or mothballing of sites, prolonging this effect. If the landbank targets were applied more flexibly, consistent with existing national guidance and with a view to potential competitive benefits, this might reduce this effect.

- The involvement of industry in MASS may result in a greater degree of market transparency than is desirable from a competition perspective: companies attending AWP's may indirectly benefit from the close relationship with policy officials, whilst the high degree of information sharing as part of MASS may facilitate transparency in the industry as to future capacity decisions, outputs, and reserves and blunt competition.
- The predictability of MASS may slow down a competitive market response to unfolding opportunities: The use of historical data entrenches existing supply patterns and does not allow the market to develop in a competitive way, which may mean that it is slower (or unable) to respond to changes in the market. Alternative methods of apportionment that have been trialled in some areas, if successful, could be considered for use more widely, to allow more dynamic adjustment to local demand and other needs.

Procurement of aggregates

6.34 During the course of our market study, a number of issues in relation to the procurement of aggregates were raised. We briefly discuss below the common methods of procurement in the sector, and the use of rebates and discounts.

Procurement methods

- 6.35 We understand that procurement is undertaken in a diverse range of ways. A number of aggregate customers purchase on the spot. Other customers, notably those with fixed plants (such as ready-mix concrete or asphalt), tend to negotiate their prices annually based on their volume requirements for that year.
- 6.36 Other forms of procurement include written contracts, typical for major national builder merchants and contractors, and 'call-off contracts' - agreements with customers as to the price per tonne which will be charged for the sale of relevant aggregate product to be supplied to that customer over a particular period of time, usually one year.
- 6.37 Customers in the public sector are more likely to procure aggregates through framework agreements,⁴⁵ (but rarely ready-mix concrete or cement) which tend to be three to five years in duration and which typically will have five or six suppliers. More frequently, customers do not purchase aggregates (or ready-mix concrete and cement) directly but tender whole construction projects (for example road repairs), and the winning construction firm buys aggregates and other materials on their behalf.

⁴⁵ An agreement with suppliers, the purpose of which is to establish the terms governing contracts to be awarded during a given period, in particular with regard to price and quantity.

Rebates and discounts

- 6.38 Many suppliers offer rebates and discounts to major buyers, be they construction firms buying on behalf of customers, or large end-users buying directly. Rebates can take many forms but a common feature is that the percentage discount given to a customer increases with the volume of product purchased. Sometimes there is a link to guaranteed volumes in that a certain discount is obtained only if a certain volume is purchased.
- 6.39 Competition debates about rebates in general centre on the incentive they provide to stay with one supplier rather than switching away, and the possibility of foreclosure and impeding rivals' access to a distribution chain. In these markets, competitive concerns about rebates would be more about the former rather than the latter.
- 6.40 We did not receive any competition complaints about rebates or procurement practices more generally from either competitors or customers. Nonetheless given the potential for rebates to have anti-competitive effects, this aspect might merit further investigation.
- 6.41 The main concern raised about rebates in the course of the market study was about whether savings from rebates and discounts are passed through to final consumers. This is significant given the amount of public expenditure on construction.
- 6.42 It is not clear that rebates associated with bulk purchases of aggregates (and other construction materials including ready-mix concrete) are passed directly back from construction contractors to the ultimate buyers. Although we have been told that construction firms have an open book policy, as their clients require that they are invoiced for materials at cost price, we understand that in some cases aggregates are invoiced to the client at 'list' price, rather than net of any rebates associated with the purchase.

- 6.43 This may be because it is not straightforward for construction firms to link rebates to particular purchases on behalf of particular clients, when the rebate may be offered on the basis of all the business done on behalf of all customers in the course of a year. We recognise also that competition between contractors should ensure that any price benefits resulting from rebates are ultimately passed through to end-users. Nonetheless, competition between contractors does not necessarily guarantee that the rebates will be passed back to the customers that 'earned' them.
- 6.44 For this reason there may be scope for some large aggregates users to make significant savings by procuring aggregates directly, rather than through contractors. For example, we understand a large user has moved to purchase aggregates directly in order to directly secure discounts on that product and has made significant savings in doing so. A second firm is undertaking a category management approach to procurement in order to generate increased value through greater efficiencies and lower unit costs. For smaller users, however, the prices available via large contractors may well be better than the prices they could themselves negotiate.
- 6.45 We understand that the direct purchasing of aggregates by large users is relatively new and not yet widespread. This suggests that there may be further room for improving efficiency in the procurement of aggregates, particularly on the part of large buyers in the public and utilities sectors.

Conclusion on procurement

- 6.46 We did not receive complaints that the way in which aggregates, cement and ready-mix concrete are procured is distorting competition. Nonetheless procurement practices and rebating can in principle limit the effectiveness of competition in a market.

6.47 An additional finding from our market study is that there may be scope for savings in procurement of aggregates by large users – this may be significant in terms of public procurement. The OFT highlighted this in its report *Assessing the impact of public procurement on competition*, which highlighted that, in construction-related sectors, public sector demand is significantly fragmented which may lead to a failure to exercise countervailing buyer power and achieve value for money. By improving its procurement process, the public sector could reduce profits earned by suppliers, which would be reflected in lower prices, better quality or other improvements.⁴⁶

⁴⁶ OFT, *Assessing the Impact of Public Procurement on Competition*, September 2004, Chapter 6.

7 PROPOSED DECISION ON A REFERENCE

- 7.1 In the light of the evidence gathered and presented in this report, and our assessment of competition in the sector, the OFT has considered whether it would be appropriate to refer the markets for cement, ready-mix concrete and aggregates to the Competition Commission (CC) for further investigation.
- 7.2 In order to make a market investigation reference, the OFT must have reasonable grounds for suspecting that any feature or combination of features of a market in the UK for goods or services, prevents, restricts or distorts competition in connection with the supply or acquisition of any goods or services in the UK or part of the UK (the 'reference test'). Where this threshold is met, the OFT has discretion as to whether to make a reference. This section sets out why we are minded to decide that the reference test is met in this case and to exercise our discretion to refer.

Overview

- 7.3 We discuss the various steps in the legal test in detail below. In summary, however, the reasons we are minded to refer these markets to the CC for further investigation are as follows.

Evidence that competition may not be working well

- 7.4 First, we have evidence that competition may not be working well in these markets. In particular, the anecdotal evidence and analysis presented in chapter 5 points to:
- Difficulties faced by independent ready-mix concrete operators in obtaining competitive quotes for cement from alternative suppliers, and the importance independent operators place on their relationship with their existing supplier.

- A possible 'squeeze' between the price of cement, which held up despite falling volumes through the recession, and the price of ready-mix concrete, which collapsed.
- Pricing letters from the major firms coming out at similar times and announcing similar price increases. Although these letters represent a starting point for negotiations between customers and suppliers and do not fix prices as such, these circumstances may indicate that price rivalry is not as intense as it could be.

7.5 In our view this evidence suggests that the major firms, at least, are not competing effectively.

The presence of market features that facilitate coordination

7.6 Second, there are a number of features of these markets that economic theory predicts can make it possible and rational for firms to coordinate their conduct (including their pricing) with one another. Such coordination may not be undertaken pursuant to any agreement between the firms (though, of course, it may be), but can be based on mutual expectations, for example about how other firms will behave and/or how they would respond to a price or other change by a competitor.

7.7 The OFT's guidance on market investigation references states as follows:

'In markets comprising a small number of firms (oligopolies) each firm might find it relatively easy to predict the reaction of its competitors to any action it might take. This could provide an opportunity for firms to coordinate their behaviour for mutual advantage or it could simply dull the incentive to compete, leading to

a situation in which rivalry to attract new customers becomes muted.⁴⁷

7.8 The guidance then goes on to provide a non-exhaustive list of market features that may assist the coordination of behaviour. As detailed below, many of these features are present in the markets for aggregates, cement and ready-mix concrete, which may make it rational and possible for at least the large firms to coordinate their behaviour with one another. These factors, seen against the background of the evidence that competition in these markets may not be working well, lead us to suspect that there are features of these markets which may be individually, or in combination with one another, restricting or distorting competition in connection with the supply of aggregates, cement and ready-mix concrete within the UK.

7.9 The CC has powers to investigate in greater depth how well competition is working, and in particular to address the underlying market features that might be making coordination feasible, stable and persistent in this sector, or dulling the incentives to compete.

The reference test

7.10 The reference test⁴⁸ sets out three types of market feature that could have an adverse effect on competition: structural features, conduct of firms, and the conduct of customers. There will often not be clear separation between structural features and those relating to conduct but broadly chapter 4 covers features and chapter 5 covers conduct

⁴⁷ Paragraph 5.5, OFT, 2006, Market investigation references: *Guidance about the making of references under Part 4 of the Enterprise Act*, OFT 511. Available at: www.of.gov.uk/shared_of/business_leaflets/enterprise_act/oft511.pdf

⁴⁸ Formally the reference test is set out under Section 131 of the Enterprise Act 2002.

of firms. Conduct of customers is not a factor that we suspect adversely affects competition in this market.

- 7.11 The OFT's guidance mentions the more important features that can give rise to concern,⁴⁹ and includes a (non-exhaustive) list of market features that may assist the coordination of behaviour.⁵⁰ As summarised below, many of these features are present in the markets for aggregates, cement and ready-mix concrete, and in combination, give rise to concerns regarding the extent of competition in these markets.

Barriers to entry

- 7.12 The existence of substantial barriers to entry can assist coordination. As described in paragraphs 4.23 to 4.31 in chapter 4, both the aggregates sector and the cement sector feature high barriers to entry in terms of both physical and capital requirements and the difficulty of obtaining planning permission. Elements of the planning system for aggregates in particular create substantial barriers to entry by favouring incumbents over new entrants.
- 7.13 In addition, there may be reputational barriers: fear of retaliation by the majors may deter independent ready-mix concrete producers from attempting to enter the cement market, or aggregates producers from entering ready-mix concrete.

⁴⁹ Paragraph 5.1, OFT, 2006, Market investigation references: *Guidance about the making of references under Part 4 of the Enterprise Act*, OFT 511

⁵⁰ Paragraph 5.5, *ibid*

Concentration

- 7.14 As described in paragraphs 4.2 to 4.11 in chapter 4, all three product markets are highly concentrated with five major players accounting for upwards of 90 per cent of the cement market, 75 per cent of aggregates sales, and 70 per cent of ready-mix concrete production. There is a considerable drop in scale between the majors and the largest independent in each market – there is no comparably large independent producing any of the three products.

Vertical integration

- 7.15 As described in paragraph 4.12 to 4.22 in chapter 4, vertical integration is a significant feature in this industry, with all five of the majors active in all three product markets. Vertically integrated firms are in a position to raise the price of inputs to downstream activities, potentially softening competition in those downstream markets and/or foreclosing non-integrated competitors.

Homogeneity of products

- 7.16 Homogeneity of the firms' products can assist coordination. As described in paragraph 4.32 to 4.33 in chapter 4 aggregates, cement, and ready-mix concrete are to a large extent homogeneous products. Although there are different types of cement, and a variety of different types of aggregates produced in the UK, differences are limited and within each type there is little differentiation by firm in terms of brand or quality.

Transparency

- 7.17 Transparent prices, outputs and market shares which allow competitors to be well-informed about each others' behaviour can assist coordination. As described in paragraph 4.34 to 4.35, there is

a high degree of transparency in all three sectors. The vertically-integrated firms buy from and sell to one another in different local markets, which means they receive advance notice of each others' price intentions. Industry reports for aggregates as well as ready-mix concrete make available detailed granular information on market shares, sales volumes and reserves. The planning system provides a high degree of transparency about capacity planning in cement and aggregates in particular. Industry associations and aggregates working parties may permit additional sharing of information.

Multi-market contacts

- 7.18 Multi-market contacts can assist coordination. As described in paragraph 4.36 to 4.40 multi-market contacts are a significant feature of this industry, in which national, vertically-integrated firms may compete and/or deal with each other in local markets up and down the supply chain. There are also a significant number of joint-ventures and asset swaps which entail contact at a local market level and sometimes across different local markets.

Performance information indicating that competition may be adversely affected

- 7.19 Our guidance states that, when considering the possibility of coordination in oligopolistic industries, the OFT will not need to establish conclusively that observed conduct reflects coordinated rather than competitive behaviour. However, it will need to establish that relevant market features are present (see above) and will need to have a reasonable suspicion that oligopolists are not competing

effectively with consequences that are likely to be detrimental to their customers.⁵¹

- 7.20 As noted above and detailed in chapter 5, we have considerable anecdotal evidence that suggests that competition is not working well in these markets – this certainly appears to be the perception of the smaller players in the industry.
- 7.21 We have attempted some quantitative analysis to test this perception. With the data made available to the market study this has necessarily been limited. Nonetheless, we have looked at two things: evidence to support the allegation of a 'squeeze' between the ready-mix concrete and cement prices, and price-cost analysis in local aggregates markets.
- 7.22 As regards evidence of a 'squeeze' between the price of cement and the price of ready-mix concrete (described in detail in chapter 5 paragraphs 5.32 to 5.45):
- Data received from firms as well as publicly available data appears to confirm that there has been a 'squeeze' between the price of cement (which has risen in recent years) and the price of ready-mix concrete (which has fallen then stabilised).
 - We have some evidence that suggests independents may be charged around 13 per cent more for cement than the majors charge each other.
- 7.23 As regards our analysis of price and concentration in local aggregates markets, we found no correlation between price and the

⁵¹ Paragraph 6.6, *ibid.*

degree of market concentration. This finding could be consistent with several hypotheses:

- Threat of entry perfectly constrains competition – we consider this is unlikely, given high physical entry barriers.
- Two players are sufficient for competition and additional players have no impact on price – this is plausible to the extent that parts of the aggregates sector could be characterised as bidding markets. However, whether two players are all that is needed for effective competition depends on the two firms being genuinely identical and genuinely competing, just as in non bidding markets.⁵² Nevertheless, a high proportion of aggregates are not sold through tendered contract.
- There may be tacit coordination.

7.24 On balance, we consider that limitations in the data do not enable us to come to a firm conclusion that competition has been adversely affected but in our view the question clearly merits further investigation.

7.25 On the basis of the considerations set out above (the market features and the performance information) the OFT considers that it has reasonable grounds to suspect that there are features of these markets which, in combination with one another, restrict or distort competition in connection with the supply of aggregates, ready-mix concrete and cement. Accordingly, we are minded to decide that the reference test is met.

⁵² Paul Klemperer, Bidding Markets, Report for the Competition Commission, June 2005

Appropriateness of a reference

7.26 Once the reference test is met, the decision on whether to make a reference rests on the exercise of the OFT's discretion. The OFT's guidance on market investigation references sets out four criteria that must, in our view, be met before we decide to make a reference:

- proportionality – the scale of the suspected problem, in terms of its adverse affect on competition, is such that a reference would be an appropriate response to it
- availability of remedies – there is a reasonable chance that appropriate remedies will be available
- alternative powers – it would not be more appropriate to deal with the competition issues identified by applying the Competition Act or using other powers available to the OFT
- undertakings in lieu – it would not be more appropriate to address the problem identified by means of undertakings in lieu of a reference.

7.27 These four factors are considered in turn below.

Proportionality

7.28 A reference to the CC imposes substantial burdens on the businesses concerned and in addition requires a significant resource commitment by the CC itself. For this reason it is important to consider whether a reference is a proportionate response to the problem in question.

7.29 As noted above, we believe the impact on consumers of a lack of effective competition in this market might be higher prices, possibly exacerbated by erosion of the independent sector over time.

- 7.30 The OFT guidance identifies three criteria as relevant to whether adverse effects on competition are significant, and thus whether a reference to the CC may be appropriate: the size of the market, the proportion affected by the features in question, and the persistence of the features in question. In this case we believe the potential harm to consumers could be significant on the basis of all three.
- 7.31 The market for aggregates, cement and ready-mix concrete is very large: turnover in the aggregates, cement and ready-mix concrete sectors in 2009 was circa £1.4bn, £0.9bn and £1bn respectively. Moreover, these products are key inputs to the construction industry, which in turn is a very important sector of the UK economy. It follows that even a small reduction in any adverse effects which the CC may find and be able to remedy would comfortably justify the costs of the reference.
- 7.32 A significant proportion of the market is affected by the features identified above. Some features are market-wide, while others (for example multi-market contact) relate only to the major firms, but the majors account for the majority of each of the three markets.
- 7.33 The features identified above are unlikely to be short lived. The market structure has not changed significantly in the last few years except that it has become more concentrated (in the case of aggregates) and certain mergers have increased the extent of vertical integration.
- 7.34 The OFT also considers whether there are any offsetting benefits to consumers from the market features. While we recognise that certain features – for example the national coverage and vertical integration that lead to multi-market contact between the major firms – can have efficiency benefits, our overall assessment is that these possible benefits do not outweigh the causes for concern.

Availability of remedies

- 7.35 Without wishing to anticipate the outcome of the MIR, and recognising that any remedies would have to be supported by evidence of a remediable problem, our view is that there is likely to be a range of potential remedies available to address the competition concerns we have outlined and that, depending on the degree of harm identified, some or all of these are likely to prove efficient and proportionate.
- 7.36 It would be the CC's role, if it found adverse effects on competition, to undertake detailed analysis of the causes and devise potential remedies, taking into account any interactions between them. This would require further detailed consultation.
- 7.37 We set out some initial views on potential remedies for each market below, noting that due to the close connections between the markets and the extent of vertical integration, remedies in one product market will have an impact on one or two of the other markets as well. We consider these remedies under the headings of improving independents' access to cement, addressing information sharing, and planning and public policy.

Access to cement

- 7.38 Barriers to entry in ready-mix concrete are fairly low – securing access to inputs (aggregates and cement) is the key issue. Access to aggregates is a very local matter. Cement on the other hand appears to be more or less a national market – any remedy that improved access to cement would benefit the whole country. We have considered the potential for remedies that would allow ready-mix concrete operators to source cement other than from the vertically-integrated majors with whom they are in competition.

- 7.39 Possible remedies may include divestment of mothballed or closed cement plants, if they have not been in operation for a given period of time. Another potential remedy might be the development of an import terminal access regime, to ensure independents have fair access to terminals from which to import cement.

Information-sharing

- 7.40 There may also be remedies available to address any undue information sharing. For example, while the vertically integrated majors are necessarily customers of one another and therefore in receipt of each others' pricing information, there may be scope to introduce Chinese walls to limit the number of people within each firm able to access pricing information received from competitors.

Planning and public policy

- 7.41 In terms of the role of incumbents in planning through MASS, there may be scope to place tighter controls on the involvement of incumbents in capacity and output planning decisions, and on how information is shared through this process.
- 7.42 There may also be scope to look at competition issues in more detail during the planning process. For example, competition in the form of control and use of the existing landbank could be considered more closely when evaluating planning applications, in particular where several applications to serve the same local market are submitted.
- 7.43 In relation to adverse effects on competition arising from laws, regulations or government policies, we note that the CC cannot directly remedy such adverse effects but may submit a report to the

Government – as may the OFT as an outcome of a market study.⁵³ In this case we consider a reference to the CC would be preferable to further work in this area by OFT primarily because the grounds for a reference are significantly wider than laws, regulations or government policies, and it is possible that some of what may be required would involve CC order-making powers to impose remedies or at least to orchestrate their implementation. We also recognise that the CC has more resources, stronger information gathering powers and more formal evidence gathering procedures, which may be valuable in developing remedies.

Alternative powers

- 7.44 The OFT has considered whether it would be more appropriate to use alternative powers to deal with the competition issues identified above. In particular we considered whether there was scope to address these issues using the Competition Act, and whether the ongoing investigation by DG Comp into the cement and related sectors would address these issues. We discuss each in turn below.

Competition Act

- 7.45 We have considered whether some of the possible concerns we have identified could be addressed through enforcement. In principle, some may fall within the scope of the Competition Act.
- 7.46 The specific complaints we received were on the whole poorly evidenced and difficult to substantiate. They were also mostly local or narrow in scope. Enforcement would have been limited in scope to particular instances of anti-competitive behaviour, and would not

⁵³ Paragraph 2.31, *ibid*.

have addressed the wider market dynamics or the underlying features identified. It is not clear that investigating any individual complaint would be a worthwhile use of OFT resource.

- 7.47 For this reason we think an MIR is the appropriate tool for further investigation of competition problems in this sector.

DG Comp proceedings

- 7.48 The European Commission (EC) is currently investigating the markets for cement and related products. These related products include ready-mix concrete and aggregates.

- 7.49 Our MIR guidance says that OFT will not normally refer a market to the CC when a significant feature of that market is being investigated by the EC under articles 81 or 82 (now 101 and 102).⁵⁴

- 7.50 In this case, however, we believe that it is appropriate to make the reference, in spite of the ongoing EC investigation. Broadly, our reasons are that:

- We do not believe that the EC investigation can address the features underlying competition problems in these markets.
- We have considered the practicalities of the CC inquiry running in parallel with the EC investigation and do not believe either that this would entail undue burdens on business or that it would create undue difficulties for the two authorities.
- There are real costs to delaying a CC inquiry until the EC investigation is complete.

⁵⁴ Paragraph 2.16, *ibid*.

7.51 We discuss these reasons in more detail below.

Potential remedies

7.52 As noted above, enforcement of competition law addresses specific instances of anti-competitive conduct, rather than how markets work in a holistic sense. While enforcement action can be an important deterrent to anti-competitive behaviour, it does not address the underlying market features that can assist coordination and which are present to a high degree in this industry. Even the powers for structural and behavioural remedies in the Modernisation Regulation can only be exercised to bring specific infringements to an end.⁵⁵

7.53 We do not, therefore, believe that the EC investigation – even if it finds an infringement – can address and potentially remedy the features underlying competition problems that appear to be endemic in these markets.

Practicalities of parallel processes

7.54 The EC investigation focuses on whether competition law has been infringed, with a view to identifying any infringements (for example, of Article 101 of the Treaty on the Functioning of the European Union) and imposing penalties for any such infringements.

⁵⁵ Under Article 7 (1) the European Commission may require undertakings which are found to have infringed Article 101 or Article 102 of the Treaty to bring such infringement to an end. For this purpose, it may impose on them any behavioural or structural remedies which are proportionate to the infringement committed and necessary to bring the infringement effectively to an end. Structural remedies can only be imposed either where there is no equally effective behavioural remedy or where any equally effective behavioural remedy would be more burdensome for the undertaking concerned than the structural remedy.

- 7.55 The focus of a market investigation by the CC would be different. The CC would focus on how firms compete in this market and the economic effects of prevailing market features which may be hampering effective competition. The CC would be looking at underlying conditions in the industry (including, in particular, structural features), rather than investigating suspected anti-competitive agreements or concerted practices. The CC would also be looking at issues specific to the UK, including local market features such as the interaction between competition and the planning system.
- 7.56 Furthermore, we do not believe that any uncertainty as to the outcome of the EC investigation would prevent the CC from reaching its own conclusions as to whether there are features of the market that adversely affect competition, and whether these are remediable.

Cost of delay

- 7.57 We also considered the implications of delaying making a reference until a time when no significant feature of the market is being investigated by the EC.
- 7.58 Although it is difficult to estimate the likely costs and benefits of a CC inquiry with any precision, the industry is so large that we can be confident that the potential benefits of an inquiry which identifies appropriate remedies, on an ongoing, annual basis are likely to be an order of magnitude greater than the one-off costs of the inquiry itself. Such benefits would accrue to consumers and, via a reduction in public expenditure on construction materials, to taxpayers. This presents a powerful argument against delay.
- 7.59 In terms of how long such a delay might be, we note that the current investigation started some time prior to the unannounced inspections in 2008 and that the EC opened formal proceedings in

late 2010. The investigation is not yet at the stage where a Statement of Objections has been published. In addition, several of the companies involved in the EC investigation have challenged the request for information sent by the EC in the General Court. Although this challenge was recently rejected by the General Court,⁵⁶ this has delayed matters and it is therefore likely that any final decision by the EC on the alleged infringement(s) could take significant time. This decision may, of course, also be appealed. We note that the EC's previous cement cartel investigation lasted around five years, with appeals taking a further decade. This industry has, therefore, been under investigation or appeal for much of the last 20 years.

- 7.60 Our view, therefore, is that in an industry of this scale, delaying making a reference could have significant costs and furthermore that the likely delay is years not months.
- 7.61 For these reasons all together we believe it is appropriate to make a reference at this point in time, notwithstanding the ongoing EC investigation.

Undertakings in lieu of a reference

- 7.62 The OFT must also take account of possible undertakings that could be offered by the industry to address the concerns raised without the need for a market investigation reference. Under section 154(1) of the Enterprise Act (EA) 2002, when considering any undertakings the OFT must have regard to the need to achieve as comprehensive a solution as is reasonable and practicable to the adverse effect on competition identified (and any detrimental effects on customers

⁵⁶ See Cases T-292/11, T-293/11 and T-302/11.

resulting from the adverse effect on competition). In this case, it is hard to envisage that undertakings offered at this stage could achieve as comprehensive a solution as an in-depth inquiry, but we will of course consider any undertakings offered.

Conclusions on the case for a reference

7.63 We believe that the statutory test in section 131 EA02 for making a reference is met and that having taken account of the relevant factors set out in the OFT's guidance document on market investigation references, on balance, the evidence points in favour of exercising our discretion to make a reference to the CC of the supply of aggregates, cement and ready-mix concrete in the UK. We believe this is the best course of action to address endemic competition problems rooted in underlying features of the market, since the purpose of the MIR is to determine whether the process of competition is working effectively in markets as a whole.

7.64 We invite views on our proposed decision.

Scope of the proposed reference

7.65 Section 133(1) of the EA02 requires a market investigation reference to specify the description of goods or services to which the feature or combination of features concerned relates. We propose to refer the aggregates, cement and ready-mix concrete market to the CC.

7.66 In terms of the geographic scope,⁵⁷ we propose the reference to cover the United Kingdom.

⁵⁷ Section 133(2) and (3) gives the OFT the power (but not a duty) to frame a market investigation reference so as to limit the scope of a CC investigation by reference to the place where goods or services are supplied or acquired.

Next steps

7.67 Comments should be sent by **30 September 2011** to:

Aggregates Market Study

Office of Fair Trading

Level 4

Fleetbank House

2-6 Salisbury Square

London EC4Y 8JX

aggregates@oft.gsi.gov.uk

A LIST OF JOINT VENTURES

Joint Venture	Companies	Stating Date	Product
Island Barn Aggregates Ltd	Cemex Lafarge	20/03/1991	Marine aggregates and Infrastructure
Cemex Ready Mix East Anglia	Cemex Lafarge	30/09/1997	Ready mixed concrete
Brett Hall Aggregates Ltd	Cemex Brett	17/08/1991	Marine aggregates and infrastructure
Humber Sand & Gravel Ltd	Cemex Hanson	13/10/1993	Marine aggregates and infrastructure
Isle of Wight Aggregates Ltd	Cemex Tarmac	10/02/2003	Marine aggregates and infrastructure
Mersey Sand Suppliers (partnership)	Cemex Tarmac	21/03/1997	Marine aggregates and infrastructure
Purfleet Aggregates Ltd	Cemex Hanson	11/07/1983	Marine aggregates
Blackwater Aggregates	Cemex Gent Fairhead	21/12/1999	Aggregates
Processing Ash LLP	Cemex Lafarge	24/01/2005	Ash
A1 Dishforth to Barton	Cemex AI	n/a	n/a

Joint Venture	Companies	Stating Date	Product
Cross rail excavated material	Cemex Ketbray Logistics	01/07/2010	n/a
Hepplewhite Quarries and Plant Hire Ltd	Tarmac Lafarge	n/a	Aggregates
Midland Quarry Products	Tarmac Hanson	n/a	Aggregates and asphalt
Newhaven Roadstone	Tarmac Colas	2002	Asphalt
RH Roadstone Ltd	Tarmac Lafarge	n/a	Aggregates
Charcon Holdings Ltd	AI Caprio Group	n/a	Precast concrete products
Mid Kent Concrete Ltd	AI S J Clubb	n/a	Ready mixed concrete
North Kent Roadstone Ltd	AI Eurovia	n/a	Asphalt plant
Redditch Concrete Ltd	AI S E Davis & Sons Ltd	n/a	Ready mixed concrete plant
C & G Concrete Ltd	Hanson Gilman Family	n/a	Ready mixed concrete
H.H. & D.E. Drew Ltd	Hanson Drew and Badcock Families	1967	Aggregates and ready mixed concrete
Joyce Greene Aggregates Ltd	Hanson J Clubb	2001	Aggregates

Joint Venture	Companies	Stating Date	Product
Smith Concrete Ltd	Hanson Smith Family	1970	n/a
Brett Lafarge Ltd	Lafarge Brett	19/03/1997	Aggregates
Britania Aggregates	Lafarge Brett	1998	Marine aggregates
Elstow Asphalt Ltd	Lafarge Tarmac	17/07/2004	Asphalt
Harlow Asphalt Ltd	Lafarge Tarmac	17/7/2002	Asphalt
GRS Bagging Ltd	Lafarge GRS Roadstone Ltd	14/07/2003	Bagging aggregates

B PLANNING SYSTEM IN THE UK

- B.1 This annexe gives an overview of the planning system in the UK, with particular focus on aggregates.⁵⁸ It should be noted that different planning systems apply to different types of aggregates; furthermore there are differences in the way that parts of the UK engage in planning. England and Wales share a broadly common system that allows for national management of aggregates supply, while Scotland and Northern Ireland take separate approaches.
- B.2 This annexe therefore focuses on England and Wales for primary aggregates - both land-won and marine-dredged – as this is the most extensive of the existing systems. Recycled and secondary aggregates are briefly discussed at paragraphs B.41-B.44 and significant differences to these frameworks in Scotland and Northern Ireland are discussed at paragraphs B.45-B.60.

Primary land-won aggregates

- B.3 In England and Wales, there are two elements to the planning system with regard to land-won aggregates, which are necessarily related, and are discussed in turn below:
- planning permission for new quarries or extensions to existing quarries, or 'land use planning'

⁵⁸ The planning systems for cement and ready-mix concrete plants are broadly similar to that for aggregates, although neither features national co-ordination of supply like aggregates. Mineral Planning Authorities make the local planning decisions and must consider all usual development criteria, including environmental impact. For cement kilns, Mineral Planning Authorities are also expected to ensure there is an adequate supply of raw materials available.

- planning the level of output and supply of aggregates to meet need, or the Managed Aggregates Supply System ('MASS').

Land use planning

- B.4 The legal framework for land use planning is based largely on the Town and Country Planning Act, originally introduced in 1947, updated in 1990 and further modified by the Planning and Compulsory Purchase Act 2004. Most forms of development in the UK, including mineral extraction and related activities, require planning permission before development can take place.
- B.5 The key features of the planning framework are:
- A hierarchical structure of guidance and plans at national, regional and local level against which planning applications are assessed. Guidance is provided by the Department for Communities and Local Government (DCLG), who is responsible for national planning policy in England, and the Welsh Government with responsibility in Wales.
 - Guidance setting out the national policy approach in England includes Planning Policy Guidance Notes (PPGs), which are gradually being replaced by Planning Policy Statements (PPSs), as well as supplementary 'circulars'.
 - Specifically in relation to minerals, DCLG has also published Minerals Planning Guidance Notes (MPGs), which are being replaced with Minerals Policy Statements (MPSs), and set out national Government policy on minerals and planning.
 - In Wales, *Planning Policy Wales* (2002), *Mineral Planning Policy Wales* (2000) and *Local Development Plans Wales*

(2005) set out national planning policy, and are supplemented by Technical Advice Notes (TANs).

- Regional Assemblies, Regional Development Agencies (RDAs) and Government Offices for the Regions had responsibilities for regional planning and producing Regional Strategies (RSs) and plan documents, though as noted in paragraph B.20 below, these have been abolished, and whilst RSs still exist, the Government has announced its intention to abolish these as part of the Localism Bill.
- Land use planning decisions are usually taken at a local level by local planning authorities. For mineral decisions, these authorities are the Mineral Planning Authorities (MPAs).⁵⁹ MPAs are responsible for developing a 'Minerals and Waste Development Framework' (MWDF) in England, or in Wales Local Development Plans, to plan for future provision of minerals and waste disposal in that area; deciding planning applications; and monitoring existing developments.
- For all planning, the Secretary of State for Communities and Local Government (England) or Welsh Ministers have the power to intervene and 'call in' applications or recover appeals, where a decision could have significant effects beyond the immediate locality, a conflict with national policy or could impact on national security.

B.6 It should be noted that numerous changes have recently occurred and are yet anticipated to the planning system, particularly with regard to increasing local empowerment. The major structural

⁵⁹ Where there is a unitary authority, for example in Wales, Greater London, and metropolitan areas, this is the MPA. County Councils and National Parks are also MPAs.

consequence has been the intention to remove the regional planning tier (see paragraphs B.20 and B.21 below). DCLG has also announced a review of planning policy, designed to consolidate policy statements, circulars and guidance documents into a single concise document that sets out the Government's priorities for the planning system, covering all major forms of development proposals handled by local authorities. This will be called the National Planning Policy Framework. A draft Framework document was put out to public consultation on 25 July 2011.

Managed Aggregate Supply System ('MASS')

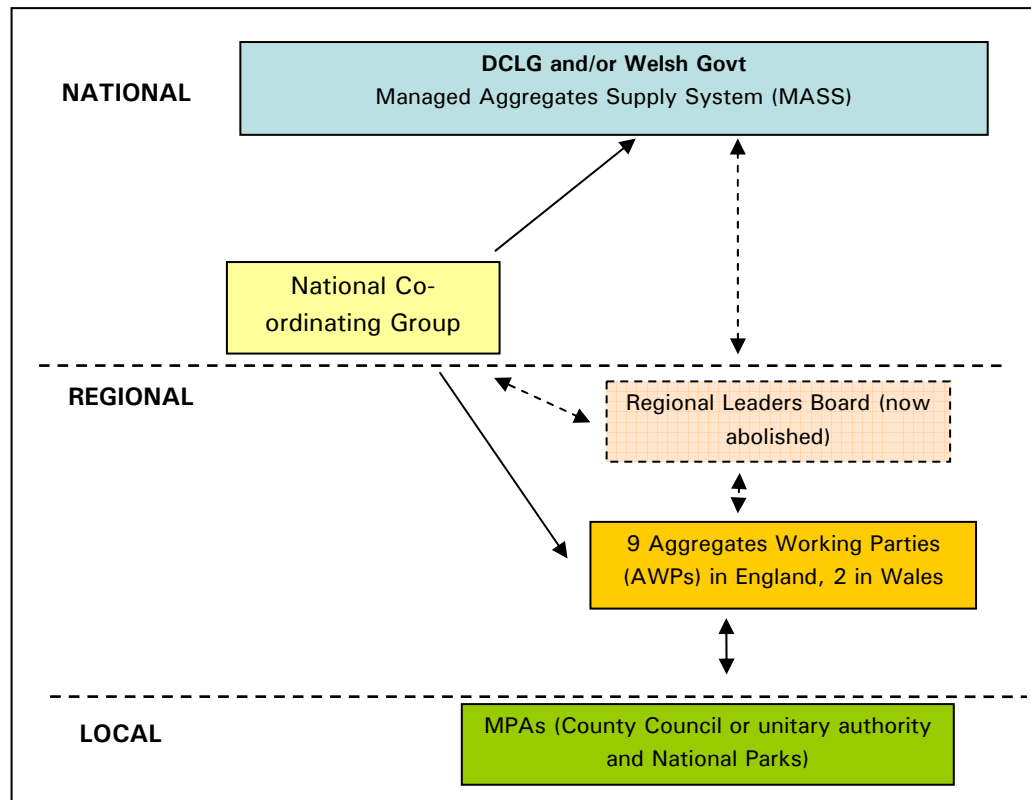
- B.7 MASS exists in England and Wales, and is a mechanism which facilitates planning for aggregates. It evolved from the Verney Review of 1976, which was commissioned by Government to consider the supply and demand of aggregates. Verney reported: high persistent overall levels of demand for aggregates; regional imbalances of resource (minerals can only be worked where they arise naturally), most notably shortages in the South East, often coupled with high levels of demand; and increasing conflicts between the working of sand and gravel resources and the safeguarding of high quality agricultural land, and in relation to the extraction of hard rock from areas of high landscape value.
- B.8 To reduce the risk of potential future shortages due to this situation and match demand requirements and supply availability, Verney recommended a centrally planned demand management system for aggregates together with a reduction of the constraints on marine dredging and transporting aggregates by sea; and endorsed the concept of Regional Aggregates Working Parties ('RAWPs') to assist in policy development and providing technical advice.
- B.9 The aim of the MASS is to meet the justified need for aggregates, as far as practicable, at the least social, economic and environmental

cost. MASS is implemented through regular demand forecasts and local authorities maintaining 'landbanks'⁶⁰ of permitted reserves, as well as monitoring of supply, resources and sales.

- B.10 MASS is coordinated nationally, given the geographical and geological imbalance of resources. Figure 1 below shows the relationship between these bodies.

⁶⁰ A landbank is the stock of permitted reserves that have valid planning permission. Minerals Policy Statement 1 (MPS1) states that MPAs should ensure a landbank of 'at least 7 years for sand and gravel and at least 10 years for crushed rock'. MPS1 also states that these levels should be an 'indicator of when new permissions for aggregates extraction are likely to be needed'. Landbanks are the key mechanism for ensuring an adequate and steady supply of aggregates, and provide the link between demand forecasts and supply expectations. Landbanks are therefore key when MPAs are considering planning applications. Similar guidance exists in Minerals Planning Policy Wales and MTAN 1 Aggregates in Wales.

Figure 1: Bodies involved in MASS



National

- B.11 DCLG has significant responsibilities in respect of implementing MASS, and maintains the econometric model of aggregates demand on which the national and regional guidelines are based. DCLG also monitors the operation of these guidelines, by gathering data and commissioning various surveys (on an England and Wales basis): the Annual Minerals Raised Inquiry; the Aggregate Minerals Surveys, taken every four years and providing detailed information on sales, consumption and reserves; surveys of alternative aggregates; and annual reports published by each RAWP, or AWP as they are now called following the removal of the regional layer.

- B.12 The National Coordinating Group (NCG) reviews forecasts of total demand in order to undertake a national apportionment process, which allocates the required supply among the nine regions in England. Previously, the relevant regional assembly would have further allocated its share of supply among local MPAs, but MPAs now agree this amongst themselves. The NCG is chaired by a senior DCLG official and is comprised of AWP chairmen, Scottish and Welsh Government officials, and representatives from trade associations and other government or public bodies.
- B.13 Note that since devolution in 1998, Wales has taken a more divergent path from England regarding minerals planning and has been less involved in the econometric forecasting element of the English MASS. Instead, the Welsh Government has issued *Minerals Planning Policy Wales* (December 2000) and *Minerals Technical Advice Note (Wales) 1: Aggregates* in 2004. These documents set out an enhanced role for the Welsh AWPs, such as the production of a five year Regional Technical Statement with additional data and analysis published in 2008, as well as an attempt to place an increased emphasis on monitoring on the use of secondary and recycled materials.

Regional

- B.14 Changes to this tier are described at paragraphs B.20 and B.21. Notwithstanding the removal of the regional tier, the operation of MASS has continued within the existing arrangements whilst DCLG considers how the management of aggregate supply should operate in the longer term.
- B.15 AWPs are funded by DCLG and the Welsh Government and provide technical advice in relation to the supply of, and demand for, construction aggregates to the MPAs and to DCLG. There are nine AWPs in England and two in Wales. Each AWP is chaired by a county

planning officer and comprises representatives of DCLG/Welsh Government, the MPAs and aggregate industry representatives.

- B.16 A main function of the AWP is the collection of data to facilitate planning and forecasting the demand for aggregates by MPAs, national government and the industry. This is done by annual monitoring of aggregates sales and permitted reserves. Every fourth year, AWP contribute to a more detailed Aggregates Minerals survey as previously mentioned, collecting information on the transport and inter-regional flows of aggregates, which allows the levels of consumption by region to be calculated.
- B.17 AWP are also responsible for: assessing reserves of sand, gravel and hard rock; assessing the likely demand for aggregates; indicating if there will be a surplus or shortfall of supply without further planning permissions being granted; considering the potential for synthetic and waste materials in meeting demand for aggregates; considering the potential contribution the region could make toward meeting demand in other parts of the country.
- B.18 AWP generally have a narrow technical remit providing advice to the MPAs within their area on the feasibility of maintaining supply and the apportionment of supply across the local planning area.⁶¹
- B.19 As previously mentioned, the regional tier has undergone much change recently, and the picture is still uncertain. For example, the Local Democracy, Economic Development and Construction (LDEDC) Act came into force on 1 April 2010. This Act provided for:

⁶¹ In Wales, AWP have an enhanced role with political endorsement of the Regional Technical Statement.

- the establishment of eight regional local authority Leaders' Boards that will replace the unelected Regional Assemblies, for all regions in England except London where the London Assembly remains in place, and
- the establishment of a single Regional Strategy to support the delivery of sustainable economic growth in each region, for which the RDAs and new local authority Leaders' Boards (referred to as the 'responsible regional authorities') will be jointly responsible.

B.20 Even as the above changes began to be implemented, the change of government in mid-2010 altered the landscape once again. The new coalition government has sought to streamline the planning process in England and abolished RDAs, Regional Strategies, and Regional Leaders' Boards. These changes will be effected in the Localism Bill, which was published in December 2010 and is currently progressing through Parliament.

B.21 Therefore, the eventual structure of the planning system and the future implementation of the MASS are yet to be clarified. In particular, it is unclear how the national supply targets will be distributed in future or whether AWP's will continue to exist (although some indication has been given that they will) and in what role.

Local

B.22 Locally, MASS is implemented by the MPAs, who must agree their apportionment of the regional supply requirement. The apportionment level is based on guidelines, but MPAs make representations regarding the feasibility of fulfilling their allocated supply levels. The proposed figure is subject to sustainability appraisal and further testing at local inquiry to determine robustness.

- B.23 The MPA must then ensure that appropriate land is identified and sufficient planning permissions are in place to deliver its agreed apportionment and to meet national guidelines on landbank reserves (as described in footnote 59).

Primary marine aggregates

- B.24 New systems of marine planning are being developed within the administrations of the UK. This will mean a change from the current position of no holistic spatial planning to a plan led system with a framework that will guide decision-making and set out factors for consideration by new sub-national Marine Plan areas. The Marine Policy Statement was adopted in March 2011 and a series of sub-national marine plans covering the whole of England's marine area will follow. This is a result of the need to manage the competing pressures on the marine environment and ensure any development is sustainable

- B.25 This annexe will look at marine planning and the proposed new systems, including the Marine Policy Statement and Marine Plans, then the process for operators to obtain a dredging licence. The key players in marine aggregates are:⁶²

- **Department for the Environment, Food and Rural Affairs (DEFRA):** the UK custodian of the marine and aquatic environment and responsible for a wide range of marine policy. The Secretary of State for the Environment (SoSE) has overall responsibility for the Marine Management Organisation which regulates marine activities. DEFRA and devolved administrations jointly produced the Marine Policy Statement and the SoSE is the Marine Plan

⁶² Arrangements in Northern Ireland and Scotland are discussed separately later.

Authority for England, although most marine planning functions have been delegated to the MMO. The SoSE will approve each plan for consultation and adoption.

- **The Marine Management Organisation (MMO):** a non-departmental public body in existence since April 2010, with powers under the Marine and Coastal Access Act 2009 ('MCA Act') to regulate and manage English marine areas and retained functions for UK offshore marine areas. This includes responsibility for marine planning, by developing Marine Plans for English inshore and offshore waters. The MMO has also taken on responsibilities (previously the remit of the Marine and Fisheries Agency) for issuing dredging licences for aggregates extraction, and for monitoring and enforcing these licences in English inshore and offshore waters.
- **The Welsh Government:** responsible for marine planning in the Welsh inshore and offshore and marine nature conservation and marine licensing (including for aggregates extraction) in the Welsh inshore area.
- **The Crown Estate:** has the rights to develop minerals lying on the sea bed via commercial licensing, and receives royalties from aggregates extracted. It issues commercial licences for extraction.

Marine Planning

- B.26 Previously there has been no spatial planning in England for marine aggregates and no regional apportionment or allocation of supply as exists for land-won aggregates. Whilst MPS1 (published in June

2009)⁶³ does state an expectation of overall supply level, permitting for dredging is mainly based around the environmental acceptability of the proposal. Marine Minerals Guidance 1 (MMG1) (published in 2002)⁶⁴ is also relevant, which states the Government's policies on the extraction of marine sand and gravel and other minerals from the English seabed. In Wales, the Welsh Government's Interim Marine Aggregates Dredging Policy sets out some spatial planning principles for the Welsh inshore area.⁶⁵

- B.27 MPS1 and MMG1 provide detailed guidance and policy on marine mineral extraction and will be considered alongside the UK Marine Policy Statement. The same applies in respect of the Welsh Government's Interim Marine Aggregates Dredging Policy. The Marine Policy Statement is the overarching policy guidance but other detailed documents will also be used (insofar as they remain relevant) to guide decision making until Marine Plans are established.
- B.28 The key elements of future marine planning in relation to aggregates are the Marine Policy Statement, Marine Plans and the licensing regime for mineral dredging, each of which is discussed below.

Marine Policy Statement

- B.29 The MCA Act introduced a framework for the development of new marine planning systems across the UK. The UK Marine Policy

⁶³ MPS1: www.communities.gov.uk/documents/planningandbuilding/pdf/152993.pdf

⁶⁴ The Marine Minerals Guidance 1:

www.communities.gov.uk/documents/planningandbuilding/pdf/156357.pdf

⁶⁵ <http://wales.gov.uk/topics/planning/policy/minerals/interimmarine?lang=en>

Statement⁶⁶ was published by Government in March 2011, and is the first stage in the new UK Marine Planning System.

- B.30 The Marine Policy Statement is a high-level UK policy statement that applies to all UK waters and provides a strategic framework for preparing Marine Plans, ensuring consistency across the UK, and provides direction for new marine licensing and other authorisation systems in each UK Administration. The Marine Policy Statement sets out the general environmental, social and economic considerations that must be taken into account in marine planning, the policy objectives for key activities, the direction for marine licensing, as well as existing EU⁶⁷ and UK requirements in relation to marine planning. It also provides guidance on the pressures and impacts that decision makers will need to consider. The devolved administrations will (or have) developed their own legislation that fits with the Marine Policy Statement, as detailed in later sub-sections.
- B.31 With regard to marine aggregates, the Marine Policy Statement states that this section does not currently apply to Scotland. The Marine Policy Statement also says that 'the extraction of marine dredged sand and gravel should continue to the extent that this remains consistent with the principles of sustainable development, recognising that marine aggregates are a finite resource and in line with the relevant guidance and legislation.'

⁶⁶ UK Marine Policy Statement:

<http://archive.defra.gov.uk/environment/marine/documents/interim2/marine-policy-statement.pdf>

⁶⁷ There are various EU legislative provisions that Marine Plans must take into account, including the Marine Strategy Framework Directive (Directive 2008/56/EC), Water Framework Directive (Directive 2000/60/EC), Habitats Directive (Directive 92/43/EEC) and Wild Birds Directive (Directive 2009/147/EC).

- B.32 The Marine Policy Statement instructs MPAs to 'as a minimum, make provision within Marine Plans for a level of supply of marine sand and gravel that ensures that marine aggregates (along with other sources of aggregates, including recyclates) contribute to the overarching Government objective of securing an adequate and continuing supply to the UK for various uses. In doing so, marine plan authorities should consider the potential long-term requirement for marine-won sand and gravel, taking into account trends in construction activity, likely climate change adaptation strategies and major project development.'⁶⁸
- B.33 This suggests a move towards a more managed supply approach, although not as prescriptive as the MASS approach for land-won aggregates.

Marine Plans

- B.34 The MCA Act divides the UK marine area into inshore and offshore regions. In England these have been further divided into 11 Marine Plan areas and a Marine Plan will be developed for each.⁶⁹ In England, the SoS for the Environment is responsible for marine planning for the English inshore and offshore regions, but responsibility for preparing Marine Plans has been delegated to the MMO. In the Devolved Administrations, Scottish Ministers are responsible for the Scottish offshore region, Welsh Ministers for the Welsh inshore and offshore regions and the DOE in Northern Ireland for the Northern Ireland offshore region. The Scottish inshore is covered, and the

⁶⁸ UK Marine Policy Statement pg.39

⁶⁹ The East Inshore and East Offshore areas are the first two Marine Plan areas to be selected in England for marine planning, and should be adopted in 2013. The MMO estimate that each plan will take two – 2.5 years to complete, so the remaining areas will be planned over the next 10 years.

Northern Ireland inshore region will be covered, by respective Scottish and Northern Ireland legislation.⁷⁰

- B.35 The Marine Plans will set out how the Marine Policy Statement will be implemented in specific areas, providing detailed policy and spatial guidance that is locally relevant, to ensure that decisions within that area contribute to delivery of UK policy objectives. The Plans will ensure that different and potentially competing activities are managed in such a way that they promote compatibility and reduce conflict, and will also help developers identify where they are likely to be able to undertake activities and what conditions or restrictions may be placed on what they do. Marine Plans will be drafted over an approximately 10-year period (Plans should be established by about 2021; Scotland and Wales are developing national plans for adoption within the next two to three years) and will provide a 20-year forward look. Each Plan will be reviewed every three years.
- B.36 The Marine Policy Statement and Marine Plans will sit alongside and interact with existing land planning regimes. Marine planning and decisions capable of affecting the marine area are subject to policy set out in the Marine Policy Statement, including the need for appropriate consistency and integration with terrestrial planning. In addition there is a physical overlap; Marine Plan boundaries will extend to the mean high water spring tide level, while terrestrial planning boundaries generally extend to the mean low water spring tide level.

⁷⁰ UK Marine Policy Statement

Dredging Licences

- B.37 The marine licensing system under the MCA Act has been in force since 6 April 2011, and consolidates and replaces some previous statutory controls under the Food and Environment Protection Act 1985, the Coast Protection Act 1949, the Telecommunications Act 1984 and permissions under the Environmental Impact Assessment and Natural Habitats (Extraction of Minerals by Marine Dredging) (England and Northern Ireland) Regulations 2007.
- B.38 The MMO is responsible for most marine licensing in English inshore and offshore waters and for Welsh and Northern Ireland offshore waters.
- B.39 Under the MCA Act, decisions on the licensing of certain activities relating to minerals extraction should be taken in accordance with the Marine Policy Statement and marine plans unless relevant considerations indicate otherwise. The assessment of applications for licences in England is undertaken by the MMO. In Wales, the Marine Consents Unit within the Welsh Government deals with licences in the inshore, liaising with the MMO for cross-border cases and vice-versa.
- B.40 Currently the process⁷¹ to be followed before aggregate dredging activities commence is⁷²
- **Crown Estate tender bid for prospecting rights:** Periodically, the Crown Estate invites expressions of interest for a tender round for the development of areas of seabed as aggregate dredging areas. The Crown Estate decides whether to hold a tender based

⁷¹ It should be noted that licences issued by the Crown Estate are commercial licences, whilst applications processed by the MMO and other regulators are regulatory licences.

⁷² www.marinemanagement.org.uk/licensing/documents/guidance/01.pdf

on the expressions of interest. Interested parties are permitted to undertake non-exclusive sampling of prospective areas prior to the tender process. Operators submit their tender application to the Crown Estate and if successful, operators get a prospecting licence to further investigate potential sites. The Crown Estate is only able to issue commercial licences to extract aggregate.

- **Obtain a marine licence from the MMO, the Welsh Government, the Scottish Executive or DOE:** applicants for a marine licence can seek a screening opinion on whether an Environmental Impact Assessment (EIA) is required⁷³ and an opinion on the scope of their Environmental Statement. The MMO consults widely and takes several factors into account in reaching any EIA decision and in deciding whether to grant a marine licence. Where an EIA consent decision has been given, there is also provision for measures to avoid, mitigate, or offset the adverse effects of the activity and for related post-approval monitoring.
- **Obtain a commercial aggregates production licence from the Crown Estate:** this can only be obtained once the applicant has a marine licence from the MMO, Welsh Government or the Scottish Executive, and will mirror it in duration and extraction limit. The Crown Estate therefore will issue commercial licences to extract aggregate, but only the regulator (MMO or devolved administrations) can issue statutory consents to operate.

⁷³ Under the Marine Works (Environmental Impact Assessment) Regulations 2007, as amended in 2011.

Secondary and Recycled Aggregates

Land use planning

- B.41 MASS takes secondary and recycled aggregates into account. The production of secondary and recycled aggregates is, however, classed as a waste activity and thus falls under waste as well as minerals policy planning guidelines.⁷⁴ Key waste legislation at EC level includes the Waste Framework Directive and the Mining Waste Directive, implemented in England and Wales through a range of environmental regulations.⁷⁵ Producers of these aggregates are therefore subject to the planning regime where waste facilities are contemplated and also the environmental permitting regime whereby waste treatment, recovery or disposal operations generally require authorisation.
- B.42 The local authority is referred to as the Minerals and Waste Planning Authority. Operators may need to obtain planning permissions to establish a recycling site, where recycling facilities including screening and crushing plant equipment may be installed. Permits are required to remove material from deposits of industrial by-products and for developments built to produce aggregate from industrial by-products or to store such material, with exceptions made in the latter case where ancillary to the industrial site.

⁷⁴ Applicable guidelines include PPS 1: Delivering Sustainable Development and PPS 10: Planning for Sustainable Waste Management

⁷⁵ Such as the Environmental Protection Act 1990, Part II and the Environmental Protection (Duty of Care) Regulations 1991, as amended, and the Environmental Permitting (England and Wales) Regulations 2010.

Supply management

- B.43 The latest national guidelines target the contribution to aggregates supply in England from secondary and recycled aggregates combined, to be 65 million tonnes per annum by 2015.⁷⁶ However the supply and production of these types of aggregates is not actively managed or monitored to the same extent as land-won aggregates.
- B.44 Many groups of local authorities work together with the Environment Agency to collate data on waste management arising. Some AWP's also conduct analyses of the supply of secondary and recycled aggregates. However, it can be difficult to accurately track such supply as aggregates recycled from construction and demolition waste are often produced using mobile equipment on temporary sites or indeed are re-used on-site as produced.

Planning in Scotland and Northern Ireland

Primary land won aggregates

Land use planning

- B.45 In Scotland, land use planning is governed primarily by the Town and County Planning (Scotland) Act 1997 and the Planning etc (Scotland) Act 2006. The Scottish Government is responsible for maintaining and developing planning legislation and national planning policy, including that for minerals development, within which local authorities are required to operate. Scotland's spatial planning

⁷⁶ Due to limited historical data, this figure is based on assumptions derived from the following data: the Environment Agency Construction and Demolition Waste Survey 2001; data collated by BGS from the AMS survey 1997; and the Arup Economics and Planning report 'Occurrence and Utilisation of Mineral and Construction Wastes 1991'.

strategy is set out in the second National Planning Framework and a single Scottish Planning Policy supported by minerals planning advice notes.

- B.46 Scottish Planning Policy states that an adequate and steady supply of minerals is essential. It makes provision for the maintenance of a landbank of at least 10 years and the identification of suitable land for development within local development plans that are reviewed every five years. The policy is supplemented by some monitoring of supply and demand, with occasional surveys carried out.
- B.47 Locally, national guidance is implemented by the planning authorities including the two National Park Authorities. Additionally, the four city regions, which are the major consumers of aggregates within Scotland, cooperate for their landbank planning.
- B.48 In Northern Ireland, the Planning (Northern Ireland) Order 1991 sets out relevant planning legislation for Northern Ireland. Spatial development strategy and strategic planning guidelines are established by Northern Ireland's Regional Development Strategy 2025 ('RDS'), Planning Policy Statements and technical Development Control Advice Notes (notably, note 10 relating to Environmental Impact Assessment). While no policy statement exists that is specific to minerals, the RDS chapter on rural Northern Ireland includes eight policies relevant to mineral applications.
- B.49 Current planning policy for minerals is however set out in the Planning Strategy for Rural Northern Ireland (September 1993) and are as follows:
- Policy Min 1 Environmental Protection - To assess the need for the mineral resource against the need to protect and conserve the environment

- Policy Min 2 Visual Implications - To have regard to the visual implications of mineral extraction
- Policy Min 3 Areas of Constraint - To identify areas of constraint on mineral development
- Policy Min 4 Valuable Minerals - Applications to exploit minerals, limited in occurrence or with some uncommon or valuable property, will be considered on their merits
- Policy Min 5 Mineral Reserves - Surface development, which would prejudice future exploitation of valuable mineral reserves, will not be permitted
- Policy Min 6 Safety and Amenity - To have particular regard to the safety and amenity of the occupants of developments in close proximity to mineral workings
- Policy Min 7 Traffic - To take account of the safety and convenience of road users and the amenity of persons living on roads close to the site of proposed operations, and
- Policy Min 8 Restoration - To require mineral workings to be restored at the earliest opportunity.

B.50 DOE is responsible for the implementation of Government policies for town and country planning, in consultation with the district councils, and for local development plans which must be taken into account in decision making. A Minerals Unit exists within the Department's Strategic Planning Division which is responsible for minerals planning.

Supply planning

B.51 Neither Scotland nor Northern Ireland has a system equivalent to MASS, nor does either have any AWP's, although Scottish

Government has access to NCG meetings. For both countries, there is less need to manage supply as there is excess or plentiful supply in comparison to the level of demand in most areas.

Primary marine aggregates

- B.52 It should be noted that currently there is no marine aggregates extraction in Scotland or Northern Ireland. However the Scottish Government and Northern Ireland have developed their own legislation to translate the MCA Act, which is briefly described below.
- B.53 In Scotland, Marine Scotland (part of the Scottish Government) is the lead marine management organisation. The Marine (Scotland) Act was passed on 10 March 2010 and provides a framework, via the Marine Policy Statement, which will help balance competing demands on Scotland's seas. The Act's main areas are marine planning, licensing, marine conservation, seal conservation and enforcement. It covers all activities in the marine environment out to 12 nautical miles (nm), except those reserved to the UK Government (oil, gas, telecoms and shipping), which are dealt with by the MMO. Under proposals in the MCA Act, Scottish Ministers have executive devolution of marine planning, licensing, and nature conservation in the Scottish offshore region. This means that Scottish Ministers carry out these activities from 12-200 nm.
- B.54 Whilst the Marine Policy Statement applies to the whole of the UK, the section on aggregates excludes Scotland. Scottish Ministers are the MPA and are responsible for developing a national Marine Plan.⁷⁷ The Scottish marine area will then be divided into Scottish Marine

⁷⁷ This is currently being developed and Ministers aim to publish a first draft for consultation later in 2011.

Regions, with each region developing its own plan. The consultation on defining marine regions, published in November 2010,⁷⁸ states that a Marine Planning Partnership will have delegated regional planning functions and be responsible for developing regional marine plans.

- B.55 As with England and Wales, the dredging and removal of substances such as aggregates requires a licence. The Marine (Scotland) Act brings a single marine licence which replaces the deposit licence under the Food and Environmental Protection Act 1985 (FEPA) and the navigational licence under the Coast Protection Act 1949 (CPA). From 6 April 2011, the new licensing regime has been operated by the Marine Scotland Licensing Operations Team.
- B.56 In Northern Ireland, DOE has the main responsibility for marine policy. The proposed Northern Ireland Marine Bill will fit with the MCA Act and will contain provisions for marine planning and marine nature conservation within Northern Ireland's territorial waters (to 12nm). It is currently anticipated that the Marine Bill will be in place in 2012 and work will then commence on marine plans for both Northern Ireland's inshore and offshore waters.
- B.57 In line with the rest of the UK, from 6 April 2011 Northern Ireland also has a new marine licensing regime to regulate development of the marine environment. This new regime regulates the extraction of marine aggregates previously licensed by DOE, through the Northern Ireland Environment Agency, under the Environmental Impact Assessment and Natural Habitats (Extraction of Minerals by Marine Dredging) (England and Northern Ireland) Regulations 2007 as

⁷⁸ Consultation on Scottish Marine Regions – defining their boundaries (Nov 2010): www.scotland.gov.uk/Resource/Doc/332178/0108097.pdf

amended by the Marine Works (Environmental Impact Assessment (Amendment) Regulations 2011, out to 12 nm.

- B.58 DOE will be responsible for enforcing conditions attached to licences.

Secondary and recycled aggregates

- B.59 In both Scotland and Northern Ireland, operators must obtain the relevant planning permissions for recycling sites and (unless exempt), obtain a licence under the Waste Management Licensing Regulations. Operators may also require a permit under the 1996 EU Directive on International Pollution Prevention and Control.⁷⁹
- B.60 The Scottish Environment Protection Agency (SEPA) is the waste regulator for Scotland whilst in Northern Ireland it is the Northern Ireland Environment Agency (within DOE).

⁷⁹ Council Directive 2008/01/EC