

Terms of reference and conduct of inquiry

Terms of reference

1. On 10 October 2011 the OFT sent the following reference to the CC:
 1. In exercise of its duty under section 33(1) of the Enterprise Act 2002 ('the Act') to make a reference to the Competition Commission ('the CC') in relation to a anticipated merger the Office of Fair Trading ('the OFT') believes that it is or may be the case that—
 - (a) arrangements are in progress or contemplation which, if carried into effect, will result in the creation of a relevant merger situation in that:
 - (i) two or more enterprises will cease to be distinct under section 23(1) of the Enterprise Act 2002 (the Act) in that each party, Alpha Flight Group Limited and LSG Lufthansa Service Holding AG, will acquire, at least, material influence in the business being contributed by the other; and
 - (ii) as a result, the conditions specified in section 23(4) of the Act will prevail, or will prevail to a greater extent, with respect to the supply of in-flight catering services in the UK; and
 - (b) the creation of that situation may be expected to result in a substantial lessening of competition within any market or markets in the UK for goods or services, including the supply of in-flight catering services to airlines.
 2. Therefore, in exercise of its duty under section 33(1) of the Act, the OFT hereby refers to the CC, for investigation and report within a period ending on 25 March 2012, on the following questions in accordance with section 36(1) of the Act—
 - (a) whether arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation; and
 - (b) if so, whether the creation of that situation may be expected to result, in a substantial lessening of competition.

Office of Fair Trading
10 October 2011

Conduct of inquiry

2. On 10 October 2011 we posted on our website an [invitation to express views](#) about the merger. The [administrative timetable](#) for our inquiry was published on 26 October 2011 and the website also contains biographies of the [members of the Group](#) conducting the inquiry.
3. We invited selected competitors and customers of the two companies to comment and fill out a questionnaire on the merger. We gathered oral evidence through hearings with selected third parties. [Summaries of these hearings](#) are on our website. We also gathered information through further written and oral exchanges.

4. On 1 November 2011, we published an [issues statement](#) on our website, setting out the areas of concern on which the inquiry would focus.
5. Members of the Inquiry Group, accompanied by staff, visited Alpha and LSG facilities near to Heathrow Airport.
6. We received written evidence from Alpha and LSG, and a non-confidential version of their [joint main submission](#) is on our website. We also held hearings with Alpha and LSG on 9 December 2011 in separate sessions.
7. In the course of our inquiry, we sent Alpha and LSG some working papers for comment.
8. On 9 February 2012 we published our [provisional findings](#) and invited responses.
9. We would like to thank all those who have assisted in our inquiry.
10. A non-confidential version of our final report has been placed on the CC website.

Financial performance

LSG

1. Table 1 shows the profit and loss account for LSG for the three years ended 31 December 2011 and the budget for 2012.¹ It shows revenue of around £[x] million a year and an EBIT margin before group charges and exceptional costs of [x] per cent in 2009 and [x] per cent in 2010² [x] in 2011. [x]

TABLE 1 LSG UK financial performance, 2009 to 2012

	£'000			
	2009*	2010*	2011†‡	2012†
	<i>Actual</i>	<i>Actual</i>	<i>Actual</i>	<i>Budget</i>
Turnover	[x]	[x]	[x]	[x]
Cost of sales	[x]	[x]	[x]	[x]
Gross profit	[x]	[x]	[x]	[x]
Administrative expenses (pre-exceptionals and group charge)	[x]	[x]	[x]	[x]
EBITDA (pre-exceptionals and group charge)	[x]	[x]	[x]	[x]
Group charge§¶	[x]	[x]	[x]	[x]
EBITDA (post-group charge)	[x]	[x]	[x]	[x]
Exceptional costs#	[x]	[x]	[x]	[x]
EBITDA (post-exceptional costs)	[x]	[x]	[x]	[x]
Depreciation and amortization	[x]	[x]	[x]	[x]
EBIT	[x]	[x]	[x]	[x]
EBIT (pre-exceptionals and group charge)	[x]	[x]	[x]	[x]
				<i>per cent</i>
EBIT (pre-exceptionals and group charge)	[x]	[x]	[x]	[x]
EBIT	[x]	[x]	[x]	[x]
EBITDA (pre-exceptionals and group charge)	[x]	[x]	[x]	[x]

Source: Management accounts and budget.

*[x]
†[x]
‡[x]
§[x]
¶[x]
#[x]

2. The 2012 budget for the UK shows revenue of £[x] million and an EBIT before group changes of £[x] million. LSG stated that the 2012 budget was prepared in August 2011 and therefore:

- (a) underestimates [x] (LSG has since estimated this [x] contribution per year);
- (b) includes [x] as a new customer—[x];
- (c) the [x]; and
- (d) it assumes the ability to [x].

¹ LSG does not produce consolidated statutory accounts showing the financial performance of its UK operations. The consolidated figures for 2009 and 2010 were produced by LSG as part of the JV due diligence process and have not been audited. The results for 2011 are based on actual unaudited numbers for 2011. The 2012 budget was prepared in August 2011 based on management accounts (unconsolidated).

² [x]

3. In addition, it includes target productivity of [%] per cent on Direct Labour and [%] per cent on material costs, and assumes a budgeted EBIT [%] for the LSG central buying activity ('Supermarket') of £[%] million between 2011 and 2012.
4. Due to the full 12-month financial impact of the [%], 2013 EBIT margin before group charges and exceptional items is expected to [%].
5. LSG's UK operations had net liabilities of £[%] million in 2009 and net assets of £[%] million in 2010. The change in asset position between 2009 and 2010 results principally from the sale of [%].³

London Heathrow and the regions

6. LSG currently has two principal trading entities:
 - (a) LSG Sky Chefs/GCC Ltd (LSG/GCC)—all trading through Heathrow is reported in this entity,⁴ and
 - (b) LSG Sky Chefs UK Ltd (LSG Sky Chefs UK)—this includes all non-Heathrow trading (including Birmingham Airport trading) as of 2010:
 - (i) In the period 2008 and 2009 Birmingham Airport trading was reported in LSG Sky Chefs Birmingham Limited. Turnover in these years was £[%] million and £[%] million with a loss before taxation of £[%] million and £[%] million respectively.⁵
 - (ii) In addition, LSG owned a minority stake in City Net Catering Holdings Limited (via LSG Lufthansa Service Europa Afrika GmbH) which through its subsidiaries (principally City Net Catering (UK) Limited) provided services in a number of UK regional airports. The trading in these regional airports was transferred to LSG Sky Chefs UK on 1 January 2011. In 2009 and 2010 City Net Catering (UK) Limited had turnover of £[%] million and £[%] million [%] and £[%] million respectively.
7. We set out in the following paragraphs the performance of LSG/GCC and LSG Sky Chefs UK. Both trading entities have generated positive EBIT as well as free cash flow during the period under review.

Heathrow (LSG/GCC)

8. Table 2 shows the profit and loss account for LSG/GCC for the four years ended 31 December 2011. It shows that revenue has remained relatively constant at around [%]. EBIT (pre-exceptional costs) margin has ranged between [%].

³ The sale proceeds were applied to the intercompany position of the operations. LSG's operations are financed by [%]. In 2009, LSG's UK operations had [%] and a net intercompany trading creditor of £[%]. In 2010 it sold its [%] and took out a new [%]. As at December 2010 it had an [%] and a net intercompany debtor of £[%].

⁴ LSG/GCC is a 50/50 JV with GCC Aviation Services Company Limited (GASCO) to supply all LSG Sky Chefs airline customers out of Heathrow. [%] Once this has been achieved, the economic benefit will be passed through to the Alpha/LSG JV.

⁵ Birmingham—LSG Sky Chefs Birmingham Limited—provided flight catering to Birmingham International Airport and East Midlands Airport. It hived up its trade to LSG Sky Chefs UK Limited on 1 January 2010. LSG Sky Chefs Birmingham Limited was then renamed Materials Marketing Solutions Limited (MMSL). It now trades as a central purchasing centre for LSG in the UK.

TABLE 2 LSG/GCC management accounts for the four years ending 31 December 2011

	£'000			
	Years ended 31 December			
	Actual			
	2008	2009	2010	2011*
Turnover	[X]	[X]	[X]	[X]
Cost of sales	[X]	[X]	[X]	[X]
Contribution (gross profit)	[X]	[X]	[X]	[X]
Overhead	[X]	[X]	[X]	[X]
EBITDA	[X]	[X]	[X]	[X]
Depreciation	[X]	[X]	[X]	[X]
EBIT (pre-exceptional costs)	[X]	[X]	[X]	[X]
Exceptional costs	[X]	[X]	[X]	[X]
EBIT†	[X]	[X]	[X]	[X]
				<i>per cent</i>
Contribution	[X]	[X]	[X]	[X]
EBITDA	[X]	[X]	[X]	[X]
EBIT (pre-exceptional costs)	[X]	[X]	[X]	[X]
EBIT	[X]	[X]	[X]	[X]

Source: Management accounts (2011).

*Unaudited actuals.

†EBIT is stated before group charges.

The Regions (LSG Sky Chefs UK)

9. Table 3 shows the consolidated profit and loss account for LSG Sky Chefs UK for the four years ended 31 December 2011. It shows revenue fell from £[X] million in 2008 to £[X] million in 2011. This revenue will, based on current contracts, [X] in 2012 as a result of the termination of the VAA contract in July 2012. In 2010 (the last year of reported revenue available) [X] contributed around £[X] of revenue. Contribution margin has increased over the period from [X] per cent in 2008 to [X] per cent in 2011. EBIT before exceptional items and group charges has [X] from [X] per cent in 2008 to [X] per cent in 2011.

TABLE 3 LSG Sky Chefs UK consolidated management accounts for the four years ending 31 December 2011

	£'000			
	Years ended 31 December			
	Actual			
	2008	2009	2010	2011†
Turnover	[X]	[X]	[X]	[X]
Cost of sales	[X]	[X]	[X]	[X]
Contribution (gross profit)	[X]	[X]	[X]	[X]
Overhead	[X]	[X]	[X]	[X]
EBITDA	[X]	[X]	[X]	[X]
Depreciation	[X]	[X]	[X]	[X]
EBIT (pre-exceptional items)	[X]	[X]	[X]	[X]
Exceptional items	[X]	[X]	[X]	[X]
EBIT*	[X]	[X]	[X]	[X]
				<i>per cent</i>
Contribution	[X]	[X]	[X]	[X]
EBITDA	[X]	[X]	[X]	[X]
EBIT (pre-exceptional costs)	[X]	[X]	[X]	[X]
EBIT	[X]	[X]	[X]	[X]

Source: Management accounts (2011).

* Excludes group charges.

†Unaudited actuals.

10. To illustrate the potential effect of the [£] and the [£] we set out in Table 4 adjusted 2010 unconsolidated figures from Table 3. This shows that based on 2010 figures LSG would make an [£]. Table 3, though, does not take into account both potential overhead and depreciation savings or potential new contracts (although we note that there are no large regional multi-airport contracts due for tender) [£].

TABLE 4 Illustration of the effect of [£]

£'000				
Year ended 31 December 2010				
	Actual	[£]*	[£]	Revised
Turnover	[£]	[£]	[£]	[£]
Cost of sales	[£]	[£]	[£]	[£]
Contribution (gross profit)	[£]	[£]	[£]	[£]
Overhead	[£]	[£]	[£]	[£]
EBITDA	[£]	[£]	[£]	[£]
Depreciation	[£]	[£]	[£]	[£]
EBIT (pre-exceptional costs)	[£]	[£]	[£]	[£]
<i>per cent</i>				
Contribution	[£]			[£]
EBITDA	[£]			[£]
EBIT (pre-exceptional costs)	[£]			[£]

Source: LSG.

*Based on [£] excluding LSG/GCC (cost structure pro rata to revenue share—here: [£]).

Alpha

11. Table 5 shows the consolidated profit and loss for Alpha for the four years ended 31 December 2011. In 2008 the figures represent the results of Alpha Flight UK Limited. The 2009 figures include from November 2009 the results of Alpha's JV with Airfayre (Alpha-Airfayre Limited). In 2010 Alpha's revenue [£].⁶ Absent Alpha-Airfayre Limited, Alpha's revenue would have been around £[£] million in 2010 compared with £[£] million⁷ in 2009. Revenue in 2011 is forecast to be £[£] million.

⁶ Alpha consolidated 100 per cent of the revenues and costs of Alpha-Airfayre Limited.

⁷ [£]

TABLE 7 2010 profit and loss split by operating segments

	£'000			
	[X]	[X]	[X]	[X]
Revenue	[X]	[X]	[X]	[X]
Cost of sales	[X]	[X]	[X]	[X]
Other direct costs	[X]	[X]	[X]	[X]
Contribution/gross profit	[X]	[X]	[X]	[X]
Fixed costs	[X]	[X]	[X]	[X]
Operating profit	[X]	[X]	[X]	[X]
	per cent			
Contribution margin	[X]	[X]	[X]	[X]
Operating margin	[X]	[X]	[X]	[X]

Source: Alpha.

15. Table 8 shows Alpha's profit and loss based on management accounts [X] for 2011 by division. This shows [X]. The figures are based on the 2011 management account forecast using nine months actual and three months forecast [X].

TABLE 8 2011 profit and loss split by operating segments

	£'000				
	[X]	[X]	[X]	[X]	[X]
Revenue	[X]	[X]	[X]	[X]	[X]
Gross profit	[X]	[X]	[X]	[X]	[X]
Operating margin*	[X]	[X]	[X]	[X]	[X]
Operating margin					[X]

Source: Alpha.

*[X]

16. Table 9 shows the value of Alpha's principal customers at Heathrow and the Regions in relation to revenue and contribution for 2010. It shows [X].

TABLE 9 Alpha's principal customers at Heathrow and Regions [X], 2010

		Revenue £'000	Gross margin %	Contribution £'000
Heathrow	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]
	[X]	[X]		[X]
	[X]	[X]		[X]
Regions	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]

Source: Alpha.

[X]

Description of the transaction

1. LSG Lufthansa Service Holdings AG and Alpha Flight Group Limited entered into a Memorandum of Understanding (MoU) dated 25 and 27 January 2011 (subsequently amended 17 February 2011 and 18 July 2011) setting out the principles by which they intended to establish a JV of their respective UK trading operations (LSG and Alpha).
2. In this appendix we set out:
 - (a) the proposed ownership and governance structure of the JV (paragraphs 3 to 13); and
 - (b) the expected synergies resulting from the JV (paragraphs 14 to 22).

Ownership and governance structure of the JV

3. The principles set out in the MoU are elaborated in a draft Joint Venture Shareholders' Agreement between Alpha Flight Group Limited and LSG/Sky Chefs Europe Holdings Limited setting out the provisions relating to the creation and governance of the JV and a draft Contribution Agreement between Alpha Flight UK Limited, LSG/Sky Chefs Europe Holding Limited, JVCo Limited and Alpha Newco Limited, setting out the activities to be contributed to the JV. The structure envisaged for the JV involves each of Alpha Flight Group Limited and LSG/Sky Chefs Europe Holdings Limited having a 50 per cent shareholding in the JV.
4. The scope of the JV's activities is the provision of on-board airline food and beverage catering, airline retail and ancillary services in the UK; any change to this requires the prior approval of both shareholders. Day-to-day running of the JV is to be conducted by the CEO and CFO (except in relation to reserved matters) who are to be appointed by agreement between the parties with Alpha designating the initial CEO and LSG designating the initial CFO. The CEO and CFO are to be Managing Directors of equal stature reporting jointly to the board.
5. The board of the JV is to be equally balanced and although the number of directors can be changed by the shareholders, it must consist of an equal number of Alpha directors and LSG directors. The post of Chairman of the board is to be held in alternate financial years by an Alpha director and by an LSG director and the Chairman will not have a casting vote. The quorum for the board is two eligible Alpha directors and two eligible LSG directors. The directors must use all reasonable efforts to make decisions by consensus. A resolution is passed if more votes are cast for it than against it provided that at least one eligible Alpha director and one eligible LSG director have voted in favour.
6. Certain matters are reserved to the board to decide. This includes the approval of any business plan (and any material modification to it or departure from it); [REDACTED].
7. Certain matters are reserved to the shareholders. These relate primarily to the scope of the JV [REDACTED].
8. As the structure of the JV is one that can lead to deadlock at various levels, the JV agreement contains a mechanism for resolving that deadlock, and [REDACTED].

9. Each party will be 'locked in' for a period of [X] years from the effective date of the JV during which time neither shareholder nor Alpha or LSG is allowed to sell or transfer its shares to a third party without the consent of the other shareholder. If a shareholder wishes to sell its shares after this period, the shares must be offered to the other shareholder. However, the selling party has the ability to auction the shares in the open market with the proviso that the other shareholder has the right to acquire the shares if it matches the price and terms of the third party bidder (subject to the third party bid being credible).
10. The key assets and liabilities not to be assumed by the JV are:
- (a) Alpha Ireland Business (Alpha Northern Ireland business to be assumed by JV)—a management agreement is to be put in place between Alpha Ireland and the JV;
 - (b) goodwill and Investments;
 - (c) freehold property comprising LSG—Unit 27 Heathrow and Alpha—Rutherford Way Gatwick;
 - (d) all short-term receivables and payables;
 - (e) existing net debt exceeding £[X] million (contributed equally by Alpha and LSG);
 - (f) defined benefit pension plans; and
 - (g) all other liabilities except from liabilities for dilapidations and onerous leases.
11. [X]
12. [X]^{1,2}
13. The current proposed structure for the JV is set out in Figure 1 below.

FIGURE 1

Proposed JV structure

[X]

Source: Alpha, LSG.

Synergies

14. Table 1 shows the synergies and one-off costs forecast in the JV business plan (Project Rosso). It shows that around [X] per cent of the cost synergies (pre-programme costs) in 2014 relate to [X].

¹ Capital contributions are to be made in accordance with each party's holding of ordinary shares.

² [X]

TABLE 1 Synergies and one-off cost

	£		
	2012e	2013e	2014e
[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]

Source: JV Business plan [X].

15. In paragraphs 16 to 21 we set out the breakdown of the Operations synergies whilst in paragraph 22 we set out the breakdown of the procurement synergies.

Operations

16. Facility consolidation is the key driver. Alpha provides services to 28 locations from bases at 16 airports in the UK³ under operating leases at an annual cost of £[X] million (FY10A). LSG services 23 locations from 13 facilities under operating leases at an annual cost of £[X] million. The annual synergies by location are set out in Table 2.

TABLE 2 Operations synergies by location

	£'000	
	Annual synergies	One-off costs*/ capex/cash out
Heathrow	[X]	[X]
Manchester	[X]	[X]
Birmingham	[X]	[X]
Gatwick	[X]	[X]
Other regional airports	[X]	[X]

Source: JV business plan.

*One-off costs include: redundancies; dilapidation costs; asset write-offs; and capital expenditure.

Heathrow

17. The current and proposed changes to the facilities of Alpha and LSG at Heathrow are shown in Table 3. The proposed changes are based on creating separate facilities for 'pure logistics', bond, 'supermarket', premium kitchen and traditional kitchen. The annual savings are estimated at £[X] million a year.

³ Alpha also operates at Dublin Airport.

TABLE 3 **Heathrow facilities**

<i>Company</i>	<i>Unit</i>	<i>Size sq ft '000</i>	<i>Current capacity utilization %</i>	<i>Lease expires</i>	<i>Proposed JV use</i>
Alpha	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]		[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]		[REDACTED]	[REDACTED]	[REDACTED]
LSG	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]		[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]		[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]				[REDACTED]

Source: Main parties.

[REDACTED]

Manchester

18. Alpha and LSG currently have three facilities between them at Manchester. The proposal in the business plan is [REDACTED].

Birmingham

19. Alpha has six units at Birmingham, LSG has one. These are shown in Table 4. [REDACTED]

TABLE 4 **Birmingham facilities**

<i>Company</i>	<i>Unit</i>	<i>Lease expires/break</i>
Alpha	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]
LSG	[REDACTED]	[REDACTED]

Source: JV business plan.

Gatwick

20. The current and proposed changes to the facilities of Alpha and LSG at Gatwick are shown in Table 5. The proposed changes are based [REDACTED].⁴

⁴ The business plan includes an alternative option [REDACTED].

TABLE 5 **Gatwick facilities**

Company	Unit	Size sq ft '000	Utilization	Lease expires/ break	Current use	[X]
Alpha	[X]	[X]	[X]	[X]	[X]	
	[X]	[X]	[X]	[X]	[X]	
LSG	[X]	[X]	[X]	[X]	[X]	[X]
	[X]	[X]	[X]	[X]	[X]	
	[X]	[X]	[X]	[X]	[X]	
	[X]	[X]	[X]	[X]	[X]	[X]

Source: JV business plan.

[X]

Other regional airports

21. [X]⁵

TABLE 6 **Regional facilities to be closed**

Airport	Company	Lease arrangements
[X]	[X]	[X]

Source: JV business plan.

[X]

Sourcing and procurement

22. The estimated savings in relation to sourcing and procurement are shown in Table 7.

TABLE 7 **Sourcing and procurement savings**

Savings opportunity	Low £m	High £m	Explanation
[X]	[X]	[X]	[X]
[X]	[X]	[X]	
[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]
[X]	[X]	[X]	[X]

Source: JV business plan.

⁵ Alpha exited two units at Glasgow (Flight Kitchen [X] and Bond [X] in November 2011. Alpha then took out a new lease on a fit-for-purpose warehouse on [X]. Operations commenced from the new facility in April 2011. The new lease is effective until [X].

Bidding markets

1. Paul Klemperer¹ has identified a number of criteria he considers to be necessary to satisfy the ‘typical definition of an ideal “bidding market”’. These criteria include:
 - (a) competition is ‘winner takes all’ so that each supplier wins all or none of the order;
 - (b) competition is ‘lumpy’ so that each contest is large relative to a supplier’s total sales in a period so that there is an element of ‘bet your company’ in any contest;
 - (c) competition begins afresh for each contract and for each customer such that when contests are repeated there is no lock in by which the outcome of one contest determines another;
 - (d) entry of new suppliers into the market is easy; and
 - (e) a ‘bidding system’ or ‘bidding process’ is involved.

2. It has been suggested by Klemperer that, in markets where these conditions hold, and where, in addition, marginal costs are constant, there are identical, or very similar, competitors and in which there are no capacity constraints, two firms may provide enough competition to give rise to a fully competitive outcome. The intuition is that in a one-off sealed-bid system in which bidders have poor knowledge of their competitors’ cost structures, firms will bid their most competitive price in order to maximize the probability of winning and making a small profit. However, this outcome is not limited to bidding markets, and can apply to ‘ordinary’ markets as well where the conditions in paragraph 1 apply. Klemperer considers that, once any of the extreme assumptions of an ‘idealized bidding market’ are relaxed, ‘we are quickly back into the familiar world of problems of dominance and unilateral and coordinated effects’.

3. We considered that competition for in-flight catering contracts may satisfy the first and fifth of the criteria identified by Klemperer (though it is worth noting that the first criterion may not always be met, eg the most recent BA tender), but that the second, third and fourth criteria were less readily or fully satisfied.

4. In our view, the market fails to fulfil the second criterion partly because there are many opportunities to bid for in-flight catering contracts. There are around 115 in-flight catering contracts currently in place, most of which last three to five years, and come up for renewal at different times throughout the year.² Therefore, there are many opportunities to bid for in-flight catering contracts. In this situation of repeated tendering, firms may choose to increase prices, trading off the expected increase in profits against the lower probability of winning the contract. Firms are more likely to risk bidding prices that are above the minimum price they could profitably bid if they have some knowledge about the impact of such a strategy on the probability of their winning the contract they are bidding for. We considered that firms may have fairly good knowledge of this probability.

¹ See www.competition-commission.org.uk/our_role/analysis/bidding_markets.pdf.

² See Appendix D, Tables 3 and 4, for a breakdown of the customers supplied by each caterer, and by customer segment (see Section 8).

5. We noted that competitors' cost structures are not identical since each caterer has different facilities and a somewhat different company strategy which has led to different investment over time. This means that there may be significant differences between suppliers in the costs associated with servicing a particular contract, and hence in the most competitive price that a caterer can offer. Furthermore, it seems likely that competitors may understand one another's cost structure since the main factors affecting costs—warehouse and hot kitchen facilities—are observable by rivals. The implication of this is that competitors may be able to estimate with reasonable accuracy the lowest price that their competitors will realistically be able to bid.
6. We also noted that firms may have a good knowledge of the identities of the firms they are bidding against—see Appendix F, Tables 5 and 6. Both airlines and caterers told us that bidders were often given information on the competitiveness of their bids during the tender process, which suggests that caterers may be able to build up a good knowledge of the prices that their competitors are likely to bid, and may therefore bid prices above the minimum price they could profitably bid based on this knowledge.
7. We therefore considered that the repeated nature of the bidding process and the degree of price and cost transparency may result in a situation in which firms have good knowledge of the price they will have to bid to win a contract, and will bid this price rather than the most competitive price that they are able to offer.³
8. In our view, the market fails to fulfil the third criterion because there seems to be some evidence of switching costs (see Section 8), at least for long-haul contracts. Some airlines and caterers have confirmed this view—see paragraphs 8.30 to 8.32. The switching costs are not so high as to prohibit switching entirely, but they do nonetheless give some advantages to incumbent suppliers.
9. As discussed in Section 7, entry into the in-flight catering market is not easy, particularly in respect of Heathrow, which means that the in-flight catering market may not fulfil the fourth criterion as well. However, it is worth noting that while not easy, entry is possible, and has occurred in the past.
10. Further, the in-flight catering market does not possess some of the additional characteristics (such as: marginal costs are constant, there are identical competitors, and there are no capacity constraints) found in ideal bidding markets. In particular, in-flight caterers are heterogeneous (ie not identical) and will have different strengths and weaknesses, and there may be capacity constraints in the short term, particularly in relation to larger contracts.
11. For these reasons, we found that the market for in-flight catering services does not possess the characteristics of idealized bidding markets described above by Klemperer. In light of this, we considered that any reduction in the number of competitors bidding for a tendered contract could have an impact on competitive outcomes.

³ We noted that in this respect, the entry of a company such as DHL, using a different business model and hence a different cost structure from other bidders, may introduce an element of uncertainty into the bidding process which may encourage other bidders to bid closer to their 'best' price than would otherwise be the case.

Entry and expansion

1. In this appendix we set out the evidence provided in relation to entry and expansion. We first look at evidence in relation to barriers to entry (paragraphs 2 to 22). Second, we set out third party views on potential entrants and expansion (paragraphs 23 to 31). Third, we look at methods of entry (paragraphs 33 to 45; in paragraphs 33 to 42 we look at ‘hub-and-spoke’ models and trucking). In paragraphs 43 to 45 we look at sponsored entry.

Barriers to entry

2. We set out below the evidence provided to us by the main and third parties on potential barriers to entry relating to: capital cost; risk; the lead time required for entry; and regulation. This evidence has not been split between Heathrow Airport and the Regions (see Section 2) as respondents did not specifically set out their responses in this manner. We note, however, within the text below where their evidence was different between Heathrow and the Regions.

Capital costs

3. The capital cost of entry includes: facilities—storage/chiller capacity/wash-up capacity/bonded goods areas, hot kitchen, cold kitchen facilities; and vehicles—high-lift vehicles suitable for the airline customer’s fleet.¹ The actual type and amount of capital equipment required by a new entrant will depend on the operational model it adopts and an airline’s catering requirements. We received a wide range of estimates in relation to the capital cost of entry based on individual caterers’ and airlines’ experiences of new facilities and their view of what was the minimum economic entry size. We noted that third parties considered entry principally along traditional catering lines (ie as a fully vertically-integrated in-flight catering supplier), whereas the main parties considered entry costs including disintermediated models.
4. Table 1 sets out the main parties’ estimates for the cost of entry based on a range of entry models from traditional to fully out-sourced. It shows low market entry costs for each model.²

¹ For example, an A380 aircraft requires a different high-lift truck from other aircraft.

² The main parties also argued that in most of the entry models [redacted].

TABLE 1 Main parties' estimate of costs of entry by entry model

Entry model	Type of upfront cost	Cost
Network management; 100% outsourced	Limited (but management team needs to be established)	Limited (IT, hiring cost)
Outsource food and assembly; own last mile	Limited (food partner, airport licence and management team)	Limited (IT, hiring cost)
Outsource food; own assembly and last mile	Conversion of property to cross-dock; management team)*	£[redacted] times the amount of cross-docks needed £[redacted] conversion cost or truck leasing
Own food: outsource assembly/cross-dock and last mile	Limited (partners, and management team)†	Limited (IT, hiring cost)
Full ownership—no outsourcing (traditional caterer)	Conversion of property to cross-dock; management team, airport licence; food production equipment—if needed	Can be as low as £[redacted]; leases for warehouse and trucks reduce upfront costs (annual costs c £[redacted])

Source: Main parties.

*Last Mile Logistics Supplier, eg [redacted]: conversion cost for existing trucks.

†Current food supplier to in-flight catering (eg [redacted]): no upfront cost—part of its business model.

5. LSG said that its recent experience of seeking to enter new markets in [redacted] and Chicago demonstrated that the cost of entry was in the region of €[redacted] and US\$[redacted] respectively. Alpha told us that its new facility at Gatwick for BA (capable of catering 50 to 60 short-haul flights and seven to eight long-haul flights per day) only cost around £[redacted] million.
6. The main parties told us that one to one and a half long-haul flights per day (seven to ten per week) would be enough to justify investment in catering facilities at an airport. Alpha provided the costing for a recent contract for long-haul catering it looked to service by setting up a new facility. This showed a net annual profit of around £[redacted] based on one long-haul flight per day generating £[redacted] of income.³
7. Third parties told us that the costs of set-up were dependent on the model adopted and the airline's requirements with the overall costs being dependent on the scope of the contract(s), volumes, flights and meal requirements. They considered that: traditional catering was more costly than non-traditional; long-haul required more space than short-haul (eg more equipment to store and washing facilities); some airlines required a hot kitchen onsite; and large carriers including network airlines required a more complex model as a result of the volume of flights, different aircraft in the fleet and the large number of destinations requiring different food.⁴
8. BA considered that total set-up costs for long-haul would be at least £3 million as premises would need to be in close proximity to the airport and a hot kitchen was required. Gate Gourmet told us that long-haul at Heathrow would cost overall approximately £[redacted] million or between £[redacted] million and £[redacted] million if a hot kitchen was required, whereas short-haul, with its lower requirements, would cost approximately £[redacted] million. In the Regions, a long-haul facility with trucks would cost approximately £[redacted] million, with a further £[redacted] million to £[redacted] million if a hot kitchen was required.

³ Gate Gourmet told us that a rule of thumb was that one long-haul flight per day with three classes generated £[redacted] of revenue but that the estimate for revenue could range from around £[redacted] for an American airline to £[redacted] for an airline with a premium offering depending on type of service. The profitability of the contract could also depend on the extent of nominated supply which could mean that although the total revenue was high a large amount could simply relate to the pass-through of goods with a minimal 'handling fee'. [redacted]

⁴ For example, in relation to the start-up requirements and space required for servicing its needs at Heathrow, VAA estimated that it would require between 8,000 sq m if it used a logistics model and 12,000 sq m using a traditional model.

LSG told us that it was possible to use a mobile kitchen which cost around £[redacted]. It had used a mobile kitchen in both Frankfurt and Madrid.

9. Gate Gourmet told us that it had invested £[redacted] million in refurbishing its Heathrow West facility to secure BA's long-haul business (moved from its old Heathrow South facility (since closed)) and that it had invested £[redacted] million in its new Heathrow North facility (non-BA international) at Heathrow.
10. DHL estimated that the start-up costs for a major UK airline would be around £6 million (equal to 34 long-haul flights per day). This cost was made up of: £4 million fit-out (lease premises) and £2 million vehicles (about 20 at £100,000 each).
11. Gate Gourmet estimated that industrial dishwashers cost around £150,000 each. It also estimated that transition costs (ie costs associated with moving an airline from the old caterer to the new caterer) could be as high as £[redacted] million including training, temporary start-up labour costs and project management.
12. In relation to vehicles, we were told that in general an in-flight catering supplier needed half the number of high-load trucks to the number of flights (ie ten long-haul flights would require five high-load trucks). Estimates for the cost of high-load trucks were generally between £100,000 and £200,000 each, with specialist A380 trucks being more expensive at around £250,000. LSG told us that it believed the purchase price of a high-loader to be around €120,000. However, it said that high-loaders could also be leased for around £[redacted] per month or purchased second hand.
13. Third parties had differing opinions in regard to the number of flights per day required to enable entry. The number tended to equate to the different supply models being used by the in-flight catering supplier. DHL told us that it would need five to ten long-haul flights per day with annual revenue of at least £5 million to facilitate entry. Consequently there were few, if any, long-haul operations in the regions which could satisfy this requirement on their own. Gate Gourmet considered that it would need [redacted] per day to break even but would need to plan and invest in infrastructure to accommodate [redacted] to make it a commercial proposition. However, it also told us that at Heathrow it would require around [redacted] per day to justify acquiring and fitting out a new facility, with a view to winning further business to make it commercially viable.
14. Third parties argued that another effect of the size of investment cost was that a contract needed to be of sufficient length to allow amortization of the initial investment. We noted in this regard that BA has long-term contracts (ie over seven years).

Risk

15. The main parties associated risk with general business risk. They did not consider the risk associated with an airline moving its in-flight catering to a new provider (disruption risk) to be significant as: there was sufficient handover time between the outgoing and ingoing supplier; the outgoing supplier had to provide a transition plan to the airline; and the TUPE Regulations meant that experienced employees moved with the contract.
16. The main parties argued that many of the potential entrants into the provision of 'last mile' catering logistics services were already active at airports; for example cleaning and baggage handling companies. They therefore had experience of airside operations and as such there was not a steep learning curve in providing last mile catering services. In addition, the effect of such a learning curve could easily be mitigated by engaging experienced managers.

17. Third parties considered that the size of disruption risk was dependent on:
- (a) The complexity of the airline’s operations and logistical challenges associated with airline operations.⁵ Gate Gourmet told us that the transition to a new supplier was more complex as the number of flights increased. VAA told us that because long-haul had a significant complexity and variability with what went into the catering (different aircraft types, destinations), a caterer needed a higher level of knowledge and experience to operate a long-haul contract than would be the case in some low-cost short-haul operations.⁶ BA told us that an understanding of the ‘close to take off’ variants and fluxes of the airline business would be a steep learning curve for a new entrant into the market. BA told us that it considered that the risks of using DHL as a de novo entrant on short-haul flights were manageable in the light in particular of DHL’s wide experience of operating in an airside environment. BA would have been much more wary of taking on a caterer that did not have this experience.
 - (b) Whether the entrant had the knowledge and ability to provide quality catering that worked at altitude.
18. In addition, a number of airlines (bmi, BA and Lufthansa) stated that an in-flight caterer needed flexibility. bmi, for example, said that a caterer needed to be able to respond to new requirements at short notice including being willing and able to adapt its business to the requirements of the airline; whilst BA said that a caterer needed flexibility to respond to unexpected conditions.

Time to set up operations

19. The main parties told us that it could take up to six months to be ready to operate a contract, although this varied according to the entry model, as shown in Table 2.

TABLE 2 **Main parties’ estimates of ‘go live’ time frame for its entry models**

<i>Entry model</i>	<i>Time to ‘go live’</i>
Network management; 100% outsourced	None—after network is established
Outsource food and assembly; own last mile	None—after network is established *
Outsource food; own assembly and last mile	3–6 months (warehouse conversion)
Own food: outsource assembly/cross-dock and last mile	None—after network is established†
Full ownership—no outsourcing (traditional caterer)	3–4 months

Source: Main parties.

*Last mile logistics supplier, eg [redacted]: 3–6 months depending on truck conversion.
 †Current food supplier to in flight catering (eg [redacted]). None after distribution network set-up.

20. Third parties generally thought that it would take between 6 and 12 months for a new entrant to ‘go live’. VAA told us that it considered it would take around six months to fit out a warehouse but that suppliers had told it they would prefer eight to nine months’ lead time. A Regional network airline ([redacted]) told us that suppliers had indicated that they needed around a seven-month lead time to develop infrastructure at a new location. It thought, however, that a logistics operator ([redacted]) could be up and running at or near an airport within six months given the ‘logistics model’ of in-flight catering. Gate Gourmet told us that for long-haul it would take an entrant approximately 12 months to ‘go live’ although it believed it could possibly be achieved in six to eight. However, this time period could be shorter depending on the model of entry

⁵ Gate Gourmet told us that in-flight caterers must be capable of effectively/efficiently managing the catering and distribution/logistical aspects of the business.
⁶ LSG noted that VAA was currently changing its catering provider [redacted].

adopted. Gate Gourmet told us that for short-haul services (not requiring a hot kitchen) it would take approximately three to six months for a new entrant to 'go live'. A Regional network airline ([X]) considered that if a trucking operation was workable then a new entrant would require limited time to 'go live'.

21. The key time constraints were: securing and refurbishing new facilities (around six to nine months for a newly leased facility and nine to twelve months for a new build); and acquiring high-lift vehicles (lead time for new trucks was between three and six months). DHL told us that vehicle manufacture was time constrained as a consequence of there being a limited choice of manufacturers (chassis and bodywork), limited second-hand vehicles on the market⁷ (older vehicles were shipped to other airports worldwide) and limited numbers of lease vehicles (DHL believed there was one company which hired out vehicles and it had around 20 vehicles available). Plane Catering stated that it was very difficult to source new trucks and there was a six- to nine-month build time for new trucks.

Regulation

22. The majority of parties did not consider that obtaining regulatory approvals⁸ was a barrier to entry. However, Turkmenistan told us that, due to airport licensing requirements, it would not be able to find an alternative company to uplift to its aircraft at Birmingham Airport. Plane Catering also told us that it was costly and time consuming to obtain security clearance to gain access to the airside for staff. Plane Catering considered that regulatory oversight imposed a significant cost on smaller businesses.

Potential entrants and expansion

Potential entrants (Heathrow and the Regions)

23. Lufthansa said that apart from SATS, it believed entry was unlikely unless it was sponsored by a specific airline. Both bmi and BA believed that entry was unlikely unless directly sponsored by an airline. BA stated that it believed that entry would take over a year, so unless a new entrant was already in the process of starting up there would be no new entrants to in-flight catering within the next year.
24. BA thought it very unlikely that significant new players would enter the UK market as in-flight catering providers offering traditional catering units, in particular because these units were capital intensive; while in the Regions demand was reducing because of the use of back catering from airline's main bases. It considered that barriers to setting up a new 'logistics' unit would be less but still significant given the low volumes available and as such it was difficult to say how likely the prospects were of this model of entry.
25. DHL told us that it believed it was unlikely that there would be any new entrants into the market in the UK due to the capital cost and the reluctance of airlines to out-source to a new player. It also said that it took it three years to win the BA business and it was unlikely any new entrant would put in the resources into an industry that was relatively volatile.

⁷ DHL told us that some airport owners placed restrictions on the age of vehicles which could be used on the airport.

⁸ These include: airside licences (issued by airport operator); security passes (issued by the Home Office); bond licence for duty-free goods; DfT registration for drivers; and health and safety certificates, eg EA permits for discharge (dishwasher).

26. United Continental said that it believed near-term entry was unlikely but that longer-term entry would be feasible. VAA told us that it had not been approached by any potential new entrants with a view to tendering for its services. In addition, it believed that, the increased risk for an airline using an operator which had not operated in the UK before (re regulatory approvals, logistics, etc), reduced the likelihood of entry.
27. One in-flight caterer currently not operating in the UK ([redacted]) told us that it had no plans to enter the UK market in the next two years.

Expansion into Heathrow and/or the Regions

28. Newrest, which supplies catering services at London City, told us that it had no plans to bid on contracts at Heathrow, principally, it told us, due to the high concentration and dominance of major caterers at this hub.
29. DO & CO stated that it had bid for a contract supplying business and economy class at Regional airports and that it would have set up hot kitchen facilities in Gatwick, Birmingham and Manchester to service this contract.
30. DHL told us that its main priority was getting a major US contract. However, it was open to looking at expansion possibilities within the UK, and had bid in the current tender process for the VAA contract. [redacted] In addition, DHL had looked into the possibility of operating a hub-and-spoke model for a Regional network airline.
31. [redacted] told us that, if [redacted] had put in a firm bid at [redacted] and had offered something 'unique', it could have chosen it. However, [redacted] was unsure whether [redacted] would be an attractive market for a caterer to move into.
32. Gate Gourmet considered that Manchester was more attractive than Birmingham as a location as it had more long-haul flights: Birmingham tended to act as a hub for smaller UK airports.

Methods of entry

'Hub and spoke' and trucking

Use of trucking as a model to service Heathrow

33. The main parties considered that it was possible to produce food at another location and transport it to Heathrow. LSG stated that [redacted]. Alpha said that [redacted].
34. VAA told us that, in its recent tender, it applied a 'logistics' model. However, at Heathrow it looked for distances of less than 10 miles between the catering unit and aircraft with more than 6 to 8 miles becoming a concern due to potential traffic congestion and the impact this might have on supplier flexibility to meet the changing needs of an airline's operation. Gate Gourmet told us that it transported food from its hot kitchen at Heathrow West to its distribution centre at Heathrow North.

Use of hub and spoke and trucking as a model to service Regional airports

35. The main parties considered that it was possible to provide services to regional airports, where a caterer did not have hot or cold kitchen facilities, through the use of either a hub-and-spoke model or simply trucking food from one airport/facility to another airport. The main parties said that Commissaire used one single distribution

centre in the Midlands for Flybe which operates from 18 UK airports.⁹ In addition, [redacted].

36. We noted that Alpha has centralized its tray-set production facility at Birmingham and frozen meal production and bond warehousing at Manchester. In addition, LSG uses last mile logistic solutions and trucking solutions for a number of its regional operations including London City, London Stansted and Leeds Bradford.
37. Gate Gourmet told us that there had, in the UK, been a move away from airport dedicated facilities to central warehousing and distribution with smaller airport presence (warehouse with chill-chain). It said that the ability to use a hub-and-spoke model depended on customer preference. Gate Gourmet considered that transporting between Heathrow and Gatwick was difficult due to traffic problems. It would, however, transport ready meals overnight in a chill chain. Table 3 sets out Gate Gourmet’s estimates for the distances in-flight catering could be transported.

TABLE 3 Gate Gourmet estimates of optimum, average and maximum distances for transporting in-flight catering

	<i>kilometres</i>		
	<i>Optimum</i>	<i>Average</i>	<i>Maximum</i>
Short-haul	20	80	240
Long-haul	13	30	40

Source: Gate Gourmet.

38. Although some airlines stated a preference for the caterer to be located at the airport as this greatly simplified the logistics, it was not often mandated in their contracts.¹⁰ Delta considered that kitchen locations greater than 30 minutes from the airport created logistical challenges. However, with the proper equipment and staffing these could be overcome. VAA told us that the UK’s well-developed second-tier food supply network enabled a logistics-based model: food did not need to be produced in-house, at facilities close to the aircraft.
39. [redacted] told us that it would be willing to truck in meals for first and business class, if the standard was high enough. There was not necessarily a need for a hot kitchen on site, although this was its preference. [redacted] told us that it could potentially truck products from [redacted] for [redacted] as a ‘last mile’ operation could be put in place with an airside operator. Turkmenistan told us that it had been with LSG at Birmingham for the past two years and that the caterer trucked frozen product from Heathrow.
40. bmi believed that more ‘hub’ catering would take place where the road infrastructure allowed it.¹¹ It considered that this type of model was suited to low-cost airlines and some limited catering offerings on short-haul services (where non-perishable foods were offered and the (low) complexity of the operation did not require local availability of catering products). A Regional network airline ([redacted]) considered logistics to be the key element of airline catering. It told us that with the improvements in chill chains, it was possible to cater flights reasonably successfully from a distance; a traditional catering unit was not required at every airport. The Regional network airline ([redacted]) considered that it could, in theory, use a hub-and-spoke model as it did not need a hot kitchen at the airports it flew from, even for its long-haul flights.

⁹ Commissaire provides a pick and pack service supplying simple ambient food products and snacks.

¹⁰ [redacted]

¹¹ bmi considered that products could be transported across almost any distance as long as the road infrastructure allowed delivery in time.

41. DHL told us that it had looked into the possibility of operating a hub-and-spoke model for a Regional network airline ([redacted]), which would serve a number of airports in the UK from three operating centres. It believed that a similar approach would be possible and potentially attractive for other Regional network airlines.
42. Turkmenistan considered that trucking was not always economically viable if there were a limited number of flights per day. VAA told us that it was able to have catering trucked for its Glasgow flights (one flight, three times a week for short periods of the year) overnight from Manchester as the flights' requirements were relatively simple and consistent, allowing long-term planning for the catering. This was not something VAA would propose as suitable on a wider basis.

Sponsored entry

43. The main parties considered sponsored entry as a feasible strategy for promoting entry by either a current in-flight catering supplier, which was not already in the UK market, or for a service provider from one element of the in-flight catering supply chain, such as logistics providers, food producers or professional caterers. The main parties noted, however, that there was an important distinction between entry that was explicitly 'sponsored' by airlines through offering longer contract terms or underwriting investments (such as BA and DHL), and entry that was simply 'facilitated' by an operator winning a contract with a customer which granted them volumes to justify starting services at a particular airport. In general, the main parties argued that sponsored entry: effectively reduced the risk for an airline of changing provider; could be done within a short time frame and typically within the period between the contract tender and the contract start date; and, for some very large contracts, airlines were willing to reduce the entrant's risk through committed orders. The main parties stated the only example of sponsored entry to date in the UK was BA with DHL at Heathrow. Examples of facilitated entry included Newrest/Air France, DO & CO/BA, [redacted], Plane Catering/Kingfisher, Commissaire/Flybe.
44. Third parties provided a mixed response in relation to whether sponsored entry was likely. We only received responses relating to long-haul. United Continental told us that sponsored entry was something more likely to be followed by an airline with a major requirement, eg at a hub; [redacted]. We noted that the only major hub in the UK for long-haul is Heathrow (BA and VAA).
45. BA told us that there were no large-scale base carriers in the Regions. As such, it found it 'difficult to think of a scenario where somebody would start creating some demand that would then drive a new entrant to be sponsored into the market, and to the extent that the market's even large enough to support more caterers than currently exist at that site'. However, [redacted] suggested that it could if necessary sponsor entry into the market, though it had not identified anyone in particular.

Competitive effects

1. This appendix presents detailed data on existing market shares, the frequency with which the main parties and Gate Gourmet have bid against each other, and, where the parties have won contracts, the identities of the caterers which held the contracts previously. This information is drawn on in Section 8 for our assessment of the competitive effects of the merger.
2. The data contained in this appendix has been obtained in a number of ways:
 - (a) responses to the CC's Market questionnaire sent to in-flight caterers;
 - (b) other submissions to the CC by caterers and airlines;
 - (c) third party hearings with caterers and airlines; and
 - (d) telephone conversations with caterers and airlines.
3. The appendix is divided into three sections: number and value of contracts by segment; bidding data; and switching data. These are discussed in turn below.

Number and value of contracts by segment

4. Table 1 shows the market shares (by revenue) by caterer, separately for Heathrow (excluding BA) and the Regions.

TABLE 1 Market shares by revenue, 2011

	<i>LHR excl BA</i>	<i>per cent Regions</i>
Alpha	[20–30]	[50–60]
LSG	[40–50]	[20–30]
Gate Gourmet	[10–20]	[0–10]
DO & CO	[0–5]	[0–5]
DHL	[0–5]	[0–5]
Newrest	[0–5]	0–5]
Plane Catering	[0–5]	[0–5]
Commissaire	[0–5]	[0–5]
Total	100	100

Source: Responses from main and third parties, and CC analysis.

Note: Revenue for [X] of the [X] contracts held by DO & CO is not available. Therefore, the Heathrow market shares have been calculated excluding these contracts. This will mean that Alpha, LSG, Gate Gourmet and Plane Catering's market shares at Heathrow will be somewhat overestimated, while DO & CO's share will be somewhat underestimated.

5. Table 2 shows the number of contracts held by each caterer in 2011, for each segment of customer demand identified in paragraphs 8.5 and 8.9.

TABLE 2 Number of current contracts by caterer by segment

	<i>LHR BA</i>	<i>LHR LH larger</i>	<i>LHR LH smaller</i>	<i>LHR SH</i>	<i>Network</i>	<i>Regional LH</i>	<i>Regional SH</i>	<i>Total</i>
Alpha	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]*
LSG	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Gate Gourmet	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
DO & CO	[X]†	[X]	[X]	[X]	[X]	[X]	[X]	[X]
DHL	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Newrest	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Plane Catering	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Commissaire	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Total	[X]	[X]	[X]	[X]	[X]	[X]	[X]	116

Source: Responses from main and third parties, and CC analysis.

*Alpha has one contract with [X] covering both short-haul and long-haul catering. This contract is included in both Regional LH and Regional SH segments.

†Subcontract from DHL.

- Tables 3 and 4 show each caterer's airline customers, for each segment of customer demand identified in paragraphs 8.5 and 8.9: Table 3 shows the customers by Heathrow segment; while Table 4 shows the customers by Regional segment.

TABLE 3 Airline customers by caterer by Heathrow segment

	<i>LHR BA</i>	<i>LHR LH Larger</i>	<i>LHR LH Smaller</i>	<i>LHR SH</i>
Alpha	None	American Airlines United	Qantas Pakistan JAL ANA Sri Lankan EVA Air Mauritius	None
LSG	None	Virgin Atlantic Continental Air Canada BMI Mid-haul	Singapore Qatar Jet Malaysia Air New Zealand Thai US Airways Saudi Arabian Saudi Arabian VIP Pakistan Gulf Air Kuwait Royal Brunei Air China Kenya Egyptair Asiana Bangladesh China Eastern Middle East Libyan Arab Royal Jordanian Air Seychelles Syrian Arab Aeroflot ELAL	Lufthansa Cyprus Finnair BMI Short-haul Blue 1 Aer Lingus
Gate Gourmet	BA long-haul	BMI Delta	Air Transat Cathay Pacific Korean Oman South African TAM Air India	Air France/KLM Iberia SAS
DO & CO	BA short-haul	None	Etihad China Emirates Jet Airways	Turkish Cyprus
DHL	BA short-haul	None	None	None
Newrest	None	None	None	None
Plane Catering	None	None	Air Astana Kingfisher Arik Air Qantas	BA Crew
Commissaire	None	None	None	None

Source: Responses from main and third parties, and CC analysis.

TABLE 4 Airline customers by caterer by Regional segment

	<i>Network</i>	<i>Regional LH</i>	<i>Regional SH</i>
Alpha	Thomas Cook Monarch Ryanair	BA Continental Emirates	Jet 2 Viking BA BMI LSG
LSG	Thomson	Emirates Delta Etihad Air Asia X Mexicana UPS Titan Cathay Pacific FedEx China Airlines Vietnam BA Turkmenistan	SAS Cyprus Turkish SATA Air Moldova Turkish City Jet Swiss bmi baby
Gate Gourmet	Thomson Easyjet	Continental Emirates Sunwing US Airways	Aer Lingus Eastern
DO & CO	None	None	None
DHL	None	None	None
Newrest	None	None	BA CityFlyer
Plane Catering	None	None	None
Commissaire	Flybe	None	Loganair

Source: Responses from main and third parties, and CC analysis.

Bidding data

7. In response to the CC's Market questionnaire, and in further discussions with in-flight caterers, we were given data on the bidders present in the tender process run before each current contract was awarded. As this data was provided by in-flight caterers, it should be noted that the data may not be completely accurate, as the bidders (including the winning bidder whose data is used below) are not necessarily given information on the identity of other bidders. Nonetheless, it still gives useful insight into which caterers are presumed to (and quite often actually do) bid for each (type of) contract.
8. The data provided appeared to us to be most comprehensive in relation to the three largest in-flight caterers: Alpha, LSG and Gate Gourmet. This is likely to be driven by the fact that (a) the three largest caterers hold most of the current contracts, and (b) the largest caterers tend to bid for more contracts. Therefore, we undertook some analysis in relation to caterers' awareness of whether (i) Alpha and LSG bid against each other, and (ii) Gate Gourmet bid against Alpha and/or LSG.
9. Using the bidding data described above, Table 5 shows the caterers' awareness of whether Alpha and LSG bid against each other for current contracts. The data has been amalgamated as follows:
 - (a) Data provided by Alpha (LSG) has been used to assess whether LSG (Alpha) bid against each other for contracts ultimately won by one of the main parties.

(b) Data provided by Gate Gourmet, DO & CO, DHL, Newrest, Commissaire and Plane Catering has been used to assess whether Alpha and LSG participated in the bidding process, and thus bid against each other (as well as against other caterers) for contracts ultimately won by another caterer.

10. We noted that the proportion of contracts where Alpha and LSG bid against each other could be higher in reality, as the parties could have bid against each other in a number of the contracts where the caterers are not aware whether this is the case. On the other hand, the true proportion could be lower because in some contracts where the caterers may assume that Alpha and LSG bid against each other, this may not have been the case. We expect this effect to be lower than the effect outlined at the beginning of this paragraph, and therefore the true proportion is more likely to be higher than that in Table 5 (though it is not clear by how much). Importantly, this does not change the conclusion that caterers appear to have a fairly good knowledge of the identities of the companies they are bidding against; certainly as between the three largest caterers.

TABLE 5 Caterers' awareness of whether Alpha and LSG bid against each other for current contracts

	<i>Number and value of current contracts</i>	<i>Number and value of contracts where caterers are aware of whether Alpha and LSG bid against each other</i>	<i>Proportion of contracts where caterers are aware of whether Alpha and LSG bid against each other %</i>
All contracts	[REDACTED]	[REDACTED]	[REDACTED]
LHR BA	[REDACTED]	[REDACTED]	[REDACTED]
LHR LH larger	[REDACTED]	[REDACTED]	[REDACTED]
LHR LH smaller	[REDACTED]	[REDACTED]	[REDACTED]
LHR SH	[REDACTED]	[REDACTED]	[REDACTED]
Network	[REDACTED]	[REDACTED]	[REDACTED]
Regional LH	[REDACTED]	[REDACTED]	[REDACTED]
Regional SH	[REDACTED]	[REDACTED]	[REDACTED]

Source: Responses from main and third parties, and CC analysis.

Note: Contract value is not available for [REDACTED] out of [REDACTED] of DO & CO's contracts. This affects the LHR BA, LHR LH Smaller and LHR SH segments.

11. Table 6 shows the caterers' awareness of whether Gate Gourmet bid against Alpha and/or LSG for current contracts. The data has been amalgamated as follows:

(a) Data provided by Alpha and LSG has been used to assess whether Gate Gourmet bid against either of the main parties for contracts ultimately won by one of the main parties.

(b) Data provided by Gate Gourmet, DO & CO, DHL, Newrest, Commissaire and Plane Catering has been used to assess whether Gate Gourmet bid against Alpha and/or LSG for contracts ultimately won by another caterer.

12. This data is subject to the same qualifications described in paragraph 10, reflecting the fact that caterers may enjoy imperfect information on the identity of other bidders.

TABLE 6 Caterers' awareness of whether Gate Gourmet bid against Alpha and/or LSG for current contracts

	<i>Number and value of current contracts</i>	<i>Number and value of contracts where caterers are aware of whether Gate Gourmet bid against Alpha and/or LSG</i>	<i>Proportion of contracts where caterers are aware of whether Gate Gourmet bid against Alpha and/or LSG %</i>
All contracts	[X]	[X]	[X]
LHR BA	[X]	[X]	[X]
LHR LH larger	[X]	[X]	[X]
LHR LH smaller	[X]	[X]	[X]
LHR SH	[X]	[X]	[X]
Network	[X]	[X]	[X]
Regional LH	[X]	[X]	[X]
Regional SH	[X]	[X]	[X]

Source: Responses from main and third parties, and CC analysis.

Note: Contract value is not available for [X] out of [X] of DO & CO's contracts. This affects the LHR BA, LHR LH Smaller and LHR SH segments.

Switching data

13. In response to the CC's Market questionnaire, in-flight caterers provided us with information on the identity of the caterer which held each contract prior to the last tender process. In most cases, the current contract holder was also the previous contract holder, with the contracts either extended, or awarded to the same caterer following a tender process. However, in some cases, the contracts have switched between caterers. This is shown in Tables 7 and 8. Table 7 shows all current Heathrow contracts, which have switched between caterers; while Table 8 shows all current Regional contracts which have switched between caterers.

TABLE 7 Current Heathrow contracts which have been won from another provider

<i>Current in-flight catering provider</i>	<i>Providers from which contracts have been won</i>	<i>LHR BA</i>	<i>LHR LH larger</i>	<i>LHR LH smaller</i>	<i>LHR SH</i>
Alpha	LSG	/	[X]	[X]	[X]
LSG	Alpha	/	[X]	[X]	[X]
	Gate Gourmet	/	[X]	[X]	[X]
	Plane Catering	/	[X]	[X]	[X]
Gate Gourmet	LSG	/	[X]	[X]	[X]
	DO & CO	/	[X]	[X]	[X]
DO & CO	LSG	/	[X]	[X]	[X]
	Gate Gourmet	[X]	[X]	[X]	[X]
DHL	Gate Gourmet	[X]	[X]	[X]	[X]

Source: Responses from main and third parties, and CC analysis.

*LSG won these contracts from Airfayre, which was later acquired by Alpha.

TABLE 8 Current Regional contracts which have been won from another provider

<i>Current in-flight catering provider</i>	<i>Providers from which contracts have been won</i>	<i>Network</i>	<i>Regional LH</i>	<i>Regional SH</i>
LSG	Alpha	[X]	[X]	[X]
Gate Gourmet	Alpha	[X]	[X]	[X]
Commissaire	Alpha	[X]	[X]	[X]

Source: Responses from main and third parties, and CC analysis.

Glossary

‘Above the wing’ services	Services to an aircraft providing passenger comfort, such as those traditionally supplied by catering services providers, but excluding ground handling, fuel and maintenance.
Ambient food	Food kept at room temperature, ie unheated.
Airside	Operations inside the airport gates and up to the aircraft.
Alpha	Alpha Flight Group Limited ’s UK trading operations whose principal trading entities are Alpha Flight UK Limited and Alpha-Airfayre Limited.
Alpha Flight Group Limited	The parent company for the worldwide group which includes Alpha .
‘Asset-light’ catering	Catering operations where the in-flight catering provider does not have its own hot kitchen but sources all its food from external suppliers. It then assembles the full airline meal and handles the catering management and logistics services, including the logistics of loading the meals on to the aircraft.
Back-catering	Uplift of catering supplies for more than one flight at an initial departure airport, so that no catering uplift is required for the return journey.
BA	British Airways.
BOB	Buy on board. Network and charter/leisure carriers may offer a BOB option for food rather than automatically providing hot meals. This may include snacks, including some that can be heated on request, drinks, confectionery, crisps, etc.
Bonded goods	Goods such as tobacco and alcohol which are purchased on behalf of a particular airline and kept in a secure store to meet that airline’s requirements.
Catering management and logistics services	Part of the service an in-flight catering supplier provides to an airline. Catering management and logistics services include logistics management (including trucking of food and uplifting to aircraft), equipment and waste management, managing interfaces with suppliers, sourcing retail goods and ensuring the smooth operation of the catering supply chain.
Chill-chain	The chilling of perishable food once cooked/prepared, and maintaining of a chilled temperature throughout the supply chain to increase the product’s ‘shelf-life’.
Dnata	Ultimate parent company of Alpha Flight Group Limited and sister company of Emirates .

Disintermediation	A recent development in the in-flight catering services supply chain whereby different companies may supply different parts of the supply chain—for example, food suppliers may hand over to a separate company ('last mile' operation) to uplift the food to the aircraft.
Deutsche Lufthansa AG	Ultimate parent company of LSG .
Emirates	Emirates Airlines. Emirates Airlines is one of two key divisions in the Emirates group, alongside its sister company Dnata .
Gate Gourmet	Based in Switzerland, a large global provider of in-flight catering services .
Hub	A hub airport is a major centre of airline operation, eg Heathrow is the UK's major hub airport. 'Hub' may also be used to describe the airport at which an airline is based and from which it operates a large number of flights; alternatively it may simply be one of an airline's major centres of operations, as some airlines have several hubs.
'Hub-and-spoke' operation	A model of operation where catering is produced and/or prepared at a central base and trucked to other airports direct from the central base.
In-flight catering services	Comprise a mixture of conventional catering combined with other services. The two main elements are: catering management and logistics services ; and catering provision (including the preparation and production of presented meals for service on the aircraft, and the sourcing of ambient and snack food).
Joint venture	Joint venture between Alpha Flight Group Limited and LSG/Sky Chefs Europe Holdings Limited of their respective UK trading operations (LSG and Alpha).
JV	Joint venture.
JVCo	JV statutory entity to be created pursuant to the JV .
'Last mile'	Food suppliers may hand over to a separate company ('last mile' provider) to uplift the catering to the aircraft.
Long-haul	For the purposes of this report, any flight lasting 5 hours or more (although it is recognized that service provision may vary according to a range of factors, not just the duration of the flight).
LSG	LSG Lufthansa Service Holding AG's UK trading operations whose principal trading entities are LSG Sky Chefs/GCC Limited GCC and LSG Sky Chefs UK Limited .
LSG/GCC	LSG/Sky Chefs GCC Limited is a 50/50 JV with GCC Aviation Services Company Limited which includes all Heathrow trading.

LSG Lufthansa Service Holding AG	Intermediate holding company (for all global trading of LSG Sky Chefs group), 100 per cent subsidiary of Deutsche Lufthansa AG .
LSG/Sky Chefs UK Limited	All non-Heathrow trading (including Birmingham trading as of 2010).
LSG Sky Chefs	Brand name of LSG Lufthansa Service Holding AG , airline catering provider.
Network carriers	Larger airlines in the UK which operate from several regional airports; also called network carriers. See also Regional network/charter airlines .
Nominated supply	Occurs where an airline requires its supplier of in-flight catering services to source food or drink items from a specific ('nominated') supplier.
Non-vertically integrated catering supplier	In-flight catering suppliers which do not use the ' vertically integrated catering supplier ' model.
'Pick and pack' operation	A 'pick and pack' operation involves the in-flight caterer receiving catering products and drinks from external suppliers. The caterer then 'picks' the relevant products/drinks for each flight and 'packs' them into trolleys for loading on to the aircraft.
The Regions/ Regional	Throughout this report we refer to 'the Regions' or 'Regional' to mean those UK airports other than Heathrow Airport.
Regional network	Those airlines in the UK which operate from several regional airports are referred to as having a Regional network.
Regional network/ charter airlines	Larger airlines in the UK which operate from several regional airports; also called network carriers .
Regional long-haul airlines	Long-haul carriers which operate from one or more regional airports (as well as, in most cases, from Heathrow Airport).
Regional short-haul airlines	Short-haul carriers which operate from one or more regional airports, but are not network carriers .
Short-haul	For purposes of this report, any flight lasting less than 5 hours (although service provision may vary according to a range of factors, not just the duration of the flight).
Vertically integrated catering supplier	A catering supplier which provides both catering and catering management and logistics services. As well as managing the logistics, traditionally in-flight caterers have cooked fresh meals in kitchens at facilities located close to the airport.