Appendix U: Profitability of crematoria

Introduction

1. In this Appendix we set out the specifics of analysing the profitability of crematoria in this market investigation. This should be read in conjunction with Appendix Q which details our approach to analysing profitability within this market investigation more widely.

2. In this Appendix, we explain the analysis we have undertaken in order to come to our provisional profitability conclusions, and how we have taken into account the various submissions we have received from parties in response to our profitability working papers.[1]

3. The Appendix is structured as follows:

   (a) First, we set out the scope of our profitability analysis, in terms of the relevant business activities, time period and companies covered.

   (b) Second, we discuss our approach to ROCE analysis for crematoria services, with a focus on:

      (i) Identification and valuation of capital employed; and

      (ii) adjustments to EBIT.

   (c) Third, we set out the results of our ROCE analysis, first for the largest providers of crematoria services, and then for the local authority crematoria, together with some commentary on those results.

   (d) Fourth, we provide our provisional conclusions based on the results of our analysis.

4. In an Annex to this Appendix, we show the results of our analysis of the CIPFA Dataset, which includes information on the financial performance of a number of local authority crematoria and makes comparisons with the financial performance of the largest private crematoria operators.

[1] During the course of our investigation we have published two working papers in relation to this profitability analysis. On 24 July 2019, we published a working paper titled 'Approach to profitability and financial analysis' (the 'profitability approach paper') setting out in detail our proposed methodological approach to the financial and profitability analysis. Further, on 20 February 2020, we published a working paper titled Crematoria Profitability Analysis' (the 'crematoria profitability paper') which presented initial profitability results.

Scope of our analysis

5. Our financial analysis is focused on:

   (a) The four largest crematoria operators:

      (i) Dignity;

      (ii) Westerleigh;

      (iii) Memoria;

      (iv) LCC; and

   (b) A random sample of 22 local authority operated crematoria ('local authority crematoria') in the remaining portion of the sector.[2]

6. Together, these operators run 117 crematoria located throughout the United Kingdom.[3]

7. In terms of the time period for the analysis we considered the 2014 to 2018 period. We planned to request 2019 data from all crematoria and to update our analysis accordingly. However, as a result of the COVID-19 pandemic (as further detailed in Section 1) we were unable to do so.[4]

ROCE Analysis

Approach to ROCE analysis

8. The overarching conceptual approach to return on capital employed ('ROCE') is further detailed in Appendix Q. Here we consider ROCE in the context of our analysis of crematoria.

9. ROCE is calculated as earnings before interest and tax ('EBIT') as a percentage of the capital employed by the party to provide crematoria services.

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[2] In the crematoria profitability working paper we presented the results of fourteen of these local authority crematoria. The remaining eight were excluded due to potential issues with the data submitted. In this paper, we present the results of all local authority crematoria, having received further information / clarification from local authorities. We have noted any assumptions that we have made where relevant.
[3] According to the Cremation Society, there are approximately 300 crematoria in the UK.
[4] We note that Dignity chose to provide us with 2019 financial information as part of their response to the crematoria profitability working paper. As we do not have 2019 financial information from other crematoria we have not presented this in our findings.

10. As set out in paragraphs 25 to 43 of Appendix Q, we are guided by the following key principles in carrying out our analysis:

(a) Return on capital compared with the weighted average cost of capital ('WACC') is our primary means of measuring profitability.[5]

(b) We determine the ROCE using operating profits and net operating capital employed. The general principle is that all revenues, costs, assets and liabilities necessarily arising from the operation of the business to supply the in-scope activities (ie the provision of crematoria services) should be included. We exclude financing costs, and taxation on income and any associated corporation tax or deferred tax.

(c) We start with accounting profits and the balance sheets for the operating units of the firms that undertook the relevant activities, and then make adjustments to arrive at a more economically meaningful measure of profitability.

(d) We also require common cost and asset allocations where a firm undertakes other business activities in addition to those which we are reviewing in the market investigation.

11. The main adjustments to accounting data set out in this paper relate to adjustments required to the value of capital employed in the business, together with associated impacts on the profit and loss account ("P&L").

12. As noted in Appendix Q, the value of assets in the capital employed input should reflect their current value to the business ('VTB'). Modern equivalent asset value ('MEAV') is the most common outcome of a VTB assessment. This is the depreciated replacement cost of the asset in its current condition today. However, where the value in use of an asset (or its net realisable value) is less than its depreciated replacement cost, the value to the business of that asset is this lower figure.

13. In most cases, therefore, we have sought to identify the MEAV of assets in order to estimate the capital employed by crematoria. In a few cases, we consider that certain assets would not be replaced (in their current size/form or location), such that a lower asset value is more appropriate. Our approach, therefore, seeks to identify the level of capital employed which is reflective of

[5] We use ROCE, where data permits, as this can be computed annually and thus provides greater insights into trends over time and the drivers of profits above the 'normal' level. In addition to looking at ROCE as a percentage, we also consider the related profitability metrics of economic profits per cremation, and economic profits as a percentage of "cost plus" in order to obtain a fuller picture of profitability. Economic profits are defined as EBIT – (Capital employed x WACC). Cost plus is defined as Revenues – EBIT + (Capital employed x WACC).

what a new entrant would need to enter and operate within a competitive market.

14. We have assessed the financial information provided by crematoria operators that are within the scope of our analysis and considered their comments on the adjustments they consider necessary to update their financial information to reflect replacement cost.

Identification and valuation of capital employed

15. This section of the Appendix sets out our approach to: (1) identification of the operating capital employed required to provide crematoria services and (2) valuation of those assets.

16. The main categories of assets recorded on the balance sheets of the four largest crematoria operators are:

    (a) Tangible fixed assets, such as land, buildings and cremator equipment;

    (b) intangible fixed assets, such as goodwill;

    (c) working capital, which comprises operating current assets such as inventory, trade debtors, other debtors and VAT, and operating current liabilities such as trade creditors and other creditors; and

    (d) other current assets such as cash.

17. In this section, we consider each of these categories of assets in turn and set out the approach that we have taken in the recognition and valuation of these assets in our analysis.

Tangible fixed assets

18. The tangible fixed assets related to the provision of crematoria services are typically, land, buildings and cremator equipment.

19. These assets tend to be valued on the balance sheet at historic cost less any depreciation charged against the asset over its useful life, apart from land which is not depreciated. In some cases, assets will have been 'fair valued' on acquisition (see paragraph 22 below). We asked the parties questions to inform our understanding of the cost of replacing these assets. We asked whether:

    (a) Net book value ('NBV') was a good approximation for the cost of replacing the assets in their current condition. For example, could you:

(i) purchase your land and construct the cremation buildings at a cost in line with the net book values etc?

(ii) purchase your cremation equipment at their net book values?

20. All parties noted that NBVs were not a good proxy for replacement cost, as explained in more detail below.

21. Memoria said, 'There are two major reasons why accounting values do not form a good proxy for replacement cost in Memoria's case: Depreciation […] [*and*] increases in site sizes and relevant costs […]'.

22. Westerleigh also told us that 'The net book value of tangible fixed assets are based on depreciated cost (ie when the asset/land was acquired), including where relevant fair value adjustments on business combinations.' Moreover, 'the depreciation of tangible fixed assets in line with accounting standards is not designed to derive the replacement costs of an asset at the balance sheet date'.

23. Dignity told us that it does not consider the NBV of crematoria in the Fixed Asset Register ('FAR') to be a reliable estimate of the replacement costs for its portfolio of crematoria.

24. Finally, LCC told us that 'The NBV is not a good approximation for the cost of replacing the main assets required to provide crematoria services'.

25. Parties also noted that it is standard in the crematoria sector that there is not typically a second-hand or resale value for crematoria assets.

26. Specifically, Memoria told us 'there is no meaningful second-hand value to/market for these assets. This is clearly true for e.g. buildings and roads/parking, […] but in practice is also true for the other key assets (for example, [✂]). Therefore, the cost of replacing these assets (even if they have been in place for some years) would be the full cost of a new rebuild, and not a depreciated cost.'.

27. Similarly, Westerleigh stated 'If replaced, plant and equipment would be replaced with new equipment. Therefore, depreciated cost would significantly understate the cost of a new replacement.'

28. Dignity told us it 'does not believe there is an effective, liquid market in second-hand cremator equipment, particularly as the equipment is typically tailored to fit the site into which it is placed.'

Land

Approach to valuing land

29. We consulted on our Approach to Valuation of Crematoria Land ('land valuation consultation'), in which we proposed commissioning an independent, expert report on the MEAV of land employed by the crematoria for which we did not have recent information on acquisition costs.

30. In the land valuation consultation, we explained our view that, in the context of the crematorium sector, the best estimate of the MEAV of a plot of land currently in use as a crematorium is the current market price of the lowest cost, suitable site that an operator could purchase to serve the relevant local market. In particular, such a site should:

(a) Be appropriately located to serve the population served by the existing crematorium;

(b) meet the relevant criteria for a suitable plot for a crematorium in terms of size, aspect, road access etc;[6] and

(c) have, or have a reasonable prospect of obtaining, planning permission for use as a crematorium.

31. We highlighted that these criteria meant that the MEAV would not necessarily be a valuation for the same site as is currently employed by a firm. For example, the MEAV may be either smaller or larger than the existing site or in a different location.

32. In addition, we noted that the MEAV should reflect a situation of 'normal' market conditions, ie where both the buyer and seller of land have a number of potential options such that neither party is a necessary counterparty for the other.

33. However, we did not receive any bids from experts in response to either of our two invitations to tender.[7]

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[6] The Siting and Planning of Crematoria

[7] In response to the first procurement round, we sought feedback from potential suppliers regarding their reasons for not bidding. A number of parties indicated that the timing of the procurement process (in December) and the two-week timeframe for submitting bids had prevented them from participating. Hence, we re-ran the process in January/February 2020 and extended the time period for submitting bids (from two to three weeks). However, this second process also failed to generate any bids.

34. Therefore, we considered the range of information collected to date on land valuations to identify the most reliable estimates of replacement cost. We considered:

(a) the carrying values of land in parties' financial records;

(b) the Cushman & Wakefield report submitted by Dignity; and

(c) information on recent purchase costs collected from Memoria, Dignity and Westerleigh.

35. We observed that the carrying value of land in the parties' financial records was unlikely to provide a good proxy for the MEAV of this asset in many cases and, furthermore, was not recorded on a consistent basis across the parties. For example, [✂], while Westerleigh's assets were revalued in 2016 at the time of its acquisition by Ontario Teachers' Pension Plan and Universities Superannuation Scheme. In other cases, land was recorded at cost at the date of acquisition which was many years ago.

36. Next, we reviewed the Cushman & Wakefield report submitted by Dignity. This report gave the (depreciated) replacement cost of Dignity's crematoria land and buildings. However, we were concerned that the approach adopted was likely to result in an over-valuation of the land on an MEAV basis. For example, Cushman & Wakefield valued a number of the sites ([✂] out of [✂]) on the basis of residential or long-term residential alternative use. In contrast, Memoria told us that 'the vast majority of all UK crematoria applications in the last 20 years have been proposed on land designated for open-countryside.' As residential land is generally the most valuable land use in the UK and agricultural land is one of the lowest value land uses, this approach is likely to over-value the land, even taking into account the fact that a crematorium operator is likely to have to pay a material premium over agricultural use value for a suitable site (ie one that is able to gain planning permission).

37. We compared the average price per acre of land estimated by Cushman & Wakefield for Dignity with the average price per acre paid by firms opening new crematoria in the last ten years. Cushman & Wakefield's report implies a valuation of [£500-700k] per acre for Dignity's existing sites. In comparison, recent entrants have paid an average of around [✂] per acre.[8] This difference appears to have been driven in part by the valuation of a few very large sites at residential valuations with no adjustment for their size in the Cushman & Wakefield report.[9] In practice, at the land valuation provided by Cushman &

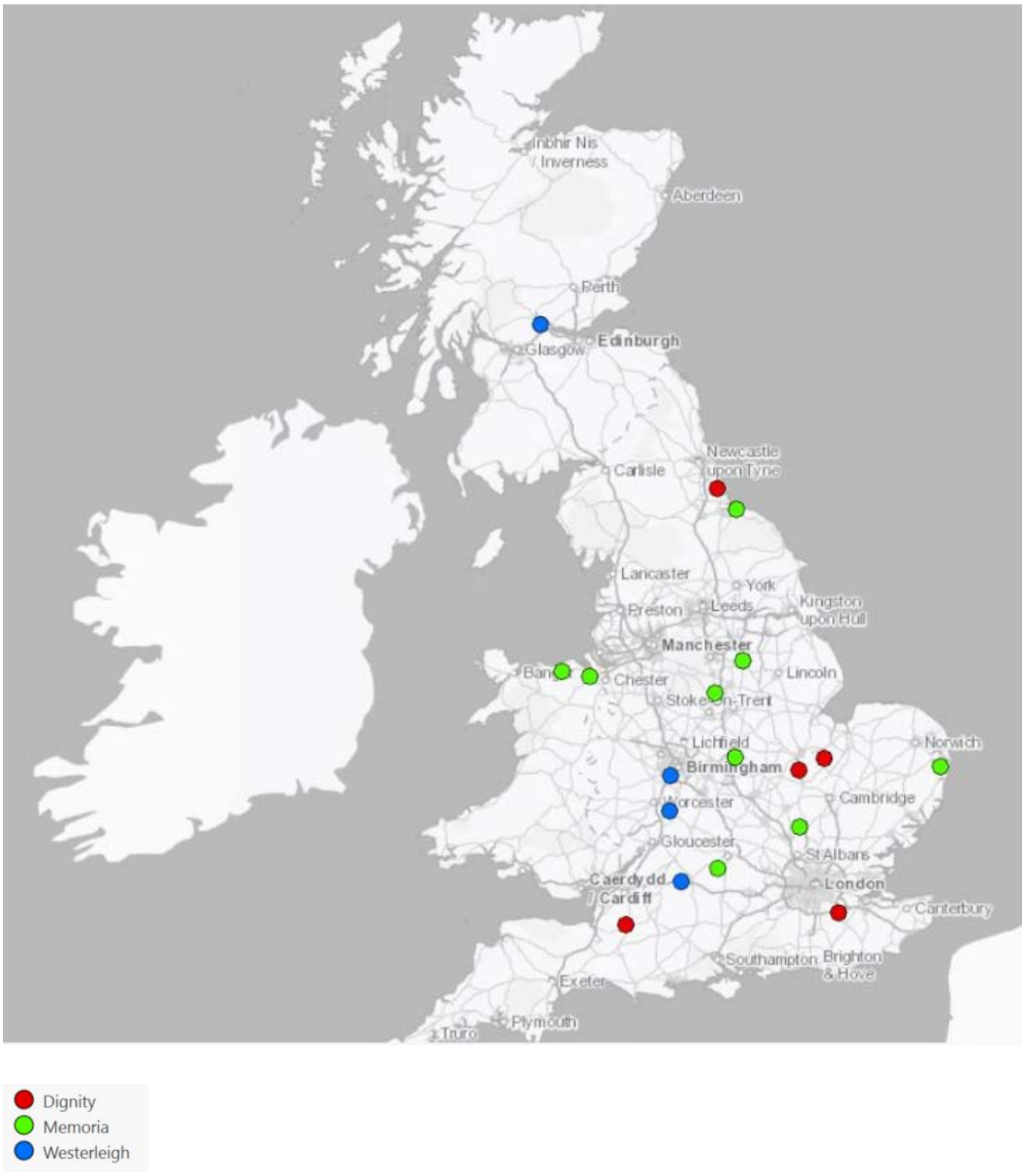
[8] This figure has been revised following the provision of further transaction values by crematoria operators. When we published our profitability working paper, the average price per acre from recent transactions was £89.5k.
[9] These sites are Dignity's crematoria in [✂].

Wakefield, such sites would not be economic for use as a crematorium. If these sites are excluded, the average price per acre declines to [less than £200k]. We note that this estimate is still significantly more than crematoria operators have paid in recent years.

38. Finally, we considered the information we collected on purchase costs incurred since 2010. As Figure 1 below shows, this data includes 18[10] sites with broad geographic coverage in the UK, although none of the sites are located in Greater London, ie within the M25. We consider that this information is likely to provide a good proxy for the MEAV of land, given that it reflects the actual costs incurred by crematoria operators for sites of a suitable size, location and aspect and which have been able to obtain planning permission for use as crematoria.

[10] At the time of publishing our profitability working paper, we had information on 16 transactions. In response to our working paper, parties have provided information on further transactions, which we have included in our analysis.

Figure 1: Map of coverage of purchase costs of land since 2010 and key



39. Figure 1 shows the coverage of recent land purchase costs for the 18 data points used. Three of these 18 sites have not yet opened but were purchased after 2010 and have obtained planning permission. We have not included transactions where the purchase of land has not yet been completed as the development of a crematorium on such a site is uncertain and, in any case, not likely to be completed for a few years. As such, these purchase costs may not be reflective of the costs of replacing the land asset during the 2014 to 2018 period.

40. Therefore, in our Crematoria profitability working paper, published in February 2020, we drew primarily on recent purchase prices in identifying a base case approach to land valuations. Recognising the uncertainty in this area, we also considered two sensitivities, with higher land values to understand whether

these had a material impact on the results of our analysis. These approaches were as follows:

(a) Base case: we used the average price per acre[11] of crematoria land observed in recent transactions and applied this to all of the sites acquired prior to 2010. The sites acquired since 2010 were valued at their historic purchase cost.

(b) Sensitivity one: we noted that our set of recent transactions did not include any sites located in Greater London, where land costs may be expected to be particularly high for suitable sites. Therefore, as in the base case, we applied the average price per acre to all sites outside of the M25. However, for sites inside the M25, we drew on the land valuations as set out in the Cushman & Wakefield report. There are three such sites owned by Dignity ([✂], [✂] and [✂]) with an average price per acre of [£1.75 – £2 million]. We applied this estimate to all sites within the M25.

(c) Sensitivity two: we drew exclusively on the valuations in the Cushman & Wakefield report, calculating an average price per acre for all sites outside the M25 of [£100 – 300k] per acre and of £[1.75 – 2 million] for sites within the M25. We applied these values per acre to all sites as appropriate depending on their location.

41. In estimating the MEAV of sites, we capped the size of sites at 10 acres on the basis that the evidence we had seen suggests that this is the typical size of site needed to operate a crematorium. Memoria told us that 'small (~5 acre) sites are no longer sufficient to meet client expectations in relation to parking, gardens, interment sites, etc. Memoria now seeks sites [✂]. This view was consistent with the evidence from recent transactions, in which the average site size was around 10 acres.

42. Finally, we gathered information on the costs incurred by Dignity, Westerleigh and Memoria in obtaining planning permission for sites in the past ten years. We calculated the average cost of obtaining planning permission for a crematorium, and then adjusted this for the probability of failing to obtain permission. This gave a planning cost of £428,000 per site. We added this cost to the calculated value of land for all crematoria built prior to 2010. For

[11] CMA Analysis. This figure has been adjusted to remove planning costs for those sites which were acquired with planning already in place. We have made separate allowance for planning costs in our analysis. This figure was calculated as: the total price paid for land (excluding planning permission costs) across recent transactions divided by the total acreage of those recent transactions

those built in recent years, we used the actual planning costs incurred as provided by the parties.

43. We note that it is likely that some parties have expensed the planning costs incurred through their P&L, which we have capitalised on the balance sheet. Therefore, for parties which have opened new sites during the Historic Period it is likely these costs have been double counted. Where this has occurred, it will artificially reduce the party's ROCE.

Parties' views

44. In response to our profitability working paper, the parties made a number of submissions relating to: our use of transactions since 2010 to value land, our decision to cap the size of a replacement site at 10 acres, our inclusion of burial revenues and costs in the firms' earnings, our decision not to capitalise leasehold assets.

- *Use of recent transactions*

45. Memoria told us that 'This £89,500 figure [average cost per acre from recent transactions] does not appear to be well founded, with the CMA having attempted but failed to retain an expert to obtain a more accurate figure… in reality it is highly unlikely that all sites outside the M25 have the same value per acre. It is therefore likely that this valuation will understate the capital value of certain sites (those where few suitable sites are available) and overstate it in others.'

46. Westerleigh told us that it would 'assume land value increases of [✂] per annum' and that the 'effect of using a constant land value over the five-year period does not therefore reflect reality based on Westerleigh's experience and inflates the ROCE'.[12] We understand this to mean that Westerleigh considers we should not include or place weight on earlier transactions in the period 2010 to 2019, as they would have a lower value, or that we should inflate earlier transaction values by [✂]% per year to obtain a 2018 value.

47. Dignity told us that the Base Case was unrealistic and went on to say that it 'considers that the per acre cost of replacing the land of its crematoria is best approximated by the values reported by Cushman & Wakefield. Scenario Two should, therefore, be the starting point of the CMA's assessment'.[13]

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[12] Westerleigh response to crematoria working paper dated 17 June, page 20, paragraph 80
[13] Dignity response to Crematoria profitability working paper, dated 12 June, page 8, paragraph 4.5

48. Dignity told us that the CMA 'must obtain valuation advice from an appropriately qualified specialist to value the crematoria of other providers included in the CMA's analysis'.[14]

49. Dignity provided average land values per acre by land type from 2017, as estimated by the Valuation Office Agency. Dignity told us that the 'CMA should use the land values from the UK Valuation Office Agency to estimate the replacement of crematoria in urban areas'.[15]

50. Dignity told us that twelve of the fourteen recent transactions used by the CMA are located in rural areas and none are in Greater London. Dignity told us 'The average land cost of £90,000 would not allow a replacement crematorium in a more urban area', noting the UK Valuation Office Agency's data which shows that the average land value for a site used for non-agricultural purposes across England is at least £350,000 per acre and much higher in urban areas even excluding London.[16]

51. Dignity submitted that the CMA's use of completed recent transactions introduces a selection bias into the analysis because it excludes situations where Dignity has been prevented from acquiring a site because the asking price was too high – this introduces a selection bias in looking only at actuals when aborted purchase prices are not included.[17]

52. In relation to the base case and sensitivities one and two, LCC told us that the 'estimates might perhaps have some value in forming some tentative views on possible industry issues at a macro-economic level' but that they only indicate areas where further work needs to be done.[18]

53. Memoria went on to say that: 'Land valuation is a critical component of crematoria capital values and therefore of ROCE, and such a crude approach to valuation for Memoria's rivals is therefore unlikely to provide reliable comparisons across crematoria or reliable results for individual crematoria sites'.

54. LCC submitted analysis that suggests that London crematoria charged lower prices on average than non-London crematoria, while undertaking 20% lower volumes per unit. LCC explained that adopting the CMA's methodology for estimating capital employed and assuming a 10-acre site size, a median crematorium in London would be expected to have capital employed of

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[14] Dignity response to Crematoria profitability working paper, dated 12 June, page 1, paragraph 1.2 (C)
[15] Dignity response to Crematoria profitability working paper, dated 12 June, page 11, paragraph 6.3
[16] Dignity response to Crematoria profitability working paper, dated 12 June, page 7, paragraph 4.4 (C)
[17] Dignity response to Crematoria profitability working paper, dated 12 June, page 8, paragraph 4.4 (D)
[18] LCC response to Crematoria working paper, page 13, paragraph 5.14

approximately £25 million. Our ROCE analysis would suggest that such a business should be making an 8% return on this capital employed, which equates to “normal” profits of £2 million per annum. In contrast, LCC estimates that the median London crematorium may only earn revenues of around £0.8 million, with profits likely to be considerably below this figure. LCC concluded that either our methodology for assessing the level of capital employed in a crematoria is wrong or, alternatively, the London crematoria market has a very serious issue around the long-term sustainability of crematoria provision.[19]

- *Capping site sizes at 10 acres*

55. Dignity told us that it ‘does not agree with the CMA’s decision to cap the size of sites at 10 acres’, as it maintains sites ‘infrastructure and grounds in excess of 10 acres, allowing Dignity to maintain memorial and burial revenues which are included in the EBIT’.[20]

56. Westerleigh told us that ‘Westerleigh's freehold sites are on average close to 30 acres, three times the size of the CMA's assumed MEAV site’.[21] Westerleigh went on to tell us that it spends ‘considerable time and investment selecting sites with large grounds that guarantee a peaceful setting free from noise and pollution […] This enables Westerleigh to differentiate itself from incumbent crematoria [...] and is an important aspect of the 'qualitative pull' of Westerleigh's sites’.[22]

57. Westerleigh also told us that it has ‘acquired additional land adjacent to existing sites over the last few years, even when its existing site was greater than 10 acres’.[23]

58. Further, Westerleigh told us that ‘the CMA's approach implicitly assumes that Westerleigh has made irrational commercial decisions to acquire more land than it needs. It is not open to the CMA to make assumptions of this nature.’[24]

59. However, [another view expressed was] that ‘MEAV analysis should assess alternative sites against currently and potentially smaller plot sizes, enabling a more dynamic structure of the market to exist over time’.

60. LCC told us that ‘Local authority (LA) and private crematoria operators had traditionally constructed large crematoria but there was evidence that new

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[19] LCC response to Crematoria working paper, page 18, paragraphs 6.4-6.8.
[20] Dignity response to Crematoria profitability working paper, dated 12 June, page 8, paragraph 4.6
[21] Westerleigh response to Crematoria profitability working paper, dated 17 June, page 9, paragraph 32
[22] Westerleigh response to Crematoria profitability working paper, dated 17 June, page 9, paragraphs 32 to 36
[23] Westerleigh response to Crematoria profitability working paper, dated 17 June, page 10, paragraph 36
[24] Westerleigh response to Crematoria profitability working paper, dated 17 June, page 10, paragraph 38

builds were getting smaller. […] LCC considered that the industry and the planning authorities would need to adopt a collaborative approach in the future to avoid the potential for over capacity. For example, planning authorities may not allow a facility that can cater for 3,000 cremations per year, but there might be scope for an 800 to 900 facility. LCC had not heard of any risk in the market of there being an overcapacity issue.'[25]

- *Inclusion of burials revenues and costs*

61. Dignity submitted that 'The CMA retains Dignity's burials revenues in EBIT despite reducing the size of the capital base […] This inflates ROCE by increasing revenues without matching capital employed.'.[26]

62. Westerleigh told us that our inclusion of revenue from burials in Westerleigh's earnings unfairly inflates its ROCE for the purposes of assessing competitive dynamics in the crematoria sector, noting that burial services are explicitly excluded from the our definition of 'crematoria services'. Westerleigh told us that only ten of its portfolio of crematoria sites have burial grounds, and at only [✂] of its sites does burial activity account for more than [✂] of total funerals.[27]

63. Westerleigh explained that the overheads incrementally incurred in relation to burial are typically negligible for most sites, [✂]. This means that including revenue from burials materially overstates Westerleigh's ROCE from the provision of cremation services. In addition, Westerleigh told us that it was not possible to split overhead expenses between cremation and burial revenue streams because [✂].[28]

- *Exclusion of leasehold assets from capital employed*

64. Westerleigh noted that [✂][29] of [its] current operational sites are long-term leaseholds typically with terms of [✂][30] and that 'the CMA places no value on the land operated under these leasehold assets'.[31]

65. Westerleigh went on to tell us that 'The leaseholds are therefore simply a financing choice and the leasing costs are financing costs equivalent to the

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[25] LCC hearing summary, page 2, paragraph 9
[26] Dignity response to Crematoria profitability working paper, dated 12 June, page 11, paragraph 7.1
[27] Westerleigh response to Crematoria profitability working paper, dated 17 June, page 25, paragraphs 100-103.
[28] Westerleigh response to Crematoria profitability working paper, dated 17 June, page 25, paragraphs 104-105.
[29] Westerleigh response to Crematoria profitability working paper, dated 17 June, page 11, paragraph 41.
[30] Westerleigh response to Crematoria profitability working paper, dated 17 June, page 11, paragraph 41
[31] Westerleigh response to Crematoria profitability working paper, dated 17 June, page 11, paragraph 42

financing used to fund purchase of a freehold'[32] and 'Indeed, under new accounting rules (IFRS 16), leaseholds are required to be included in the balance sheets as right of use assets, with the rentals being treated as a financing cost. Westerleigh could choose to adopt IFRS and apply the relevant policy for leasehold capitalisation'.[33]

66. Further, Westerleigh told us that at [✂] of its leasehold sites it has purchased free hold land at or adjacent to the leasehold site: [✂].[34]

CMA Approach

- *Use of recent transactions*

67. We note parties' views on our approach to land valuation and the appointment of a specialist. As explained above, two separate invitations to tender did not generate any bids and as such we proceeded to use the range of information available to us on recent transactions by crematoria operators to identify the most reliable estimate for the value of land per acre. Where parties have provided further information on recent (completed) transaction values, we have updated our analysis to take these into account.

68. We recognise that the approach we have used produces average, rather than site-specific land valuations. As a result, we have taken care to draw our provisional conclusions at the aggregate rather than site specific level, eg at the level of private crematoria companies and the local authority sample as a whole, rather than focussing on the results for individual sites.

69. We consider that estimating the replacement cost of crematoria sites based on 18 transactions drawn from across the country over the last 10 years, is likely to produce reasonably reliable valuations. These transactions reflect the actual sites that firms have chosen in terms of size, location and layout, and the actual costs they have incurred to secure those in the open market. We note that, to the extent that crematoria have market power and are able to make supernormal profits, and planning restrictions limit the availability of suitable sites, these transaction values may be bid up above the level that would be observed if the market for cremation services were well-functioning. This may introduce a circularity in our analysis, masking some of the supernormal profits. We have not sought to adjust for this factor but we note that it may bias our ROCE estimates downwards.

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[32] Westerleigh response to Crematoria profitability working paper, dated 17 June, page 12, paragraph 46
[33] Westerleigh response to Crematoria profitability working paper, dated 17 June, page 12, paragraph 47
[34] Westerleigh response to Crematoria profitability working paper, dated 17 June, page 12, paragraph 45

70. We note Dignity's point about a large proportion of the transactions being in rural areas. However, this reflects the sites that have been chosen by crematorium operators over the last decade, which we believe provides strong evidence that such sites and locations reflect the modern equivalent asset of existing crematoria. We considered this further in the context of LCC's submission regarding our approach to valuing sites in Greater London and the actual profitability of such sites (see paragraph 54).

71. We agree with LCC's conclusion that, at the level of land values in London set out in the Cushman & Wakefield report (of [£1.75 – £2 million]), it is not possible for a crematorium to make a return equal to its cost of capital. This is consistent with our observation that new crematoria have not opened in London in recent years. This suggests that, if deprived of these assets, crematoria operators would not seek to replace them – at least not in their existing size/form and locations. We thought that, to the extent that central locations were particularly important, operators may seek to use significantly smaller sites (where possible).[35] Alternatively, operators may seek more standard-sized sites further from the centre of London. In this context, we concluded that the average land values from our sample of recent transactions (£103,000 per acre), provided a reasonable replacement cost benchmark, in the context of valuing up to 20 acres for a replacement site (see paragraph 73).[36] We have adjusted our sensitivities accordingly.

72. We note the suggestion to include pricing from the Valuation Office Agency ('VOA'). However, the VOA data relates to general categories of land eg residential, commercial, industrial and agricultural, whereas the figures we have used reflect what crematoria operators have actually paid for land suitable for use as a crematorium. We consider that the latter is likely to provide a more accurate estimate of the cost of replacing crematoria sites.

- *Capping site sizes and including burials revenues*

73. We considered the parties' submissions with respect to our decision to cap the size of sites at 10 acres. We note that this reflects both the evidence that we have received on the size of site required to operate a crematorium (see paragraph 41) and the evidence of recent transactions, for which the average site size was 10 acres. However, we recognise that some firms have purchased larger sites in recent years and/or have acquired additional land at existing sites (beyond 10 acres). This suggests that, in some cases, crematoria may require larger sites in order to offer customers an appealing

[35] We note that there are currently a few crematoria on small plots, ie of less than 3 acres.
[36] Note, this average figure is similar to Cushman & Wakefield's valuation of Dignity's Beckenham crematorium land of [✂] for a [✂] acre site, giving a value of [✂] per acre.

setting and/or space for memorial gardens etc. Therefore, we have adjusted our analysis to allow for sites up to 20 acres when estimating replacement costs.

74. We noted parties' responses regarding the inclusion of burials income in revenue. While we agree that burials are a separate activity from providing cremation services (and are not the focus of this market investigation), they are generally provided using much of the same cost base (land, grounds maintenance etc), for example, see Westerleigh's submission in paragraph 63 above. The fact that an operator incurs negligible incremental overhead costs from providing burial services, suggests a significant efficiency from providing cremation and burial services jointly. For this reason, and in light of our decision to cap site sizes at 20 acres, which allows significant space for burials, we think that excluding burial revenues and the negligible incremental overhead costs would provide a distorted view of the profitability of crematoria services.

75. In addition, we note the following practical challenges to separating out burial or cemetery revenues and costs:

(a) Dignity told us that it was not able to separate out the costs of providing burials from the general running of its crematoria sites.

(b) Westerleigh told us that costs associated with the closed cemeteries at [✂] sites cannot be excluded as these are [✂]. In order for Westerleigh to operate these crematoria, the costs of maintaining the closed cemeteries are necessary and unavoidable. In tendering the operation of crematoria and the maintenance of closed cemeteries over the long term [✂] the local authorities in question have outsourced the risks involved with these closed cemeteries.[37]

76. Therefore, we have included burials revenues and costs in our profitability analysis.

- *Capitalising leasehold land*

77. Next, we considered parties' submissions that we should capitalise land held on long leaseholds and include this in their capital employed on the basis that the choice between leasehold and freehold reflected a financing rather than operational decision.

[37] Westerleigh response to Crematoria profitability working paper, dated 17 June, page 25, footnote 46.

78. We recognise that crematoria operators may choose between leasehold and freehold for financing reasons, but we do not think that there is a compelling reason to capitalise leasehold assets in this case. In particular:

(a) We would not expect such an adjustment to have a significant impact on our measure of economic profits since the increase in asset values would be offset by the removal of lease payments from the P&L;[38]

(b) we note that the two largest private crematoria operators both have a mix of leasehold and freehold sites, hence comparisons between them are not distorted by our approach;

(c) our estimate of the weighted average cost of capital of a crematorium operator, includes a relatively low level of gearing, which is consistent with a business model that holds a reduced level of freehold assets (eg a mix of owned and leased land). Memoria, which owns all its sites, told us that it supported a significantly higher level of gearing than the 30% to 40% range we have used in estimating the WACC for crematoria; and

(d) finally, we note that lease payments are a matter of fact, reflecting the actual costs that parties are incurring for the land on which crematoria are sited. Replacing these costs with our assessment of land values introduces a further judgement, and we do not believe that there is a compelling reason to make such an adjustment.

79. Where a party has indicated that it owns freehold land at a site otherwise considered to be leasehold, we have included the freehold land, subject to the 20-acre site size cap.

- *Increase in land value over time*

80. We considered Westerleigh's point regarding the potential increase in land values over time. First, we note that our sample includes transactions from 2010 to 2019 (inclusive) and therefore represents a reasonable average value for the 2014 to 2018 period. We do not agree that using only the most recent transaction values would be appropriate in this context as that would be likely to overstate the average value for the period. Second, to the extent that land values have increased over the relevant period, these capital gains should be passed through the P&L as profits since economic profitability analysis requires the full articulation of the accounts. Such gains would increase EBIT over the period and, therefore, ROCE. The overall impact on measured

[38] While ROCE percentages can be affected by these decisions, this would not have an impact on our interpretation of the firms' profitability, which takes into account a number of metrics.

ROCE is, therefore, ambiguous. Finally, we think that reducing our effective sample size, ie limiting ourselves to those transactions that took place in 2018 only (to reflect values at the end of the period), would be more likely to introduce bias into our analysis as we would lose broad coverage of the country.

- *Our revised approach*

81. In carrying out our profitability analysis on crematoria, we have, therefore, considered the following cases:

(a) Base case: we have valued all sites in the UK at £103,000 per acre, based on evidence from recent transactions. We have capped the size of the "modern equivalent" plot of land at 20 acres and have included all revenues earned from crematoria operators' sites (cremation fees, memorials and burial revenues) in earnings. In addition, we capitalised average planning costs of a further £428,000 per site, as explained in paragraph 42.

(b) Sensitivity: we have valued all sites in the UK at [£100-300k] per acre based on evidence from the Cushman & Wakefield report, submitted by Dignity. All other assumptions are the same as in the base case.

82. When we performed our analysis, we initially performed another sensitivity: we valued all sites in the UK at £103,000 per acre, but capped the size of sites at 10 acres and excluded all revenues and costs associated with burials. In this sensitivity we also capitalised average planning costs of £428,000 per site.

83. When we performed this sensitivity, we noted that the results were very similar to those of the Base case outlined above.

84. As such we have not considered this sensitivity further in our analysis but instead continue with the Base case and sensitivity outlined at paragraph 81.

Buildings

85. Consistent with Appendix Q, our approach was to ask parties for evidence on what a good approximation for MEAV would be, where book value was not. All large crematoria operators confirmed book value is not a good approximation for NBV, so we used replacement cost estimates prepared for the purposes of insurance as a proxy for MEAV.

86. For each crematorium owned by each party, we revalued the building based on the replacement cost estimate included in the parties' insurance policy and applied depreciation.

87. Where a party did not provide the replacement cost estimate for its crematorium, we valued its building using a simple average of the estimates provided by other parties. We removed four replacement cost estimates from this calculation, as their estimates did not appear to be credible as full reinstatement costs.

88. We applied straight line depreciation to the building from the point at which the crematorium was first constructed using a useful economic life of 100 years. Where the building was over 100 years old, we recorded a value of £nil. In our set of 117 crematoria, there are 9 fully depreciated buildings.

Parties' views

89. Memoria told us that it 'does not believe that its buildings will realistically have a useful economic life of 100 years [✂]. It is unclear why the CMA has felt the need to depart from Memoria's own depreciation schedule', [✂].

90. However, LCC told us that it 'does not consider that a generalised assumption by the CMA that all crematoria buildings cease to have any remaining useful life and hence no value beyond 100 years is reasonable or sustainable'[39] and provided evidence that the average age of a crematorium in the UK is 51 years, and in London is 76 years.[40]

91. Dignity also told us that 'treating three crematoria as fully depreciated does not take account of significant investments that have been made over the years to keep these properties in working order. Some of these investments are capitalised in Dignity's Fixed Asset Register.[41]

92. Similarly, Westerleigh told us that the 'CMA's approach wrongly depreciates capital improvements to sites based on the age of the site. The CMA's calculations use latest replacement cost for insurance purposes, depreciated based on the age of the site, with an assumed total life of 100 years. This methodology means that recent improvements and enhancements to the site are overly depreciated, understating the capital employed in the asset.'

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[39] LCC response to Crematoria working paper, page 16, paragraph 5.35
[40] LCC response to Crematoria working paper, page 16, paragraph 5.31
[41] Dignity response to Crematoria profitability working paper, dated 12 June, page 9, paragraph 5.3

Westerleigh told us that adjusting for recent capital improvements would reduce measured ROCE by 0.1 percentage point.[42]

93. In response to the crematoria working paper, Dignity told us that 'the insurance values which the CMA relies on to estimate the replacement cost of crematoria buildings do not take account of costs incurred relating to the establishment of a site such as drainage, groundworks, and landscaping costs. These costs can be substantial'.[43]

94. Similarly, Westerleigh submitted that our approach to valuing land (and buildings) 'makes no allowance for land development costs associated with initially developing a site for a crematorium, including extensive site design, enabling and preparation work including the provision of off-site infrastructure and services. Westerleigh explained that for a typical site this would include inter alia:

(a) Ground stabilisation and site remediation including removal or capping of contamination;

(b) earthworks within the site to provide appropriate development levels on which to build and provide landscape grounds;

(c) the formation of suitable new access, and in most cases extensive off-site highway improvement, works to the adjoining highway network under S278 Agreements such as construction of new right turn lane;

(d) the provision of all services to the site (water, electricity, gas, drainage and telecoms) and/or the diversion and/or upgrading of existing services and construction of land drainage infrastructure within the site;

(e) the construction of roadways, parking areas and pathways within the site; and

(f) landscaping – the preparation of the site including importing significant quantities of topsoil and carrying out extensive landscaping works across the site.

The replacement cost will not include all the costs necessary to undertake the development of a new site, such as agent, engineer, architect and legal fees.'. Westerleigh told us that collectively these costs can 'commonly be around [✂]

[42] Westerleigh response to Crematoria profitability working paper, dated 17 June, page 24, paragraph 98
[43] Dignity response to Crematoria profitability working paper, dated 12 June, page 10, paragraphs 5.6-5.7

or more per site' and are not included in either the benchmark land costs or the replacement cost of buildings for insurance purposes.[44]

95. Westerleigh said that it has 'recently undertaken a review of its replacement costs by a qualified surveyor for its 2020 insurance renewal. The 2018 valuation, used by the CMA, significantly underestimated re-instatement costs.[45]

96. Westerleigh told us that [✂] and that these should be included in its capital employed figure.[46]

97. Regarding the valuation of assets, LCC told us that 'applying "notional depreciation" is […] fundamentally flawed' and stated that FRS 102[47] crematoria operators are permitted to value or revalue their assets to 'their income generating capabilities'.[48]

Our approach

98. In general buildings are depreciated over 50 years. However, we observed that a large proportion of crematoria are used for more than 50 years: 48 of the 117 crematoria we analysed were built prior to 1970 and are still in use. This represents 41% of the crematoria analysed in our profitability assessment.

99. Further, nine of those 117 crematoria were built prior to 1920 and thus are over 100 years old, and still in use. We considered whether this suggested that we should assume a longer useful economic life, eg 150 years. However, we noted Memoria's submission that it would not wish to use its buildings for more than 50 years in order to maintain quality standards.

100. We recognise that any single UEL choice will be an approximation, with some buildings being used for longer, while others will become obsolete more rapidly. However, we thought that it was important to take a consistent approach across crematoria operators. Therefore, on the basis of the evidence we have as to how long crematoria are operated (in practice), we concluded that a 100-year UEL assumption was appropriate. To the extent that sites have a longer economic life, this means that "too much" depreciation is being charged against these assets each year. This effect will offset[49] the

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[44] Westerleigh response to Crematoria profitability working paper, dated 17 June, page 22, paragraphs 87-89.
[45] Westerleigh response to Crematoria profitability working paper, dated 17 June, page 21, paragraph 83
[46] Westerleigh response to Crematoria profitability working paper, dated 17 June, page 23, paragraph 92
[47] FRS 102 is the principle accounting standard in the UK financial reporting regime.
[48] LCC response to Crematoria working paper, page 16, paragraph 5.37
[49] We note that this offset might be partial, full, or even may exceed the impact of the understatement of capital employed.

effect on ROCE arising from capital values being understated, with an overall ambiguous effect on measured profitability.

101. Next, we considered parties' submissions regarding the depreciation of capital improvements made to sites after their original construction. While we agreed that our approach would over-depreciate recent capital investments in sites from the point when they were made, the fact that we have used the most recent insurance values for the whole period means that it will also effectively include such enhancements in capital employed (and a depreciation charge thereon) in earlier years when they had not been made. It is not clear to us whether Westerleigh has adjusted for this off-setting effect in its analysis. In any case, making adjustments for all such specific investments would add significant complexity to our analysis, introduces risks around cherry-picking[50] and, from Westerleigh's submission (see paragraph 92), the potential impact on ROCE can be expected to be de minimis. Therefore, we have not changed our approach in this way.

102. Regarding the insurance values we used as the replacement cost for crematoria buildings, we note the parties' views that these may not contain costs relating to the establishment of a site. However, we do not agree that the valuations undertaken for insurance purposes do not adequately cover all the costs highlighted by Westerleigh (see paragraph 62). The Royal Institute of Chartered Surveyors (RICS) produces guidance on how reinstatement costs should be estimated and states that:

"It is advisable for the net rebuilding cost of the whole property to include:

(a) the cost of rebuilding the whole of the building in its present design and materials, to its existing shape and size, including basements, foundations and retaining walls… and

(b) all external works and services such as drainage, manholes, water supply, electricity supply, boundary structures and outbuildings (if required by the policy).

…It is advisable for the reinstatement cost assessment to include… an allowance for demolition of any remaining sections of the building and associated site clearance prior to reinstatement… It is worth considering additional demolition costs, where applicable, due to factors such as site access difficulties, demolition of reinforced concrete and high-level working...

[50] For example, crematoria operators may have an incentive to tell us about enhancements to their sites but not about specific impairments.

It is advisable to ensure that the reinstatement cost assessment (RCA) makes allowance for fees necessarily and reasonably incurred in the reinstatement or repair of a building. This should relate to the charges of architects, engineers, surveyors, and anyone else whose services are required if the work is to be done satisfactorily… Professional fees for dealing with reinstatement of damage will often be higher than those for procuring new buildings, and it is advisable to make due allowance for this factor." [51]

103. Therefore, while reinstatement costs may not include all elements of external works (in all cases), these figures will include costs that we would not expect an operator to include when building a new crematorium (eg site demolition costs and, potentially, higher professional fees). Separately, we note that the costs of dealing with contaminated land can be expected to be reflected in the price paid for the land, and therefore we do not consider that a further allowance should be made for such costs in our analysis. Therefore, we consider that our use of insurance reinstatement costs provides a reasonable approximation of the replacement cost of crematoria, without requiring further adjustment.

104. We disagree with Westerleigh's assertion that 2020 insurance replacement costs should be used, as this valuation was carried out outside the relevant period, which ended in 2018. We cross-checked the average insurance value of a Westerleigh site, as of 2018, with that of Dignity for the same year and noted that these gave similar average replacement costs. Therefore, we do not find the evidence supports the view that Westerleigh's 2018 insurance values are likely to particularly undervalue its sites.[52] Further, we note that we have been generous in taking the 2018 values and using throughout the Historic Period for the following reasons:

(a) First, it is clear from Dignity and Westerleigh's evidence that insurance replacement costs increased significantly over the Historic Period, meaning that using the latest date inflates the average capital value of assets earlier in the period; and

(b) the fact that these have increased suggests that a holding gain should be recognised in the P&L account. No such gain has been included in the P&L which means that profits and therefore ROCE are likely to be understated.

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[51] See RICS Guidance on Reinstatement Cost Assessments.
[52] Moreover, as noted in other contexts, where assets have increased in value over time, these capital gains should be reflected in the earnings of the firms due to the need to fully articulate the accounts for economic profitability analysis. Such an approach would materially increase the measured profitability of the crematoria.

105. As noted at paragraph 78, we have not capitalised any assets held under leases, including those managed by parties on behalf of local authorities, and therefore do not propose any adjustments to points raised by parties on this matter.

106. We note that parties' comments regarding adoption of FRS 102 to value assets. However, we consider that the assets included in the capital employed input to profitability analysis should reflect their current value to the business ('VTB'). As noted at paragraph 12, The MEAV is the most common outcome of a VTB assessment. This approach is consistent with our Guidelines, which state that the CMA considers MEA values to be the economically meaningful measure for the purpose of measuring profitability in most cases.[53]

Other fixed assets

107. For all other categories of fixed assets employed by crematoria (including cremators), we considered that the net book value was likely to be a good proxy for the depreciated replacement cost. These assets have relatively shorter asset lives than land and buildings such that historic cost will be closer to current replacement cost. In addition, parties are responsible for choosing a depreciation schedule that approximates the useful economic lives ('UELs') of these assets, such that the decline in NBV should broadly match the timeframe over which the asset wears out and needs replacing.

108. Therefore, we have not sought to revalue any other categories of tangible assets.

Intangible fixed assets

109. In this section we consider intangible fixed assets.

Our approach to recognition and valuation of intangible assets

110. The CMA guidelines set the criteria for consideration when determining whether to recognise an intangible asset for the purposes of profitability analysis or not. The guidelines state that we may consider the inclusion of intangible assets where the following criteria are met:

(a) It must comprise a cost that has been incurred primarily to obtain earnings in the future.

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[53] CC3 (Revised), Annex A, paragraph 14

(b) This cost must be additional to costs necessarily incurred at the time in running the business.

(c) It must be identifiable in creating an asset separate from any assets arising from the general running of the business.[54]

111. The main category of intangible assets recorded on the balance sheets of the large crematoria is goodwill. However, we also consider whether it would be appropriate to recognise the other types of intangible assets that the parties have put to us above.

- *Goodwill*

112. Goodwill arises where a price is paid for a business which exceeds the fair value of tangible assets plus separately identifiable intangible assets. When firms acquire other firms and pay a price in excess of the net assets, they are incurring costs which are primarily to obtain earnings in the future. Furthermore, these costs are additional to those needed to run the business.

113. However, such purchased goodwill, by definition, is not an asset that is separable from the running of the business. It is profits generated from running the business - above those needed to cover costs, including asset costs. Goodwill should not therefore be included in the capital employed because it breaches the third recognition criterion, criterion (c) set out in paragraph 110.

114. Further, including goodwill is 'circular' when trying to assess whether profits have been above the level needed to cover costs, including asset costs. Ultimately, if all future profits were capitalised, it would be not be possible to identify supernormal profits under a ROCE versus WACC framework.[55]

- *Other types of intangible assets*

115. Memoria and Westerleigh have both suggested that brand and reputation for providing a high-quality service are important intangible assets that should be recognised in their capital employed.

116. We consider that in order to develop a trade name, brand or reputation, firms may incur costs with the aim of generating earnings in the future and such

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[54] CC3 (Revised) Annex A, paragraph 14

[55] Because profits would be capitalised into the capital employed based on future cashflows discounted at the WACC. So, capital employed = profits/WACC (the formula for discounting into perpetuity) and therefore ROCE = profit/capital employed = WACC.

costs may be additional to the costs incurred in the general running the business.[56] On this basis, such expenditure meets two out of three of the CMA's criteria for recognition of intangible assets. However, the information that we have gathered to date does not support the view that crematoria do, in fact, incur material costs in seeking to develop a trade name, brand or reputation, particularly those which are additional to the costs incurred in the general running of the business. For example, we note that many crematoria seek to build relationships with local funeral directors and establish their reputations in the local area by providing high quality services. While such activities can be expected to develop the reputation of the crematorium and thereby generate earnings in the future, they are clearly also part of the general running of the business, seeking to attract customers in the short-term and delivering services to them.

117. Furthermore, with respect to the third criteria, ie that the asset created be separable from those assets arising from the general running of the business, the information that we have gathered to date does not seem to indicate there is a separate, intangible asset. The local brand and/or reputation of a crematorium does not appear to be separable from the rest of the business since it appears to be strongly associated with a particular site and could not easily be separated from that site.

118. Therefore, we do not consider it appropriate to include a separate brand/reputation asset in the capital employed by crematoria.

Working capital and cash

119. Working capital comprises inventory, trade debtors and other debtors and operating current liabilities such as trade creditors and other creditors. These assets are necessary for the provision of crematoria services and therefore we have included them in our calculation of capital employed.

120. As noted in paragraph 29, financing costs and balances are excluded from the calculation of EBIT and capital employed. We have therefore excluded cash balances from the calculation as this represents a means of funding the capital employed of the business rather than being an operational balance.

121. For the large crematoria, we have used the relevant current assets and liabilities information on their balance sheets. However, some of the local authority crematoria were unable to provide us with a detailed balance sheet

[56] For example, there are certain costs which give rise to brand values that may not be addition to those incurred from the running of the business. For example, consistently providing a good quality service, via well-trained and well-paid staff may give rise to a higher brand value.

breakdown and therefore we estimated their working capital on the following basis.

122. In the first instance, we sought to use data from those parties in our analysis who had provided full working capital information to estimate average debtor, creditor and inventory days and apply these estimates to the P&L information of the other parties in order to model working capital balances for the latter. However, we observed that the recording of cost of goods sold ('COGS') is inconsistent across the industry, with some parties not recording any COGS, ie all their costs are recorded as overheads, and others having significant COGS balances. This meant that our estimates of creditor and inventory days were also inconsistent and that these figures could not, in any case, be applied to those local authorities that did not record COGS separately. Therefore, we adopted an alternative approach of estimating debtors, creditors and inventories as a proportion of total revenues and applying these percentages to the revenues of the crematoria that had not been able to identify separate working capital balances to model these. Our analysis indicated that trade debtors were on average 7.5% of revenues, inventories 1.5% of revenues and trade creditors were 5.0% of revenues.[57]

Adjustments to EBIT

123. In addition to considering capital employed, we considered the need to make adjustments to EBIT.

124. EBIT is the earnings made by the party before interest and tax. Naturally, therefore, interest and tax revenues and costs are excluded. We made some additional adjustments to EBIT to ensure we used a figure which was meaningful for profitability purposes. This section details the adjustments we made.

Income

125. As noted at paragraph 81, in both our base case and sensitivity we have included all revenues earned from crematoria operators' sites (cremation fees, memorials and burial revenues) in earnings. We have therefore also included the corresponding costs.

[57] These figures represent the averages over the Relevant Period. While there were year-on-year fluctuations in our estimates, we considered that these were likely to represent 'noise' in the data rather than differing working capital requirements over time (as we do not believe there has been any change in the basic business model of crematoria over this period) and therefore chose to use the period average.

126. Where revenues and/or costs associated with burials were previously separated out or not included, we have added these back to the EBIT of the relevant party.

127. We note that LCC does not carry out burials and so in its case, revenue and costs represent cremations and memorials only.

Depreciation of buildings

128. Having revalued buildings using insurance replacement cost, we also took into account the corresponding impact on EBIT: as the value of their parties' buildings increased, the depreciation charge thereon also increased.

129. We calculated the depreciation charge corresponding to the revalued buildings. We then removed the parties' own depreciation charge and replaced this with the recalculated value.

Other

130. Regarding non-underlying cost items Dignity told us that 'it would be appropriate to include a portion of these costs, as even a new entrant will – from time to time in the normal course of business – need to incur restructuring and regulatory costs'.

131. Westerleigh told us that it [✂].[58]

132. Westerleigh argued that 'given these costs have been incurred and the uncertainty around planning and development that means these projects may not go ahead, Westerleigh believes that these costs should be recognised as incurred and historic earnings adjusted accordingly'.[59]

133. However, since we have capitalised the costs of obtaining planning permission in land values, allowing for these expenses in the P&L would be double counting. Therefore, we do not agree with Westerleigh and have not recognised these costs in their P&L.

134. Our approach to the calculation of planning permission costs is detailed at paragraph 42. We have not included any other non-underlying costs.

135. To ensure that the EBIT figure used in our ROCE calculation was meaningful we removed any income or costs not associated with running a crematorium. As such we asked parties to provide a breakdown of Overhead costs;

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[58] Westerleigh response to Crematoria profitability working paper, dated 17 June, page 31, paragraph 109
[59] Westerleigh response to Crematoria profitability working paper, dated 17 June, page 31, paragraph 110

identified such costs and added these back to EBIT. Examples of these costs include distributions to reserves and costs of financing.

136. This process involved correspondence with local authority crematoria to ensure an accurate breakdown of overhead costs was obtained ant that the EBIT figured obtained was reliable. We also engaged in communication with the local authorities to ensure that costs recorded related to crematoria and not other local authority costs.

Large crematoria results

137. In this section we present the results of our analysis of the profitability of the four largest private crematoria operators.

138. The ROCE figures have been calculated using capital employed and EBIT derived as per our explanations above. We also consider average total revenue, cost-plus and economic profits per cremation.

139. Economic profits are the profits left over, after the providers of capital have been paid a market-based return on their investment, which is equal to the capital employed multiplied by the WACC. It is calculated as EBIT less WACC x Capital Employed. For the purposes of our profitability analysis, we have calculated WACC at 8%. Further details concerning our WACC calculation can be found in Appendix R.

140. Cost plus is the calculation of all costs plus the cost of capital (ie the capital employed multiplied by WACC). This demonstrates the total cost of the provision of crematoria services, including an allowance for a reasonable return on capital (debt plus equity).

141. Economic profits as a percentage of cost plus ('EP/CP') demonstrates how much above or below the price at which the firm would have made a 'normal' return, prices have been.

142. Average revenue per cremation has been calculated as total revenues divided by volume of cremations. For Dignity, Westerleigh and Memoria this total figure includes burials income, as well as income from cremations and memorials, in both the base case and sensitivity. As a result, the average revenue per cremation figure for these three operators will be inflated when compared with LCC and the local authority crematoria. We do not draw inferences from these figures when interpreting the results of our analysis.

Firm A

143. Firm A's results using the Base case are detailed below.

Table 1: Firm A's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [300-350]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [20-30%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Volume of cremations/crematorium	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis
Notes:
When performing the land revaluation, [✂] out of [✂] of Firm A's owned sites used the actual price paid for land. The remaining [✂] were recalculated using the method at paragraph 81.
In a small number of cases, where Firm A [✂], we capitalised the land and removed the rent costs from the P&L.
[✂]% of Firm A's estate was built in the last 10 years[60] and [✂] of its crematoria were fully depreciated for the entirety of the Historic Period.

144. Under the base case, Firm A earned returns significantly and persistently above our estimate of its cost of capital, with a ROCE of [20-30]%, compared with our estimate of WACC of 8%.

145. We note that [✂] is such that our use of average land purchase costs is likely to produce reasonably accurate total land valuations, and therefore profitability metrics, at the company level.

Table 2: Firm A's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [250-300]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [10-20%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Volume of cremations/crematorium	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

146. Under the sensitivity, Firm A's average ROCE decreases by [✂] percentage points to [10-20%] (compared with a WACC of 8%) and average economic profits declined to £[250-300] per cremation. We note that under this sensitivity Firm A is still earning returns which are materially above its weighted average cost of capital.

Firm B

147. Firm B's results using the Base case are detailed below.

[60] Funerals Market Investigation Crematoria: Outcomes, paragraph 67

Table 3: Firm B's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[100-150]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[10-20%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Volume of cremations/crematorium	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis
Notes:
[✂]. When performing the land revaluation, [✂] out of [✂] of Firm B's owned sites used the actual price paid for land. The remaining [✂] of Firm B's owned sites were recalculated using the method at paragraph 81.
[✂]% of Firm B's estate has been built in the last 10 years. [✂].

148. Our ROCE estimates for Firm B show that it earned returns above our estimate of its cost of capital across the Historic Period, with average economic profits per funeral of £[100-150].

149. Further, we note that Firm B has expanded significantly over the period, opening [✂] sites between 2013 and 2018, and, as a result, we expect their profitability to be depressed by the fact that they had a large number of sites building up their volumes. As a result, we consider that Firm B's financial performance is unlikely to reflect the profits that the business might expect to earn once its crematoria reached maturity.

Table 4: Firm B's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[100-150]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[10-20%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Volume of cremations/crematorium	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

150. Our ROCE estimates for Firm B decrease by [✂] percentage points under the sensitivity. Average economic profits decreased to £[100-150], under the sensitivity. We note that under this sensitivity Firm B is still earning returns which are above its weighted average cost of capital.

Firm C

151. [✂].

Table 5: Firm C's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [(150)-(200)]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-10%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Volume of cremations/crematorium	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

152. Over the 2014 to 2018 period, Firm C earned returns below our estimate of its weighted average cost of capital. There is a clear upward trend in profitability, with ROCE increasing from [0-10%] in 2014 to [0-10%] in 2018, which appears to be driven by growth in cremation volumes as Firm C's sites, [✂]. In this context, we observe that Firm C's results are unlikely to reflect the profits that the business might expect to earn once its crematoria reached maturity.

153. When performing the land revaluation, [✂] of Firm C's owned sites used the actual price paid for land. [✂].[61]

154. [✂].

Firm D

Table 6: Firm D's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [(100)-(150)]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-10%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Volume of cremations/crematorium	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

[61] Firm C has royalty arrangements with the seller of land for these sites, whereby it pays a portion of cremation fees to the seller each year. The CMA has calculated the present value of these arrangements and included it within the value of land.

Table 7: Firm D's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [(200)-(250)]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-10%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Volume of cremations/crematorium	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

155. Under both the Base case and sensitivity, Firm D makes returns significantly below our estimate of its weighted average cost of capital. We note Firm D [✂] than the other three large crematoria operators. Further, we note that Firm D opened a new facility in [✂], which may have reduced its profitability as this new site builds volumes.

156. When performing the land revaluation, [✂] of Firm D's sites used the actual price paid for land and therefore [✂] were recalculated using the method at paragraph 81.

157. [✂] built in the last 10 years and [✂] were fully depreciated for the Historic Period.

Local authority crematoria results

ROCE analysis results

158. As noted in the introduction to this paper we selected a random sample of twenty-two local authority crematoria to carry out financial analysis on, being:

(a) Wellingborough Council (Nene Valley);

(b) Sheffield City Council (City Road Crematorium);

(c) Bracknell Forest Council (Easthampstead Park Cemetery and Crematorium);

(d) Dudley Council (Gornal Wood Crematorium);

(e) Slough City Council (Slough Crematorium);

(f) Hartlepool Borough Council (Stranton Crematorium);

(g) Wakefield Council (Pontefract Crematorium);

(h) Liverpool Council (Anfield Crematorium);

(i) Carlisle City Council (Carlisle Crematorium);

(j) Coventry City Council (Canley Garden Crematorium);

(k) Luton Borough Council (Value Crematorium);

(l) Perth& Kinross Council (Perth Crematorium);

(m) North East Surrey Council (North East Surrey Crematorium);

(n) Sunderland City Council (Sunderland Crematorium);

(o) Gwynedd Council (Bangor Crematorium);

(p) Chesterfield Council (Chesterfield and District Crematorium);

(q) Yeovil Council (Yeovil Crematorium);

(r) Cheshire East Council (Crewe Crematorium);

(s) City of Edinburgh Council (Mortonhall Crematorium);

(t) Lambeth (Lambeth Crematorium);

(u) Plymouth Council (Effort Crematorium); and

(v) Gwent Council (Gwent Crematorium).

159. We have presented the results of these local authority crematoria below. The parties have not been identified for confidentiality reasons and have been labelled as LA1 to LA 22.[62]

160. We note that the use of average land purchase price per acre may not reflect the actual costs that a crematoria operator might face in a particular geographic location as land values vary materially across the UK. As a result, our approach to land valuation is likely to give more robust operator-level results for the larger crematoria operators which have a large number and geographic spread of sites than for individual local authority crematoria. Therefore, we consider the results of our analysis to be indicative for individual local authority crematoria and we consider averages for this group as a whole in assessing these results at paragraph 215.

[62] The order in which results are presented in the paragraphs below is not of the same as in paragraph 171.

LA 1

Table 8: LA 1 revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [150-200]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [10-20%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

161. Under the Base case, LA 1 earned returns of [10-20%] on average over the period and economic profits of £[150-200] per cremation.

Table 9: LA 1 revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [100-150]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [10-20%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

162. Under the sensitivity, LA 1's ROCE decreased to [10-20%] on average over the period and economic profits decreased to £[100-150] per cremation over the period.

LA 2

Table 10: LA 2's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [150-200]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [10-20%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

163. In the Base case, LA 2 earned returns of [10-20%] on average over the period and economic profits of £[150-200] per cremation.

Table 11: LA 2's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [50-100]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [10-20%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

164. In the sensitivity, LA 2's ROCE reduced to [10-20%] on average over the period, and its economic profit to £[50-100] per cremation.

LA 3

Table 12: LA 3's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [200-250]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [20-30%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

165. Under the Base case LA 3 earned a ROCE of [20-30%] and economic profits per cremation of £[200-250].

Table 13: LA 3's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [100-150]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [10-20%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

166. Under the sensitivity, LA 3's ROCE declines to [10-20%] and its economic profits per cremation to £[100-150].

LA 4

Table 14: LA 4's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-(50)]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-10%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

167. In the Base case, LA 4 earned a ROCE of [0-10%] and economic losses per cremation of £[0-(50)].

Table 15: LA 4's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [(200)-(250)]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-10%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

168. In the sensitivity, LA 4's ROCE declined to [0-10%] and its economic losses per cremation increased to £[(200)-(250)].

LA 5

Table 16: LA 5's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [350-400]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [20-30%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Source: CMA analysis	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

169. Under the Base case LA 5 earned a ROCE of [20-30%] and economic profits per cremation of £[350-400].

Table 17: LA 5's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [250-300]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [10-20%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Source: CMA analysis	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

170. Under the sensitivity LA 5's ROCE declines to [10-20%] and its economic profits per cremation to £[250-300].

LA 6

Table 18: LA 6's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [300-350]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [20-30%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis
Notes: For LA 6 the CMA valued the insurance replacement cost of its building as an average figure across local authority crematoria, as the figure provided did not appear credible as a full reinstatement cost.

171. Under the Base case, LA 6 earned a ROCE of [20-30%] and economic profits per cremation of £[300-350].

Table 19: LA 6's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [250-300]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [20-30%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

172. Under the sensitivity, LA 6's ROCE declines to [20-30%] and its economic profits per cremation to £[250-300].

LA 7

Table 20: LA 7's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [50-100]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [10-20%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

173. LA 7's buildings are fully depreciated throughout the Historic Period as they were constructed in [✂].

174. In the Base case, LA 7 earned a ROCE of [10-20%], such that it made economic profits (of around £[50-100] per cremation) over the 2014 to 2018 period.

Table 21: LA 7's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [(150)-(200)]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-10%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

175. In the sensitivity, LA 7's ROCE declines to [0-10%], such that it made economic losses (of around £[(150)-(200)] per cremation) over the 2014 to 2018 period.

LA 8

Table 22: LA 8's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [200-250]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [20-30%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

176. Under the Base case, LA 8 earned a ROCE of [20-30%] and economic profits per cremation of £[200-250].

Table 23: LA 8's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [100-150]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [10-20%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

177. Under the sensitivity, LA 8's ROCE declines to [10-20%] and its economic profits per cremation to £[100-150].

LA 9

Table 24: LA 9's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [300-350]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [20-30%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

178. LA 9's buildings were fully depreciated throughout the Historic Period. They were constructed in [✂].

179. Under the Base case, LA 9 earned a ROCE of [20-30%] and economic profits per cremation of £[300-350].

Table 25: LA 9's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [150-200]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [10-20%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

180. Under the sensitivity, LA 9's ROCE decreases to [10-20%] and its economic profits per cremation to £[150-200].

LA 10

Table 26: LA 10's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [100-150]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [10-20%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

Notes: LA 10 was unable to provide us with information on the volume of cremations undertaken at its site. Therefore, the volume of cremations was obtained from publicly available information from The Cremation Society. [63]

181. Under the Base case, LA 10 earned a ROCE of [10-20%] and average economic profits per cremation of around £[100-150].

Table 27: LA 10's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [(0-50)]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-10%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

182. Under the sensitivity, LA 10's ROCE declines to [0-10%] and its average economic profits per cremation decline to a loss of around £[0-(50)].

LA 11

Table 28: LA 11's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [450-500]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [50-60%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

183. Under the Base case, LA 11 earned a ROCE of [50-60%] and economic profits of £[450-500] per cremation. However, we have concerns that the total costs provided by LA 11 are significantly lower than those incurred by other local authority crematoria and may, therefore, be understated. Therefore, as we cannot be confident of the reliability of these results, we have excluded LA 11's results when aggregating results across local authorities.

Table 29: LA 11's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [400-450]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [40-50%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

[63] The Cremation Society is a registered charity which collects data from both private and public crematoria on a voluntary basis.

184. Under the sensitivity, LA 11's ROCE declines to [40-50%] and its economic profits to £[400-450] per cremation.

LA 12

Table 30: LA 12's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [350-400]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [30-40%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

185. Under the Base case, LA 12 earned a ROCE of [30-40%] and economic profits per cremation of £[350-400].

Table 31: LA 12's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [300-350]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [20-30%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

186. Under the sensitivity, LA 12's ROCE declines to [20-30%] and economic profits per cremation to £[300-350].

LA 13

Table 32: LA 13's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [(600)-(650)]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-10%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

187. LA 13 [✂].

188. Under the Base case, LA 13 earned a ROCE of between [✂] and [✂] across the Historic Period. It made economic losses across the 2016 to 2018 period, although these have declined rapidly as its volumes have increased.

189. LA 13 [✂] was able to provide us with recent evidence on the MEAV of its land and buildings. In carrying out our analysis, therefore, we have not needed to revalue its land. As a result, we only have 'base case' results for LA 13, calculated using its own land values.

LA 14

Table 33: LA 14's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [50-100]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [10-20%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

190. In the Base case, LA 14 earned a ROCE of [10-20%], ie above our estimate of its weighted average cost of capital, and economic profits per cremation of £[50-100].

Table 34: LA 14's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-(50)]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-10%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

191. In the sensitivity, LA 14's ROCE declines to [0-10%], ie just below our estimate of its weighted average cost of capital, and it makes a small economic loss on average over the period.

LA 15

Table 35: LA 15's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-(50)]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-10%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis
Notes:
LA 15 was unable to provide the CMA with the insurance replacement cost of its building and therefore the CMA valued the insurance replacement cost of its building as an average figure across local authority crematoria.

192. In the Base case, LA 15's average ROCE was [0-10%] and it made economic losses of £[0-(50)] per cremation.

193. As noted at paragraph 135 when performing our analysis we added back any distributions to reserves to EBIT to ensure the figure used in ROCE was meaningful. LA 15 was unable to provide us with a breakdown of its overhead costs in order for us to perform this activity. However, the information provided by LA 15 suggests that its overhead costs include such distributions.

As such it is likely LA 15's profitability is understated due to the inclusion of distributions in overheads costs.

Table 36: LA 15's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [(50)-(100)]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-10%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

194. In the sensitivity, LA 15's average ROCE decreased to [0-10%] and economic losses to £[(50)-(100)].

LA 16

Table 37: LA 16's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-50]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-10%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis
Notes:
LA 16 was unable to provide the CMA with the insurance replacement cost of its building and therefore the CMA valued the insurance replacement cost of its building as an average figure across local authority crematoria.

195. In the Base case, LA 16 earned an average ROCE of [0-10%], and average economic profits per cremation of £[0-50].

Table 38: LA 16's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-(50)]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-10%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

196. In the sensitivity, LA 16's average ROCE declines to [0-10%], and it makes a small economic loss on average over the period.

LA 17

Table 39: LA 17's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [(150)-(200)]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-10%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

197. In the Base case, LA 17's average was [0-10%], which is significantly below our estimate of its cost of capital.

198. We present the results of LA 17 above. However, we have a number of concerns about the reliability of the data provided to us.[64] For example, average revenue per cremation is very significantly below the price listed on LA 17's website. As we cannot be confident of the reliability of these results, LA 17's results have been excluded when aggregating results across local authorities.

Table 40: LA 17's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [(300)-(350)]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-10%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

199. In the sensitivity, LA 17's average ROCE decreased to [0-10%].

LA 18

Table 41: LA 18's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [200-250]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [20-30%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

200. In the Base case, LA 18 earned an average ROCE of [20-30%], significantly above our estimate of its weighted average cost of capital, with average economic profits per cremation of £[200-250].

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[64] In normal circumstances, we would have requested for information and/or clarifications in relation to such data. However, the COVID-19 pandemic has made further data collection problematic.

Table 42: LA 18's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [100-150]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [10-20%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

201. In the sensitivity, LA 18's ROCE decreased to [10-20%]; still significantly above our estimate of its weighted average cost of capital. Economic profits per cremation declined to £[100-150] on average across the period.

LA 19

Table 43: LA 19's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [150-200]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [10-20%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

202. In the Base case, LA 19 earned an average ROCE of [10-20%] and economic profits of £[150-200] per cremation on average.

Table 44: LA 19's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [100-150]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [10-20%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

203. In the sensitivity, LA 19's ROCE declines to [10-20%] and its average economic profits per cremation to £[100-150].

LA 20

Table 45: LA 20's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [100-150]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [10-20%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

204. In the Base case, LA 20 earned an average ROCE of [10-20%], and average economic profits per cremation of £[100-150].

205. In 2017 LA 20 was affected by [✂], and this is the only year in which it made a loss.

Table 46: LA 20's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-50]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-10%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

206. In the sensitivity, LA 20's ROCE reduced to [0-10%] and its economic profits per cremation to £[0-50].

LA 21

Table 47: LA 21's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [350-400]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [20-30%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

207. In the Base case, LA 21's ROCE was [20-30%] and its average economic profits per cremation were £[350-400].

Table 48: LA 21's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [150-200]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [10-20%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

208. In the sensitivity, LA 21's ROCE declines to [10-20%] and its average economic profits per cremation to £[150-200].

LA 22

Table 49: LA 22 revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Base case

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-50]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-10%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

209. LA 22 [✂]. Average results presented are of 2014-15 and 2017-18.

210. In the Base case, LA 22 earned an average ROCE of [0-10%] and economic profits per cremation of £[0-50].

Table 50: LA 22's revenue, cost plus and economic profits per cremation, ROCE % and volume of cremations over the Historic Period: Sensitivity

	2014	2015	2016	2017	2018	Average
Revenue/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Cost plus/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Economic profits/cremation (£)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [(50)-(100)]
EP/CP	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Adjusted ROCE (%)	[✂]	[✂]	[✂]	[✂]	[✂]	[✂] [0-10%]
Volume of cremations	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]

Source: CMA analysis

211. In the sensitivity, LA 22's ROCE declines to [0-10%] and its economic profits per cremation to a loss of £[(50)-(100)].

Discussion of the results of our analysis

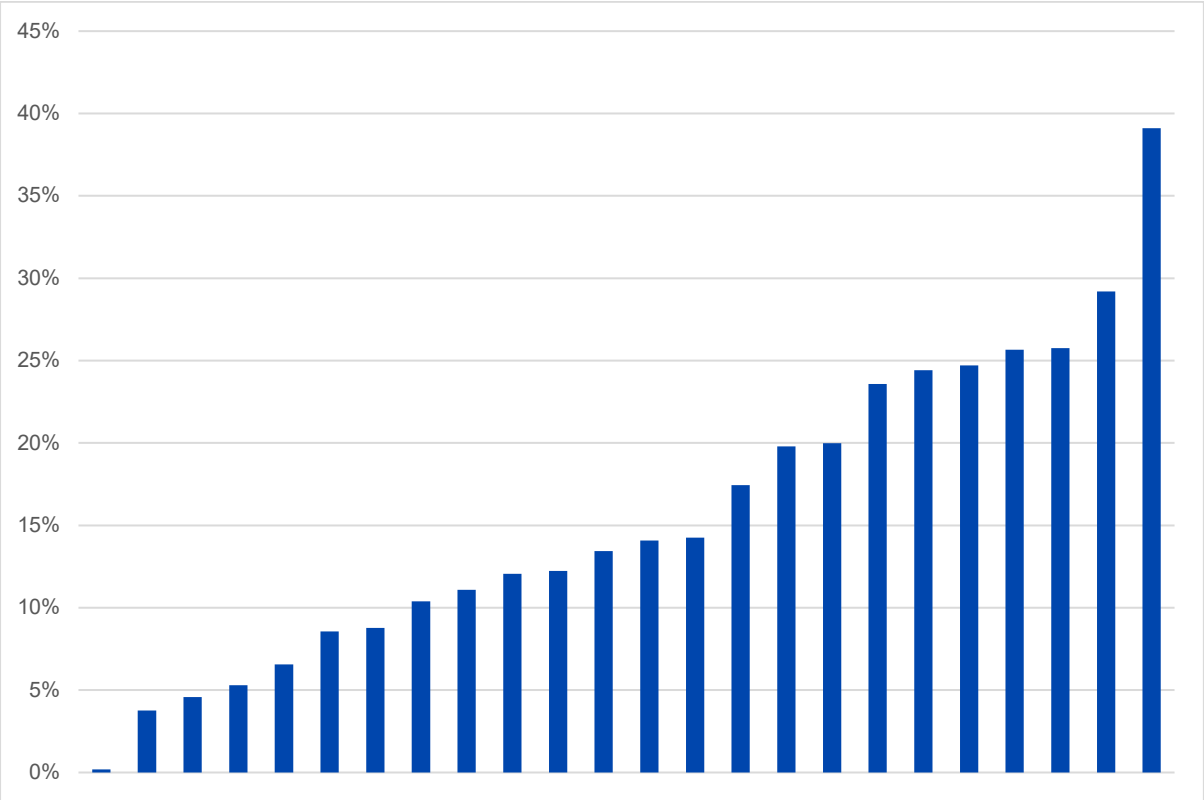
212. Our analysis shows that both Firm A and Firm B, as well as the majority of the local authority crematoria analysed, have persistently earned returns that are significantly in excess of our estimate of the weighted average cost of capital under both our base case and sensitivity. We note that both Firm B and Firm C's returns are likely to have been reduced over the 2014 to 2018 period as a result of being in a growth phase and that they may be expected to earn higher returns in the future than in the past.

213. The following two figures show:

(a) the average ROCE per firm for the four largest and 20 local authority crematoria analysed (ie excluding LA 11 and LA 17 as noted above); and

(b) the (weighted) average returns earned by 20 local authority crematoria over the 2014 to 2018 period.

Figure 2: Average ROCE per firm across 2014 to 2018 (%)

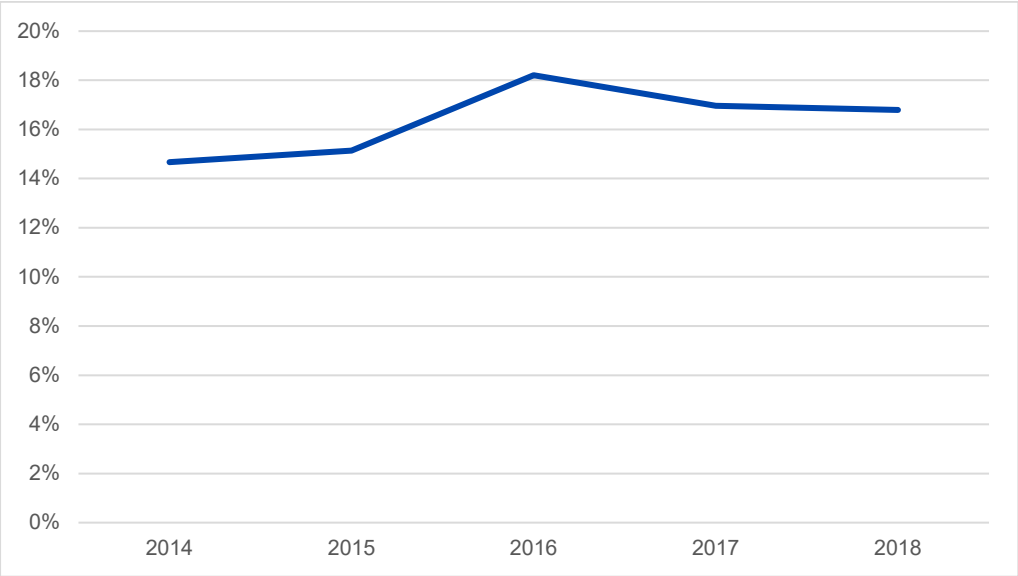


Source: CMA Analysis
Notes:

a) The chart above is a bar chart.
b) The parties have not been identified for confidentiality reasons.
c) The chart is structured with bars representing the lowest average ROCE per party earned on the left, and the highest on the right.
d) The lowest bar is just above 0%, and the highest is at approximately 39%.

214. Figure 2 shows the average ROCE earned over the 2014 to 2018 period by party. While there is significant variability in the returns earned by the crematoria operators, twenty of twenty-four parties are earning returns above the estimated 8% weighted average cost of capital, while only four are earning returns that are below the weighted average cost of capital.

Figure 3: ROCE of the local authority crematoria, 2014 to 2018 (%)



Source: CMA Analysis
Notes:

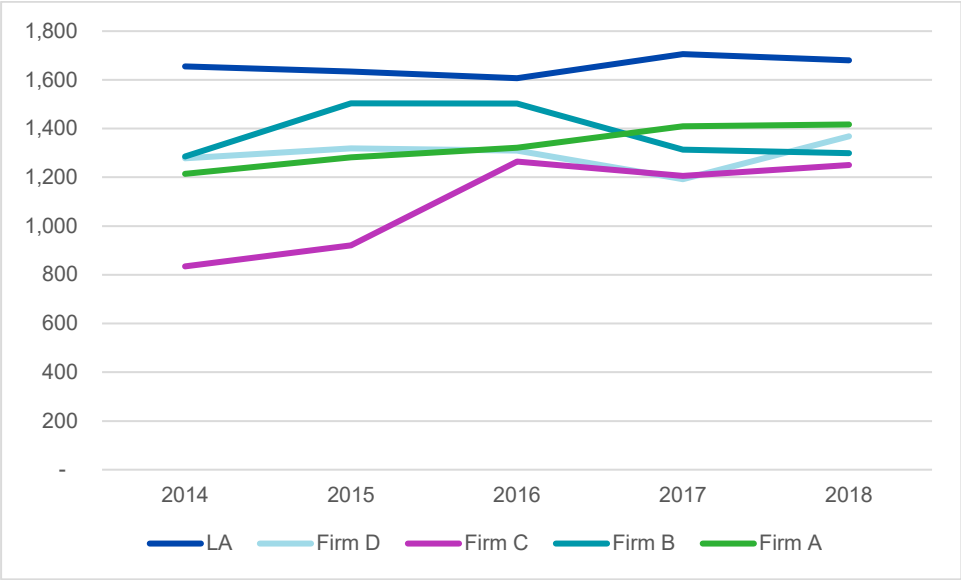
a) The chart above is a line chart spanning from 2014 to 2018 inclusive. The line represents the weighted average ROCE of the local authority crematoria.
b) The chart demonstrates that the weighted average ROCE of the local authority crematoria increased to a high in 2016, then decreased slightly.
c) The line shows that total ROCE starts at 15% in 2014, increasing to almost 17% in 2018. There is a high of over 18% in 2016.

215. Figure 3 shows the (weighted) average ROCE earned by local authority crematoria over 2014 to 2018 under the base case.[65] It demonstrates that these crematoria, as a group, are earning returns significantly in excess of their WACC.

216. Figure 3 shows that local authority crematoria are making higher returns on average than the large crematoria and that their profitability has increased by around 2 percentage points, on average, over the relevant period. We observe that these higher average returns appear to be due to a combination of higher average volumes per crematorium and owning older assets, which are therefore more depreciated.

[65] Calculated as the total EBIT earned by local authority crematoria divided by the total capital employed of local authority crematoria, for each year in the period.

Figure 4: Volume of cremations from 2014 to 2018



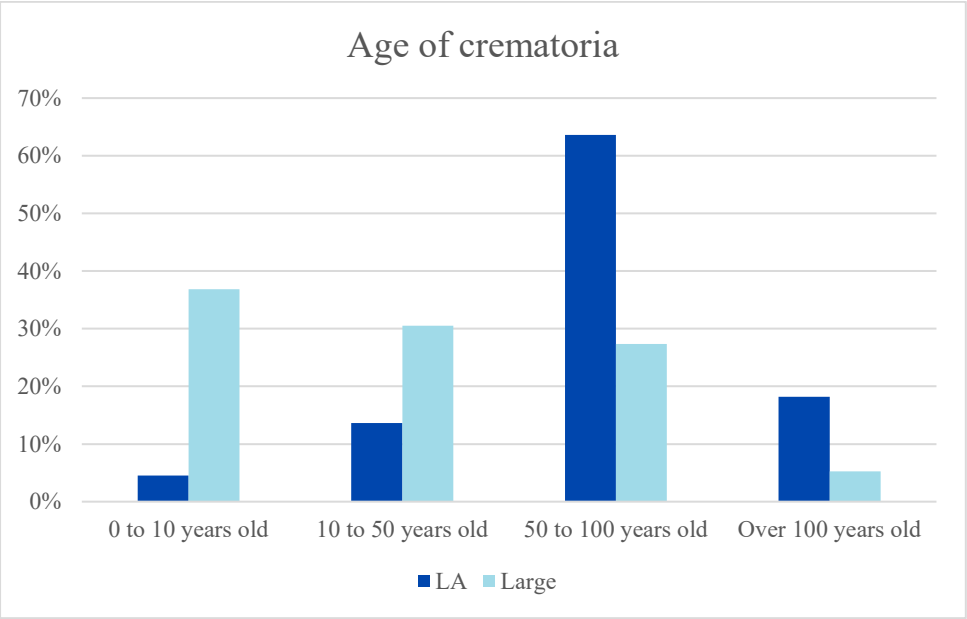
Source: CMA Analysis
Notes:

a) The chart above is a line chart spanning from 2014 to 2018 inclusive. The lines represent the volume of cremations performed by private crematoria and the average volume performed by local authority crematoria.
b) The chart demonstrates that the average volume of cremations performed by local authority crematoria is higher than the volume performed by any of the large crematoria operators in each year from 2014 to 2018.

217. Figure 4 shows the average volume of cremations performed by the local authorities in our sample and the average volume of cremations performed at each crematorium by large crematoria in each year from 2014 to 2018.

218. This shows that each year in the Historic Period, the average volume of cremations performed at local authority crematoria was higher than at any of the large crematoria.

Figure 5: Age of crematoria buildings



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Source: CMA Analysis
Notes:

a) The chart above is a bar chart.
b) The chart above shows the age of crematoria buildings in four categories: 0-10 years old; 10-50 years old; 50-100 years old and over 100 years old.
c) The chart shows the percentage of crematoria in our sample in each group, split by local authority (shown in dark blue) and large crematoria (in light blue).
d) The chart shows that the percentage of local authority crematoria increases, with most (just over 60%) being in the 50-100 years old category. Most large crematoria in our sample are in the 0-10 years old (nearly 40%).

219. Figure 5 displays the age of crematoria buildings split by local authority and large crematoria by percentage[66] in the following categories:

(a) 0 to 10 years old;

(b) 10 to 50 years old;

(c) 50 to 100 years old; and

(d) Over 100 years old.

220. This shows that the local authority crematoria are skewed towards owning older buildings, with 64% in the 50-100 years old category and 18% over 100 years old. Conversely, the large crematoria in our sample tend to own newer buildings: 37% are 0-10 years old; 31% are 10 to 50 years old; 27% 50 to 100 years old and 5% over 100 years old.

[66] Ie the percentage of local authority crematoria in our sample which fall into the following categories.

Interpretation of our analysis

Parties' views

Market coverage

221. In its response to the crematoria profitability paper, Dignity stated that 'The CMA's analysis covers less than 40% of the crematoria market (on the basis of either revenues or volumes) […] This makes generalised conclusions on the overall market based on this small part of the market risky'.[67]

222. Memoria told us that the proposed sample size appears very small, comprising just 22 smaller crematoria which is around 10% of the population of smaller providers and therefore it did not provide sufficient detail to assess whether it would lead to a successful understanding of smaller crematoria (including local authorities).

223. Further, Memoria stated that the 'stratification proposed to establish a representative sample appears overly simplistic, controlling only for ownership […] region and volumes […] Memoria would expect local demographics, the mix of burials versus cremation/memorialisation and local competitive structure to also play a role in driving profitability of local authority crematoria'.

224. Westerleigh stated 'The CMA […] proposes a light-touch 'small sample' approach meaning that information on profitability of only 30% of the market would be collected'.

225. Westerleigh also highlighted the CMA's guidelines which state that 'Profitability analysis is relevant "where profitability of firms representing a substantial part of the market has exceeded the cost of capital over a sustained period"'.[68]

226. LCC told us that they noted we had selected a random sample of LA providers, however it did not follow 'that a random sample is either adequate or representative'[69] and provided information from the Pharos 2019 report of crematoria prices. LCC concluded that the sample of local authority crematoria was 'significantly skewed towards higher charging LAs'.[70][71]

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[67] Dignity response to Crematoria profitability working paper, dated 12 June, page 5, paragraph 3.1
[68] CC3 (revised) paragraph 118
[69] LCC response to Crematoria working paper, page 7, paragraph 4.18
[70] LCC response to Crematoria working paper, page 8, table
[71] LCC response to Crematoria working paper, page 8, paragraph 4.24

227. LCC also noted that, based on the Pharos 2019 report, of the top 37 crematoria charging £950 or more: two are owned by local authorities; two by independent crematoria and the remainder by Dignity, Westerleigh and Memoria.[72] LCC stated that this 'could be due to crematoria age or quality/heritage with newer facilities perhaps charging a legitimate price premium for newer and/or better premises'.[73]

228. Finally, LCC told us that 'the CMA need to attempt to analyse return on capital by geography and local competitive dynamics'.[74]

Time period

229. Dignity told us that 'the long-lives of crematoria assets also means that investigating profitability trends with only a six-year window may not give a representative view'.

230. Dignity also told us that [✂].[75]

231. With regards to the time period, Memoria told us that 'it will be important to recognise in interpreting the results that this will not cover a full business cycle, or the lifespan of the key crematoria assets'. It continued: 'this has been a period in the development of the crematoria market when years of underinvestment and under-capacity are in the process of being reversed'.

232. Westerleigh told us that investments in crematoria were large and risky and that the CMA guidelines notes that where such investments have been made, the CMA 'would expect to see a normal level of profits restored over a relatively long timescale'. On this basis, Westerleigh concluded that 'the CMA's proposed approach in the working paper therefore does not appear consistent with either the characteristics of the sector or its own guidance'.

233. Westerleigh further highlighted that 'five years is not a sufficient time period to identify trends'.

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[72] LCC response to Crematoria working paper, page 9, paragraph 4.30
[73] LCC response to Crematoria working paper, page 11, paragraph 4.31
[74] LCC response to Crematoria working paper, page 8, paragraph 4.26
[75] Dignity response to Crematoria profitability working paper, dated 12 June, page 1, paragraph 1.2B

Our approach

Market coverage

234. We note parties' views on coverage and their arguments that we should extend its analysis to a greater proportion of the sector in general, and the local authority providers in particular.

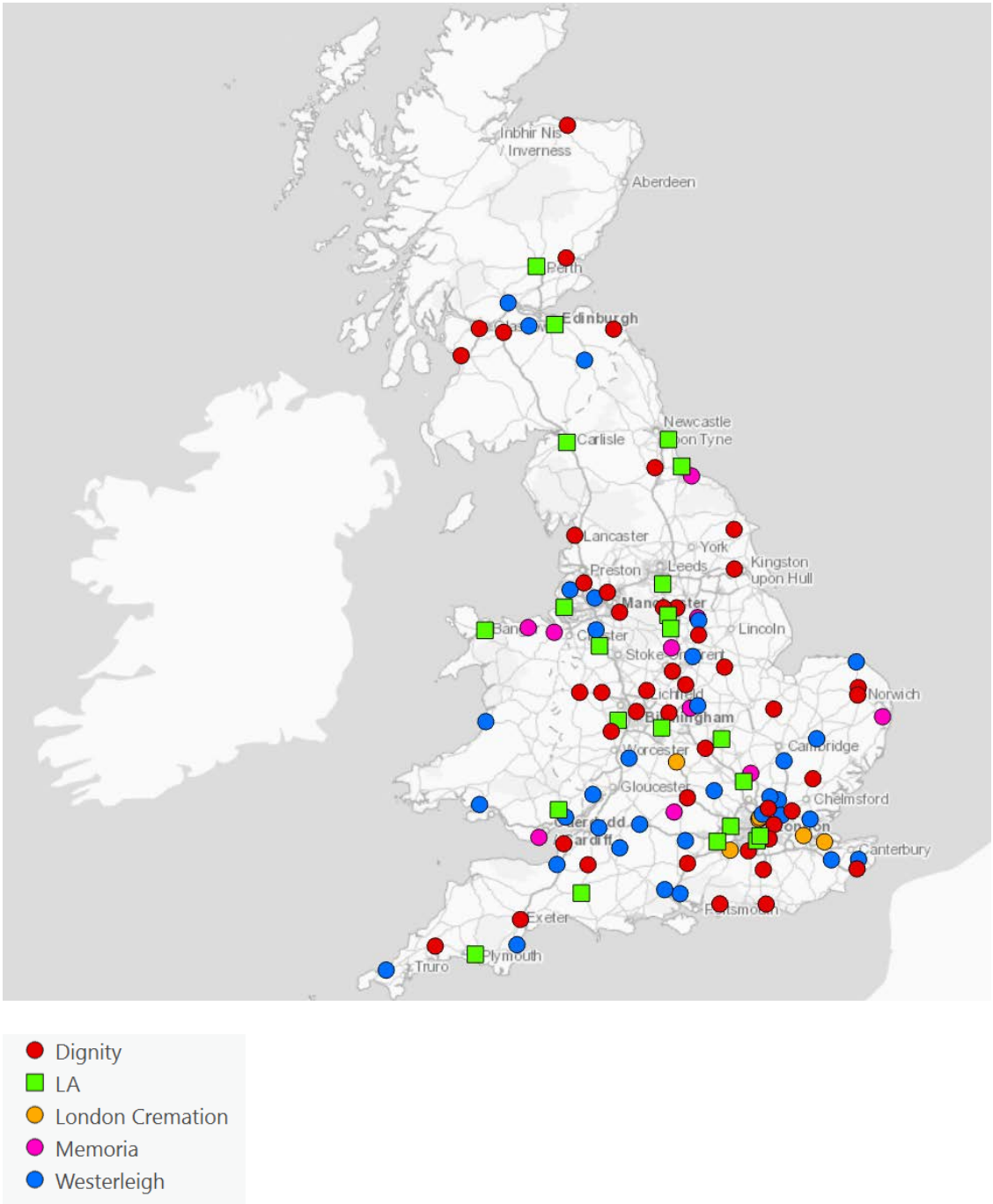
235. The provision of crematoria services in the UK is highly fragmented, with the four largest firms accounting for around 26% of the sector by volume.[76] In carrying out our analysis, therefore, we must balance considerations of coverage with practical concerns regarding the collection of robust financial data from a large number of parties.

236. We note that our current approach means that our analysis covers 117 out of approximately 300 crematoria in the UK, which is just under half the total number of crematoria. With regards to the fragmented portion of the sector (around 70% of cremations by volume), we consider that our random sample of 22 crematoria, which comprises approximately 11% of volumes from this part of the sector, is likely to provide information that is statistically representative of that part of the sector as a whole. We note that our sample of local authority crematoria has broad geographical coverage as well as a mix of larger and smaller urban areas, and rural locations. See Figure 6 below.

237. Regarding analysis of sampled local authority crematoria revenue compared to the Pharos report 2019, we do not agree that LCC's analysis of our sample shows a material skew towards higher charging crematoria. We note that when all twenty-two crematoria are considered, only eight of the sampled local authorities have a fee greater than the average presented. As noted in the paragraphs above we consider that our sample is likely to provide information that is statistically representative and so do not propose any change to our approach.

[76] CMA analysis of the Cremation Society data

Figure 6: Map of coverage of crematoria and key



238. In this context, we do not believe that extending our sample would provide significant additional insight into the financial performance of the crematoria sector. Furthermore, we note carrying out a full profitability analysis on 26 crematoria operators (both large and local authority crematoria operators combined) is resource intensive and that increasing the number of parties further would create practical challenges in terms of completing our analysis, robustly, within the timeframe of our investigation, without adding significant benefit. As such we do not propose to extend the sample size.

239. However, we have supplemented our analysis by also reviewing and analysing the data prepared by the Chartered Institute of Public Finance & Accountancy ('CIPFA') on the financial performance of local authority crematoria. This dataset comprises information on the financial performance of 79 crematoria in 2014/15 and 69 crematoria in 2015/16. We have considered how the margins of these crematoria compare with those of the firms for which we have undertaken a full profitability analysis and how this information should be interpreted in the context of our overall analysis. See Annex 1 for further details.

240. We note LCC's response that a price premium may legitimately be charged by parties with newer crematoria. We consider that, to the extent that newer, private sites are justifiably more expensive, it is because those sites have a higher cost plus. That is only likely to be because they have newer, undepreciated assets, on which they need to make a return. However, since we are taking into account all operating costs plus a return on capital, we consider that we are allowing for differences in cost based on differences in quality (insofar as those differences in quality cost providers more to provide).

241. Finally, we disagree that profitability should be analysed by geography and local competitive dynamics. As can be seen at Section 7, concentration and price/quality outcomes, we have found that measures of concentration do not significantly affect price and quality outcomes.

Time period

242. Next, we considered parties' representations regarding the timeframe for our analysis. First, we observed that, while five years is shorter than the lifecycle of an individual crematorium, our analysis covers a broad range of crematoria that are in different stages of the lifecycle. As such, we do not consider it necessary to extend the relevant period for our analysis in order to understand the profitability of crematoria over their lifecycle since this can be achieved on a cross-section basis.

243. We consider that 5 years is a sufficient period over which to understand the profitability of crematoria. While we agree that it would be helpful to include information on the most recent performance of the firms in the industry by obtaining 2019 data and future forecasts, this has not been practicable given the current climate and restrictions placed on data gathering as a result of COVID-19.

Summary

244. Two of the four large private crematoria operators have been persistently earning returns in excess of the cost of capital. Further, we note that returns at two of the large private crematoria operators appear to have been reduced as the result of significant growth in crematoria numbers and that they may be expected to earn higher returns in the future. Similarly, the majority of local authority crematoria that we have analysed have been persistently earning returns in excess of the cost of capital. As our sample was selected randomly, we consider that this finding indicates that a majority of local authority crematoria across the country are earn returns that are significantly in excess of the cost of capital.

245. Overall, therefore, our analysis indicates that firms comprising a substantial proportion of the crematorium market have been able to charge prices significantly above the level one would expect to see in a well-functioning market over an extended period of time (at least the five year period for which we have conducted this analysis).

Annex 1

CIPFA Dataset

246. Local authorities make up 90% of the smaller providers in the crematoria services sector. Separate financial statements for the operation of local authority run crematoria are not publicly available. However, the Chartered Institute of Public Finance and Accountancy (CIPFA) undertakes annual surveys of local authority operations; this includes requesting financial information on crematoria operated by local authorities. We have referred to this as the 'CIPFA dataset'.

247. We have analysed two years of this data (2014/15 and 2015/16) for the purpose of comparing it to the results of our profitability analysis.

248. For the 2014/15 CIPFA dataset the response rate was: 79 of 194 crematoria surveyed. For the 2015/16 CIPFA dataset the response rate was 69 of 194 crematoria surveyed.

Net margins

249. We used the data provided to CIPFA for net expenditure including capital charges[77] and total income to calculate the net margin for each local authority crematorium.

250. Table 39 below shows the range of net margin values within the responses for each year. The local authority net margins range widely, particularly in 2014/15. In both years, much of this range is within the first quarter, influenced by two to three low outliers. The gap between the average and median values also reflects the skewing effect of these very low outliers.

[77] Our review of the margins for the overlapping local authorities in the CMA and CIPFA datasets indicated that generally the capital charges declared to CIPFA were very similar to the depreciation and amortisation charges provided to CMA.

Table 39: Local authority net margins range, CIPFA data

	2014/15	2015/16
Minimum Value	-281.1%	-49.2%
1st Quarter	32.4%	30.1%
Median	46.8%	47.6%
3rd Quarter	57.1%	59.2%
Maximum Value	71.9%	75.8%
Average Value	37.7%	40.8%

Source: CMA analysis

251. Table 40 below shows the net margin of large crematoria in 2014/15 and 2015/16.

Table 40 Large crematoria net margins range

	2014/15	2015/16
Dignity	[✂]	[✂]
Westerleigh	[✂]	[✂]
LCC	[✂]	[✂]
Memoria	[✂]	[✂]

Source: CMA analysis

252. Over one quarter of the local authority crematoria generated higher margins than any of the four largest private providers in both years.

253. Figures 7 and 8, below, show the range of the local authority net margins plotted alongside the EBIT margins of the four largest providers in each year. This analysis indicates that, while there is significant variability in profit margins across the local authority crematoria included in the CIPFA dataset, the majority of local authority crematoria are earning margins in excess of those earned by [✂] and [✂] and broadly in line with those earned by [✂] and [✂].

Figure 7: Local Authority Net Margin Range Compared to the EBIT Margins of the Four Largest Providers for 2014/15

[✂]

Source: CMA Analysis

Figure 8: Local authority net margin range compared to the EBIT Margins of the four largest providers for 2015/16

[✂]

Source: CMA Analysis

254. In general, for the CIPFA dataset, the net margins increase slightly for those local authorities handling greater volumes of cremations and the costs per funeral reduce.

255. As previously noted, we have been unable to develop this analysis due to the COVID-19 pandemic. However, this analysis suggests that local authorities (more broadly than our sample) are earning similar profit margins to Firm A and Firm B and may, therefore, be expected to be earning returns in excess of our estimate of WACC for crematoria operators.