

Private healthcare remittal

Provisional findings report

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The Competition and Markets Authority has excluded from this published version of the provisional findings report information which the inquiry group considers should be excluded having regard to the three considerations set out in section 244 of the Enterprise Act 2002 (specified information: considerations relevant to disclosure). The omissions are indicated by [✂]. Some numbers have been replaced by a range. These are shown in square brackets. Non-sensitive wording is also indicated in square brackets.

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Summary

1. This document summarises our provisional findings in relation to whether there are any features that are preventing, restricting or distorting competition (referred to as an 'adverse effect on competition' (AEC)) in the markets for the provision of privately-funded healthcare services to insured patients in central London.
2. We have also published a Notice of possible remedies, in which we set out possible actions that may be taken to remedy, mitigate or prevent the AEC we have provisionally identified or any resulting detrimental effect on customers.
3. In the summary below we first provide an overview of our provisional findings. We then provide a brief background to the remittal, followed by a high-level summary of the key issues we have considered in reaching our provisional conclusions.

Our provisional findings

Insured AEC in central London

4. We provisionally conclude that the following two structural features in the markets for the provision of privately-funded healthcare services to insured patients in central London are, in combination, leading to an AEC:
 - (a) high concentration, with HCA having a large market share;¹ and
 - (b) high barriers to entry and expansion, arising primarily from high sunk costs and long lead times, the latter being exacerbated by limited site availability and planning constraints.
5. In combination, these features result in weak competitive constraints on HCA in the provision of privately-funded healthcare services for insured patients in central London.
6. We also provisionally conclude that the AEC is leading to customer detriment in the form of higher prices being charged by HCA than we would expect in a well-functioning market. This is supported by, in particular:

¹ In the Final Report, we described this feature as 'weak competitive constraints exerted on private hospitals in many local markets including central London'. We have concluded in this remittal that it is more appropriate to describe the relevant feature as 'high concentration, with HCA having a large market share'. The weak competitive constraints on HCA are an outcome of the two features we have identified.

- (a) The revised insured pricing analysis (IPA), which we consider demonstrates that, on average, HCA charges higher prices than its closest competitor, The London Clinic (TLC), across the treatments that they both provide. In contrast to the position at the time of the Final Report, we can no longer conclude on the size of this price difference as we cannot rule out the possibility that our IPA may not fully account for differences in patient complexity between HCA and TLC. However, as we explain in detail in Section 8, we do not believe that differences in patient complexity are likely to be the major driver of the price difference that we observe.
- (b) The profitability assessment in the Final Report, which demonstrates that HCA has made returns that are substantially and persistently in excess of its cost of capital. We did not receive any submissions, from HCA or other parties, providing new evidence or arguments challenging the robustness of our analysis in our Final Report, or suggesting that HCA's profitability had declined since 2011.

A high-level summary of the background to this remittal

- 7. On 2 April 2014 the Competition and Markets Authority (CMA) published its final report on the Private Healthcare Market Investigation² (the Final Report).
- 8. After publication of our Final Report, HCA challenged the CMA's self-pay and insured AEC decisions and the divestment decision at the Competition Appeal Tribunal (CAT) on a number of different grounds. AXA PPP also appealed, among other things, the divestment decision.
- 9. During the litigation, HCA's economic advisers, KPMG, identified, among other things, two coding errors in the IPA which (in its view) impacted the robustness of the estimated price difference between HCA and its closest competitor, TLC.
- 10. In light of these two errors, the CMA considered that the appropriate course was for the matter to be remitted back to it for it to review the IPA and re-consult with interested parties. Consequently, on 12 January 2015, the CAT ordered that the insured AEC decision and the divestment decision be quashed and remitted back to the CMA for reconsideration.

² [Private healthcare market investigation: Final report](#), 2 April 2014, CMA25.

Our approach to the remittal

11. In determining our approach to the remittal we were guided by the CAT's Ruling of 23 December 2014 where the CAT stated that:
 - (a) our task is to 'consult on the IPA and then re-determine the questions whether any new insured AEC decision should be made and whether any new divestment decision should be made';³
 - (b) the quashing of the insured AEC and divestment decisions 'will leave all other parts of the Final Report, including all the reasoning in it and the other decisions regarding various other AECs on foot...', but the CMA 'will have to consider what impact the new information and representations it receives in relation to the IPA has upon the existing statements of reasoning contained in the Final Report with respect to those decisions'; and
 - (c) 'If in the course of further consultation on the IPA anything emerges which [...] does have an indirect knock-on effect on the reasoning in relation to the self-pay AEC decision, the CMA will need to give careful consideration to that question and the implications it may have for the overall reasoning in the Final Report.'⁴
12. With the CAT's Ruling in mind:
 - (a) we have reviewed and reconsulted on the IPA by publishing a working paper on 11 June 2015⁵ and we held a disclosure room from 21 June to 21 July 2015;
 - (b) in relation to the other analysis and evidence that supported the insured AEC decision, we have considered whether to readopt the findings set out in our Final Report, taking into account all relevant arguments and evidence put to us by parties, both in relation to our reasoning in the Final Report and in relation to any changes in the market since the publication of our Final Report; and
 - (c) we have considered whether there are any knock-on consequences for our reasoning in relation to the self-pay AEC decision.
13. We have relied upon the data on which the analysis in the Final Report was based. We decided that we would update such data if parties put forward

³ *AXA PPP Healthcare Limited v Competition and Markets Authority and others*, Ruling of 23 December 2014, [2014] CAT 23, (the Ruling), at paragraph 56(b).

⁴ Ruling, at paragraph 60.

⁵ [Private healthcare market investigation case page](#).

plausible arguments, supported by evidence where possible, as to why this was necessary.

Our analytical framework

14. When revisiting our competitive assessment for privately-funded healthcare services in central London we have conducted detailed analysis around two high-level questions:
 - (a) whether there are any structural features in this market that could give rise to an AEC; and
 - (b) what are the AECs (if any) arising from these structural features.
15. We first defined the relevant product and geographic markets, which have provided us with a framework, in terms of the set of specialties and relevant (private) healthcare providers on which our subsequent analysis has largely focused. We have then reassessed the market features characteristic of privately-funded healthcare services in central London, based on an analysis of local competitive constraints, barriers to entry and expansion and the framework for bargaining (between hospital operators and private medical insurers (PMIs)). Finally, we have reconsidered market outcomes for privately-funded healthcare services in central London based on an analysis of non-price outcomes (quality and range), insured prices (including our revised IPA) and profitability.

Figure 1: The specific issues that we considered as part of our competitive assessment of privately-funded healthcare services in central London



16. We provide a brief summary of our key results on market structure and market outcomes below.

Market structure

Market definition

17. We provisionally readopt our conclusions in relation to product and geographic market definition as set out in our Final Report. We provisionally find:
 - (a) Distinct product markets in the provision of hospital services for individual specialties and, for each individual specialty, separate markets for inpatient, day-patient and outpatient services.
 - (b) The area covering the private hospitals and PPUs in central London is a separate geographic market.
18. Our competitive assessment has focused on private hospitals, including private patient units (PPUs) in central London across the key 16 specialties and oncology. We have also taken into account competitive constraints exerted by specialist and non-inpatient providers in central London, by private hospitals and PPUs outside central London and by the NHS on a case-by-case basis.

Competitive constraints

19. We find that the market for privately-funded healthcare services to insured patients in central London remains highly concentrated as HCA continues to have high shares of supply relative to other hospital providers (50% share of total revenue and admissions) across many of the 16 key specialties, plus oncology, on which our competitive assessment has focused.
20. We recognise that there has been some growth in PPUs in central London since the Final Report. However, we consider that the overall constraints imposed by them in aggregate remain weak as they have a small share of admissions in the markets for privately-funded healthcare services. Moreover, although HCA's internal documents make reference to PPUs in certain specialties such as paediatrics and oncology, they do not suggest that it views PPUs as a significant source of competitive constraint. Similarly, we also find that non-inpatient providers in aggregate are a weak constraint on HCA – non-inpatient facilities have a very small share of Bupa and AXA PPP's admissions and a small share of their revenues. In addition, the evidence suggests that although non-inpatient providers compete with HCA

for a narrow set of services, primarily imaging and diagnostic procedures, HCA itself maintains a strong position in this area.

21. We remain of the view that HCA continues to face weak competitive constraints from providers outside central London and NHS services are not a close substitute for private patient services provided by HCA. We also do not consider that competition from international providers constrains the prices HCA charges to UK customers due to its ability to price discriminate, as evidenced by the fact that self-pay prices on its UK websites are 'For UK Residents Only'.
22. In summary, we provisionally readopt our conclusion from the Final Report that HCA faces weak competitive constraints in the market for the provision of privately-funded hospital services for insured patients in central London.

Barriers to entry and expansion

23. In spite of the attractiveness of the growing privately-funded healthcare services market in central London, there has been no substantial entry, and only limited expansion, by private hospital operators over the last ten years (or more).
24. Our review of the evidence indicates that the principal barriers to entry in central London continue to be a combination of high sunk costs and long lead times, with the latter factor exacerbated by the limited availability of suitable sites and planning constraints. Although the reorganisation of many NHS trusts' estates has the potential to ease constraints on the availability of suitable sites, the evidence we have collected indicates that the majority of these sites will not be sold for a number of years or necessarily for hospital use. Therefore, we do not consider that this is likely to take place in a sufficiently timely manner to facilitate the new entry of private hospital operators that could constrain HCA in the near future.
25. Since the Final Report, we have become aware that there may be future large-scale entry by two hospital operators (VPS and the Cleveland Clinic). We recognise that, if such entry takes place, this would be likely to significantly increase the level of competitive constraint on HCA. However, at this stage, we do not have sufficient evidence to determine if and when their entry is likely to take place and the time frame over which these facilities may start to exert any competitive constraint on HCA. Most importantly, we have not seen any evidence to suggest that the threat of such entry has placed any significant constraint on HCA to date.

26. We therefore provisionally readopt our conclusion from the Final Report that significant barriers to entry and expansion exist.

Bargaining

27. As we noted in our Final Report, with regards to insured patients, prices of treatments are set in national bilateral negotiations between hospital operators and PMIs.
28. In relation to central London, we continue to find that both HCA and the PMIs are dependent on each other and have some power in the bargaining relationship, ie neither side are 'price-takers'. We do not agree with HCA's argument, put to us during the remittal, that an extreme 'sharing rule', in which HCA receives a very small share of the bargaining surplus, is a plausible description of its negotiations with PMIs in the privately-funded healthcare services market in central London – the evidence put to us suggests that PMIs are not able to negotiate on a 'take-it-or leave it' basis with HCA given their own customers consider HCA to be a 'must have'.
29. We have also considered the extent to which PMIs can use alternative products or contracting strategies to increase their outside options (eg through the use of restricted networks, service-line tenders and open referrals). We have found that, although there has been some growth in their use by PMIs, they have not materially improved PMIs' outside options with respect to HCA.
30. Therefore we provisionally readopt our conclusion from the Final Report that while PMIs have some bargaining power, they do not have countervailing buyer power which is sufficient to offset the exercise of market power by HCA.

Market outcomes

Quality and range

31. In relation to quality, we continue to find that there is no evidence of material quality differences between HCA and TLC, subject to the limitation we face in relation to the lack of objectively comparable data across the common range of treatments that both hospital operators provide.
32. Similarly in relation to product range, while we recognise that HCA offers a wider range of treatments than TLC (eg cardiology), we consider that both hospitals nonetheless offer a comprehensive set of treatments.

33. On this basis we provisionally readopt our conclusions in the Final Report that there is a degree of competition over both quality and range in central London.

Price

34. As part of the original market investigation, we conducted an empirical analysis of insured prices for inpatient and day-case treatments using a methodology that controls for a number of differences between hospital operators in relation to treatment and patient mix (such as patient gender, length of stay and age) – this is what we generally refer to as the IPA, which was the key focus of the litigation and the subsequent remittal. At a high level, the IPA for central London aimed to identify whether there was a price difference between HCA and its closest competitor, TLC.
35. During the litigation, HCA's economic advisers, KPMG, identified, among other things, two coding errors in the IPA which impacted the robustness of the estimated price difference between HCA and TLC. We subsequently addressed HCA's points and consulted on the revised IPA in a working paper which we published on 11 June 2015.
36. In its response to our working paper, HCA argued that the IPA still failed to achieve a like-for-like comparison, as it did not take into account the fact that HCA treated more complex patients than TLC (for the same treatments). In essence, HCA made two interrelated arguments. First, patient complexity was not effectively controlled for in the IPA. Secondly, when additional variables from the data set (in particular, the number of pathology charges) were included in the IPA, there was no longer a statistically significant price difference between HCA and TLC.
37. In considering HCA's submissions on the IPA we have asked ourselves two key questions:
- (a) Is there a plausible mechanism whereby more complex patients (for the same treatment) could be allocated to HCA rather than TLC?
 - (b) Have we adequately controlled for any differences in patient complexity in our IPA?
38. In relation to a possible mechanism, HCA has provided some arguments as to why it might be attracting more complex patients than TLC within the same treatment. However, on the basis of the limited evidence supporting its arguments, and the views of other parties, we consider that any differences between HCA and TLC's patient complexity are not likely to be material. We are also of the view that, although line items may contain some information

relevant to some aspects of patient complexity for some treatments within the IPA, given factors such as differences in billing practices between hospital operators, their use does not allow for a like-for-like comparison.

39. We remain of the view that, based on our revised IPA, HCA charges higher prices than TLC. In contrast to our conclusions in the Final Report, we can no longer conclude on the size of this price difference as we cannot rule out the possibility that our IPA analysis may not fully account for differences in patient complexity between HCA and TLC. However, as set out in paragraph 38, above, we do not believe that differences in patient complexity are likely to be the major driver of the price differences that we observe. Instead we consider that weak competitive constraints are likely to be the most important factor behind the price difference.

Profitability

40. In the Final Report we found that HCA earned returns substantially and persistently in excess of the cost of capital, despite the data we used relating to a period when there was a severe recession. Our finding of excess profitability suggests that the price of privately-funded healthcare services may be high in relation to the costs incurred by HCA in providing those services, and thus higher than we would expect in a competitive market. In contrast, we found that TLC earned returns in line with its cost of capital, which is consistent with it charging lower prices than HCA. We did not receive any submissions, from HCA or other parties, either providing new evidence or reasoning to challenge the robustness of the original profitability analysis, or suggesting that HCA's profitability had declined since 2011. Therefore, we provisionally readopt our conclusions in the Final Report that HCA made returns that were substantially and persistently in excess of the cost of capital and that this suggests that HCA is charging prices that are higher than would be expected in a competitive market.

Self-pay AEC in central London

41. As explained in paragraph 11(c) above, the self-pay AEC decision has not been quashed by the CAT. However, as instructed by the CAT and given that we previously based our divestment decision on both the insured AEC decision and the self-pay AEC decision, we have also considered whether any of the analysis undertaken during the remittal in relation to the insured AEC decision could have a material impact on the reasoning in support of the self-pay AEC decision.

42. We provisionally conclude that nothing that has emerged during the remittal has a material impact on the reasoning in support of the self-pay AEC decision.

Provisional findings

1. Background to the remittal to the CMA

The private healthcare market investigation

- 1.1 On 4 April 2012, the Office of Fair Trading (OFT) made a market investigation reference to the Competition Commission (CC) under sections 131 and 133 of the Enterprise Act 2002 (the Act) regarding the supply or acquisition of privately-funded healthcare services⁶ in the UK.⁷
- 1.2 Following an extensive market investigation, on 2 April 2014 the Competition and Markets Authority (CMA), the CC's successor, published its Final Report.⁸ The Final Report set out our findings based on the evidence we received and the analysis we carried out during the course of the market investigation.⁹
- 1.3 The Act requires us to decide whether 'any feature, or combination of features, of each relevant market prevents, restricts or distorts competition in connection with the supply or acquisition of any goods or services in the United Kingdom or a part of the United Kingdom'. If it is decided that there is such a feature or combination of features, then there is an adverse effect on competition (AEC).¹⁰
- 1.4 If the CMA decides there is an AEC, we are required to decide whether action should be taken by us, or whether to recommend that action is taken by others, for the purpose of remedying, mitigating or preventing the AEC, or any detrimental effect on customers so far as it resulted from or may be expected to result from the AEC, and if so what action should be taken.¹¹
- 1.5 In the Final Report, we identified two structural features of the market for privately-funded healthcare services by private hospital operators,¹² which were:

⁶ For our purpose we considered that privately-funded healthcare services were services provided to patients via private facilities/clinics including private patient units (PPUs), through the services of consultants, medical and clinical professionals who work within such facilities.

⁷ The terms of reference for that investigation can be found in Appendix 1.1 of the [Final Report](#).

⁸ On 1 April 2014 the CMA took over many of the functions and responsibilities of the CC and the OFT, including in relation to the private healthcare market investigation. For ease of reference, from this point the CC, OFT and the CMA are referred to together as the CMA.

⁹ The findings are set out in Section 10 of the Final Report.

¹⁰ See sections [134\(1\)](#) and [134\(2\)](#) of the Act.

¹¹ See section [134\(4\)](#) of the Act.

¹² When referring to private hospital operators, we generally mean a person who operates a private healthcare facility that has inpatient facilities including NHS PPUs. Similarly, by private hospital we generally mean a facility providing inpatient services as well as day-case and outpatient services.

- (a) high barriers to entry and expansion for private hospitals; and
- (b) weak competitive constraints exerted on private hospitals in many local markets including central London.

1.6 We found the following:

- (a) These two features in combination gave rise to AECs in the markets for the provision of hospital services which led to higher prices for inpatient and some day-case and outpatient hospital services to self-pay patients at private hospitals in local markets which are subject to weak competitive constraints across the UK, including in central London (the self-pay AEC decision).
- (b) Together these features also in combination gave rise to AECs in the markets for hospital services which led to higher prices across the range of treatments being charged by HCA¹³ to private medical insurers (PMIs) for hospital services to insured patients in central London¹⁴ (the insured AEC decision).¹⁵

1.7 In making these findings, we considered evidence from a large number of interested parties (including hospital operators, insurers and patients) and undertook a wide-ranging analysis which included an assessment of:

- (a) barriers to entry and expansion;
- (b) local competitive constraints; and
- (c) market outcomes, including assessing both pricing and non-pricing outcomes (ie quality and range) and the profitability of the largest UK private hospital operators.

1.8 As part of our assessment of market outcomes in relation to pricing, we conducted among other things an empirical analysis of the insured prices that PMIs paid to different hospital operators (the IPA). Based on the results of this analysis we found that HCA charged higher prices to PMIs than The London Clinic (TLC) (its closest competitor in central London).

1.9 To address the AECs outlined in paragraph 1.6 the CMA decided on a package of remedies.¹⁶ One element of this package was to require the

¹³ HCA International Limited and any company in the group as appropriate.

¹⁴ The area inside the North and South Circular Roads.

¹⁵ The CMA also found that a number of other features relating to clinician incentives and information availability led to other AECs. These features and AECs are set out in the Final Report, paragraphs 10.7–10.9.

¹⁶ See the Final Report, Section 11.

divestiture by HCA of either the Wellington Hospital together with the Wellington Hospital Platinum Medical Centre (PMC), or the London Bridge and the Princess Grace hospitals, in order to introduce greater rivalry in central London (the 'divestment decision').

Appeals to the Competition Appeal Tribunal and remittal decision

- 1.10 After publication of our Final Report, HCA challenged the CMA's self-pay and insured AEC decisions and the divestment decision at the Competition Appeal Tribunal (CAT) on a number of different grounds.¹⁷ AXA PPP also appealed, among other things, the divestment decision.¹⁸
- 1.11 In the course of HCA's appeal, the CAT ordered the CMA to disclose to HCA via a data room ('the CAT Data Room'), the data and methodology used in the IPA. HCA's external economic advisers, KPMG, reviewed the IPA data, methodology and analysis that was disclosed into the CAT Data Room and produced a report of its findings (the CAT Data Room Report (DRR)). HCA also instructed an independent economics expert, Professor Waterson, who visited the Data Room and produced a further report (the Waterson Report).
- 1.12 As a result of KPMG's review of the IPA, HCA claimed that there were substantive and significant issues¹⁹ regarding the robustness of the work done by the CMA for the IPA. In particular, KPMG identified two coding errors in the IPA which impacted the robustness of the estimated price difference between HCA and TLC.
- 1.13 In light of these two errors, the CMA considered that the appropriate course was for the matter to be remitted back to the CMA for it to review the IPA and re-consult with interested parties.
- 1.14 Consequently, on 12 January 2015, the CAT ordered that the insured AEC decision and the divestment decision, be quashed and remitted back to the CMA for reconsideration.²⁰
- 1.15 The remainder of HCA's challenge and the relevant grounds of AXA's challenge have been stayed pending our redetermination of the insured AEC decision and the divestment decision.

¹⁷ Further information on the [HCA appeal](#) can be found on the CAT website.

¹⁸ Further information on the [AXA PPP appeal](#) can be found on the CAT website.

¹⁹ CAT's Ruling of 23 December 2014, paragraph 5.

²⁰ See the CAT's Order of 12 January 2015 which quashed the insured AEC decision, as described in paragraph 10.5 of the Final Report, and the divestment decision, described in paragraphs 11.132, 13.1a) and 13.48.

- 1.16 The CMA concluded in its Final Report that there was no AEC for insured patients outside central London²¹ and that decision was not appealed. As such, the CMA, does not have the necessary vires to reopen the analysis and findings in relation to outside central London.

Our approach to the remittal

- 1.17 The CAT provided some guidance on the approach that the CMA should take to the remittal in its Ruling of 23 December 2014, explaining that:

The task of the CMA will be to consult on the IPA and then re-determine the questions whether any new insured AEC decision should be made and whether any new divestment decision should be made. The CMA will have to consider what impact the new information and representations it receives in relation to the IPA has upon the existing statements of reasoning contained in the Final Report with respect to those decisions.

This [quashing of the insured AEC and divestment decisions] will leave all other parts of the Final Report, including all the reasoning in it and the other decisions regarding various other AECs on foot.²²

- 1.18 In relation to the self-pay AEC decision, the CAT said:

If in the course of further consultation on the IPA anything emerges which [...] does have an indirect knock-on effect on the reasoning in relation to the self-pay AEC decision, the CMA will need to give careful consideration to that question and the implications it may have for the overall reasoning in the Final Report.²³

- 1.19 Based on this guidance, the CMA's focus for the remittal was to review and reconsult on the IPA, where we conceded there had been errors. In relation to the other analysis and evidence, ie the non-IPA building blocks of the insured AEC decision, our starting point was the findings set out in the Final Report. Nevertheless, as part of reconsidering our decisions we recognised that the CMA has a duty to take into account all relevant arguments and evidence put to us by parties, not only on the IPA but also on the other building blocks of our analysis which fed in to our insured AEC decision (eg market definition,

²¹ See the Final Report, paragraphs 6.493–6.494 and paragraph 10.6.

²² CAT Ruling of 23 December 2014, paragraph 56 b).

²³ CAT Ruling of 23 December 2014, paragraph 60.

competitive constraints, barriers to entry, bargaining and profitability analysis). This includes argument or evidence about:

- (a) any changes in the provision of private healthcare services since the publication of the Final Report;
 - (b) other issues not addressed in the Final Report or raised previously by parties; and/or
 - (c) issues addressed in the Final Report, but where the parties disagreed with the approach taken or reasoning given in the Final Report.
- 1.20 We have relied upon the data on which the analysis in the Final Report was based. We decided we would update such data if parties put forward plausible arguments, supported by evidence where possible, as to why this was necessary, for example because of changes in the market since publication of the Final Report.
- 1.21 The self-pay AEC decision has not been quashed by the CAT and therefore the CMA is not reconsidering that decision as part of this remittal. However the self-pay AEC decision (in relation to central London) remains a relevant issue in the remittal insofar as it formed part of the basis for the divestment decision which has been quashed and which the CMA is reconsidering as part of the remittal.²⁴ As indicated by the CAT, we have therefore given careful consideration to whether anything which has emerged during the remittal could materially affect the reasoning in support of the self-pay AEC decision (see Section 10).

Conduct of the remittal

- 1.22 In reaching its new provisional findings, the CMA has taken into account the evidence and arguments put to it by a number of different parties.
- 1.23 The following paragraphs provide an overview of the process we have followed up until this stage of the remittal and the information and evidence we have received and analysed.

The process following remittal

- 1.24 We published a notice of the launch of the remittal and invitation to comment on 25 February 2015. The notice explained that we would be reconsidering the IPA in the light of further submissions received from parties. The notice

²⁴ See paragraph 11.12 of the Final Report and as set out in our assessment of the benefits and the proportionality of the divestiture remedy, which included self-pay revenues.

also set out that we were intending to follow a two-stage consultation process, first consulting on our reconsideration of the IPA and then consulting on our provisional findings. All interested parties were invited to make written submissions on any relevant matters to be taken into account in the remittal by 11 March 2015. We received responses from AXA PPP, Bupa, HCA and Nuffield Health and published these initial written submissions on our website.²⁵

- 1.25 We subsequently published a further notice on 4 April 2015 which invited additional views and evidence from interested parties to aid the CMA's reconsideration of the insured AEC decision and the divestment decision. This stated that the CMA's starting point in relation to the other aspects and evidence in relation to the insured AEC decision was the position set out in the Final Report. Specifically, we asked parties to provide any new evidence on how the provision of private healthcare services in central London may have changed in the period since the publication of the Final Report.
- 1.26 We asked parties to provide their further views in particular on the following issues:
- Market definition
 - Barriers to entry and expansion
 - Competitive constraints
 - Bargaining power
 - Quality
- 1.27 However, we stated that this list was not exhaustive and that the CMA welcomed any submissions on any other relevant matters.
- 1.28 Responses to this notice were requested by no later than 4 May 2015. We received written submissions from AXA PPP, BMI Healthcare, Bupa, HCA and Nuffield Health and published non-confidential submissions on 19 June 2015. HCA made an additional submission which was published 30 June 2015.²⁶
- 1.29 Some further follow-up information requests were also sent to various parties, seeking either to clarify points made in submissions or to ask for additional information where parties had pointed to new evidence. For example, we sent

²⁵ See the [private healthcare remittal case page](#).

²⁶ See the [private healthcare remittal case page](#).

information requests relating to entry or expansion and the disposal of sites, to various hospital operators and NHS trusts.

- 1.30 On 11 June 2015 we published a working paper which set out the analysis and revised results on the IPA (the IPA Working Paper) and invited parties to submit responses by 24 July. Written submissions on the IPA Working Paper were received from AXA PPP, Bupa and HCA, and non-confidential versions of these submissions were published on 6 August 2015.
- 1.31 We subsequently held hearings with AXA PPP, Bupa, HCA and TLC in August to enable parties to make further representations to the Group, based on their previous submissions (primarily on the IPA Working Paper, but not limited to that). Non-confidential summaries of the hearings were published thereafter.
- 1.32 Non-confidential versions of evidence received, including parties' written submissions, responses to the IPA Working Paper and summaries of hearings with a number of parties, can be found on the [CMA website](#).

Information disclosed to parties

- 1.33 In addition to publishing evidence, the Group also considered it necessary to disclose some of the confidential evidence/data to certain parties.²⁷
- 1.34 At the start of the remittal we set up new confidentiality rings to enable the external legal/economic advisers of the parties (should they wish to do so) to use the confidential information disclosed during the CAT proceedings, as well as certain confidential information disclosed during the original market investigation, for the purposes of the remittal (subject to the advisers giving new confidentiality undertakings).²⁸
- 1.35 During the remittal the CMA also disclosed new information into these confidentiality rings, including an unredacted version of the IPA Working Paper and other information relating to the IPA and further analysis.
- 1.36 The Group also considered that it was necessary to set up a disclosure room upon publication of the IPA Working Paper in order to disclose the underlying data, analysis and results of the revised IPA ('the IPA Working Paper Disclosure Room'). We received requests to access the IPA Working Paper

²⁷ Pursuant to section 241 of the Act, the CMA may disclose certain 'specified information' (within the meaning of section 238 of the Act) for the purpose of facilitating the exercise by it of its functions.

²⁸ These advisers had to undertake, among other things, not to advise any party in relation to any pricing negotiations between any hospital operator and any PMI concerning the price and/or terms and conditions of services supplied to patients of the PMIs for a defined period (the 'Adviser Disqualification Clause').

Disclosure Room from Bupa and HCA and the Group agreed to give access to advisers for both parties.

- 1.37 The IPA Working Paper Disclosure Room was open from 21 June until 21 July. It operated under strict rules restricting access to the external economic and/or legal advisers of the parties.²⁹ No staff or parties' employees were allowed access to this disclosure room.
- 1.38 Subsequently, the Group also considered it necessary to disclose certain information arising from the analysis carried out by HCA's advisers, KPMG, during the IPA Working Paper Disclosure Room, in order to put various questions to the parties. We disclosed this information into the existing confidentiality ring and also to a limited number of individuals from the parties (subject to approval by the CMA and signing separate confidentiality undertakings).

²⁹ The CMA approved the external advisers, who were required to sign undertakings before being granted access to the disclosure room and, while in the disclosure room, to abide by a set of rules governing its use.

2. Structure of provisional findings

- 2.1 This document, together with its appendices, sets out the provisional findings that we have reached based on our analysis of the submissions and evidence received during the course of the remittal to date. It refers, where appropriate, to material published separately on the CMA website. It also draws on the previous evidence and analysis set out in full in the Final Report. We have not reproduced the full evidence and analysis contained in the Final Report and therefore these provisional findings should be read in conjunction with that report.
- 2.2 The accompanying Notice of Possible Remedies sets out, as a basis for discussion, possible remedies to address the AEC which the CMA has provisionally found. The Notice of Possible Remedies distinguishes between those remedies which the CMA is minded to consider and those which it is not minded to consider.
- 2.3 In each section we first briefly set out our previous relevant findings and the relevant section/paragraphs of the Final Report. We outline the relevant comments and evidence received from parties. We then assess and respond to those comments, where necessary cross-referring back to the Final Report, and describe any further work/analysis we have undertaken during the remittal. Finally we conclude with our overall provisional views on each area and whether we propose re-adopting our findings from the Final Report (either with similar or supplementary reasoning), or we propose different findings. This approach is taken to all the various building blocks of our analysis undertaken in the Final Report (eg market definition, competitive assessment etc) with the exception of the IPA.
- 2.4 In Section 8 on the IPA we set out in full the approach we have taken to the analysis, the comments made by parties on the IPA Working Paper and our response to those comments, the updated IPA results, the robustness checks and alternative empirical analysis we have carried out, and finally our provisional conclusions on the IPA.
- 2.5 Our provisional findings³⁰ are set out as follows:
- Section 3 – Market definition
 - Section 4 – Competitive assessment of private hospital operators in central London

³⁰ We note that the Final Report contains sections on the background to the industry (Section 2) and the various parties (Section 3) which we have not sought to reproduce in these provisional findings.

- Section 5 – Barriers to entry and expansion in central London
- Section 6 – Bargaining
- Section 7 – Quality and range
- Section 8 – Empirical analysis of insured prices (IPA)
- Section 9 – Profitability
- Section 10 – Self-pay patients analysis
- Section 11 – Our provisional findings and AEC

3. Market definition

- 3.1 In Section 5 of the Final Report we set out our analysis and main findings in relation to defining product and geographic markets for privately-funded healthcare services. In this section, we discuss and respond to parties' comments made during this remittal in relation to our previous findings on product and geographic market definition.
- 3.2 As we stated in the Final Report, market definition is a useful tool but not an end in itself. Identifying the relevant market involves an element of judgement, and the boundaries of the market do not determine the outcome of our competitive assessment in a mechanistic way. In particular, our competitive assessment will take into account any relevant constraints from outside the market, segmentation within it, or other ways in which some constraints are more important than others.³¹

Product market definition

- 3.3 In relation to the product market(s) the evidence on which we based our previous findings and our assessment are set out in paragraphs 5.5 to 5.51 and our conclusions are set out in paragraphs 5.52 to 5.54 of the Final Report.
- 3.4 In the provision of hospital services we found different product markets for individual specialties and, for each specialty, separate product markets for inpatient, day-patient and outpatient services. We also found that privately-funded medical treatments appeared to be in a separate product market from NHS-funded medical treatments as a whole.
- 3.5 Based on these findings we took the following approach in our competitive assessment (see paragraph 5.54 of the Final Report):³²
- (a) Focused largely on general³³ private hospitals and PPU's providing inpatient care.
 - (b) Aggregated most of the specialties where we considered it appropriate.
 - (c) Considered constraints within these markets arising in the provision of more complex treatments (also known as 'high acuity' or 'tertiary' care).

³¹ [Guidelines for market investigations: Their role, procedures, assessment and remedies \(CC3\)](#), paragraph 133.

³² This approach influenced our calculations of shares of supply. See paragraph 3.13 below for a more detailed explanation of how we calculated shares of supply in the Final Report.

³³ By 'general' private hospitals and PPU's, we mean the facilities that are not specialised in a single specialty (or treatment).

- (d) Considered constraints from outside the markets exerted by NHS hospitals on a case-by-case basis.

Parties' comments on the product market definition and our response

3.6 During the remittal we received various comments from parties in relation to product market definition and we deal with these points below. In particular, we discuss:

- (a) HCA's arguments about inconsistencies in our previous approach due to our focus on the most commonly provided specialties and general private hospitals and PPUs; and
- (b) HCA's arguments against our previous approach of excluding outpatient and day-patient clinics (ie non-inpatient facilities) from the set of hospitals and facilities that formed the focus of our competitive analysis.³⁴

Focusing on specialties most commonly provided and on general private hospitals and PPUs

- *Our conclusions in the Final Report*

3.7 We found that the vast majority of private hospitals and PPUs we analysed are not specialised in a single specialty (or treatment).³⁵ We also found that while most general private hospitals and PPUs provide a range of specialties, not every specialty is offered at every single hospital.³⁶

3.8 On the basis of these findings, we adopted the approach of focusing our competitive assessment on general private hospitals and PPUs and on the 16 specialties³⁷ that were offered by 80% or more of the facilities in our set of hospitals. In addition to these 16 specialties, we also considered oncology, as it accounted for a relatively large share of total admissions and total revenue in 2011.

- *Parties' comments during the remittal*

3.9 During this remittal, HCA raised new criticisms³⁸ of some apparent inconsistencies in our shares of supply in central London. These inconsistencies arise

³⁴ We consider competitive constraints from non-inpatient providers in paragraphs 4.31–4.41 and 4.89–4.97.

³⁵ Final Report, paragraph 5.45.

³⁶ Final Report, paragraph 5.49.

³⁷ These 16 specialties are: anaesthetics; cardiology; clinical radiology; dermatology; gastroenterology; general medicine; general surgery; neurology; obstetrics and gynaecology; ophthalmology; oral and maxillofacial surgery; otolaryngology; plastic surgery; rheumatology; trauma and orthopaedics; and urology.

³⁸ [HCA submission on 1 May 2015](#), paragraphs 4.98–4.109 and 4.125–4.127.

as a consequence of our overall approach of focusing on common specialties and general providers. For example, HCA has pointed out that we omitted what it considers to be certain key competitors such as Great Ormond Street Hospital's PPU (paediatrics) and Moorfields Eye Hospital's PPU (specialising in ophthalmology) from our shares of supply.

- *Our response*

- 3.10 We discuss these criticisms in more detail, and together with several robustness checks in response to them, in the next section on competitive constraints (paragraphs 4.16 to 4.53 and 4.135 to 4.138). We consider that our overall approach, as set out in the Final Report, of focusing on general facilities and the most commonly provided specialties remains valid. We continue to assess competitive effects both inside and outside our market definition, and therefore our conclusions do not depend on excluding certain specialties or specialist providers from the relevant product market. We assess competition within particular specialties, where we have evidence that competitive conditions are materially different to those within other specialties in central London, including, where we identify issues, specialties that are not within the set of 16 that we previously identified. We also take into account specialist providers in central London, on a case-by-case basis, where we have evidence that these exert a competitive constraint.

Excluding outpatients and day-case-only providers

- *Our conclusions in the Final Report*

- 3.11 In the Final Report, we noted that outpatient and day-patient care were becoming increasingly important, in terms of both admissions and revenue.³⁹ We also noted that there was an asymmetric constraint, in that hospitals that provide inpatient care also typically provide day-patient and outpatient care in the same specialty, whereas the converse is not usually the case.⁴⁰
- 3.12 We focused in the Final Report on the supply of private healthcare services (inpatient, day-case and outpatient) by providers of inpatient care because:⁴¹
- (a) providers of inpatient care account for a substantial share of revenue;⁴²

³⁹ Final Report, paragraph 5.36.

⁴⁰ Final Report, paragraph 5.38.

⁴¹ Final Report, paragraph 6.4.

⁴² Final Report, paragraph 5.43. According to LaingBuisson (*Private Acute Medical Care: UK Market Report 2013*, p13), the total revenue of private independent acute medical hospitals and clinics was £4,352 million in the

- (b) concentration is relatively higher in the provision of inpatient care than in the provision of day-patient and outpatient care;⁴³ and
- (c) while providers of inpatient care compete with a wider set of providers, including day- and outpatient-only clinics, in the provision of day-patient and/or outpatient care, this is unlikely to hold across the full range of day- and outpatient treatments. In particular, certain day- and outpatient treatments (for example, those which require inpatient care as a back-up or those which are ancillary to an inpatient treatment) are likely to be subject to similar competitive conditions as those arising in the provision of inpatient treatments. Outpatient- and day-patient-only providers will not be able to compete effectively with inpatient providers for some of these services.

3.13 Focusing on providers of inpatient care affected our competitive assessment in the Final Report. Most directly, in our competitive assessment of central London, we calculated shares of total admissions (ie inpatient and day-case admissions) by counting only admissions at facilities that provided inpatient care, and excluded admissions at day-patient-only facilities. Similarly, we calculated shares of total revenues (ie inpatient, day-case and outpatient revenues) by including only revenues from facilities that provided inpatient care, and excluded revenues from facilities that only offered day-case or outpatient care.⁴⁴ However, we note that our competitive assessment was also based on shares for inpatient admissions and revenues, which are unaffected by non-inpatient providers.

- *Parties' comments during the remittal*

3.14 During the remittal, HCA argued that we should not exclude outpatient- and day-case-only centres from our competitive assessment.⁴⁵ HCA advanced three arguments for this:

- (a) First, HCA argued that outpatient and day-case care was growing in importance, and accounted for a majority of admissions. For some specialties (fertility, orthopaedics, and oncology), outpatient and day-case

UK in 2012. The revenue of the operators owning or managing the 192 private hospitals we have looked at in the Final Report accounts for more than 80% of this total revenue.

⁴³ Final Report, paragraph 5.47 – according to LaingBuisson, there were 264 day-only clinics in the UK in 2013, compared with 201 facilities registered to take inpatients. Most of the day-only facilities are relatively small clinics. They accounted for 27% of all private admissions in the UK in the first half of 2013, while the remaining 73% of total admissions took place in private hospitals that also provided inpatient care (ibid, Table 6.1, p119). There is an error in the Final Report paragraph 5.47: the sentence 'They account for 27% of all private day-case admissions in the UK in 2012' should say 'They account for 27% of all private admissions in the UK in the first half of 2013'.

⁴⁴ Final Report, paragraph 6.204.

⁴⁵ HCA submission on 1 May 2015, paragraphs 4.100–4.108.

services were the primary mode of delivering care, so excluding non-inpatient facilities presented a distorted picture of the competitive conditions for those specialties.

- (b) Secondly, HCA argued that we were incorrect to suggest that certain outpatient and day-case treatments required inpatient back-up. According to HCA, there were no outpatient treatments that required inpatient care as a back-up and which needed to be carried out in hospitals. Similarly, HCA argued that all day-case procedures may be carried out in day-case clinics, and only a minority of patients may require inpatient back-up. Typically, it was those patients with more complex underlying conditions or co-morbidities who might require an inpatient stay in case of any complications. (We discuss HCA's arguments and evidence on this point in more detail in paragraphs 4.31 to 4.41 and 4.89 to 4.97.)

HCA explained that it was the patient's condition, rather than the procedure, which determined whether or not a patient could be referred to a day-case clinic or to a hospital. Therefore, in HCA's view, day-case providers competed with hospitals for the majority of patients across all day-case procedures. Even if inpatient care was required later, HCA noted that we previously found that it was not necessarily a relevant customer benefit to remain within a single healthcare provider's treatment pathway.⁴⁶ Therefore, outpatient and day-case facilities could effectively compete for patients, and transfer them to other inpatient facilities or the NHS if back-up was needed.

- (c) Finally, HCA argued that, even if it were to accept the point on inpatient back-up, we had not distinguished between HCA's outpatient/day-case services which require inpatient back-up and those which do not, for which outpatient and day-case centres can provide effective competition. Therefore, HCA argued that it was unfair for us to exclude outpatient and day-case centres from the shares of supply that we calculated in the Final Report, when we include revenue and admissions across the whole range of HCA's outpatient and day-case services.

- *Our response*

- 3.15 We accept HCA's point that including non-inpatient facilities in central London would affect our assessment of the competitive constraints on private

⁴⁶ Final Report, Appendix 11.1, paragraph 59.

hospitals' day-case and outpatient activity. However, we do not accept that this invalidates our approach of focusing primarily on inpatient facilities.

- (a) First, in our competitive assessment, we also took into account HCA's share of inpatient admissions and revenues, which are unaffected by non-inpatient providers (as these do not have any inpatient admissions or revenues).⁴⁷
- (b) Second, we accept that HCA's shares of total admissions and revenues will be overestimated to some extent as a result of omitting non-inpatient providers. To address this issue, we have given some further consideration in this remittal to the competitive constraints provided by non-inpatient facilities in central London (see paragraphs 4.31 to 4.41), and we find that this overestimation is unlikely to be significant.⁴⁸

3.16 Furthermore, we note that, while the competitive constraints may differ for inpatients, day-case and outpatient services, to the extent that insurers contract across a range of services when dealing with inpatient providers, this may lead to competitive conditions for inpatient provision also having an effect on competition for day-case and outpatient activity.

Provisional conclusions on product market definition

3.17 On the basis of the evidence and analysis set out in paragraphs 5.5 to 5.51 of the Final Report, and the additional evidence and analysis presented above, we provisionally readopt the findings in paragraphs 5.52(a) and (c) of the Final Report on the relevant product markets, which are:

- (a) Due to the fact that demand-side substitution by patients across different medical treatments is likely to be very limited, the starting point for product market definition is one of narrowly delineated product markets covering each different medical treatment. In addition, privately-funded medical treatments appear to be in a separate product market from NHS-funded medical treatments as a whole.

...

- (c) In the provision of hospital services:

⁴⁷ For example, in paragraphs 6.205 and Appendix 6.10, paragraphs 37–39 of the Final Report, we explicitly refer to and discuss inpatient shares of admissions and revenues.

⁴⁸ As explained in paragraph 4.39, we estimate that non-inpatient providers will have virtually no effect on HCA's share of total admissions and reduce HCA's share of total revenues by less than [~~3~~] points.

(i) There is a significant degree of supply-side substitution across treatments within the same existing specialty. Within each given specialty, however, supply-side substitution is greater for more routine treatments, which do not require highly-specialized equipment and staff, than for more complex treatments. There is more limited evidence of hospitals switching to treatments in new specialties. Within each given specialty, while there appears to be scope for hospitals providing inpatient care to switch capacity into the provision of day-patient and outpatient treatments, the ability to switch into the provision of inpatient treatments by day-only/outpatient clinics, which provide only outpatient and/or day-patient care, appears very limited (ie asymmetric constraints appear to exist).

(ii) Focusing on the 215 general private hospitals and general PPUs [across the UK] which provide inpatient care,⁴⁹ 16 specialties are offered by 80 per cent or more of these hospitals. These 16 specialties accounted for 86 per cent of total admissions⁵⁰ and 75 per cent of total revenue⁵¹ at these hospitals in 2011.

(iii) Oncology is the main specialty accounting for a relatively large share of total admissions and total revenue that is not among the specialties offered by more than 80 per cent of the 215 general private hospitals and general PPUs [across the UK] with inpatient care. In particular, oncology accounted for 9.6 per cent of total admissions and 7.5 per cent of total revenue at these hospitals in 2011. Oncology is currently offered by 135 (64.7 per cent) of the 215 general private hospitals and general PPUs which provide inpatient care, plus four specialized private hospitals and PPUs providing inpatient care.

3.18 We also provisionally readopt the approach in relation to product market definition set out in paragraph 5.53(b) of the Final Report, which is:

(b) In the provision of hospital services:

⁴⁹ Including: (a) all private general hospitals with inpatient care owned by BMI, HCA, Nuffield, Ramsay and Spire; (b) 19 of the largest other private general hospitals with inpatient care (including Aspen and Circle); (c) all general PPUs with inpatient care managed by BMI, HCA, Ramsay and East Kent Medical Services; and (d) the 40 largest general PPUs with inpatient care by revenue.

⁵⁰ Including inpatient and day-patient.

⁵¹ Including inpatient, day-patient and outpatient care.

(i) Given the significant degree of supply-side substitution across treatments within an existing specialty, the market is not limited to the treatment, but extends to the specialty. Given the more limited supply-side substitution across treatments in new specialties, the market is no wider than each specialty.

(ii) Given the existence of asymmetric constraints between hospitals providing inpatient care and day-only/outpatient clinics, for each specialty, inpatient, day-patient and outpatient care are considered to be distinct product markets.

3.19 We revise the approach that we previously set out in paragraphs 5.54(a) of the Final Report in relation to the assessment of competitive constraints in the provision of hospital services:

(a) Although we have defined separate markets for inpatient, day-patient and outpatient care, the boundaries of these markets are blurred to some extent. We acknowledge that in general hospitals providing inpatient care compete with a wider set of providers, including day-only/outpatient clinics, in the provision of some day-patient and/or outpatient care. We therefore no longer rely on our original argument in paragraph 5.54(a) of the Final Report that some day-patient and outpatient treatments are likely to be subject to similar competitive conditions as those arising in the provision of inpatient treatments, because of the need for inpatient back-up or their ancillarity to inpatient treatments. However, in light of the evidence that we have considered in this remittal (see paragraphs 4.31 to 4.41 and 4.89 to 4.97), we consider that the competitive constraint from day-only/outpatient clinics in central London is unlikely materially to affect our competitive assessment. Therefore, our competitive assessment remains focused largely on hospitals providing inpatient care, and we consider that it is still appropriate to focus mainly on the set of general private hospitals and general PPUs providing inpatient care.⁵² We also take into account specialist providers in London, on a case-by-case basis, where we have evidence that these exert a competitive constraint.⁵³

3.20 We provisionally readopt the approach in paragraph 5.54(b)-(d) of the Final Report in relation to the assessment of competitive constraints in the provision of hospital services, which are:

⁵² We further note that, as we state in paragraph 6.5 of the Final Report, depending on the specificity of each analysis, our analyses of competitive constraints have considered inpatient treatments and/or day- and outpatient treatments.

⁵³ Previously, we took into account three specialist oncology facilities in Greater London: Mount Vernon Cancer Center (EN Hertfordshire Trust); London Oncology Clinic (HCA); and NHS Ventures UCLH (HCA).

(b) We concluded that each specialty is considered as a separate product market. However, supply-side substitution appears to be greater across treatments in different specialties when the hospital already provides the relevant specialties. Given that many hospitals in our set are already active in the provision of treatments across [the] set of 16 specialties, and are therefore well placed to expand into new treatments across each of those specialties, for the purposes of the assessment of competitive constraints we have aggregated the 16 specialties together where we considered it appropriate. Given that fewer hospitals in our set are active in the provision of oncology compared with the other 16 specialties, we have looked at oncology separately in our competitive assessment where possible.

(c) Given that, within each specialty, supply-side substitution appears to be greater for more routine treatments than for more complex treatments, in our competitive assessment we considered constraints within these markets arising in the provision of more complex treatments (also referred to as ‘high acuity’ or ‘tertiary’ care).

(d) In our competitive assessment we considered constraints from outside the markets exerted by NHS hospitals, ie providers of NHS-funded treatments, on a case by case basis, where we have evidence that these exert a competitive constraint.

Geographic market definition

- 3.21 In relation to the geographic market, the evidence on which we based our original findings and our assessment are set out in paragraphs 5.55 to 5.69 and our conclusions are set out in paragraph 5.70 of the Final Report.
- 3.22 In the provision of hospital services we found that generally hospitals in central London were close substitutes for each other, but were only weakly constrained by hospitals outside central London, and therefore we considered central London as a separate geographic market. However, in our competitive assessment we took into account the strength of the competitive constraints exerted on private hospitals by other hospitals/PPUs both within and outside this market.
- 3.23 We address parties’ comments on our geographic market definition below, in particular, HCA’s arguments against our approach of defining central London as a separate geographical market.

Parties' comments on the geographic market definition and our response

- *Our conclusions in the Final Report*

3.24 Our reasoning for adopting a central London market definition is set out in the Final Report, paragraph 5.59. There were two main reasons:

- (a) Market conditions, both on the demand side and on the supply side, differ markedly from those prevailing elsewhere in the UK or are more evident in central London than elsewhere, including:
 - (i) 'a high PMI penetration rate, in part arising from the large presence of corporate PMI customers';
 - (ii) 'a significant number of patients travelling from greater London and outer London into central London';
 - (iii) 'a significant number of private hospitals and PPUs, with a widespread offer of complex treatments or specialties';
 - (iv) 'strong reputation of some private hospitals and PPUs which are perceived by patients as offering a higher quality of care than private hospitals and PPUs elsewhere in the UK'; and
 - (v) 'private hospitals and PPUs in general drawing patients from very wide geographic areas'.⁵⁴
- (b) PMIs, and some hospital operators, consistently expressed the view that hospitals in central London (and possibly a subset of these) are closer substitutes for each other.⁵⁵

3.25 For the purposes of our analysis, we defined central London as the NUTS2 region of Inner London,⁵⁶ which roughly coincides with the areas within the North and South Circular roads.

Parties' comments during the remittal

3.26 During this remittal, HCA reiterated its argument made during the original inquiry that we had adopted an incorrect approach to geographic market

⁵⁴ Final Report, Appendix 6.10, paragraphs 3–34.

⁵⁵ Final Report, Appendix 6.10, Annex A, paragraphs 6–9, 16, 18, 23–26 and 42–46.

⁵⁶ NUTS stands for Nomenclature of Territorial Units for Statistics, a commonly used standard for referencing regions for statistical purposes, developed and regulated by the European Commission. Inner London includes the following boroughs: Camden; City of London; Hackney; Hammersmith and Fulham; Haringey; Islington; Kensington and Chelsea; Lambeth; Lewisham; Newham; Southwark; Tower Hamlets; Wandsworth; and Westminster.

definition, which excluded from the relevant geographic market providers based outside central London.⁵⁷ HCA argued that:

- (a) We should have used 80% catchment areas (ie defining the catchment area as the set of surrounding postcode areas in which at least 80% of a hospital's patients live), as we did for hospitals outside central London. Only [X] % of HCA's admitted patients have a central London postcode.⁵⁸ The majority of HCA's patients, travelling from outside central London, had a wide range of alternative local providers to choose from. HCA further argued that as it could not discriminate between patients, competition for patients outside central London would benefit all of its patients, even those in central London who did not travel outside this area.
- (b) In HCA's view, the distinct features of central London that we outlined did not lead to the conclusion that patients did not regard non-central London hospitals as effective substitutes. HCA pointed out that we had not carried out any analysis of patient choices to determine the extent to which patients would switch in response to a small but significant deterioration in value (such as quality of care) of central London hospitals.⁵⁹

Our response

- 3.27 HCA raised similar concerns during our original inquiry, and we responded to them in paragraphs 6.232 to 6.236 of the Final Report.
- 3.28 Before we address HCA's concerns, we note that, regardless of the precise boundaries of geographical markets, in the Final Report we considered the strength of competitive constraints from hospitals within and outside the geographical market.⁶⁰ We assessed the competitive constraints from outside our defined market (including from Greater London hospitals) and found that our conclusions are robust to these considerations. As a result, the competitive constraint exercised by any genuine competitor on HCA and other central London providers will have been taken into account, regardless of whether they fell within the relevant geographic market.

⁵⁷ HCA submission on 1 May 2015, paragraphs 4.79–4.94.

⁵⁸ HCA submission on 1 May 2015, paragraph 4.80, based on 2011 HCA patient admissions data. HCA noted that 'the proportion may be even less since many of these may have their main residence outside central London or may have recorded their work address instead of their home.' (HCA submission on 1 May 2015, paragraph 4.91.)

⁵⁹ As noted above, this is analogous to the SSNIP test that competition authorities routinely apply when considering the scope of a market.

⁶⁰ We explicitly considered the competitive constraints from private hospitals and PPUs in outer London in, for example, the Final Report, paragraphs 6.224–6.228 and Appendix 6.10, paragraphs 38 & 39.

- *Catchment areas and patient travel patterns*

- 3.29 In the Final Report we stated that catchment areas were only a starting point for our competitive assessment, with a number of widely-recognised limitations. Their use for hospitals outside central London was pragmatic and necessary due to the large number of local markets. We considered in our local competitive assessment the constraints on each hospital, whether arising within or outside the hospital's catchment area.⁶¹ In contrast, for hospitals in central London, we were able to use a more comprehensive approach to geographic market definition, taking into account distinct features and parties' views about the closeness of competition between specific hospitals.⁶² However, after using a more comprehensive approach for hospitals in central London, as noted in paragraphs 3.2 and 3.28, we still considered competitive constraints from within and outside the market.
- 3.30 Furthermore, even though central London hospitals have large catchment areas that include outer London hospitals, this does not necessarily imply that they are equally constrained by all hospitals in their catchment areas. Relying on shares calculated for Greater London would give too much weight to the competitive constraint imposed by outer London hospitals on central London hospitals (see paragraphs 4.119 to 4.145 for our assessment of the competitive constraints from outer London hospitals).
- 3.31 In the Final Report, we found that a significant number of patients travel from Greater London into central London. We found that, for insured and self-pay patients in 2011, 54% of patients living in Greater London attended a central London hospital.⁶³ In contrast, only 5.4% of patients living in central London attended a hospital in Greater London. We also found that the median 80% catchment area was 24 miles for central London hospitals, but only 8 miles for Greater London hospitals. These indicate that, for central London patients, hospitals in Greater London do not appear to be effective substitutes and that Greater London hospitals are not successful at winning patients' business from the central London area.
- 3.32 However, we note that, as HCA has pointed out, these travel patterns do not necessarily inform us about the behaviour of the marginal patient (ie patients who would switch to or away from using central London hospitals in response to a small change in the value of central London hospitals). For example, central London hospitals may still be constrained by Greater London hospitals when competing for the marginal self-pay patient who needs relatively

⁶¹ Final Report, paragraphs 5.64–5.67.

⁶² Final Report, paragraphs 6.234 & 6.235.

⁶³ Final Report, Appendix 6.10, Table 5.

straightforward treatment and lives in Greater London, particularly if central London hospitals are unable to discriminate between patients based on where they live. However, as we noted in the Final Report, as each PMI needs to be able to offer local hospital cover which meets the needs and expectations of many geographically dispersed policyholders, a hospital will only be effectively constrained where there are alternative hospitals that are suitable not just for some, but for a substantial number of policyholders in the area.⁶⁴

- *Distinct features of central London*

3.33 We consider that the competitive conditions for private healthcare services in central London are materially different to those elsewhere in the UK, including outer London, due to the features that we describe in paragraph 3.24 above. We consider that the following features are of particular importance:

- (a) Some private hospitals and PPUs in central London are perceived by patients, doctors and insurers to be offering a higher quality of care than private hospitals and PPUs elsewhere in the UK, including Greater London. This implies that outer London hospitals are not viewed as close substitutes for central London hospitals. Even though, as HCA pointed out, we could not objectively judge the relative levels of quality, what matters for competitive constraints are patients' and consultants' perceptions of quality, which we were able to test via surveys and questionnaires.⁶⁵
- (b) Some complex treatments, particularly those using new technologies or focused on high acuity care and complex and tertiary surgery (eg cardiac, neurosurgery and oncology services), are available in central London and are not widely available in private hospitals and PPUs outside central London.⁶⁶ For patients who require these treatments, outer London hospitals are clearly not effective substitutes for central London hospitals. Also, PMIs need to be able to offer access to these more complex treatments, some of which may only be provided in central London, in order to provide attractive medical insurance products. This is particularly the case if access to these complex specialties is important to customers.

⁶⁴ Final Report, paragraph 6.145.

⁶⁵ Final Report, Appendix 6.10, paragraphs 6–13, and also Appendix 2.1, paragraph 40.

⁶⁶ For example, HCA acknowledged in a hearing that there was a stronger likelihood of more treatment being provided in central London compared with outside central London: 'The very strong likelihood is that the treatment [outside central London] will not go as far; in other words, you will get cases which are taken so far and then end up in the NHS if they get really complicated. If they start out in Central London, where the capability is much greater, there is a stronger likelihood of more treatment being provided.' (HCA hearing on 13 August 2015)

For instance, there is some evidence that access to oncology treatments is the main reason why customers take out PMI.⁶⁷

- (c) Central London has a large presence of corporate PMI customers. These corporate clients are particularly important for PMIs, as many of them may have a national presence in addition to a headquarters in central London, so they can represent a significant volume of business for PMIs beyond central London. PMIs report that many corporate clients in central London demand access to central London hospitals, and therefore do not regard Greater London hospitals as effective substitutes because they would like their employees to be able to access treatment and appointments close to their place of work to minimise absences and disruption.^{68,69} As a result, PMIs need to provide access to central London hospitals in order to have a credible offer for corporate clients.

Provisional conclusions on geographic market definition

- 3.34 On the basis of the evidence and analysis set out in paragraphs 5.55 to 5.69 of the Final Report, and the additional evidence and analysis set out above, we provisionally readopt the approach to geographic market definition for the provision of private healthcare and the way in which we assess competitive constraints that we set out in paragraphs 5.70(a), (c)(i) and (c)(iii) of the Final Report, which are:

(a) We treat the geographic scope of competition in the provision of private healthcare services as local for both consultant and hospital services.

...

(c) In relation to hospital services, we have defined the local geographic markets on the basis of the location of suppliers. Local geographic markets are defined as the areas covering sets of private hospitals and PPUs competing closely because enough

⁶⁷ See Final Report, Appendix 6.2, paragraph 60 – according to HCA's Cancer Strategy document, 91% of people gave cancer as their main reason for taking out PMI.

⁶⁸ See Final Report, Appendix 2.1, paragraphs 30–41.

⁶⁹ On this point, HCA argued (in paragraph 4.90(ii) of its 1 May 2015 submission) that while employers may wish to secure access to convenient central London hospitals for diagnostic and outpatient appointments for employees, for inpatient treatment (which is the focus of our analysis), patients would prefer to be treated at a hospital near their home rather than their place of work. However, this observation does not change that fact that PMIs still need to obtain access to central London hospitals for some customers (such as those resident in central London or corporate clients) and for some treatments (such as day-case and outpatient treatments, but also any inpatient treatments that are only available in central London hospitals). Also, PMIs state that patients who have received an initial consultation in central London are more likely to receive inpatient treatment with the same consultant, at the consultant's preferred facility (often a central London hospital).

patients consider them to be substitutes in terms of distance. In particular:

(i) we have considered the area covering the private hospitals and PPUs in central London as a separate geographic market;

...

(iii) regardless of the precise boundaries of these geographic markets, in our local competitive [assessment] for central London... we have taken into account the relative strength of the competitive constraints exerted by different private hospitals/PPUs within [this] geographic [market]. We have also considered competitive constraints provided by private hospitals/PPUs located outside [this] geographic [market].

4. Competitive assessment of private hospital operators in central London

Framework for our competitive assessment of private hospital operators in central London

4.1 The Act requires the CMA to decide:⁷⁰ ‘whether any feature, or combination of features, of each relevant market prevents, restricts or distorts competition in connection with the supply or acquisition of goods or services in the United Kingdom or a part of the United Kingdom.’

4.2 If any feature, or combination of features, of a relevant market prevents, restricts or distorts competition in connection with the supply or acquisition of any goods or services in the UK or a part of the UK, under the Act this constitutes an AEC.

4.3 Paragraph 163 of the Guidelines⁷¹ further explains that:

To provide focus and structure to its assessment of the way competition is working in a market the CC sets out one or more ‘theories of harm’. A theory of harm is a hypothesis of how harmful competitive effects may arise in a market and adversely affect customers.’ Paragraph 165 of the Guidelines continues by stating that ‘The starting point for formulating theories of harm in market investigations is the work already done by the referring body, particularly the terms of reference ... and decision documents.’⁷²

4.4 Building on the observations about the supply of privately-funded healthcare made by the OFT in its market study and the early submissions received following the OFT’s reference, we identified seven theories of harm, which are set out in Section 4 of the Final Report⁷³ and which we subsequently used to structure our overall investigation. We also noted that competitive harm can flow from five main sources:⁷⁴

(a) unilateral market power (including market concentration);

(b) barriers to entry and expansion;

(c) coordinated conduct;

⁷⁰ CC3.

⁷¹ CC3.

⁷² Final Report, paragraph 4.4.

⁷³ Final Report, paragraph 4.5.

⁷⁴ Final Report, paragraph 4.7.

(d) vertical relationships; and

(e) weak customer response.⁷⁵

4.5 As further set out in Section 6 of the Final Report, we then applied the framework for our competitive assessment to determine whether there were features of the private healthcare markets that gave rise to one or more AECs through unilateral market power of private hospital operators including PPUs.⁷⁶

4.6 We have applied the same analytical framework to the competitive assessment of private hospital operators in central London in this remittal. The results of our analysis of product and geographic markets, defined in Section 3, provided a framework for the assessment of competitive constraints, in terms of the set of medical treatments and relevant (private) healthcare providers on which our assessment has largely focused. We then went on to reassess the market features characteristic of privately-funded healthcare services in central London based on an analysis of barriers to entry and expansion, local competitive constraints and the framework for bargaining (between hospital operators and PMIs). Finally, we reconsidered market outcomes for privately-funded healthcare services in central London, namely insured prices (including our revised empirical analysis of insured prices), non-price outcomes (quality and range) and profitability.

Figure 4.1: The key building blocks of our competitive assessment of private hospital operators in central London



⁷⁵ CC3, paragraph 170; paragraph 172 notes that these sources are not mutually exclusive.

⁷⁶ This assessment addressed our theories of harm 1, 3 and 5 and certain aspects of theory of harm 7 (see the Final Report, paragraph 4.5).

- 4.7 As set out in Section 11, we have used the outcome of our overall competitive assessment to identify those structural and/or conduct features in the provision of privately-funded healthcare services in central London which either individually or in combination give rise to AECs.
- 4.8 Section 6 of the Final Report assessed whether there were features of the private healthcare markets that give rise to one or more AECs through unilateral market power of private hospitals including PPUs.⁷⁷ This section covers our assessment of competitive constraints faced by private hospitals (including PPUs) located in central London, including our analysis of shares of supply and capacity. Other sections of this report address other aspects of the analysis in Section 6 of the Final Report:
- (a) Section 5 covers barriers to entry and expansion in central London.
 - (b) Section 6 covers bargaining.
 - (c) Section 7 covers quality and range.
 - (d) Section 8 covers our revised empirical analysis on insured pricing (the IPA) and related issues, in particular patient complexity.
 - (e) Section 9 covers profitability.

Competitive constraints in central London

- 4.9 We assessed the competitive constraints faced by private hospitals including PPUs located in central London in paragraphs 6.200 to 6.218 of the Final Report. We then examined competitive constraints from outside the relevant market, in particular from publicly-funded healthcare provided by the NHS and from private hospitals (including PPUs) in outer London, in paragraphs 6.220 to 6.228 of the Final Report. We found that:
- (a) 'HCA faces weak competitive constraints from private hospitals including PPUs located in central London';⁷⁸
 - (b) 'NHS services are not a close substitute for private patient services provided by HCA and the competitive constraints exerted by the NHS on HCA are, if any, very limited';⁷⁹ and

⁷⁷ Final Report, paragraph 6.1.

⁷⁸ Final Report, paragraph 6.218.

⁷⁹ Final Report, paragraph 6.223.

(c) 'HCA faces weak competitive constraints from [outer] London hospitals'.⁸⁰

- 4.10 We considered parties' views on competitive constraints between private hospitals including PUs in paragraph 6.216 of the Final Report, and set out these views in Annex A of Appendix 6.10 of the Final Report. We noted that our finding on the competitive constraints from private hospitals and PUs in outer London was 'consistent with the views of many parties', as set out in Annex A of Appendix 6.10 of the Final Report.⁸¹
- 4.11 We also considered whether the vertical integration between HCA and certain GP practices was likely to lead to significant harm to competition in central London. We examined the relevant GPs' referral patterns and found that the evidence 'did not indicate that HCA's vertical integration in GP practices is currently likely to lead to foreclosure of its rivals from patients'.⁸²
- 4.12 Finally, in paragraphs 6.231 to 6.253 of the Final Report, we outlined and directly responded to several arguments that HCA raised in relation to our central London analysis. In the course of this remittal, HCA has reiterated many of its arguments and responded to our reasoning in these paragraphs of the Final Report. HCA has also advanced several new arguments criticising our competitive assessment of central London.
- 4.13 In this section, we discuss and respond to parties' arguments and additional evidence provided during this remittal in relation to our assessment of competition within central London. More specifically, we discuss:
- (a) competitive constraints from private hospitals including PUs (and non-inpatient providers) in central London (paragraphs 4.14 to 4.98);
 - (b) competitive constraints from the NHS (paragraphs 4.99 to 4.118);
 - (c) competitive constraints from private hospitals and PUs outside central London (paragraphs 4.119 to 4.145);
 - (d) HCA's vertical integration with GP practices (paragraphs 4.146 to 4.149); and
 - (e) our provisional conclusions on our competitive assessment of central London (paragraph 4.150).

⁸⁰ Final Report, paragraph 6.228.

⁸¹ Final Report, paragraph 6.228.

⁸² Final Report, paragraph 6.230.

Competitive constraints from private hospitals including PPUs (and non-inpatient providers) in central London

4.14 Our previous assessment of the constraints on HCA from within the market (that is, from private hospitals and PPUs in central London) is set out in paragraphs 6.204 to 6.219 of the Final Report. We found that:

... HCA faces weak competitive constraints from private hospitals including PPUs located in central London. In particular, the competitive constraints imposed by PPUs in aggregate are weak. The evidence suggests that, considering insured patients, and in particular PMIs' corporate clients, the set of HCA's closest competitors is much narrower than the set of all private hospitals including PPUs in central London and that TLC, whilst being much smaller than HCA, is HCA's closest competitor. This is likely to make it very difficult for PMIs to switch a large proportion of their business from HCA to its closest competitors in central London.⁸³

4.15 During this remittal, parties provided comments on many aspects of the evidence and analysis that led to this finding. We discuss these comments under the following headings:

- (a) shares of supply and capacity of private hospitals including PPUs located in central London (paragraphs 4.16 to 4.53);
- (b) product quality and range (paragraphs 4.54 to 4.55, and which we discuss in detail in Section 7);
- (c) HCA's business cases on competitive constraints from private hospitals (including PPUs) in central London (paragraphs 4.56 to 4.75);
- (d) parties' views on competitive constraints from private hospitals (including PPUs) in central London (paragraphs 4.76 to 4.88); and
- (e) competition from non-inpatient facilities in central London (paragraphs 4.89 to 4.97).

⁸³ Final Report, paragraph 6.218.

Shares of supply and capacity of private hospitals including PPUs in central London

- *Our conclusions in the Final Report*

- 4.16 Shares of supply in central London in 2011 are presented in Tables 6, 8, 9 and 10 of Appendix 6.10 of the Final Report. Shares of capacity in central London in 2011 are presented in Table 11 of Appendix 6.10 of the Final Report.
- 4.17 On the basis of our shares of supply analysis, we previously found central London to be ‘a highly concentrated market in which HCA has a strong position across all specialties and an even stronger position when considering the most common specialties and the more complex segments of the market.’⁸⁴

- *Parties’ comments during the remittal*

- 4.18 HCA considered the most appropriate measure to be share of capacity. In its view, capacity was what mattered for the ability of HCA’s rivals to absorb PMIs’ volumes currently treated at HCA hospitals.⁸⁵ HCA said that admission and revenue shares were misleading, because hospital operators that competed more successfully would attract a higher proportion of patients, and (particularly insofar as the share of revenue is concerned) because of differences in quality and case mix.⁸⁶
- 4.19 HCA argued that we placed too much reliance on ‘crude shares of supply’, which followed from its view that our market definition was incorrect, and that the estimates did not include all relevant providers and artificially inflated HCA’s market shares.⁸⁷ HCA stated that:
- (a) We incorrectly omitted a number of PPUs in central London from our previous share calculations.⁸⁸ As a related point, HCA pointed out that we included the admissions and revenues at HCA’s hospitals for specialties that we either excluded from consideration (such as paediatrics, fertility, and neuro-rehabilitation) or for which we excluded certain key competitors

⁸⁴ Final Report, paragraph 6.211.

⁸⁵ HCA submission on 1 May 2015, paragraph 4.130(i).

⁸⁶ HCA submission on 1 May 2015, paragraph 4.130(iii)–(iv).

⁸⁷ HCA submission on 1 May 2015, paragraph 2.3, 21st bullet.

⁸⁸ HCA submission on 1 May 2015, paragraphs 4.31 & 4.125. The omitted central London PPUs are: Chelsea and Westminster Hospital; Great Ormond Street Hospital; Moorfields Eye Hospital; and UCLH (which has the National Hospital for Neurology and Neurosurgery).

(such as the PPU at Moorfields Eye Hospital, which specialises in ophthalmology).

- (b) Our calculations of shares of supply included admissions and revenues at HCA's hospitals for which it faced competition from outpatient and day-case clinics (ie non-inpatient providers), which we excluded from our previous competitive assessment.⁸⁹ As discussed in Section 3 on market definition, HCA considered that our previous approach for excluding outpatient and day-case clinics was illogical.

4.20 HCA also raised specific issues with our estimates of shares of capacity in central London:

- (a) HCA stated that our previous treatment of critical care level 3 (CCL3) beds and other measures of capacity was misleading, for two reasons. First, HCA argued that critical care level 2 (CCL2) beds could be readily converted into CCL3 beds, so it would be more appropriate to consider shares of CCL2 and CCL3 beds.⁹⁰
- (b) HCA argued that we should have included the NHS CCL3 beds, theatres and consulting rooms available to PPUs, notwithstanding our view that the NHS prioritised the use of NHS critical care facilities for NHS-funded patients. HCA's argument was that there was no evidence that PPU patients were currently encountering any difficulty in gaining access to NHS critical care facilities,⁹¹ and because the lifting of the private patient income 'cap' has provided NHS trusts with commercial opportunities to expand PPUs, NHS trusts are increasingly incentivised to ensure that PPUs are properly resourced to cater for their patients.
- (c) HCA also pointed out that, as a consequence of excluding non-inpatient providers, the shares of consulting rooms are likely to be overestimated.⁹²

4.21 Parties disagreed over the extent to which there was effective spare capacity in private hospitals including PPUs in central London:

- (a) HCA argued that there was substantial spare capacity in the private healthcare sector generally, and we should have directly analysed the level of spare capacity available in central London.⁹³ Specifically, HCA argued that there is sufficient spare non-HCA capacity in central London to absorb all of the PMI patients treated at HCA hospitals, and that the

⁸⁹ HCA submission on 1 May 2015, paragraphs 4.126 & 4.127.

⁹⁰ HCA submission on 1 May 2015, paragraphs 4.128(i).

⁹¹ HCA submission on 1 May 2014, paragraph 4.128(ii).

⁹² HCA submission on 1 May 2015, paragraph 4.127.

⁹³ HCA submission on 1 May 2015, paragraph 4.135, fifth bullet.

existence of spare capacity in central London constrains HCA's ability to negotiate higher prices. HCA submitted two versions of this analysis:

- (i) Based on the peak daily number of Bupa and AXA PPP's patients in 2012 and updated capacity information from LaingBuisson, HCA calculated that the spare (bed) capacity its central London rivals needed in order to absorb the peak number of inpatients that went to HCA facilities was only [REDACTED]% of beds for Bupa's patients and only [REDACTED]% of beds for AXA PPP's patients. HCA considered that 'it is highly likely that HCA's competitors retain at least this level of spare capacity, even during periods of peak utilisation.'⁹⁴
 - (ii) HCA's economic advisers (KPMG) took the opportunity, in the July 2015 data room, to analyse Healthcode data on insured patient admissions in 2011 and found that [REDACTED].⁹⁵
- (b) Evidence received from other third parties is that beds alone are not a good measure of effective capacity, for a variety of reasons. For example, TLC told us that there was not sufficient spare capacity in central London for insurers to switch away from HCA, particularly for oncology, where the availability of inpatient beds was not a constraining factor.⁹⁶ Factors such as the availability of theatre slots and radiotherapy services were more likely to be constraining factors in oncology, leading TLC to believe that there was insufficient non-HCA oncology capacity in central London to absorb all private cancer work.⁹⁷ Both AXA PPP and Bupa told us that, even if there were sufficient spare bed capacity at non-HCA facilities in central London, this spare capacity did not translate into an effective competitive constraint on HCA. They told us that this was because insurers were limited in their ability to redirect patients away from HCA in order to take advantage of any spare capacity, as most insured patients had an unrestricted choice of hospitals in the PMIs' network.⁹⁸ Thus, even if there were sufficient effective spare capacity (which they did not believe was the case), AXA PPP and Bupa did not believe that, based on their experience, they were able to direct most patients away from HCA to take advantage of any spare capacity. Furthermore, both insurers considered

⁹⁴ HCA submission on 1 May 2015, paragraph 4.136.

⁹⁵ This analysis was performed using inpatient bed capacity data from Table 11 in Appendix 6.10 of the Final Report, and included inpatient beds at PPUs. The KPMG report did not state that it had performed the analysis without PPU beds. Nor did the underlying code performing this analysis which KPMG submitted to the CMA contain a sensitivity analysis that excluded PPU beds. HCA later submitted, in paragraph 3.10 of its response to hearing summaries on 13 October 2015, that this analysis showed 'that there is sufficient available capacity in private hospitals excluding PPUs. Even if one were to exclude all PPUs from the spare capacity analysis ... [REDACTED]

⁹⁶ TLC hearing on 11 August 2015.

⁹⁷ TLC hearing on 11 August 2015.

⁹⁸ On this point, Bupa also considered that [REDACTED]. We discuss these clauses in paragraphs 6.40 & 6.47 in the section on Bargaining.

that much of the available spare bed capacity was in facilities that did not competitively constrain HCA, such as PPUs, which were not popular with patients and doctors,⁹⁹ and private hospitals that were not attractively located for corporate customers. AXA PPP stated it ‘needed HCA’s hospitals in their networks in order to have a credible [PMI] proposition’, so that, regardless of available bed capacity elsewhere, it still needed to contract with HCA and offer HCA’s hospitals to its customers, particularly corporate clients.

4.22 Finally, parties disagreed over the direction of change in shares of supply since the Final Report:

- (a) HCA stated that we should update our previous share of supply calculations, based on the most recent available data. It cited a February 2015 LaingBuisson report¹⁰⁰ in which:
 - (i) HCA’s share of overnight beds in central London was 41.4% (as compared with [40–50]% in 2011 in our Final Report¹⁰¹);¹⁰²
 - (ii) HCA’s share of revenue in central London, based on 2013 annual accounts, was 50.4% (as compared with [50–60]% in 2011 in our Final Report¹⁰³);¹⁰⁴ and
 - (iii) HCA’s share of capacity in Greater London (which, in its view, was the correct measure) was only 27.5% of total beds, based on LaingBuisson’s published bed numbers.¹⁰⁵
- (b) AXA PPP stated that the aggregated and disaggregated share analysis in the Final Report remained broadly accurate, but HCA’s position had strengthened in some respects. AXA PPP observed that HCA had made a number of expansions in central London since the Final Report,¹⁰⁶ and emphasised that HCA retained a very high share of supply in oncology and cardiology.¹⁰⁷
- (c) Bupa’s view was that ‘HCA dwarfs other hospitals in a highly concentrated Central London market’,¹⁰⁸ and that our findings in the Final Report

⁹⁹ HCA objected to Bupa’s point [§<].

¹⁰⁰ LaingBuisson (February 2015), *Private Acute Medical Care in Central London: Market Report*.

¹⁰¹ Final Report, Appendix 6.10, Table 11.

¹⁰² HCA submission on 1 May 2015, paragraphs 4.121–4.123.

¹⁰³ Final Report, Appendix 6.10, Table 6.

¹⁰⁴ HCA submission on 1 May 2015, paragraphs 4.121–4.123.

¹⁰⁵ HCA submission on 1 May 2015, paragraph 4.96(i).

¹⁰⁶ AXA PPP letter on 9 March 2015, p.2; AXA PPP submission on 6 May 2015 Q2 p3.

¹⁰⁷ AXA PPP letter on 9 March 2015, p.2.

¹⁰⁸ Bupa submission on 6 May 2015, section 2.

‘continue to align with Bupa’s own more recent (2014) experience in Central London’.¹⁰⁹ Bupa reported that HCA’s share of Bupa spend in central London had grown slightly, and that the [X].¹¹⁰ As with AXA PPP, Bupa also observed HCA’s expansion in central London since the Final Report,¹¹¹ and stated that, in contrast to HCA’s continued growth, it had not observed any substantive entry by new players since the Final Report.¹¹²

- *Our response to parties’ views on shares of supply and capacity*

4.23 We consider each of the parties’ points in turn, and organise our response under the following headings:

- (a) HCA’s criticism of our ‘reliance’ on shares of admissions and revenue (paragraphs 4.24 to 4.25);
- (b) central London shares exclude relevant competitors and include irrelevant specialties (paragraphs 4.26 to 4.30);
- (c) central London shares exclude non-inpatient providers (paragraphs 4.31 to 4.41);
- (d) HCA’s criticisms of our calculations for shares of capacity in private hospitals including PPUs in central London (paragraphs 4.42 to 4.44);
- (e) spare capacity in central London (paragraphs 4.45 to 4.49);
- (f) updating our shares of supply and developments since the Final Report (paragraphs 4.50 to 4.52); and
- (g) our provisional conclusions on shares of supply and capacity of private hospitals including PPUs in central London (paragraphs 4.53).

- *HCA’s criticism of our ‘reliance’ on shares of admissions and revenue*

4.24 Regarding HCA’s overall point that we placed too much reliance on our shares of supply, we consider our market definition for private healthcare treatments in central London hospitals to be robust and, as a consequence, shares of supply to be a valid indicator to use in the assessment of firms’ market power. We further note that shares of supply are only one of the

¹⁰⁹ Bupa submission on 6 May 2015, paragraph 2.11.

¹¹⁰ Bupa submission on 6 May 2015, paragraphs 2.8–2.15.

¹¹¹ Bupa submission on 6 May 2015 paragraph 2.20.

¹¹² Bupa submission on 6 May 2015, paragraph 2.16.

factors we have taken into account in our assessment of competitive constraints within the market we have defined. In addition, we have also taken account of competitive constraints from outside the market.

4.25 As we stated in the Final Report¹¹³ and in line with our Guidelines,¹¹⁴ we used several indicative measures to understand how the market is operating, and we have considered shares based on revenues, admissions and capacity. We do not agree with HCA that admissions and revenue shares are misleading due to any differences in quality. As we previously explained, shares based on revenues are particularly relevant whenever there may be differences in quality, a point which is recognised in our Guidelines.¹¹⁵ Although the evidence available to us did not indicate material quality differences between HCA and its close competitors in central London (as discussed in paragraphs 7.13 to 7.15), shares in revenues could take account of any vertical product differentiation that may exist due to the higher quality and stronger reputation of central London hospitals relative to outer London hospitals. This is particularly important if investments to improve quality are made over the course of several years, suggesting that it might be difficult for outer London hospital operators to reposition themselves within a short time frame.¹¹⁶

- *Central London shares exclude relevant competitors and include irrelevant specialties*

4.26 HCA observed that our previous shares of supply omitted a number of specialist PPUs in central London: Great Ormond Street Hospital PPU; Moorfields Eye Hospital PPU; and National Hospital for Neurology and Neurosurgery (which is part of UCLH NHS Foundation Trust).¹¹⁷ This was due to our previous approach of focusing on general facilities providing inpatient services across a range of specialties. Due to data limitations, we previously calculated shares of total revenue for each of the general private hospitals and PPUs (and three specialist oncology facilities) providing inpatient services in central London, rather than disaggregated shares of revenue by specialty. As a result, our shares of supply include admissions and revenues at HCA's facilities for specialties (such as paediatrics) in which certain PPUs that we have not included in our shares (ie not included in the denominator) may compete for patients.

¹¹³ Final Report, paragraph 6.249.

¹¹⁴ CC3, Annex A, paragraph 1.

¹¹⁵ CC3, Annex A, paragraph 2.

¹¹⁶ For example, HCA argued that it had been investing heavily since its acquisition of a number of hospitals in central London in the late 1990s/early 2000s (see the Final Report, paragraph 6.392).

¹¹⁷ HCA submission on 1 May 2015, paragraph 4.125.

- 4.27 We assess the impact of these omitted providers using a combination of two approaches:
- (a) First, we present updated shares of total revenue and inpatient bed capacity, based on 2013/14 data collated by LaingBuisson, which includes a number of PPUs that were not included in our previous shares of supply, including those specialist PPUs identified by HCA (see Table 4.1 below).
 - (b) Second, using the data from our original inquiry on disaggregated share of admissions by specialty, which we previously presented in Table 8 of Appendix 6.10 of the Final Report, we calculate HCA's share of total admissions aggregated across the 16 specialties that are the focus of our analysis¹¹⁸ plus oncology (see Table 4.2 below). This approach addresses the issue that our shares included admissions from HCA's hospitals for specialties that we did not focus on in our competitive assessment, such as paediatrics. It does not address the issue HCA raised that our shares of supply for some included specialties excluded some competitors, such as Moorfields Eye Hospital PPU for ophthalmology and non-inpatient providers for various other specialties, but this issue is addressed by our first approach. (We discuss the competitive constraints and impact on shares of supply from non-inpatient providers in paragraphs 4.89 to 4.97 and 4.31 to 4.41 below.)
- 4.28 In implementing the first approach, using data from LaingBuisson,¹¹⁹ we calculated shares of total revenue and inpatient beds in central London in 2013, and we examined the effect on those shares of first excluding and then including a number of PPUs in the shares, including those specialist PPUs identified by HCA, as set out in Table 4.1 below. Although the shares are based on public data from a later time period, we consider that it is still informative of the robustness of our previous central London shares of total revenue and capacity to include these four PPUs.

¹¹⁸ These 16 specialties are: anaesthetics; cardiology; clinical radiology; dermatology; gastroenterology; general medicine; general surgery; neurology; obstetrics and gynaecology; ophthalmology; oral and maxillofacial surgery; otolaryngology; plastic surgery; rheumatology; trauma and orthopaedics; and urology. See paragraphs 3.7–3.10 for more detail of how these were selected.

¹¹⁹ CMA analysis, based on LaingBuisson (February 2015), *Private Acute Medical Care in Central London: Market Report*, Table 1.1.

Table 4.1: Central London aggregate shares of total revenue and inpatient beds, 2011 and 2013

	%			
	Total revenue		Inpatient beds	
	Final Report (2011)	Laing Buisson (2013)	Final Report (2011)	Laing Buisson (2013)
HCA	[REDACTED]	50.3*	[REDACTED]	40.1
TLC	[REDACTED]	10.8	[REDACTED]	10.7
The Bupa Cromwell Hospital	[REDACTED]	7.4	[REDACTED]	7.4
Hospital of St John & St Elizabeth	[REDACTED]	3.4	[REDACTED]	2.8
BMI	[REDACTED]	3.1	[REDACTED]	7.4
King Edward VII's Hospital Sister Agnes	[REDACTED]	1.6	[REDACTED]	3.3
Aspen	[REDACTED]	0.5	[REDACTED]	2.5
Phoenix Hospital Group#	[REDACTED]	0.4	[REDACTED]	0.6
Total private hospitals	[REDACTED]	77.3	[REDACTED]	74.7
Royal Marsden NHS Foundation Trust	[REDACTED]	5.3	[REDACTED]	2.7
Great Ormond Street Hospital for Children NHS Foundation Trust	[REDACTED]	3.3	[REDACTED]	2.5
Imperial College Healthcare NHS Trust	[REDACTED]	2.7	[REDACTED]	5.6
Royal Brompton and Harefield NHS Foundation Trust	[REDACTED]	2.7	[REDACTED]	2.7†
University College London Hospital NHS Foundation Trust	[REDACTED]	1.7§	[REDACTED]	2.6§
Royal Free London NHS Foundation Trust	[REDACTED]	1.6	[REDACTED]	3.0
Guy's and St Thomas' NHS Foundation Trust	[REDACTED]	1.3	[REDACTED]	1.2
Moorfields Eye Hospital NHS Foundation Trust	[REDACTED]	1.2	[REDACTED]	0.7
King's College Hospital NHS Foundation Trust	[REDACTED]	1.0	[REDACTED]	1.2
Chelsea and Westminster Hospital NHS Foundation Trust	[REDACTED]	0.9	[REDACTED]	2.0
Royal National Orthopaedic Hospital NHS Trust (RNOH)‡	[REDACTED]	0.5	[REDACTED]	1.2
St George's University Hospitals NHS Foundation Trust	[REDACTED]	0.4	[REDACTED]	0.0
Barts Health NHS Trust	[REDACTED]	0.2	[REDACTED]	0.0
Total PPUs	[REDACTED]	22.7	[REDACTED]	25.3

Source: CMA and LaingBuisson.

Notes:

*It is unclear whether the LaingBuisson report includes HCA's revenue from its NHS venture, Harley Street Clinic at UCH. HCA's collaboration with Guy's and St Thomas' relates solely to the Trust's new cancer PPU, which is not included in these figures.

†The inpatient bed figure for Royal Brompton and Harefield includes 12 beds at the Harefield site which is not within central London.

‡The RNOH sees outpatients at the Bolsover Street facility in central London, which are then referred for inpatient treatment to the hospital in Stanmore, which is outside central London.

§UCLH's inpatient bed includes 24 beds at HCA's Harley Street at UCH facility. UCLH's private oncology services are delivered as a JV with HCA, while its private neurology, dentistry and maternity services are independent of HCA. LaingBuisson reported UCLH's revenue and beds was only available at the trust level, and not split out by specialty or facility.

¶In the Final Report, we included revenue and beds in UCLH's private oncology service (Harley Street @ UCH) under HCA's share.

#Phoenix Hospital Group acquired Weymouth Street Hospital from BMI.

4.29 As HCA noted, we did not include a number of NHS trusts with PPUs in central London in our previous calculation of shares of supply.¹²⁰ We excluded these PPUs for various reasons.¹²¹ We find that including the seven NHS

¹²⁰ HCA submission on 1 May 2015, paragraph 4.31.

¹²¹ As explained in the Final Report, we applied several criteria to filter PPUs to include in our focal set of competitors. We looked at PPUs from the largest 30 NHS trusts across the UK (paragraph 5.42(d) of the Final Report). We focused on general PPUs (paragraph 5.46 of the Final Report), and on the largest 40 general PPUs with inpatient care by revenue (footnote 202 of paragraph 5.52(c)(ii) of the Final Report). For example, Great Ormond Street and Moorfields were excluded because they were specialist PPUs. (However, we made an exception for Royal Marsden and included it in our previous calculations, even though it was a specialist oncology PPU, as it was a major provider of acute private healthcare in a complex specialty.) UCLH's private oncology service is delivered with HCA (Harley Street at UCH) and was included in HCA's share of supply in our previous calculations. Its private neurology service (at National Hospital for Neurology and Neurosurgery) was not included. Chelsea and Westminster, St George's and Barts' PPUs were also not included. RNOH's private service was excluded because its main inpatient facility is located in Stanmore, outside central London. However, LaingBuisson included RNOH's revenue and inpatient beds in its central London shares because RNOH has an outpatient facility in Bolsover Street in central London.

trusts with PPU's in central London that we previously omitted lowers HCA's share of total revenues by six percentage points. We note, however, that HCA's share of total revenue is still high at 50%. This is consistent with our finding that most of the difference in HCA's share is due to the inclusion of these seven NHS trusts rather than changes over time in the relative market position of the providers that we did include in our previous calculations.¹²² Furthermore, we consider that including the revenue and capacity of specialist PPU's (such as Royal Marsden, Great Ormond Street Hospital, Moorfields Eye Hospital and RNOH) in our shares is likely to overstate the competitive constraint they place on HCA, given that they are only effective competitors for a limited subset of HCA's specialties.

- 4.30 In implementing the second approach, presented in Table 4.2 below, using data on disaggregated share of admissions by specialty, HCA's aggregate share of total admissions¹²³ in central London across the 16 specialties is [45–55]%, and its aggregate share across the 16 specialties plus oncology is [45–55]%. These shares are very similar to HCA's share of total admissions in central London calculated under the previous methodology ([45–55]%).

¹²² To take a crude measure, calculating shares of total revenue using LaingBuisson's data but excluding the seven NHS providers that were omitted previously, we find that HCA's share of total revenue is [50–60]% and PPU's' combined share is [10–20]%, which are very similar to those calculated in the Final Report. (The shares are even closer if we correct for revenues from HCA's Harley Street at UCH facility, which LaingBuisson may have included in UCLH's revenues rather than HCA's).

¹²³ ie inpatient and day-case admissions.

Table 4.2: Central London shares of admissions by specialty, 2011

	Total admissions						%
	HCA	TLC	BMI*	Bupa Cromwell	Other private hospitals†	PPUs‡	Specialty admissions as proportion of total admissions in central London
Oncology	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Trauma and orthopaedics	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Gastroenterology	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Obstetrics & gynaecology	[X]	[X]	[X]	[X]	[X]	[X]	[X]
General surgery	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Cardiology	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Plastic surgery	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Urology	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Ophthalmology	[X]	[X]	[X]	[X]	[X]	[X]	[X]
General medicine	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Oral & maxillofacial surgery	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Anaesthetics	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Otolaryngology	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Neurology	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Clinical radiology	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Dermatology	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Rheumatology	[X]	[X]	[X]	[X]	[X]	[X]	[X]
16 specialties	[X]	[X]	[X]	[X]	[X]	[X]	[X]
16 specialties + oncology	[X]	[X]	[X]	[X]	[X]	[X]	[X]

Source: CC and CMA analysis.

*Data is not available for one BMI hospital for obstetrics and gynaecology, trauma and orthopaedics and urology. This hospital accounts for [X]% of total admissions in central London. Data is not available for one BMI hospital for ophthalmology and two BMI hospitals for dermatology. The missing data for each BMI hospital is estimated to be [X]% of its total admissions in central London.

†Other private hospitals include Aspen, King Edward VII's Hospital Sister Agnes, and St John & St Elizabeth. Data for Aspen is not available for ophthalmology and rheumatology. The missing data for Aspen is estimated to be [X]% of its total admissions in central London.

‡PPUs include those available in the columns for 'Final Report (2011)' in Table 4.1 above. Data on admissions is not available for some PPU for some specialties. The missing data for the six included PPUs combined is estimated to be around [X]% of all central London admissions. Private hospitals shares of admissions may be overestimated due to the exclusion of several PPUs in central London, as discussed in paragraph 4.29 above.

Note: N/A = not available. Total admissions include inpatient and day-case admissions.

○ *Central London shares exclude non-inpatient providers*

4.31 HCA criticised us for failing to take into account competition from non-inpatient providers. Before responding to this more fully, we set out again our reasons in the Final Report for focusing on private hospitals and PPUs providing inpatient care (as discussed in Section 3 on market definition):¹²⁴

(a) providers of inpatient care account for a substantial share of revenue;¹²⁵

(b) concentration is relatively higher in the provision of inpatient care than in the provision of day-patient and outpatient care;¹²⁶ and

¹²⁴ Final Report, paragraph 6.4.

¹²⁵ Final Report, paragraph 5.43. According to Laing and Buisson (*Private Acute Medical Care: UK Market Report 2013*, p13), the total revenue of private independent acute medical hospitals and clinics was £4,352 million in the UK in 2012. The revenue of the operators owning or managing the 192 private hospitals we have looked at in the Final Report accounts for more than 80% of this total revenue.

¹²⁶ Final Report paragraph 5.47 – according to Laing & Buisson, there were 264 day-only clinics in the UK in 2013, compared with 201 facilities registered to take inpatients. Most of the day-only facilities are relatively small clinics. They accounted for 27% of all private admissions in the UK in the first half of 2013, while the remaining 73% of total admissions took place in private hospitals that also provided inpatient care (ibid, Table 6.1, p.119)

(c) while providers of inpatient care compete with a wider set of providers, including day- and outpatient-only clinics, in the provision of day-patient and/or outpatient care, this is unlikely to hold across the full range of day- and outpatient treatments. In particular, certain day- and outpatient treatments (for example, those which require inpatient care as a back-up or those which are ancillary to an inpatient treatment) are likely to be subject to similar competitive conditions as those arising in the provision of inpatient treatments and so outpatient- and day-patient-only providers will not be able to compete effectively with inpatient providers for some of these services.¹²⁷

4.32 We noted in the Final Report that there had been a trend from inpatient towards day-patient treatments.¹²⁸ To get a sense of the relative significance of each segment (inpatient, day-case and outpatient care), we analysed: admissions and revenue data from hospital operators (which typically provide care in all three settings, inpatient, day-case and outpatient) collected during our original inquiry; and spend data from Bupa and AXA PPP in central London in 2011.

Table 4.3: Shares of hospital operators' admissions and revenue in central London by segment (inpatient, day-case and outpatient care), 2011

	%		
	<i>Inpatient</i>	<i>Day-case</i>	<i>Outpatient</i>
Admissions	40.6	59.4	0
Revenue	61.8	17.2	21.0

Source: CMA analysis.

Note: Royal Marsden did not provide admissions and revenue data split by each segment and has been excluded. This also excludes a number of PPUs in central London, as discussed in paragraph 4.29 above.

4.33 Within central London, data from our original inquiry from hospital operators shows that while a majority of admissions at providers of inpatient care in 2011 were day-case (59.4%), the majority of hospital operators' revenue is derived from inpatient treatment (61.8%).

There is an error in paragraph 5.47 of the Final Report: the sentence 'They account for 27% of all private day-case admissions in the UK in 2012' should say 'They account for 27% of all private admissions in the UK in the first half of 2013'.

¹²⁷ Final Report, paragraph 5.54(a).

¹²⁸ Final Report, paragraph 5.35: 'Data from the five largest hospital operators shows that day-patient admissions accounted for 58 per cent of total admissions (inpatient plus day-patient) in their hospitals in 2006, and for 68 per cent in 2011. Revenue data shows a similar trend: revenue from day-patient admissions in hospitals of the five largest hospital operators accounted for 29 per cent of total revenue from admitted patients (inpatient plus day-patient) in 2006, and for 37 per cent in 2011.'

Table 4.4: Shares of Bupa and AXA PPP's spend in central London by segment (inpatient, day-case and outpatient care), 2011

	%		
	Inpatient	Day-case	Outpatient
Spend	[X]	[X]	[X]

Source: CMA analysis.

Note: this is based on all of Bupa and AXA PPP spend, not just spend for the 16 specialties that we focused on during our original inquiry. Therefore, this includes spend on services such as imaging and diagnostic procedures, in which non-inpatient providers may have a relatively stronger position.

- 4.34 We find that around half ([X]%) of Bupa and AXA PPP's spend in central London in 2011 was for non-inpatient care, which gives an indication of the value of the services for which non-inpatient providers can compete and which might potentially impose competitive constraints on hospital operators in central London.¹²⁹
- 4.35 To assess the potential strength of the competitive constraints imposed by non-inpatient providers and estimate the impact of excluding non-inpatient providers on our shares of supply in the Final Report, we estimated non-inpatient providers' shares of supply. We noted in the Final Report that, according to LaingBuisson, there were 264 day-only clinics in the UK in 2013 which accounted for 27% of all private admissions in the UK in first half of 2013, while the remaining 73% of admissions took place in private hospitals that also provided inpatient care.¹³⁰
- 4.36 We also asked Bupa and AXA PPP what proportion of their claims and spending in 2011 in central London was with non-inpatient facilities.¹³¹
- 4.37 On shares of total admissions (inpatients and day-case), providers of inpatient care accounted for the vast majority of Bupa and AXA PPP's admissions in central London in 2011. Bupa and AXA PPP reported that day-case-only providers accounted for [X] and [X] respectively of their day-case claims in

¹²⁹ We note that our data does not take into account the revenues and admissions at these outpatient and day-only clinics from self-pay patients. However, given the high number of non-inpatient facilities in London, we decided that it was disproportionate to collect revenues and admissions data directly from these facilities in order to calculate comprehensive shares for both insured and self-pay admissions and revenues. We also note that this analysis does not take into account revenues and admissions from other PMIs. However, we consider that Bupa and AXA PPP together account for a significant share of the PMI market. According to LaingBuisson's *Health Cover UK Market Report 2013*, Table 7.2, p126, Bupa and AXA PPP's combined share of PMI premium revenue in 2012 was 65.4%.

¹³⁰ Final Report, paragraph 6.4, based on Laing & Buisson (2013), *Private Acute Medical Care: UK Market Report*, p13, and Table 6.1, p119.

¹³¹ [X]. We note that this approach does not take into account the revenues and admissions at these outpatient and day-only clinics from self-pay patients. However, given the high number of non-inpatient facilities in London, we decided that it was disproportionate to collect revenues and admissions data directly from these facilities in order to calculate comprehensive shares for both insured and self-pay admissions and revenues. We also note that this analysis does not take into account revenues and admissions from other PMIs. However, we consider that Bupa and AXA PPP together account for a significant share of the PMI market. According to LaingBuisson's *Health Cover UK Market Report 2013*, Table 7.2, p126, Bupa and AXA PPP's combined share of PMI premium revenue in 2012 was 65.4%.

central London in 2011. This suggests that virtually all day-case admissions took place in facilities that also provide inpatient care.¹³² We also estimate that, for most specialties, the disaggregated shares of admissions in central London by specialty given above are unlikely to be affected by including non-inpatient facilities (ie day-case facilities, as outpatients are not admitted and thus would not affect shares of admission) in central London. The potential exceptions are dermatology and plastic surgery.¹³³ For each of the remaining specialties that we considered, non-inpatient facilities' share of Bupa and AXA PPP's day-case claims is below [2.5–7.5]%.¹³⁴ Therefore, on the basis of this information, we consider that including non-inpatient providers' admissions is unlikely materially to affect the aggregated shares of admissions in central London that we previously calculated.

Table 4.5: Non-inpatient providers' share of Bupa and AXA PPP's spend in central London within each segment, 2011

	%			
	<i>Day-case</i>	<i>Outpatient</i>	<i>Both day-case and outpatient</i>	<i>All (including inpatient)</i>
Bupa	[X]	[X]	[X]	[X]
AXA PPP	[X]	[X]	[X]	[X]
Both PMIs	[X]	[X]	[X]	[X]

Source: CMA analysis.

Note: this is based on all of Bupa and AXA PPP spend, not just spend for the 16 specialties that we focused on during our original inquiry. Therefore, this includes spend on services such as imaging and diagnostic procedures, in which non-inpatient providers may have a relatively stronger position.

- 4.38 On shares of total revenue, providers of inpatient care accounted for the vast majority of Bupa and AXA PPP's spend in central London in 2011. Non-inpatient providers accounted for [5–15]% of Bupa and AXA PPP's total spend in central London in 2011. This is consistent with our previous view that providers of inpatient care account for a substantial share of revenue.
- 4.39 Going further, using data provided by Bupa and AXA PPP, we estimate that HCA's share of Bupa and AXA PPP's spend at non-inpatient facilities (spending for both day-case and outpatient) in central London in 2011 was [X]% and [X]% respectively.¹³⁵ This is lower than HCA's share of revenues among providers of inpatient care, which we previously calculated. However, as non-inpatient providers accounted for a relatively small proportion of Bupa

¹³² We have assumed that the number of day-case claims corresponds with the number of day-case admissions, ie each day-case claim involves a single day-case admission.

¹³³ For dermatology, non-inpatient facilities' share of Bupa's and AXA PPP's day-case claims in central London in 2011 was [X]% and [X]% respectively. For plastic surgery, non-inpatient facilities' share of Bupa's and AXA PPP's day-case claims in central London in 2011 was [X]% and [X]% respectively. We note that HCA had a relatively low share of total admissions in central London in 2011 for both of these specialties ([X]% and [X]% respectively), and that a relatively small proportion of admissions are to these specialties ([X]% and [X]% respectively) as shown in Table 4.2 above.

¹³⁴ Based on data from Bupa and AXA PPP on their spend in central London in 2011. [X]

¹³⁵ Based on data from Bupa and AXA PPP on their spend in central London in 2011. [X]

and AXA PPP's spend in central London in 2011, we estimate that including non-inpatient providers' revenues will only cause HCA's share of total revenue to fall by [X] percentage points, aggregated across all specialties.¹³⁶ Therefore, we consider that taking account of non-inpatient providers' revenues is unlikely materially to affect the shares of total revenue in central London that we previously calculated.

4.40 Although non-inpatient providers do not impose a competitive constraint across hospital operators' full range of activities, we considered whether non-inpatient providers are providing a constraint within the day-case and outpatient services in central London. As shown in Table 4.5 above, non-inpatient providers accounted for [a very small proportion] of Bupa and AXA PPP's day-case spend and [15–25]% of their outpatient spend in central London in 2011. This suggests that non-inpatient providers do not exert any material constraint within the day-case segment and may exert some constraint on hospital operators within the outpatient segment, although we bear in mind that HCA owns a sizeable share of the non-inpatient facilities within central London.

4.41 We discuss the competitive constraints from non-inpatient facilities, particularly within the outpatient segment, in paragraphs 4.89 to 4.97 below, drawing on other sources of evidence apart from shares of supply.

- *HCA's criticisms of our calculations for shares of capacity in private hospitals including PPUs in central London*

4.42 Turning to HCA's point on critical care capacity, we have calculated HCA's share of CCL3 beds and its share of combined CCL2 and CCL3 beds in central London, not including NHS PPUs. HCA's share of critical care beds remains high, as presented in Table 4.6 below.

Table 4.6: Shares of CCL2 and CCL3 bed capacity of private hospitals in central London, 2011

	Number		%	
	CCL3 beds	CCL2+ CCL3 beds	CCL3 beds	CCL2+ CCL3 beds
Aspen	[X]	[X]	[X]	[X]
BMI	[X]	[X]	[X]	[X]
HCA	[X]	[X]	[X]	[X]
Hospital of St John & St Elizabeth	[X]	[X]	[X]	[X]
King Edward VII's Hospital Sister Agnes	[X]	[X]	[X]	[X]
The Bupa Cromwell Hospital	[X]	[X]	[X]	[X]
TLC	[X]	[X]	[X]	[X]
Total	[X]	[X]	[X]	[X]

Source: CMA analysis.

¹³⁶ This analysis is based on non-inpatient providers' share of all Bupa and AXA PPP's spend in 2011 in central London, not just for the 16 specialties and oncology which formed the focus of our analysis.

- 4.43 For capacity measures like CCL3 beds, theatres and consulting rooms, it is not always possible to compare independent hospitals with NHS PPUs on a like-for-like basis, as patients in a PPU would have access to the NHS hospital's general facilities, with the only dedicated private facilities likely to be inpatient rooms and some consulting spaces.
- 4.44 We accept HCA's argument that our estimate of HCA's share of consulting rooms is likely to be an overestimate, given that we did not include consulting rooms available at non-inpatient facilities. To get a sense of the possible size of the overestimate, we compared our information on consulting rooms in our set of competitors in Greater London against LaingBuisson's Directory of Independent Medical/Surgical Hospitals & Clinics.¹³⁷ We find that adding the consulting rooms from acute private facilities lowers HCA's share of consulting rooms in Greater London from [45–55]% to [40–50%].¹³⁸
- *Spare capacity in central London*
- 4.45 In response to HCA's argument that there was sufficient spare non-HCA bed capacity in central London to absorb all of the PMI patients treated at HCA hospitals, we stated in the Final Report at paragraph 6.250 that HCA's analysis took no account of the existing number of patients in rival hospitals, the availability of consultants to perform procedures and the capacity situation at peak times of year. We note that HCA's latest analysis, based on the Healthcare data in the July 2015 Data Room examined this issue in relation to beds.
- 4.46 We have considered HCA's analysis of spare inpatient bed capacity in central London (outlined in paragraph 4.21 above). We do not accept that the availability of beds at non-HCA facilities is by itself a good indicator of effective spare capacity in central London, as HCA appears to assume in its analysis.

¹³⁷ LaingBuisson's Directory of Independent Medical/Surgical & Mental Health Hospitals & Clinics, contained in LaingBuisson Healthcare Market Review 2013-2014.

¹³⁸ According to LaingBuisson's directory, there were 926 consulting rooms in Medical/Surgical independent hospitals and clinics in Greater London. Of these, 660 consulting rooms belonged to entities that were included in our own set of competitors' facilities in Greater London. Of the remaining 245 consulting rooms in LaingBuisson's directory (none of which are in facilities owned or managed by HCA): three rooms are in establishments categorised as Acute Hospital (Overnight Beds) that we did not include in our set of competitors in Greater London in the Final Report; 46 rooms are in Acute NHS Hospital (PPUs) that we did not include in our set of competitors in Greater London in the Final Report, such as Great Ormond Street Hospital's PPU; 101 rooms are in establishments categorised as Acute Hospital (Day Surgery); 30 rooms are in establishments categorised as Cosmetic Surgery; 26 rooms are in establishments categorised as Lasers for Surgery; and 39 rooms are in establishments categorised as IVF or Termination of Pregnancy. Adding 104 (3+101) rooms from acute non-PPU establishments to total of 691 consulting rooms in our dataset of Greater London private hospitals (not including PPUs) lowers HCA's share of consulting rooms in Greater London from [45–55]% to [40–50%].

- 4.47 The necessary level of spare capacity to facilitate switching by PMIs cannot be a matter of precise calculation. Particular indicators of capacity may be more relevant to some hospitals and specialties than others. Capacity is related to multiple dimensions (not only the utilisation and availability of day and overnight beds, but also operating theatres, intensive care facilities, and other specialist facilities). Different types of capacity may provide a binding constraint on different occasions. The spare capacity of a hospital will also be substantially determined by the days and times at which consultants are available and willing to practise, and when patients are willing to be seen. We also note that the trend from inpatient towards day-patient treatments, as discussed in paragraph 4.32 above, means that overnight beds is likely to become a less important constraint and measure of capacity in hospitals.¹³⁹
- 4.48 We note that our view of beds as a measure of effective spare capacity is consistent with the views of parties (including HCA) at hearings. HCA accepted that the number of beds alone was not a sufficient measure of effective spare capacity, although it considered that the number of beds was the ‘key pinchpoint’ when it considered capacity at its own hospitals and that ‘beds is more of a pinchpoint, for example, than theatres.’¹⁴⁰ Other parties disagreed with HCA and they considered that number of beds was less likely to be a binding constraint.
- 4.49 AXA PPP and Bupa told us that even if there was sufficient spare bed capacity, it did not necessarily translate into an effective competitive constraint on HCA, especially if that spare capacity was located in facilities which were unattractively located for PMIs’ customers or which did not offer a comparable level of quality or range of treatments.

○ *Updating shares of supply*

- 4.50 In response to HCA’s argument that its share of beds and revenues (based on the February 2015 LaingBuisson report) had fallen since the Final Report, we consider that most, if not all, of the decrease is due to LaingBuisson’s inclusion of seven NHS trusts with PPUs in central London that were omitted from our calculations in the Final Report, rather than due to any significant change in the underlying position of HCA relative to PPUs and its other competitors since the Final Report. We find that, calculating shares of total revenue using LaingBuisson’s data but excluding the seven NHS providers

¹³⁹ For example, LaingBuisson noted that ‘In-patient beds were the traditional measure by which to measure hospital size... This has tended to become less important in recent years, as day-surgery and other forms of outpatient care have become more effective as well as cheaper.’ LaingBuisson (February 2015), *Private Acute Medical Care in Central London: Market Report*, p19.

¹⁴⁰ HCA hearing on 13 August 2015: [38].

that were omitted previously, HCA's share of total revenue is 54.8% and included PPUs' combined share is 15.8%.¹⁴¹ These shares are very similar to their counterparts ([50–60]% and [10–20]%) in Appendix 6.10 of the Final Report. This is consistent with our view that there has been little change in HCA's overall share of the market since 2011.

- 4.51 Turning to HCA's point on bed capacity in Greater London, based on published bed numbers in the February 2015 LaingBuisson report,¹⁴² HCA has a 29% share of beds in Greater London, defined as the county of Greater London.¹⁴³ Including four facilities outside Greater London but within the M25, we can replicate HCA's calculation of its share of beds as [20–30]%. However, as we discussed above in relation to spare capacity in central London, we do not regard the number of inpatient beds on its own as a good indicator of effective capacity. Furthermore, we consider that including bed capacity from providers in outer London is likely to overstate the constraint that this capacity places on central London providers, as bed capacity in outer London is unlikely to provide an equivalent constraint to capacity within central London.
- 4.52 We also note AXA PPP and Bupa's observations that HCA has expanded since the Final Report and we consider that, as a result, HCA's share of capacity in central London is likely to have grown or will grow in the near future. We note that:
- (a) HCA has opened a new radiotherapy facility (the London Radiotherapy Centre) at Guy's and St Thomas';¹⁴⁴
 - (b) HCA has further expanded capacity, with new outpatient facilities at the Shard (near London Bridge Hospital), which will open in January 2016;¹⁴⁵
 - (c) HCA has opened the Harley Street Diagnostic Centre,¹⁴⁶ a large full-service diagnostic suite with primary GP services; and

¹⁴¹ LaingBuisson may have included revenues from HCA's Harley Street at UCH facility with UCLH's total revenues, rather than with HCA's total revenues as we do in the Final Report. If so, correcting for this puts HCA's share of total revenues in 2013 at 55.9% and PPUs' combined share at 15.4%.

¹⁴² CMA analysis, based on LaingBuisson (February 2015), *Private Acute Medical Care in Central London: Market Report*, Table 3.1 and Appendix 2.

¹⁴³ The combined area of the NUTS2 regions Inner London and Outer London.

¹⁴⁴ HCA press release (8 October 2014): '[Britain's newest Radiotherapy Centre opens at Guy's Hospital campus in London](#)'. Website accessed on 22 October 2015.

¹⁴⁵ London Bridge Hospital website: '[Hospital Redevelopment](#)', accessed on 22 October 2015.

¹⁴⁶ [The Harley Street Clinic Diagnostics webpage](#).

(d) HCA plans to expand the Portland Hospital, and has received the relevant planning permission, adding to its obstetrics, gynaecology and paediatric capacity.¹⁴⁷

- *Provisional conclusions on shares of supply and capacity of private hospitals including PPUs in central London*

4.53 On the basis of the evidence above, we remain of the view that central London is a highly concentrated market and that HCA has high shares of supply relative to its competitors. Further, we remain of the view that HCA has a high share of supply by total admissions in many specialties, and that HCA's share is particularly high when considering the potentially more complex segments of the central London market, such as oncology and cardiology (see Table 4.2 above). We remain of the view that HCA operates a high share of private hospital and PPU overnight bed capacity in central London, based on the analysis in the Final Report. We consider that our findings do not depend on our decision to exclude specialist providers and non-inpatient providers from our shares. We consider that the overall pattern of shares of supply in central London remains unchanged since 2011.

Product range, quality, and hospital location

4.54 Healthcare provision is differentiated, so shares of supply and capacity alone are not necessarily sufficient to assess substitutability. In the Final Report, we considered relevant dimensions of differentiation: product range, quality, and hospital location.¹⁴⁸ We discussed product range and quality in paragraphs 6.388 to 6.440 of the Final Report, and hospital location in paragraph 6.214 of the Final Report.

4.55 We discuss quality and range in Section 7 of this report.

¹⁴⁷ The Portland Hospital news release (20 February 2015): '[The Portland Hospital to double the size of its specialist Children's Hospital](#)'. Website accessed on 22 October 2015.

¹⁴⁸ We readopt the definitions of quality and range that we gave previously in paragraph 6.384 in the Final Report. By quality, we mean how well a given treatment and the overall service are provided (ie vertical product differentiation). Quality may refer to different aspects, including clinical expertise and outcomes, nursing care, waiting time, comfort and quality of accommodation. Range indicates which and how many treatments are provided (ie horizontal product differentiation) and it encompasses the extent to which hospital operators provide more complex, and possibly more costly, treatments.

HCA's business cases on competitive constraints from private hospitals (including PPUs) in central London

- *Our conclusions in the Final Report*

4.56 During the original inquiry, we reviewed 20 business cases provided by HCA in response to Question 7 of our Financial Questionnaire, which asked for business cases for all major capital expenditure (in excess of £500,000). We also took into account HCA's summary of several additional business cases.¹⁴⁹ Our review informed our previous competitive assessment across a range of issues in the Final Report.

4.57 On competitive constraints from private hospitals (including PPUs) in central London, based on our previous review of HCA's internal documents, we said in the Final Report that:

- (a) HCA's business cases do not suggest that PPUs represent a significant constraint on HCA across the full range of treatments/specialties HCA provides (the only exception potentially being ITU services).¹⁵⁰
- (b) Where HCA mentions central London competitors in its business cases, it only considers a small subset of such competitors to the facility in question (as opposed to all of HCA's central London competitors).¹⁵¹

- *Parties' comments during the remittal*

4.58 During this remittal, HCA objected to what it viewed as the 'very heavy reliance' that we had placed on our review of HCA's business cases.¹⁵²

(a) [REDACTED]¹⁵³

(b) HCA has also argued that we only reviewed a very limited number of HCA's business cases, and only brief high-level summaries of certain other business cases, and therefore were not in a position to draw general conclusions.¹⁵⁴ HCA submitted a fuller set of 97 business cases covering the period February 2004 to March 2014, along with a summary table of the cases which records mentions of its competitors in these cases.¹⁵⁵ HCA made a number of arguments on competitive constraints based on

¹⁴⁹ This was in Appendix 7 of HCA's [response to the provisional findings of the original inquiry](#).

¹⁵⁰ Final Report, paragraph 6.215.

¹⁵¹ Final Report, paragraph 6.217.

¹⁵² HCA submission on 1 May 2015, paragraph 4.20(i).

¹⁵³ HCA submission on 1 May 2014, paragraph 4.20(iv)-(v).

¹⁵⁴ HCA submission on 1 May 2015, paragraph 4.21.

¹⁵⁵ Annex 4 of HCA submission on 1 May 2015 and subsequent update on 30 July 2015.

this fuller set of business cases, which are presented in the relevant sections below.

4.59 Notwithstanding its general criticism of our use of evidence from business cases, HCA also disagreed with both findings outlined in paragraph 4.57 above. On PPUs, it argued that several business cases referred to PPUs and that we only looked at a selection of business cases prior to the lifting of the private patient income cap. After 2011/12, it stated that PPUs featured more prominently in HCA's business cases. HCA also pointed out that a number of its other internal documents, including board presentations and strategy papers, had fully acknowledged the threat which HCA faced from PPUs.¹⁵⁶ On independent competitors, it argued that its business cases regularly included references to TLC, BMI hospitals, the BUPA Cromwell, and King Edward VII's Hospital.¹⁵⁷

- *Our response*

- *HCA's criticism of our use of evidence from business cases*

4.60 We consider that contemporaneous documents, prepared in the normal course of business, are probative in determining the extent to which parties consider various providers as a source of effective competitive constraint. However, we do not accept HCA's submission that we placed unduly heavy reliance on HCA's business cases in our previous assessment, and we note that our review of HCA's internal documents was only one aspect of the evidence we considered.

4.61 HCA confirmed that it had submitted a complete set of business cases relating to significant investments in respect of which a formal written request for capital was prepared for senior management.¹⁵⁸ We are mindful of the potential for the content of HCA's business cases to be affected by the OFT/CC scrutiny during the latter part of the period covered by HCA's expanded set of business cases. Up to 40 of these cases post-date the start of the OFT's market study in March 2011, and up to 25 post-date the start of

¹⁵⁶ HCA submission on 1 May 2015, paragraphs 4.32–4.34.

¹⁵⁷ HCA submission on 1 May 2014, paragraph 4.77.

¹⁵⁸ HCA initially submitted 93 business cases during this remittal. We asked HCA for clarification on the steps it took to ensure that what it submitted was a comprehensive set of cases for the period February 2004 to March 2014. HCA stated that 'A written business case was not prepared for every capital project at HCA's hospitals, but the 93 business cases listed in Annex 4 all relate to significant investments in respect of which a formal written request for capital was prepared for senior management. There is no centrally held list of business cases for the entire period referred to, but HCA searched the files held by [redacted], currently [redacted], and by [redacted], former [redacted], on 8 April 2014 and this search produced the 93 documents listed in Annex 4.' HCA subsequently submitted four additional cases after further review of its files. HCA confirmed that the 97 business cases were, as far as it had been able to establish having made all reasonable inquiries, a complete set of cases relating to significant investments in respect of which a formal written request for capital was prepared for senior management.

the CC's market investigation in April 2012 (see Appendix B for a list of the business cases).¹⁵⁹

- *Our review of HCA's business cases on competitive constraints from private hospitals (including PPUs) in central London*

- 4.62 In order to assess HCA's arguments and submissions during this remittal, we have reviewed the fuller set of 97 business cases that HCA submitted, covering the period February 2004 to March 2014. Our findings on competitive constraints from this review are discussed in each of the relevant sections below.
- 4.63 In relation to the competitive constraints imposed by PPUs, we note that around a third of HCA's business cases mention or consider competition from PPUs.¹⁶⁰ In our previous review, only one case out of the 20 that HCA submitted during the original inquiry referred to PPUs.
- 4.64 Several cases note that HCA was seeing 'an increased focus on private revenue streams at all of our main NHS competitors', and it expected that the removal of the private patient income cap would accelerate this trend.¹⁶¹
- 4.65 Of the cases that mention PPUs, [most] are about three HCA facilities: Harley Street Clinic (HSC) [redacted]; London Bridge Hospital (LBH) [redacted]; and Portland Hospital [redacted]. These cases can be divided into two main groups:
- (a) The HSC and Portland Hospital cases are generally focused on competition for [redacted] services (such as [redacted], [redacted] and [redacted]).
 - (b) The LBH cases contain remarks about the competitive constraints from neighbouring PPUs ([redacted], [redacted], and [redacted]) which are copied in the introductory sections of each case. The LBH cases are not focused on competition within any particular specialties.

¹⁵⁹ Not every business case is precisely dated.

¹⁶⁰ HCA's own summary table states that [redacted] out of 97 cases mention specific PPUs or discuss PPUs more generally. However, we do not place too much emphasis on a precise count of mentions, as a number of cases that mention an NHS entity are open to multiple interpretations about whether the case is discussing that entity's PPU or their more general features as a provider of publicly-funded healthcare.

¹⁶¹ [redacted]

4.66 [REDACTED]^{162,163,164,165,166,167,168,169,170}

4.67 [REDACTED]¹⁷¹

4.68 [REDACTED]¹⁷² This is consistent with other evidence during our original inquiry, and summarised in Appendix 3.1 of the Final Report, that NHS hospitals prioritise NHS patients over their PPU business, and that this could affect PPUs' ability to absorb significant numbers of additional private patients, especially when capacity constraints are present.

4.69 [REDACTED]^{173,174,175,176}

4.70 [REDACTED]^{177,178,179}

4.71 Finally, the business cases show that some NHS hospitals are capacity constrained. [REDACTED]^{180,181} As we state in paragraph 6.215 of the Final Report, this is in line with our view that NHS hospitals prioritise NHS patients over their PPU business.

4.72 On the basis of the evidence and assessment above, we find that HCA does not view PPUs as a significant source of competitive constraint across the full range of treatments/specialties HCA provides. Only a few PPUs appear capable of imposing any competitive constraint on HCA, and only within particular specialties such as paediatrics and oncology. Furthermore, some of these PPUs may be capacity constrained, with NHS trusts prioritising their

162 [REDACTED]

163 [REDACTED]

164 [REDACTED]

165 [REDACTED]

166 [REDACTED]

167 [REDACTED]

168 [REDACTED]

169 [REDACTED]

170 [REDACTED]

171 [REDACTED]

172 [REDACTED]

173 These cases pre-date recent collaboration between Guy's and St Thomas' NHS Foundation Trust and HCA. We note that the Guy's and St Thomas' new Cancer Centre PPU, which is currently under development, is in collaboration with HCA. London Bridge Hospital has an NHS Ventures partnership with Guy's and St Thomas' NHS Trust for three floors within its planned Cancer Centre which is due to be completed by Autumn 2016. We further note that the London Radiotherapy Centre, which opened in October 2014, is a joint venture between HCA and Guy's.

174 [REDACTED]

175 [REDACTED]

176 [REDACTED]

177 [REDACTED]

178 [REDACTED]

179 [REDACTED]

180 [REDACTED]

181 [REDACTED]

NHS patients over their PPU business. Therefore, on the whole, the constraints that PPUs in aggregate impose are weak.

- 4.73 Turning to private hospital competitors in central London, we find that the two main competitors that HCA considers in its cases are TLC and Bupa Cromwell. All other independent competitors are mentioned far less frequently and, when they are mentioned, are not considered in much detail. In contrast, not only are TLC and Bupa Cromwell more frequently mentioned, but in cases where they are mentioned, the cases consider their actions or features in some detail, and state that these are important, or even the main, reasons why the proposed investment should be made or made quickly.¹⁸²
- 4.74 TLC appears to be particularly important. In many instances, and in particular for cancer care, TLC is either the only competitor mentioned,¹⁸³ one of a few competitors mentioned and/or the main competitor mentioned. For example, TLC is mentioned in more than half of those cases that mention any competitor. It is more frequently mentioned than any other competitor, and it is mentioned in more cases than the combined total number of cases in which any PPU is mentioned. This is consistent with our finding in the Final Report.
- 4.75 On the basis of the evidence and assessment above, we find that HCA appears to consider TLC and Bupa Cromwell to be its main competitors and TLC to be its closest competitor. We find that HCA appears to consider other independent central London competitors only to a limited extent.

Parties' views during this remittal on competitive constraints from private hospitals (including PPUs) in central London

- 4.76 HCA argued that we had 'underestimated the scale of the competitive threat which [PPUs] pose to HCA.'¹⁸⁴ In addition to the points already covered, HCA also made a number of other points on PPUs:
- (a) HCA raised a new argument that central London PPUs had grown a lot since the Final Report,¹⁸⁵ and that many had set out strong growth ambitions in their plans.¹⁸⁶

¹⁸² HCA submitted 97 business cases for the period February 2004 to March 2014. Of these, there are 73 cases that mention or discuss competitors, and 63 cases in which a central London competitor was mentioned or discussed. Of these [X] cases, [X] is mentioned in [X] cases, [X] in [X] cases, [X] in [X] cases, and all other independent hospitals in central London are mentioned in fewer than [X] cases.

¹⁸³ In [X] business cases, [X] is the only competitor that is discussed.

¹⁸⁴ HCA submission on 1 May 2015, paragraph 4.31.

¹⁸⁵ HCA submission on 1 May 2015, paragraph 4.45.

¹⁸⁶ HCA submission on 1 May 2015, paragraph 4.50.

- (b) It also reiterated its previous argument that PPUs had several competitive advantages over other private healthcare providers due to their NHS status, such as: their ability to access NHS land and infrastructure; co-location with NHS hospital which provided an advantage for attracting consultants; not having to contribute to staff pension costs and giving access to NHS pensions; the ability of NHS trusts to raise capital at lower cost; and significant tax advantages, for example no corporation tax liability.¹⁸⁷
- (c) Finally, HCA argued that PMIs' 'directional policies', which are products that allow PMIs to influence patients' choice of hospital or consultant, show that they view PPUs (and indeed, hospitals in outer London and the NHS, both discussed below) as effective substitutes for their policyholders.¹⁸⁸

4.77 HCA also argued that we had 'failed to take account of the strong competitive pressures from other private healthcare providers in Central London.'¹⁸⁹ HCA noted the high number of competing fascias (six) of independent providers in central London operating eight hospitals, excluding PPUs and NHS hospitals. HCA also made a number of points about the advantages its competitors enjoyed, for example: charity status and tax exemptions (TLC, Hospital of St John & St Elizabeth, and King Edward VII's Hospital); and vertical integration with a PMI (Bupa Cromwell).¹⁹⁰ On TLC's charity status in particular, HCA argued that we did not carry out any analysis or present any evidence showing that the VAT savings from charity status were small, and that we were wrong to disregard the effect on insured prices of potential differences in fixed costs between hospital operators.¹⁹¹

4.78 HCA also made a broader argument about our approach to our competitive assessment, namely that we largely ignored competition to attract and maintain consultants, which it argued was one of the most significant features of competition between hospital operators. HCA argued that it invested in new services and facilities in order to compete for consultants, who would otherwise practise at rival hospitals in central London.¹⁹² HCA argued that consultants' views and behaviour would be relevant to our competitive

¹⁸⁷ HCA submission on 1 May 2014, paragraphs 4.40 & 4.41.

¹⁸⁸ HCA submission on 1 May 2015, paragraph 4.37.

¹⁸⁹ HCA submission on 1 May 2014, paragraph 4.55.

¹⁹⁰ HCA submission on 1 May 2015, paragraphs 4.55–4.78.

¹⁹¹ HCA submission on 1 May 2015, paragraphs 4.63 & 4.64.

¹⁹² HCA submission on 1 May 2015, paragraphs 4.12–4.14.

assessment. For instance, HCA argued that we should consider whether consultants viewed PPUs as close substitutes for private hospitals.¹⁹³

4.79 Other parties did not make extensive submissions during this remittal on the competitive constraint from private hospitals and PPUs in central London:

(a) In AXA PPP's view, 'HCA's facilities continue to occupy a "must have" status' and this 'remains particularly the case for corporate customers and for certain specialties including oncology and cardiology'.¹⁹⁴ AXA PPP stated that there had been no material increase in the constraint provided by NHS facilities.¹⁹⁵

(b) In Bupa's view, [REDACTED].¹⁹⁶ Bupa also argued that PPUs did not provide an effective constraint on HCA because they focused only on a niche range of specialisms and continued to face political uncertainty over expansion.¹⁹⁷ [REDACTED]¹⁹⁸

- *Our response*

4.80 Responding to HCA's arguments on PPUs, we recognise that central London PPUs have grown since the Final Report. According to LaingBuisson, central London PPUs' revenue has increased from £241 million in 2011 to £289 million in 2013 (20% growth over two years).¹⁹⁹ However, we consider that their growth has been broadly in line with the overall growth in the private healthcare market in central London over the same period, from £1,068 million in 2011 to £1,272 million in 2013 (19% growth over two years).²⁰⁰ PPUs' small market position relative to independent private hospitals, as indicated by shares of supply and capacity, has not changed significantly since the Final Report, as discussed in paragraph 4.50 above. We also note that while many NHS trusts and foundation trusts have set out ambitious growth plans for their PPUs, the actual extent of PPU expansion continues to remain uncertain and we have seen no evidence that planned PPU expansion is placing any overall competitive constraint on private providers' current behaviour.

4.81 It is unnecessary for us to examine or conclude on the extent to which PPUs enjoy competitive advantages due to their status as NHS entities. To the

¹⁹³ HCA submission on 1 May 2015, paragraph 4.36.

¹⁹⁴ AXA PPP submission on 6 May 2015, p1.

¹⁹⁵ AXA PPP submission on 6 May 2015, Q1 p3.

¹⁹⁶ Bupa submission on 6 May 2015, paragraphs 2.8–2.15.

¹⁹⁷ Bupa submission on 6 May 2015, paragraph 2.19.

¹⁹⁸ Bupa hearing on 12 August 2015.

¹⁹⁹ LaingBuisson (February 2015), *Private Acute Medical Care in Central London: Market Report*, Figure 1.7.

²⁰⁰ *ibid*, Figure 1.7.

extent that PPUs do enjoy such advantages, as HCA argues, we expect the effect of these advantages to manifest in market outcomes (such as shares of supply) and parties' views on the competitive constraint that they impose, which we have examined (see paragraphs 4.16 to 4.53 and 4.76 to 4.88).

- 4.82 We consider that the existence of 'directional' policies and strategies (ie PMIs' efforts to influence patients' choice of hospital and consultant) does not demonstrate that PPUs are effective substitutes for private hospitals. While PMIs may indeed consider PPUs to be effective substitutes in terms of clinical outcomes and value for money, patients may not fully share these views. We note, for instance, that our patient survey indicated that patients typically do not view PPUs as close substitutes for private hospitals.²⁰¹ In any event, we have seen no evidence that PMIs are able to divert significant numbers of patients from or to specific operators' hospitals as a result of these measures.²⁰²
- 4.83 With regard to HCA's points on other independent competitors in central London, we considered not only shares of supply, but also parties' views and internal documentary evidence on the competitive constraints they provide. In any event, to the extent that HCA's competitors enjoy advantages, these should be reflected in market outcomes, as measured by shares of supply in central London and profitability.
- 4.84 In relation to HCA's observation of the number of fascia in central London, as we stated in the Final Report, this does not necessarily imply that all these fascias are exerting similar competitive constraints on each other.²⁰³ This is a widely-recognised limitation of fascia count as a concentration measure.
- 4.85 We have already responded, in the Final Report, to HCA's arguments on the cost advantage that its central London rivals might have due to their charity status, such as corporation tax relief, business rate relief and VAT savings.²⁰⁴ We disagree with HCA that we did not present evidence showing that the VAT savings associated with charity status are small, as we explicitly estimated that this only accounts for a small proportion of the hospitals' cost base.²⁰⁵ We

²⁰¹ HCA had criticised the framing of the question, arguing that most respondents would not know what a PPU was. We acknowledged this criticism in footnote 121 of paragraph 6.215 in the Final Report, but we consider that the results are still informative.

²⁰² Final Report, paragraph 6.329.

²⁰³ Final Report paragraph 6.238.

²⁰⁴ Final Report, paragraph 6.367: 'Since corporation tax is applied to net profits and business rates are fixed costs, we would not expect either of these to be relevant for pricing. Regarding VAT, we considered the likely impact that this may have and found it to be small.'

²⁰⁵ Final Report, paragraph 6.367, footnote 483, we calculated that 'even if no VAT savings are related to fixed costs ... this only accounts for savings of around [3%] per cent of the cost base, which is substantially smaller than the price difference that we have estimated.'

considered that our analysis had ‘taken account of the relevant cost differences that are likely to be substantive, and any remaining cost differences are likely to be small and/or not affect pricing decisions’.²⁰⁶

- 4.86 On HCA’s point that the Bupa Cromwell is vertically integrated, we did not discuss this in the Final Report, and we consider that it is unnecessary for us to examine or conclude on the extent to which the Cromwell enjoys competitive advantages due to its vertical integration with Bupa. We expect the effect of any advantage enjoyed by the Cromwell to manifest in market outcomes (such as shares of supply) and parties’ views on the competitive constraint that they impose, which we have investigated.
- 4.87 On HCA’s point about considering competition for consultants, we agree that hospital operators competing to attract consultants (a scarce input to their services) may lead to beneficial outcomes for patients, such as improved quality and range of treatments. We disagree that we ignored competition to attract consultants in the Final Report. In fact, hospital competition for consultants is the subject of Section 8 of the Final Report, where we found that ‘benefits and incentive schemes whose purpose was to encourage consultant referrals had been widely adopted by hospital operators, [and] that all such schemes had the capacity to affect clinician conduct’.²⁰⁷
- 4.88 In response to HCA’s suggestion that we should consider whether consultants view PPUs as close substitutes for private hospitals, we consider that the available evidence suggests that consultants do not view PPUs as close substitutes for private hospitals, at least in respect of consultants’ preferences over where to base their practice and treat patients. We note that the OFT commissioned a survey of consultants and found that 46% of consultants preferred to work from a privately-owned facility over a PPU and 37% had no preference.²⁰⁸ The quality of patient amenities and medical facilities were identified as key reasons why consultants preferred one type of facility over another. Similarly, some of HCA’s business cases considered in the paragraphs above mention consultants’ views on PPUs, and these generally suggest that they do not view PPUs as close substitutes.²⁰⁹

²⁰⁶ Final Report, paragraph 6.368.

²⁰⁷ Final Report, paragraph 8.165.

²⁰⁸ GHK (August 2011), *Programme of Research Exploring Issues of Private Healthcare Among General Practitioners and Medical Consultants*, section 3.4.1 & 3.4.2.

²⁰⁹ [§§]

- *Parties' views during this remittal*

- 4.89 As discussed in Section 3 on market definition (paragraph 3.14), HCA disagreed with our focus on the providers of inpatient care. In addition to these arguments, HCA further submitted that there was a wide range of independent providers of both outpatient and day-case services which competed with private hospitals in central London. HCA also stated that there was a very large number of consulting rooms in central London not owned or operated by private hospitals, in which consultants in all specialties regularly provide outpatient consultations.²¹⁰ There was also a wide range of non-inpatient providers that offered imaging and diagnostic services. Some of these providers also provided consulting rooms, outpatient facilities and treatment rooms. According to HCA, there were low material barriers to entry in outpatient and day-case clinics.
- 4.90 Both AXA PPP and Bupa did not agree that non-inpatient providers imposed significant competitive constraints on private hospitals operators in central London, even within day-case and outpatient treatments. AXA PPP submitted that, even if the entirety of certain procedures (such as MRI scans) could, in theory, be moved from inpatient providers to non-inpatient facilities, such an analysis would ignore the effect of the patient journey and the practices of consultants. Both AXA PPP and Bupa made the following points:
- (a) Both noted that non-inpatient facilities accounted for a very small proportion of their claims and spend in central London in 2011, and that 'many of the largest and most successful day-case and outpatient-only facilities in central London, for example, are part of HCA'.
 - (b) In more complex cases, especially in relation to day-case treatments, there would be a risk that inpatient facilities would be required as a result of adverse patient reaction or complications. In practice, a significant amount of day-case procedures resulted in one or two night stays.²¹¹ Consultants might try to reduce the need to transfer patients between facilities for different treatments or if the need for inpatient back-up arose.
 - (c) Most consultants performed a mix of inpatient, day-case and outpatient work, and preferred to work from a single private facility for a variety of

²¹⁰ We address this point in paragraph 4.44 on shares of capacity, where we accept that our estimate of HCA's share of consulting rooms is likely to be an overestimate.

²¹¹ For example, the British Association of Day Surgery's 'Directory of Procedures' shows indicative proportions of patients undergoing day-case procedures requiring one-night stays or more.

reasons (eg to reduce travelling between facilities, running different practice management systems, and scheduling difficulties). It was much more convenient for surgeons to fit in day-case and outpatient work, regardless of its complexity, into the parts of their working week that they spent at a single inpatient facility. Even if an individual treatment or patient did not require inpatient back-up, consultants might still take patients to the facility where they undertook the majority of their work.

- 4.91 AXA PPP further submitted that inpatient providers held an important means of leverage in inpatient services, should a PMI attempt to divert a large amount of non-inpatient spend away from inpatient providers.

- *Our response*

- 4.92 As discussed in paragraphs 4.31 to 4.41 above, we estimate that including non-inpatient facilities is likely to have a minimal effect on the overall shares of supply provided by inpatient providers in central London. Non-inpatient facilities have a very small share of Bupa and AXA PPP's admissions²¹² and a small share of their revenues. This suggests that non-inpatient providers are not currently providing any material constraint on inpatient providers in central London, across a broad range of specialties and procedures. We also found that, although non-inpatient providers do not impose a competitive constraint across hospital operators' full range of activities, they could potentially do so within the outpatient market in central London, where non-inpatient providers accounted for [15–25]% of Bupa and AXA PPP's outpatient spend in central London in 2011. (Although we note, as discussed in paragraph 4.39 above, HCA has a sizeable share of Bupa and AXA PPP's spend at non-inpatient facilities.)
- 4.93 We found AXA PPP and Bupa's point that consultants prefer to operate from a single inpatient facility convincing, and note that it is consistent with our view on the consultant drag effect, which we discuss in paragraph 6.29 the context of delisting by PMI in Section 6 on bargaining.
- 4.94 We also reviewed HCA's business cases to determine whether HCA placed much weight on its consideration of the competitive threat from non-inpatient facilities in central London, particularly within the outpatient market. HCA does

²¹² Inpatient and day-case admissions.

consider competition from independent imaging facilities in and around Harley Street, [REDACTED].^{213,214,215}

- 4.95 Given the focus on imaging and diagnostics in HCA's business cases that mention non-inpatient providers, we also looked at recent shares of imaging and diagnostic equipment within central London. According to LaingBuisson, there are an estimated 45 private MRI scanners, 23 CT scanners and five PET/CT scanners in central London, in hospitals and non-inpatient facilities.²¹⁶

Table 4.7: Imaging equipment in central London

	Number		
	MRI	CT	PET/CT
Hospitals	16	13	2
HCA's hospitals	7	5	0
Other independent hospitals	9	8	2
Non-inpatient facilities	29	10	3
HCA's non-inpatient facilities	13	3	2
Other non-inpatient facilities	16	7	1
Total	45	23	5

Source: CMA analysis, based on the LaingBuisson report (February 2015) Tables 3.6 and 5.1.

- 4.96 According to LaingBuisson, HCA owns 20 out of 45 MRI scanners (44%), eight out of 23 CT scanners (35%), and two out of five PET/CT scanners (40%) in central London. We conclude that HCA has a strong position in imaging and diagnostic services in central London.
- 4.97 On the basis of all of this evidence, we consider that non-inpatient facilities do compete with HCA in central London, but only for a narrow set of services, primarily imaging and diagnostic procedures. Even within the imaging and diagnostic segment, in which non-inpatient providers might provide a competitive constraint on hospital operators, HCA has a strong position. We agree with AXA PPP that non-inpatient providers do not provide sufficient constraint across a broad range of specialties and procedures, which limits their ability to act as effective alternatives to inpatient providers, particularly for PMIs as insurers and hospital operators negotiate prices across a bundle of outpatient, inpatient and day-case treatments.²¹⁷

²¹³ [REDACTED]

²¹⁴ [REDACTED]

²¹⁵ [REDACTED]

²¹⁶ LaingBuisson (February 2015), *Private Acute Medical Care in Central London Market Report*, Tables 3.6 & 5.1.

²¹⁷ As we stated in the Final Report, paragraphs 6.292, 'rather than negotiating over the price of individual treatments, parties will generally negotiate at renewal over a single percentage increase in prices across all treatments.'

Provisional conclusions on competitive constraints between private hospitals including PPUs in central London

- 4.98 On the basis of the evidence in the Final Report cited above, and the additional evidence set out above, we remain of the view that HCA faces weak competitive constraints from private hospitals including PPUs located in central London. We remain of the view that PPUs in aggregate are a weak constraint. Similarly, we find that non-inpatient providers in aggregate are also a weak constraint. Considering insured patients, and in particular PMIs' corporate clients, the relevant competitive constraints on HCA arise from a narrower set of private hospitals including PPUs in central London, in particular TLC (and possibly, to a lesser extent, Bupa Cromwell).

Competitive constraints from the NHS

Our conclusions on competitive constraints from the NHS in the Final Report

- 4.99 Our assessment of the constraints from outside of the market from the NHS is set out in paragraphs 6.220 to 6.223 of the Final Report. We considered HCA's internal documents and business cases.
- 4.100 On the basis of this, we found that 'while HCA does take a general interest in the NHS as a public funder of healthcare services, this interest is not in terms of the NHS as a competitor to HCA but in the context of seeking to create new demand for private hospital services' and that overall 'NHS services are not a close substitute for private patient services provided by HCA and the competitive constraints exerted by the NHS on HCA are, if any, very limited.'²¹⁸

Parties' comments during this remittal on competitive constraints from the NHS

- 4.101 As discussed in paragraph 4.58 above, HCA was critical of our reliance on its business cases in general, and particularly of the fact that our conclusion on the NHS was almost entirely based on our review of HCA's business cases.²¹⁹
- 4.102 HCA stated that we did not carry out a detailed assessment of the impact of NHS public healthcare on the private sector in London, and pointed to

²¹⁸ Final Report, paragraph 6.223.

²¹⁹ HCA submission on 1 May 2015, paragraph 4.20.

evidence that it had previously submitted about the correlation between NHS performance and demand for HCA services.²²⁰

- 4.103 HCA further noted that, in reviewing a full set of its business cases, several of them made references to NHS hospitals as competitors to HCA, and there were regular references to specific NHS hospitals.²²¹
- 4.104 HCA further argued that the competitive constraints from NHS providers were particularly strong in central London, as London was home to the UK's major research and teaching hospitals, and the NHS was still seen by patients as the preferred option for complex elective procedures, for example in cancer and cardiac care.²²² It argued that the substantial scale and pace of NHS investment in cancer and cardiac care in London over the next few years would strengthen these constraints.²²³
- 4.105 As with its argument on PPU and PMIs' 'directional policies' (discussed in paragraph 4.76 above), HCA argued that certain PMIs' practice of providing cash benefits to encourage patients to be treated in the NHS rather than make a claim on their policy showed that PMIs viewed the NHS as effective substitutes for their policyholders.²²⁴
- 4.106 Finally, HCA argued that we drew a false distinction between 'creating new demand for private hospital services' and 'competing with the NHS'. HCA argued that it was incentivised to invest in quality and range in order to attract patients who might otherwise choose NHS treatment.²²⁵
- 4.107 AXA PPP stated that it had no initiatives to increase referrals towards NHS providers, and that the NHS's continued difficulty in providing timely services and treatments indicated that this was unlikely to change.²²⁶
- 4.108 Bupa responded to HCA's argument in paragraph 4.105 above by stating that Bupa's NHS Cash Benefits accounted for [X] of Bupa's total claims spend in each year across the UK. Therefore, the effect on private provider revenues was very small.²²⁷

²²⁰ For example, 'how improvements in waiting times for cardiac treatment in the NHS led to a reduction in HCA's patient volumes'. See HCA submission on 1 May 2015, paragraph 4.16, third bullet.

²²¹ HCA submission on 1 May 2015, paragraph 4.20(iii).

²²² HCA submission on 1 May 2015, paragraph 4.19.

²²³ HCA submission on 1 May 2015, paragraphs 4.22–4.29.

²²⁴ HCA submission on 1 May 2015, paragraph 4.16, fourth bullet.

²²⁵ HCA submission on 1 May 2015, paragraph 4.20(vi).

²²⁶ AXA PPP submission on 6 May 2015, Q1 p2. AXA PPP subsequently clarified that 'in a small number of cases some patients have chosen to forego their indemnity insurance in order to receive other support, including cash payments. In such cases they would revert to the NHS.'

²²⁷ Bupa submission on 6 May 2015, paragraphs 2.29–2.31.

Our response

- 4.109 We set out our views on HCA's business cases in paragraphs 4.60 above. We have reviewed HCA's extended set of business cases covering the period February 2004 to March 2014 to determine whether HCA placed much weight on its consideration of the competitive threat from the NHS as a provider of publicly-funded healthcare services (excluding PPUs).
- 4.110 We found that there are relatively few instances in its business cases where HCA considers the competitive threat from the NHS as a provider of publicly-funded healthcare services, rather than in its capacity as a competitor for private work via PPUs (which we discuss above).²²⁸
- 4.111 In a number of cases, [redacted]^{229,230} Similar to our findings in our original inquiry,²³¹ we found that, on the whole, HCA's business cases illustrate that HCA considers the NHS to some degree as a benchmark for its product range²³² and to assess its business opportunities.
- 4.112 However, the business cases rarely contain clear instances of HCA investing in order to prevent its private patients from switching to the NHS as a public provider of healthcare. [redacted]²³³
- 4.113 However, similar to what we found in our original inquiry, and as stated in paragraph 6.222 of the Final Report, HCA's range and quality decisions are not indicative of the NHS imposing strong competitive constraints as HCA submitted with respect to HCA's private business. This is in stark contrast to, in particular, the evidence in HCA's business cases which focuses on competition between HCA and TLC surrounding cancer care.
- 4.114 Responding to HCA's other points, as discussed in paragraph 4.82 above, in the Final Report we did not consider that PMIs' efforts to steer patients demonstrates that the PMIs' favoured alternatives are effective substitutes for private hospitals. As we discussed in the Final Report, regarding the NHS in particular, even if some PMI policyholders are choosing to be treated on the NHS, it does not mitigate the fact that a PMI will still need to have adequate private hospital provision in central London to sell credible PMI policies. We

²²⁸ HCA's own summary table states [redacted]. We do not place too much emphasis on a precise count of mentions, as a number of cases that mention an NHS entity are open to multiple interpretations about whether the case is discussing that entity's PPU or their more general features as a provider of publicly-funded healthcare. However, from our reading of the submitted business cases, it seems that HCA may have miscategorised a number of cases that discuss the NHS as a competitor for private work as cases which discuss the NHS as a provider of publicly-funded healthcare. Furthermore, in a number of cases that do discuss the NHS rather than PPUs, [redacted].

²²⁹ [redacted]

²³⁰ [redacted]

²³¹ Final Report, paragraph 6.222.

²³² [redacted]

²³³ [redacted]

found no persuasive evidence to suggest that the NHS was a relevant constraint in the context of the substitutes available to PMIs.²³⁴ We further note that, in any event, the impact to date of PMIs' efforts to steer patients to the NHS appears to have been limited, given Bupa's evidence in paragraph 4.108 above. Furthermore, the fact that Bupa has to offer its policyholders a sizeable cash incentive to use publicly-funded healthcare in itself suggests that insured patients do not view the NHS as a close substitute for private healthcare services without a significant cash discount.

- 4.115 Finally, while we agree that the existence of publicly-funded NHS services provides a minimum on the value for money that private healthcare must deliver, and that this minimum may be higher in central London than in other parts of the UK due to the presence of major research and teaching hospitals, we still consider that publicly-funded NHS services are not a close substitute for private patient services provided by HCA, particularly in relation to substitutes available to PMIs.
- 4.116 On the basis of this, we conclude that while HCA does take a general interest in the NHS as a public funder of healthcare services, this interest is usually not in terms of the NHS as a competitor to HCA, but in the context of seeking to create new demand for private hospital services. Overall, NHS services are not a close substitute for private patient services provided by HCA and the competitive constraints exerted by the NHS on HCA are limited.
- 4.117 We discuss the competitive constraints from the NHS with respect to self-pay patients in Section 10.

Provisional conclusions on competitive constraints from the NHS

- 4.118 On the basis of the evidence and analysis above, we remain of the view that NHS services are not a close substitute for private patient services provided by HCA, and the competitive constraints exerted by the NHS on HCA are limited.²³⁵

Competitive constraints from private hospitals and PPUs outside central London

Our conclusion in the Final Report on competitive constraints from private hospitals and PPUs outside central London

- 4.119 Our previous assessment of the strength of the competitive constraints exerted by private hospitals and PPUs located in outer London on HCA's

²³⁴ Final Report, paragraph 6.198.

²³⁵ See the Final Report, paragraph 6.223.

central London hospitals is set out in paragraphs 6.224 to 6.228 of the Final Report. We considered (a) patient travel patterns; (b) HCA's business cases; and (c) shares of admissions and revenue for Greater London hospitals.

4.120 On the basis of these considerations, we found that 'HCA faces weak competitive constraints from [outer] London hospitals' including PPUs and that this was consistent with the views of many parties.²³⁶

Parties' comments in this remittal on competitive constraints from private hospitals and PPUs outside central London

4.121 We organise and discuss parties' comments under the following headings:

- (a) Patient travel patterns (paragraphs 4.122 to 4.128).
- (b) Evidence from HCA's business cases (paragraphs 4.129 to 4.134).
- (c) Shares of supply including outer London hospitals (paragraphs 4.135 to 4.138).
- (d) Competitive constraints from international providers (paragraphs 4.139 to 4.144).

- *Patient travel patterns*

4.122 HCA criticised our use of patient travel patterns in support of our argument that hospitals outside central London do not impose significant competitive constraints.²³⁷ In the Final Report, we noted that outer London hospitals attract patients who travel much shorter distances than those attending central London hospitals, and just over half of patients resident in outer London and nearly all patients resident in central London have their treatments in central London. We suggested two possible reasons for these phenomena: convenient location due to proximity to work rather than home, and the strong reputation of central London hospitals.²³⁸ HCA argued that we did not test the response of existing patterns of usage of patients in outer London to a small but significant alteration in value (such as quality of care) of central London hospitals, which have a range of local alternatives in outer London. HCA further argued that competitive pressures provided by outer London hospitals benefited all its patients, as HCA could not and did not

²³⁶ Final Report, paragraph 6.228.

²³⁷ HCA submission on 1 May 2015, paragraph 4.89.

²³⁸ Final Report, paragraph 6.225.

discriminate between patients on the basis of whether they lived in or outside central London.²³⁹

4.123 HCA also pointed out that, with regard to our convenience point, this might be relevant for outpatient appointments, but was unlikely to apply for inpatient procedures (which is what our original inquiry was focused on) as inpatients were more likely to prefer a hospital that was close to their home.²⁴⁰ On the perception of high quality of care in central London, HCA pointed out that we did not carry out a detailed analysis of quality, and that ‘the CMA cannot in any event dismiss all [outer] London hospitals collectively as having a lower quality offering’.²⁴¹

- *Our response*

4.124 The significant number of patients living in outer London who travel to central London hospitals, despite having local alternatives, suggests that those alternatives are not effective substitutes. We are not suggesting that the fact that patients resident in central London do not travel into outer London for treatment addresses the competitive constraints in relation to patients resident in outer London. Instead, that fact is relevant to the extent of the competitive constraints exerted by outer London hospitals on central London ones in relation to patients resident in central London, who (based on HCA’s evidence) represent nearly half of all its patients.

4.125 In response to HCA’s criticism that we did not test how existing patterns of usage of patients in outer London would respond to a small but significant alteration in value, we make the following points. As we stated in the Final Report, we did not include questions in our patient survey that tested patient reactions to a small increase in price or a decrease in quality because:

- (a) questions on small price changes would not apply to insured patients at the point of treatment;
- (b) it can be difficult to reliably relate questions about reactions to small price changes to private medical insurance policies to the behaviour of the hospital operators. For example, a 5% increase in the price of policies will equate to a much larger price increase for hospital operators; and
- (c) it can be difficult reliably to frame questions on small changes in quality.²⁴²

²³⁹ HCA submission on 1 May 2015, paragraph 4.90.

²⁴⁰ HCA submission on 1 May 2015, paragraph 4.90(ii).

²⁴¹ HCA submission on 1 May 2015, paragraph 4.84.

²⁴² Final Report, footnote 187 to paragraph 5.13.

- 4.126 Furthermore, it is not straightforward to determine how changes to patients' patterns of usage in response to marginal changes by hospital operators would affect the choices available to PMIs (ie their outside options) when they are designing their networks and negotiating prices. (We discuss PMI negotiations with HCA in more detail in Section 6 on Bargaining.)
- 4.127 On the convenience point, we consider that the convenience of attending an outpatient appointment in central London during the working day could also have a follow-on impact on inpatient treatments. Once a patient has met a particular consultant, it becomes more likely that they will receive inpatient care at a facility at which that consultant has practising privileges.²⁴³ In the Final Report, we noted [X] view that although patients would travel for surgery, they would not travel for a consultation and a lot of consultations happened between 9am and 8pm on Monday to Friday. [X]²⁴⁴ However, as we also noted in the Final Report, [X] tried to put outpatient consulting rooms in central London [X] as a way to attract patients to [X], but this was not a success.²⁴⁵
- 4.128 On the quality point, as discussed in paragraph 3.33(a), even though we could not objectively judge the relative levels of quality, what matters for competitive constraints are patients' and consultants' perceptions of quality. Parties' widespread views suggest that central London hospitals are perceived to be of higher quality and outer London hospitals are not viewed as substitutes for central London hospitals.²⁴⁶
- *Evidence from HCA's business cases*
- 4.129 In the Final Report, we noted that if outer London residents who go to central London for treatments were to consider outer London hospitals to be close substitutes, this should be reflected in HCA's business cases. However, in our original inquiry, when looking at 20 high-value business cases, we found only one instance of HCA taking into consideration a competitor from outer London.²⁴⁷
- 4.130 As discussed in paragraph 4.58 above, HCA objected to what it viewed as our 'very heavy reliance' on a subset of its business cases and submitted a fuller set of its business cases as part of the remittal.

²⁴³ Final Report, Appendix 6.10, Annex A, paragraph 9.

²⁴⁴ Final Report, Appendix 6.10, paragraph 25.

²⁴⁵ Final Report, Appendix 6.10, paragraph 26.

²⁴⁶ See the Final Report, Appendix 6.10, paragraphs 6–13, and also Appendix 2.1, paragraph 40.

²⁴⁷ Final Report, paragraph 6.226.

- *Our response*

4.131 We set out our views on HCA's business cases in paragraphs 4.60 above.

4.132 We have reviewed HCA's extended set of business cases covering the period February 2004 to March 2014 to determine whether HCA placed much weight on its consideration of the competitive threat from private hospitals and PPUs in outer London.

4.133 We found that HCA rarely considers providers in outer London.²⁴⁸ It mainly does so in relation to cases concerning its 'satellite' outpatient diagnostic facilities in [REDACTED]²⁴⁹, located on the edge of central London, and [REDACTED]²⁵⁰, or in cases for services which are not provided by any competitors in central London and where the only alternative provider is in outer London²⁵¹.

4.134 We also note that HCA appears to consider its central London location to be a source of competitive advantage, relative to outer London providers. For instance, [REDACTED]^{252,253}

- *Shares of supply for Greater London hospitals*

4.135 In the Final Report, for shares of supply in 2011, we found that, even including hospitals and PPUs in outer London, HCA's shares were still high, with [25–35]% by admissions (inpatient or total), [35–45]% by total revenue and [45–55]% by inpatient revenue. BMI was the second largest operator and TLC was the third.²⁵⁴

4.136 HCA stated that we incorrectly omitted a number of private hospitals in Greater London from our previous shares of supply.²⁵⁵ Also, as discussed in paragraph 4.22(a)(iii) above, HCA argued that its share of capacity in Greater London, which in its view is the only correct measure, is only 27.5% of total beds, based on LaingBuisson's published bed numbers.²⁵⁶

²⁴⁸ [REDACTED]

²⁴⁹ [REDACTED]

²⁵⁰ [REDACTED]

²⁵¹ [REDACTED]

²⁵² [REDACTED]

²⁵³ [REDACTED]

²⁵⁴ Table 7, *ibid*.

²⁵⁵ HCA submission on 1 May 2015, paragraph 4.96(iv). The omitted hospitals within the M25 from Appendix 6.10, Annex C of the Final Report are: Aspen Holly House; Ramsay Ashted; Ramsay North Downs; and Spire Bushey. HCA also submitted that 'there are also a number of other hospitals in outer London beyond the M25, such as BMI Princess Margaret and BMI Fawkham Manor.' However, both BMI Princess Margaret and BMI Fawkham Manor are in fact outside Greater London.

²⁵⁶ HCA submission on 1 May 2015, paragraph 4.96(i).

- *Our response*

4.137 HCA submitted that we previously omitted four hospitals from our Greater London shares: Aspen Holly House; Ramsay Ashtead; Ramsay North Downs; and Spire Bushey. We had omitted these four facilities because, while all four are located within the M25, they are outside the boundaries of the county of Greater London.

4.138 Nevertheless, using 2011 data submitted during our original inquiry, we find that HCA's share of total admissions and total revenues are robust to including the four facilities (see Table 4.8 below). We continue to find that HCA's share of supply, when including outer London hospitals and four facilities further afield, is high, especially for inpatient revenue. (We examine HCA's share of overnight bed capacity in paragraph 4.51 above.)

Table 4.8: HCA's aggregate shares of supply in Greater London and within the M25, 2011

	%			
	<i>Inpatient admissions</i>	<i>Inpatient revenue</i>	<i>Total admissions</i>	<i>Total revenue</i>
Greater London	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Within M25	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Source: CC and CMA analysis.

Note: This table is based on the data collected during our original inquiry and omits seven PPUs in central London, as discussed in paragraph 4.29 above.

- *Competitive constraints from international competitors*

4.139 In the Final Report, we found that international providers do not constrain HCA's actions with regard to range and quality (and price) for its UK private business. We stated that 'it is significant that only a very small number of business cases took into consideration business from abroad and that not a single business case we reviewed mentioned competitors from abroad.'²⁵⁷

4.140 HCA argued that overseas patients were an important source of revenue for HCA,²⁵⁸ and that there was a wide range of private hospitals overseas which competed for these patients. HCA argued that competition from overseas providers led to improvements in quality and range to the benefit of both overseas and UK patients. Finally, HCA repeated its criticism of our reliance on a subset of its business cases, and noted that [some] of its business cases and various strategy documents expressly referred to overseas competitors.²⁵⁹

²⁵⁷ Final Report, paragraph 6.406(b).

²⁵⁸ To provide context, [REDACTED]% of HCA's revenue in FY11 was from overseas patients. See the Final Report, Table 3.3.

²⁵⁹ HCA submission on 1 May 2015, paragraphs 4.111–4.116.

○ *Our response*

4.141 We have reviewed a fuller set of 97 HCA business cases, and found that HCA considers international competitors very rarely and only for a very limited number of specialties, in particular [REDACTED]²⁶⁰ and [REDACTED].²⁶¹

4.142 [REDACTED]^{262,263,264,265}

4.143 Responding to HCA's non-discrimination point, we acknowledge that HCA may be unable to discriminate between UK and overseas patients in quality and range. However, HCA is able to discriminate on price, as evidenced by the fact that self-pay prices on its UK website are 'For UK Residents Only'.²⁶⁶ Therefore, competition for overseas patients would not protect UK patients from higher prices. Finally, as we discuss in paragraph 7.22, the fact that there may be competition over quality and range is not inconsistent with a finding that there is a lack of competition over price in this particular market, particularly in relation to insured patients.

4.144 On the basis of this evidence, we consider that HCA does compete to some extent with international providers for overseas patients, but that this is mainly in relation to a couple of specialties, and this competition does not benefit other UK patients and customers in terms of price. As HCA is able to price discriminate between UK self-pay patients, PMIs, and overseas patients, even if competition were to work well for overseas patients, we do not consider that this competition extends to other customer groups or imposes a constraint on pricing to UK self-pay patients and PMIs.

Provisional conclusions on competitive constraints from private hospitals and PPUs outside central London

4.145 On the basis of the evidence and analysis above, we consider that HCA is weakly constrained by private hospitals and PPUs in outer London, particularly in relation to insured patients and PMIs' corporate clients. We do not conclude on whether HCA faces strong competitive constraints from international providers, but note that even if HCA were competitively constrained with respect to overseas patients, we do not consider that this competition

²⁶⁰ [REDACTED]

²⁶¹ [REDACTED]

²⁶² [REDACTED]

²⁶³ [REDACTED]

²⁶⁴ [REDACTED]

²⁶⁵ [REDACTED]

²⁶⁶ [HCA website](#), accessed on 19 June 2015.

extends to other customer groups in the UK due to HCA's ability to price discriminate.

HCA's vertical integration in GP practices

4.146 We previously also considered whether the vertical integration between HCA and certain GP practices was likely to lead to significant harm to competition in central London (see paragraphs 6.229 to 6.230 of the Final Report).

4.147 We found that the vertical relationships between HCA and GP practices were limited in scale and did not appear to have influenced GP referral rates. We considered that this evidence did not indicate that HCA's vertical integration in GP practices was (at the time of the Final Report) likely to lead to foreclosure of its rivals from patients.

4.148 Several parties have continued to express concern about HCA's ownership of Blossoms and Roodlane, including Bupa²⁶⁷ and TLC. However, we have not seen any evidence to suggest that the scale of HCA's vertical integration or those GPs' referral practices have changed since our original inquiry.

4.149 Therefore, our views on this issue remain unchanged, and we provisionally readopt our findings and points in paragraph 6.230 of the Final Report.

Provisional conclusions on competitive constraints in central London

4.150 On the basis of the evidence and analysis in the Final Report, and the additional evidence and analysis in this remittal, we provisionally readopt our conclusions in paragraphs 6.254 and 6.255 of the Final Report, which were:

We found that the competitive constraints exerted on HCA by other private hospitals including PPUs located in central London are weak (see paragraph 6.218 [of the Final Report, and paragraph 4.98 above]). PPUs in aggregate, in particular, are a weak constraint, and the future expansion of PPUs does not appear likely to substantively change this conclusion (see paragraph 6.242 [of the Final Report, and paragraph 4.98 above]). Considering insured patients, and in particular PMIs' corporate clients, the relevant competitive constraints on HCA arise from a narrower set of private hospitals including PPUs in central London, in particular from TLC, and these constraints are weak (see paragraph 6.218 [of the Final Report, and paragraph 4.98 above]). We also found that [outer] London private hospitals

²⁶⁷ Bupa submission on 6 May 2015, paragraph 2.22(ii).

including PPUs impose weak competitive constraints on HCA and that the NHS imposes, if any, very limited competitive constraints on HCA (see paragraphs 6.223 and 6.228 [of the Final Report, and paragraphs 4.118 and 4.145 above]).

It is our view that HCA could be successful in winning further tenders for PPU contracts in central London, and this would further strengthen HCA's position in central London (see paragraph 6.242 [of the Final Report]).²⁶⁸ Moreover, further acquisitions of GP practices by HCA, in particular in key central London locations for PMIs' corporate clients, could raise vertical competition concerns by increasing the scale of HCA's vertical relationships with such GP practices (see paragraph 6.230 [of the Final Report]).

²⁶⁸ We note that, since our conclusion in the Final Report, we have implemented our PPU review remedy, in Part 2 of the Private Healthcare Market Investigation Order 2014.

5. Barriers to entry and expansion in central London

- 5.1 In the Final Report we examined the extent to which incumbent private hospitals were constrained by the threat of entry and expansion. The evidence and assessment on which we based our previous findings on barriers to entry and expansion is set out in paragraphs 6.8 to 6.141 of the Final Report. We considered briefly an overview of entry and expansion since the mid-2000s, conducted three case studies where entry or expansion had been attempted, one of which related to central London (see Appendix 6.2), summarised the evidence we received from parties and set out our assessment of a number of potential barriers to entry or expansion.
- 5.2 Our conclusions are set out in paragraphs 6.142 to 6.144 of the Final Report. We found that significant barriers to entry and expansion exist. In particular, we concluded that:
- (a) in all local areas, including central London, a combination of high sunk costs and long lead times associated with setting up a private hospital together constituted a significant barrier to entry and expansion; and
 - (b) in addition, in central London we found that the lack of availability of suitable sites from which to operate a private hospital and difficulty in obtaining planning permission for a private hospital were further significant barriers to entry and expansion.

Introduction

- 5.3 Our Guidance highlights the reasons we examine barriers to entry and expansion in a market investigation and the criteria against which we assess the existence of any barriers to entry or expansion. It states that:

The prospect of entry or expansion... — and therefore of stronger competition in the longer term—may also sometimes offset competitive harm that may otherwise arise, if there are no significant barriers to entry or expansion and the [CMA] judges that:

- (a) actual entry or expansion is likely, of sufficient scale and swift enough to constrain incumbent firms in the near future; or
- (b) the threat of potential entry or expansion is sufficient to exercise a constraint even though no actual entry of sufficient scale has been observed in the recent past (small-scale past entry does not demonstrate the absence of entry barriers...; such a constraint could arise when entry would be swift and

low-cost so as to exploit any commercial opportunity in the market.²⁶⁹

Parties' comments on barriers to entry and expansion and our response

5.4 As part of the remittal, we received submissions on barriers to entry and expansion in central London from HCA, Bupa and AXA PPP. In order to evaluate these submissions, we requested information from a number of other parties, including Spire, VPS Healthcare, a number of NHS trusts and Westminster City Council (WCC). We have categorised the comments under the following headings:

- (a) high sunk costs and long lead times;
- (b) availability of suitable sites;
- (c) planning policy; and
- (d) recent and potential future new entry.

High sunk costs and long lead times

Our findings in the Final Report

5.5 In the Final Report, we made the following findings in relation to the sunk costs and lead times associated with entering the central London market:

- (a) The costs of entry or (significant) expansion in central London were high, with TLC spending around £90 million on developing its Cancer Centre (Final Report, paragraphs 6.43 to 6.44).
- (b) A hospital operator's ability to recoup these costs in the event that attempted entry is unsuccessful, was generally very limited (Final Report, paragraph 6.45).
- (c) The prospects of failure were increased and the potential rewards of success were reduced as a result of overcapacity in the industry, particularly for inpatient services, and the long lead time, usually at least two years, associated with a new hospital launch (Final Report, paragraph 6.47).

²⁶⁹ CC3, paragraph 175.

Parties' views

- HCA

- 5.6 HCA made two, interrelated arguments in relation to the CMA's findings of high sunk costs and long lead times. First, HCA referred to paragraph 6.56 of the Final Report, noting that the CMA 'argued that the high sunk costs of developing a new private hospital made new entry unlikely in local markets where "*demand was relatively limited and/or not growing*", since there would be insufficient private patient revenue to justify new entry.'²⁷⁰ However, the CMA had also recognised that 'expenditure on acute private medical care services in London was large and had been growing'. Therefore, HCA argued, the CMA should not have found sunk costs to be a barrier to entry in central London as 'the market in London is not ... characterised by limited demand or lack of growth which would deter operators from investing in new facilities'.²⁷¹
- 5.7 HCA highlighted various sources which indicated that growth in the central London market had been significant over the period of review, including:
- (a) The CMA's comments in the Final Report that 'expenditure on acute private medical care services in London was large [...] and had been growing', that providers were "aware of the higher growth rate and profitability of more complex specialisms and would be likely to continue to invest in them", and that TLC's new cancer facility 'illustrates the willingness of some providers [...] to make significant investments';
 - (b) the CMA's evidence in the Final Report of revenue growth of an 8% compound annual growth rate (CAGR);²⁷² and
 - (c) evidence from a LaingBuisson report (2015) that indicated revenue growth of 9.4% and 9.0% in 2012 and 2013 respectively.
- 5.8 Second, HCA argued that sunk costs were not in themselves a barrier to entry but only acted as a barrier in combination with economies of scale and a small market (relative to the efficient scale of a new hospital), or one which was stagnant or declining and where the entrant could not secure demand by contracting with a PMI before entry. HCA stated that 'sunk costs are much less relevant in a large or growing market. The larger the market, the smaller the proportion of that market [that] is needed to achieve economies of scale.

²⁷⁰ HCA submission on CMA's findings on structural AECs in London (1 May 2015), paragraph 3.6.

²⁷¹ HCA submission on CMA's findings on structural AECs in London (1 May 2015), paragraph 3.7.

²⁷² The average annual rate of growth over a period of time.

In a growing market, demand can be found more easily. Thus, market growth limits any barrier due to economies of scale.’²⁷³

5.9 HCA stated that the costs of entry and any economies of scale in the case of London did not give rise to a barrier to entry, noting the following:

- (a) The majority of the costs of a new private hospital were not sunk; rather it would be possible for an entrant to recoup the costs incurred through the sale of the assets created or acquired through investment. For example, HCA estimated (based on CMA analysis) that the proportion of its capital employed attributable to land, buildings and equipment in 2011 was over [X]% of total capital employed and that these assets would have a resale value.
- (b) The CMA had not established that the fixed costs were large ‘relative to the market’.
- (c) The risk of expansion was limited by strong market growth and the ability of PMIs to manage the entry process by granting recognition to new competitors and denying it to existing providers considered to be ‘too strong’.²⁷⁴

5.10 In addition, HCA stated that long lead times did not impede entry or expansion. HCA referred to the CMA’s 20 year time horizon used when assessing the divestiture remedy and suggested that the CMA should consider ‘existing initiatives and development opportunities [which] point[s] to a very significant potential for new entry and expansion over the next few years’.²⁷⁵

5.11 HCA suggested that the lack of new entry to the central London market in the last five years was not indicative of barriers to entry but rather reflected the slow economic recovery since 2008 (which HCA noted had since improved, with economic conditions now more favourable) and factors specific to its competitors (such as, in the case of two hospital operators, difficulty in obtaining finance). HCA also claimed that planned entry and recent expansion demonstrated that high sunk costs and long lead times were not a barrier to entry (see paragraphs 5.58 to 5.62).²⁷⁶

²⁷³ HCA submission on CMA’s findings on structural AECs in London (1 May 2015), paragraph 3.19.

²⁷⁴ HCA submission on CMA’s findings on structural AECs in London (1 May 2015), paragraph 3.21.

²⁷⁵ HCA submission on CMA’s findings on structural AECs in London (1 May 2015), paragraph 3.22.

²⁷⁶ HCA submission on CMA’s findings on structural AECs in London (1 May 2015), paragraphs 3.23 & 3.24.

Our response

- 5.12 We agree with HCA that the central London market has been growing such that a lack of growth does not create a barrier to entry in this market. This is consistent with our conclusions in the Final Report (paragraph 6.143), where we stated that the:

combination of high sunk costs and long lead times associated with setting up a private hospital together constituted a significant barrier to entry and expansion. We concluded that this was likely to be **particularly evident** where there was overcapacity in the local area or if demand was small, flat or contracting.

- 5.13 The Final Report did not state, as HCA suggests, that the combination of high sunk costs and long lead times constituted a barrier to entry only where there was over-capacity or demand was small, flat or contracting. It stated that the existence of over-capacity or small, flat or contracting demand were factors that could serve to exacerbate the barrier to entry of sunk costs. Having taken into account HCA's submissions on this matter, we continue to find high sunk costs and long lead times create barriers to entry even where demand is large and growing, as is the case in central London.
- 5.14 We next considered HCA's argument (made as part of the remittal, see paragraph 5.9) that the majority of the costs of entry are not sunk in this sector. We reasoned that an unsuccessful entrant to the central London market would have two (broad) exit routes. First, it could seek to sell the building (or assign the lease) to a purchaser who would use it for some alternative purpose. In this case, the equipment would be sold (second-hand) to another hospital operator. The second exit route would be via the sale of the hospital (business) to another hospital operator.
- 5.15 In the case of a firm following the first exit route, we agree with HCA that any building purchased could be resold with an entrant being unlikely to incur a significant loss on this element of its investment. However, an entrant could expect to lose a significant proportion of the value of its equipment if the latter were to be sold second-hand, particularly once the costs of removing the equipment and transporting it to a new location were taken into account.²⁷⁷ Similarly, we reasoned that the large majority of the costs incurred in redeveloping/refurbishing a building as a hospital (as opposed to purchasing a building) would also be lost in the case that the building was sold for an

²⁷⁷ Evidence on the costs of second-hand medical equipment is incomplete. However, a review of sales/auction websites, indicates that equipment tends to sell for a discount of at least 50%. For example, see the [Living made easy](#) and [Avensys](#) websites.

alternative use. Evidence provided by C&C Alpha, during the original inquiry, in relation to its planned redevelopment of the Ravenscourt Park hospital indicated that the costs of refurbishing and fitting out the hospital were expected to be around £[X] million, comprising £[X] million of construction costs, £[X] million for medical equipment ([X], hence only £[X] million net cost) and £[X] million of operating start-up costs. We observed that these costs were substantial. Moreover, in the case where entry was unsuccessful, the nature of the costs is such that C&C Alpha would have been likely to lose the large majority of its investment. Therefore, while the proportion of total investment costs that may be sunk will depend on whether an entrant chooses to purchase or to lease a building, in either case it is likely to incur significant sunk costs in redeveloping and fitting out the building as a hospital (and therefore risk in entering the market).

- 5.16 In relation to the second potential exit route, we observed that the example of unsuccessful entry would generally limit the price that another operator would be prepared to pay for the trade and assets of the hospital on the basis that, if one operator had been unable to enter successfully, other potential entrants would also be likely to find entry difficult. While it is not possible to estimate the exact losses that an unsuccessful entrant would face in this case, we judged that they were likely to be material.
- 5.17 On this basis, we readopt the conclusion from the Final Report that an unsuccessful entrant would face significant sunk costs on exit. We note that the evidence we have collected, as part of the remittal, indicates that this would be the case in central London as well as elsewhere in the UK.
- 5.18 A further strand of HCA's argument is that the existence of sunk costs is not, on its own, a barrier to entry. Our Guidance states that:

Firms entering a market unavoidably incur costs, These costs can sometimes in effect be 'natural' or 'intrinsic' barriers to entry, and may include the cost of putting the production process in place, gaining access to essential facilities or inputs and the acquisition of any necessary intellectual property rights (IPRs). **Important considerations in evaluating the effects of such costs on the ability of firms to enter the market are the nature of the costs and the extent to which the costs are 'sunk', ie investments that cannot be recovered upon exit and hence would serve to commit a firm or firms to staying in the market.** Sunk costs may include, for example, some specific asset investments,

advertising, R&D and, in some markets, the costs of acquiring a reputation (for example, for producing quality products).²⁷⁸

- 5.19 Where an entrant must incur significant costs in order to enter a market and will not be able to recover these costs on exit, this will substantially increase the risks of entry and therefore act as a barrier to entry.²⁷⁹ On this basis, we disagree with HCA's argument that sunk costs are not, on their own, a barrier to entry but only create such a barrier in combination with economies of scale and a small market.²⁸⁰ However, we agree that the extent to which such costs create a barrier to entry or expansion depends on the size of those costs. As set out in paragraphs 5.15 to 5.17 above, we concluded that these costs were likely to be significant.²⁸¹ During the original inquiry, [X] told us that they required (or would require) external funding in order to undertake investments of this size, ie the capital costs of entry are high. [X] made similar submissions to us during this remittal.²⁸² We have provisionally concluded, therefore, that the 'sunk costs' associated with entering the central London market are high and therefore create a barrier to entry. This provisional finding is the same as our conclusions in the Final Report.
- 5.20 Next, we considered HCA's view that an entrant could mitigate the barrier of sunk costs by securing demand through contracting with a PMI before entry (see paragraph 5.9). We agree that this approach could, in principle, reduce the risks associated with entry. However, obtaining PMI recognition does not 'secure demand' in this industry, as HCA suggests, as contracts do not contain any volume commitments. By signing a contract with a PMI, a hospital operator is only able to ensure that it can treat patients who are insured by that PMI, not necessarily that it will treat any given volume of patients. We noted that the growth of open referral policies may increase insurers' ability to direct patients in the future and therefore their ability to sign contracts with 'guaranteed' volumes. However, to date, we are not aware of any such contracts being agreed between hospital operators and insurers.

²⁷⁸ CC3, paragraph 211. We note that HCA referred to paragraph 212 of our guidance which states that '[e]conomies of scale, in combination with sunk investment costs, can constitute a barrier in cases where these relate to the cost of getting into or expanding in the market' in order to support its view that sunk costs are only a barrier to entry in combination with economies of scale. As the text from paragraph 211 shows, our guidance also explains that sunk costs on their own can create a barrier to entry.

²⁷⁹ Our Guidance highlights that a barrier to entry does not have to be an absolute barrier but may also be another aspect of the market that deters entry: 'A major source of competitive discipline is... generally eliminated or reduced if there is any barrier to market entry and expansion, whether an absolute barrier or some other form of restriction such as aspects of the market that deter entry.' CC3, paragraph 207.

²⁸⁰ We also disagreed with HCA's interpretation of our guidance.

²⁸¹ In this respect, we also note the evidence set out in the Final Report of TLC's investment in its Cancer Centre (£90 million)

²⁸² [X]

- 5.21 Furthermore, during the original inquiry, we did not see any situations in which entry had been facilitated by PMIs agreeing contracts (even without volumes) with private hospital operators significantly prior to entry. In the case of Circle Bath, it took more than a year for the new entrant to obtain recognition (see the Final Report, paragraph 6.27). New evidence, collected as part of the remittal, indicated that some insurers were now agreeing to recognise new facilities opened by hospital operators in central London, prior to such facilities being opened (or even under construction).²⁸³ We would expect this change in behaviour to mitigate the barrier to entry arising from the existence of sunk costs to an extent, as it reduces some of the risks of entry. However, in the absence of contracts with both pricing and volume commitments lasting for an extended period of time (given the long asset life of hospitals), we provisionally conclude that the existence of substantial sunk costs will continue to create a barrier to entry in central London.
- 5.22 In relation to long lead times, HCA argued that these did not impede entry or expansion. However, as set out in paragraph 5.3, the criteria against which we assess the existence of barriers to entry or expansion is whether ‘actual entry or expansion is likely, of sufficient scale and **swift** enough to **constrain** incumbent firms in the near future’. When assessing the likelihood of entry constraining an incumbent firm, we consider whether actual or threatened entry or expansion is likely to constrain the behaviour of an incumbent firm within the next one to two years. Given the relatively long lead times associated with opening a new hospital in central London,²⁸⁴ including locating a suitable site, obtaining planning permission and constructing a building, we note that any hospital that is not already at the stage of construction is unlikely to exert a competitive constraint within this time frame. Moreover, we thought it likely that when a hospital was new to a market, it would also take time to get its referral pathways in place and therefore to compete effectively. Therefore, we provisionally conclude that the long lead times associated with entering at a sufficient scale to constrain the incumbent also create a barrier to entry and expansion.

Availability of suitable sites

Our findings in the Final Report

- 5.23 In the Final Report, we made the following findings in relation to the availability of suitable sites:

²⁸³ For example, BUPA told us that in a contract signed with Spire in November 2014, [§].

²⁸⁴ In the Final Report, we referred to evidence from TLC that its Cancer Centre took 3.5 years to develop and King Edward VII's Hospital told us that its expansion would take four to five years.

- (a) There were no examples of new hospital openings in central London and few instances of expansion.
- (b) Where expansion had taken place, it had taken (or was expected to take) several years from planning to opening.
- (c) All the parties that expressed a view on this, with the exception of HCA, told us that finding an appropriate site for a hospital in central London was very difficult. Because of the special circumstances of the case, we did not consider that the consent to the change of use at the Shard vitiated this general conclusion on site availability in central London.
- (d) We concluded that the non-availability within a short time of sites that were of sufficient size and suitably configured, or capable of adaptation, for use as a hospital offering a broad range of specialisms and inpatient facilities, was a barrier to entry in central London.

Parties' views

- *HCA*

- 5.24 HCA argued that there was no evidence that there was a lack of available sites or new hospital developments in central London, or that this factor was deterring new entry and expansion. HCA stated that the Final Report provided numerous examples of new sites that had been used by hospital operators, including TLC's cancer centre, the expansion of King Edward VII's Hospital on a site in Beaumont Street and BMI's expansion of its Fitzroy Square hospital in 2011 and its development of the Weymouth hospital in 2010.²⁸⁵
- 5.25 HCA submitted an updated version of a McKinsey report identifying a number of sites in central London that it considered had the potential for private hospital use. In particular, the report identified four NHS sites as being available in 2015 and a further eight NHS sites which the authors believed it was 'highly likely' would be available by 2017. In addition to these sites, the report identified a further 2.4 million sq ft of space in NHS hospitals that was either unoccupied or underutilised at present and which may become available in the future as cost pressures on the NHS were encouraging

²⁸⁵ HCA submission on CMA's findings on structural AECs in London (1 May 2015), paragraphs 3.26–3.31. HCA suggested that the CMA consult with land owners, developers and agents in London to confirm the general availability of sites suitable for hospital development and expansion. To that end, HCA referred to evidence supplied to the CMA by the Howard de Walden Estate, which had set out a number of properties that could be used for future hospital development.

efficiency savings. However, the report noted that there was currently no commitment to make this additional space available nor a time frame to do so.

- 5.26 The McKinsey report also stated that there were 18 commercial buildings under construction which were similar to or bigger than HCA's clinic in the Shard (of approximately 70,000 sq ft) and a further 36 commercial properties over 50,000 sq ft under construction, all of which would be available by 2016. HCA stated that the Shard example demonstrated that conventional office buildings could be repurposed to create clinics.²⁸⁶
- 5.27 The McKinsey report also noted the announcement in the 2015 budget that public sector freehold owners would be required to charge market level rents and that this could be expected to incentivise the NHS to dispose of surplus sites.
- 5.28 HCA also noted that PPUs provided a means of entry in which site selection was not likely to be a constraint since NHS trusts had significant land holdings in central London and were able to utilise such space for private patient services following the lifting of the private patient income cap under the Health and Social Care Act 2012. HCA provided evidence in the form of a contract notice for the tender of the PPU at Barts to support the argument that this would lead to new entry to the central London market in the short term.²⁸⁷
- 5.29 HCA told us that evidence from Spire's half-year financial results report indicated that its entry into central London was both 'concrete and imminent', with two sites in central London in the early stages of planning, potentially opening in 2018.²⁸⁸
- 5.30 HCA highlighted that planning permission had been granted in respect of an outline application for a large-scale redevelopment of the Earls Court 2 Exhibition Centre and adjoining land. The site will be subject to a mixed-use redevelopment, including residential, retail and leisure buildings. Class C2 permission has been granted for the development of a new private hospital located in this development, with around 125,000 sq ft of space allocated to this use. Alongside this, around 196,000 sq ft of Class D1 space has also been granted. As a result, this site could be used by an entrant.
- 5.31 HCA told us that it was also planning to expand its Portland Hospital on an adjacent site in Argosy House. It explained that it currently leased two floors of Argosy House, which it used as offices and medical consulting rooms.

²⁸⁶ HCA submission on CMA's findings on structural AECs in London, paragraph 3.36 and McKinsey Report (1 May 2015).

²⁸⁷ HCA submission on CMA's findings on structural AECs in London (1 May 2015), paragraph 3.43.

²⁸⁸ HCA submission on CMA's findings on structural AECs in London (1 May 2015), paragraph 3.37.

However, it would shortly acquire the head lease at Argosy House²⁸⁹ and would then occupy a total of five floors of the building immediately, a total floor space of 32,000 sq ft. HCA planned to use the additional space for further inpatient bedroom suites, consulting and diagnostic facilities, and a special rehabilitation and treatment area for long-stay sick children. (See paragraph 5.47 for HCA's evidence on obtaining planning.)

5.32 Finally, HCA noted that a number of its competitors had expanded in recent years, indicating that there was no lack of available properties to prevent them from doing so. In particular, HCA pointed to:

- (a) BMI's £3.8 million upgrade to its theatres and critical care provision at its Blackheath hospital, the increase in the number of consulting rooms at its London Independent Hospital (from 10 to 19), as well as its launch of a new physiotherapy department and gym, and the redevelopment of the BMI Weymouth hospital in 2010 as part of the Phoenix Group;
- (b) the Bupa Cromwell's major redevelopment programme;
- (c) The Hospital of St John & St Elizabeth's new urgent care centre (2011) and the expansion of its imaging department;
- (d) Aspen's expansion of its Highgate Hospital in 2013, constructing a new diagnostic centre. HCA noted that this involved a £13 million investment which provided 43 new patient rooms, a high-dependency unit, four operating theatres, an endoscopy suite and 15 new outpatient rooms; and
- (e) The Royal Marsden's new Reubens Foundation Imaging Centre (funded by the Reuben Foundation), new Rapid Diagnostic Assessment Centre (RDAC) opened at its Surrey site, and the upcoming development of a new International Patient Centre.

- *Spire's views*

5.33 We asked Spire about its plans to enter the central London market, including whether it was considering entry through the sites being sold by NHS trusts.

5.34 Spire told us that it had not acquired any sites in central London and that while it was in early discussions with a few parties it was not actually in negotiation on any sites. Spire stated [REDACTED] it did not see the sites being sold by Barts NHS Trust 'as a solution to its strategic need to find a central London hospital site'. While Spire understood that there might be one or two other

²⁸⁹ HCA indicated that this would happen by the end of October 2015.

opportunities to acquire a central London site from the NHS, it explained that ‘the precise scope and timing of any such opportunity is very unclear’. Finally, Spire indicated that [REDACTED].²⁹⁰

Our response

5.35 We considered each of the potential new sites put forward by HCA in turn. For each of the NHS sites, we contacted the relevant NHS trust to request information on the trust’s current use and future intentions for the site. The responses are set out in Table 5.1.

Table 5.1: Potential hospital sites in central London

Site	HCA submission	NHS trust response
London Heart Hospital	[REDACTED]	[REDACTED]
The Royal London	[REDACTED]	[REDACTED]
The London Chest Hospital	[REDACTED]	[REDACTED]
Whipps Cross University Hospital	[REDACTED]	[REDACTED] ²⁹¹
Whittington Hospital	[REDACTED]	[REDACTED]
Royal Brompton (Chelsea)	[REDACTED]	[REDACTED]
Western Eye Hospital (Marylebone) Charing Cross Hospital	[REDACTED]	[REDACTED] ²⁹²
Royal National Throat, Nose and Ear	[REDACTED]	[REDACTED]

²⁹⁰ [REDACTED]

²⁹¹ Barts Health NHS Trust, submission to the CMA, 28 October 2015.

²⁹² [Clinical Strategy 2014](#).

Site	HCA submission	NHS trust response
Hospital and the Eastman Dental Hospital		
Moorfields Eye Hospital	[REDACTED]	No response*
St Charles Hospital (North Kensington)	[REDACTED]	No response*

Source: HCA and NHS trusts.

*We contacted the relevant NHS trusts but have not received a response.

5.36 The evidence provided by NHS Hospitals (during the remittal) in relation to the likely availability of suitable sites over the next few years was mixed. In the case of the [REDACTED], this evidence contradicted HCA's assertions that the site would become available. In other cases, the timing of sites becoming available was both uncertain and, in any case, likely to be longer than suggested by HCA, for example the [REDACTED], [REDACTED] and [REDACTED]. In the case of the latter two hospitals, we observed that services would need to be moved to newly constructed buildings before the services provided in the existing buildings could be transferred and the buildings then sold. With construction only expected to be completed in 2019/20, this suggested that the sale of the vacated buildings was not imminent.²⁹³

5.37 The evidence from the [REDACTED], [REDACTED] and [REDACTED] indicated that these sites were unlikely to be used for hospital purposes but rather for residential or NHS use and hence do not provide a means of entry for a hospital operator. Finally, in the case of the [REDACTED], parts of the [REDACTED] and the [REDACTED], the evidence supports the view that these sites are likely to become available in 2016/17.

5.38 We note that several of the examples of expansion given by HCA related to the upgrading of facilities rather than material expansion in terms of the size of the hospital (for example, Bupa Cromwell hospital, BMI Blackheath,

²⁹³ In addition, while there could be advantages in terms of operational efficiency in consolidating services on to fewer sites, we noted that the decision by the NHS to sell off existing hospital buildings and to build new hospitals raised some questions about the cost-effectiveness of converting these old buildings into modern hospitals, for example, due to buildings being listed etc. For example, Moorfields stated in its annual report 2013-14 (p20): 'We need a new facility for several reasons. Most of our existing buildings in City Road are more than 100 years old and were built at a time when hospital care was provided very differently to how it is now, and they are no longer suited to the provision of 21st-century clinical care, research or education. Our ageing infrastructure is also growing increasingly difficult and costly to maintain. At the same time, the configuration of our existing buildings offers little scope for true integration between the clinical, research and teaching elements of our work. Although intermediate refurbishments go some way to improving the environment for our patients and staff, they are no substitute for purpose-built accommodation.'

Reubens Foundation imaging centre, the Royal Marsden's (proposed) international patient centre, and BMI London Independent).²⁹⁴ In other cases, such as Aspen's Highgate hospital, we noted that the expansion was more limited than HCA asserted. In that case, we observe that Highgate Hospital will not increase the number of patient rooms (the hospital reported having 43 rooms as of 2012), the number of theatres will increase by one, to a total of four, and the number of consulting rooms will increase by three, to a total of 15. The main element of the expansion at Highgate Hospital is the new imaging/ diagnostic suite together with the refurbishment of the hospital's facilities.²⁹⁵ Given the relatively small size of these improvements/extensions, we did not consider that they were material to the question of whether site availability posed a barrier to entry or expansion.

- 5.39 In the case of HCA's expansion of the Portland Hospital, we considered that this was relatively minor in terms of the incremental space made available for the provision of private healthcare (at just under 20,000 sq ft).²⁹⁶ While such sites may be suitable for (relatively small-scale) expansion by existing operators, it did not provide evidence relating to the availability of suitable sites for large-scale (new) entry or expansion.
- 5.40 The evidence provided by Spire indicated that its entry into central London was not 'imminent', as suggested by HCA, but rather that it was likely to take several years, particularly in light of [§]. In particular, we note Spire's [§]. This statement is supported by the evidence that Spire has been looking to enter the central London market for a number of years and has not, to date, located a suitable site from which to do so.
- 5.41 We agree with HCA that PPUs in central London do provide a means of entry where site availability is not likely to be a constraint as they are generally located on the sites of existing NHS hospitals. However, we observe that there is currently only one PPU contract being negotiated in central London (Barts). In addition, the process of awarding this contract is expected to be lengthy (see paragraph 5.68), and the site is unlikely to provide a means of entry of a sufficient scale – both in terms of the size of the site and the range of specialisms offered – to provide a significant competitive constraint on

²⁹⁴ [BUPA Cromwell hospital website](#). Article submitted by BMI in *building construction design* (25 November 2013), '£3.8 million development plan will deliver new theatre department at BMI The Blackheath Hospital'. Article in *Building Better Healthcare* (14 October 2013), 'New outpatient department takes shape at private London hospital'. We note that the RDAC referred to by HCA is located at the Royal Marsden's Sutton site, outside central London. The Royal Marsden is planning to develop a new International Patient Centre on its existing hospital site, hence this does not provide evidence relating to site availability in central London.

²⁹⁵ [Highgate Private Hospital website](#).

²⁹⁶ The total floor space used by HCA in Argosy House will be 32,000 sq ft over five floors. HCA was already offering medical services from two of those floors, suggesting an overall increase of less than 20,000 sq ft.

HCA.²⁹⁷ Therefore, while the award of PPUs by NHS trusts with surplus floor space can remove the barrier to entry arising from a lack of suitable sites, the scarcity of such contracts means that this entry route does not materially increase the availability of sites for entrants.

- 5.42 We noted that the granting of outline planning permission for use of part of the redeveloped Earls Court site as a private hospital does not represent firm plans on the part of a hospital operator to enter the market. The permission has been obtained by the developer for a broad range of potential uses, including residential, retail, business, hotel, leisure, education and community purposes. It does not represent a commitment to use the site for private hospital use.²⁹⁸ In addition, we observed that the first phase of the development is focused on residential uses²⁹⁹ and it was, therefore, unlikely that any hospital operator would be able to use a plot within this development to enter the central London market in the next two to three years.
- 5.43 Finally, we considered HCA's arguments that commercial buildings can be used to provide hospital services and, therefore, provide numerous suitable sites for entrants. We note that while the commercial buildings that HCA told us were available were significantly smaller than the size of building that certain potential entrants, [X],³⁰⁰ there were likely to be other office buildings in central London that could, at least in some cases, be converted to provide suitable sites for private hospitals. For example, we observe that the Cleveland Clinic has recently acquired an office building in Grosvenor Place, which it may look to convert to hospital use.³⁰¹ However, the evidence provided by [X] regarding the difficulties of finding a suitable site, indicates that the speed with which private hospital operators are able to enter the central London market is significantly reduced by the limited availability of suitable sites.
- 5.44 While we consider that the evidence we collected does not support HCA's submissions on the current level of site availability in central London, we think that the reorganisation of many NHS trusts' estates – assuming that it goes ahead³⁰² – has the potential to ease constraints on the availability of suitable sites for entry/expansion by private hospital operators over the next five to six years. Therefore, we consider that this is unlikely to take place in a sufficiently timely manner to facilitate the new entry of private hospital operators that

²⁹⁷ Barts Health told us that its PPU would have a floor space of around 7,215 sq metres (approximately 78,000 sq ft) and would focus largely (although not exclusively) on cardiovascular services.

²⁹⁸ [Planning decision](#).

²⁹⁹ [Earls Court Development](#).

³⁰⁰ Final Report, paragraphs 6.73 & 6.76.

³⁰¹ [Article in PropertyWeek.com](#) (15 October 2015).

³⁰² We observe that several NHS trusts have considered reorganising their operations and disposing of sites but later decided not to do so.

could constrain HCA in the near future. Similarly, the approach adopted by the Cleveland Clinic indicates that it may be possible, in certain cases, to find suitable commercial spaces for conversion to hospital use. However, we note that it is not yet clear whether the Cleveland Clinic will be able to use the building it has acquired for hospital purposes and that this route to entry has not been taken by any of the other operators looking to enter the central London market. Our provisional conclusion is that limited site availability continues to be a factor contributing to barriers to entry in central London insofar as it exacerbates the long lead times associated with entering the market.

Planning policy

Our findings in the Final Report

- 5.45 In the Final Report, we made the following findings in relation to the impact of planning policy on entry and expansion in central London:
- (a) The evidence from the small number of instances of expansion that had taken place indicated that difficulties in obtaining planning permission tended to centre on applications for change of use. This was particularly evident in the Special Policy Area around Harley Street. Where an expansion of medical facilities would reduce residential accommodation it would be necessary to arrange use swaps, which we considered it would be difficult for an entrant to execute (Final Report, paragraph 6.105).
 - (b) Because of the special circumstances of the case, we did not consider that the granting of consent for a change of use of three floors of the Shard from B1 to C2 altered our general conclusion on the difficulty of obtaining planning permission for new hospitals in central London (Final Report, paragraph 6.105).
 - (c) We concluded that planning regulations constituted a barrier to entry and expansion in central London (Final Report, paragraph 6.106).

Parties' views

- *HCA*

- 5.46 HCA argued that planning regulations did not constitute a barrier to entry in central London. It made a number of points about 'use swaps':³⁰³
- (a) The need for use swaps applied only in the Harley Street area and not in other areas of London. HCA observed that both it and its competitors had been able to expand in other areas of London without the need for use swaps, including in the Harley Street area.³⁰⁴
 - (b) The need for use swaps arose only in the context of a change of residential to medical use, not a change from office/commercial to medical use.
 - (c) Use swaps were easier to arrange than the Final Report suggested, with evidence from Howard de Walden stating that new entrants could either convert part of a development to retain a proportion for residential use, or alternatively buy additional space and convert it for residential use.
 - (d) The TLC case study showed that a hospital operator could acquire the relevant sites in the Harley Street vicinity.
 - (e) It was possible to make a payment in lieu of arranging a use swap.³⁰⁵
- 5.47 HCA stated that its own experience in obtaining permission for the Platinum Medical Centre expansion at the Wellington hospital demonstrated that planning consent was not difficult to obtain. It noted that the process of gaining consent took nine weeks.³⁰⁶ HCA told us that its experience of securing planning consent for the conversion of part of Argosy House (for C2 and D1) use was similarly straightforward.³⁰⁷
- 5.48 HCA put forward the view that the Final Report demonstrated a misunderstanding of the planning process and had, therefore, incorrectly dismissed the example of HCA obtaining planning permission for three floors of the Shard. The Final Report noted that the consent was on a 'personal' basis and that it

³⁰³ 'Use swaps' are where, in order to obtain planning permission to convert a building from one use to another, for example, from residential use to medical use, the applicant must be able to secure the conversion of another building (in the same area) from medical to residential use in order to maintain the overall balance of uses in the area.

³⁰⁴ HCA referred to the planning permission it had received to develop Argosy House, which is on Great Portland Street.

³⁰⁵ HCA submission on CMA's findings on structural AECs in London (1 May 2015), paragraphs 3.46–3.53.

³⁰⁶ HCA submission on CMA's findings on structural AECs in London (1 May 2015), paragraph 3.55.

³⁰⁷ [30] HCA obtained the necessary planning permission within six months of its application, which included a change of use request (to class C2) and the construction of a link bridge to connect the building to the Portland Hospital.

was unlikely a new entrant would have been able to obtain equivalent planning consent. HCA told us that the ‘personal’ nature of the consent only required the applicant to meet certain undertakings, for example in respect of local employment, and that new entrants would be equally able to meet these. HCA also highlighted that the consent permitted inpatient use, which was the key point in terms of planning, with HCA’s actual use of the building being irrelevant.³⁰⁸

5.49 HCA put forward the view that the planning regime in London promoted rather than restricted the development of private healthcare facilities. It highlighted:

- (a) The London Mayor’s ‘London plan’ which set out the Mayor’s development strategy for London and noted that ‘Boroughs should promote a continued role in enhancement of London as a national and international centre of medical excellence and specialised facilities.’
- (b) The Harley Street Special Policy Area framework which ‘encourages and protects the dual medical and residential character of the area’.³⁰⁹

5.50 HCA argued that policy changes announced by WCC in relation to its planning framework constituted a material change in circumstance with respect to site availability and planning policy. HCA provided consultation documents from WCC, which it argued showed that WCC was in the process of updating its planning policy. Key changes set out in the consultation materials included proposals to:

- (a) require that existing social and community sites, which included private hospital use, being sold must initially be marketed for 12 months on reasonable market terms (including price) for use within the same use category;
- (b) promote the development of new medical and complementary facility developments in and around the Harley Street area;
- (c) designate development sites in Westminster to provide social and community facilities (including healthcare facilities);
- (d) impose restrictions on future commercial to residential conversions; and
- (e) relax rules on requiring equivalent residential development when developing commercial sites.

³⁰⁸ HCA submission on CMA’s findings on structural AECs in London (1 May 2015), paragraph 3.56.

³⁰⁹ HCA submission on CMA’s findings on structural AECs in London (1 May 2015), paragraph 3.58.

5.51 HCA stated that these reforms were expected to be implemented in 2016 and would have the effect of preserving sites with existing medical use permission and improving the availability of sites for hospital operators by reducing the ability of owners/developers to convert sites to residential use.³¹⁰

- *Westminster City Council*

5.52 We requested information from WCC on the proposed changes to its planning policies highlighted by HCA, including:

(a) the February 2014 consultation regarding:

- (i) Social And Community Infrastructure (Policy S34); and
- (ii) Harley Street Special Policy Area (Policy CM2.1); and

(b) the December 2014 consultation regarding:

- (i) Mixed Use In The Central Activities Zone (Policy S1);
- (ii) Land Use Swaps And Packages (Policy CM49.2);
- (iii) Credits (Policy CM49.3); and
- (iv) Offices And Other B Use Business Floorspace (Policy S20).

5.53 WCC told us that the consultations referred to by HCA were informal, non-statutory consultations which, as such had ‘extremely limited material weight in the determination of planning permissions generally’. It noted that the policies referred to under (b) were subject to a Regulation 19 consultation, which is the formal consultation stage prior to submission of the document to the Secretary of State for independent examination, while those referred to under (a) would be subject to an early revision before being published for Regulation 19 consultation in [redacted]. However, WCC indicated that it had taken the view that its current approach to offices was out of date due to significant losses in office space in recent years and that it was, therefore, seeking to halt office-to-residential conversions on an interim basis in advance of the adoption of the policies referred to in (b).

Our response

5.54 We considered HCA’s submissions on the functioning of the use swap system but concluded that no new evidence had been provided in this respect to lead

³¹⁰ [HCA submission on material change in circumstances affecting planning regime](#), 15 June 2015.

us to change our findings.³¹¹ HCA refers to evidence it collected from Howard de Walden and submitted as part of the original inquiry. However, as set out in the Final Report (paragraph 6.104), evidence provided by Howard de Walden to the CMA indicated that the 'use swap' system 'made the development and rationalisation of buildings tortuous and meant that only landlords with a number of properties could realistically employ use swaps.' However, we agreed with HCA that the need to obtain use swaps only applied in the Harley Street Special Policy Area and not in the rest of central London. We noted HCA's evidence that obtaining planning permission for the Platinum Medical Centre and for the conversion of part of Argosy House to medical use had been unproblematic.

- 5.55 We note that HCA did not provide any evidence to support its arguments that the CMA's reasoning set out in the Final Report in relation to the planning consent on the Shard represented a misunderstanding of the evidence or that a new entrant would have been able to obtain equivalent planning consent. Paragraph 6.87 of the Final Report explained that:

The case officer's report on the application referred to the 'exceptional circumstances' of HCA in that it operated the nearby London Bridge hospital and had links with the Guy's and St Thomas' trust and that this justified the granting of the permission on a 'personal' basis to HCA. The report noted that since it was a personal planning permission 'any other healthcare/medical facilities operators wishing to occupy these levels would not be permitted'.

We consider that the case officer's report was clear and unequivocal that HCA had been granted planning permission in the Shard for reasons that were exceptional and that such permission would not have been forthcoming for another healthcare/medical facilities operator.

- 5.56 WCC's evidence indicates that the proposed changes to the planning regime are at the consultation stage and have not yet been agreed or implemented. As a result, it is unclear which changes, if any, will be implemented in the future. We do not agree, therefore, with HCA's view that these constitute a material change in relation to planning. We note that WCC's interim approach of halting office-to-residential conversions is not of direct relevance to hospital operators since the aim is specifically to protect office use, rather than other social and community uses. We consider that this change in approach is not

³¹¹ We considered HCA's evidence on the development of the Platinum Medical Centre in paragraph 6.101 of the Final Report.

likely to materially reduce the planning constraints that hospital operators face when seeking to develop sites in central London.

- 5.57 On the basis of this evidence, our provisional finding is that planning constraints in central London are a factor contributing to the limited availability of suitable sites for private hospitals, thereby increasing the barriers to entry facing hospital operators. However, we observe that the extent to which planning constraints create a barrier to entry or expansion varies across different areas of central London, with the most acute constraint existing where use swaps are required, ie in the Harley Street Special Policy Area.

Recent and potential future new entry

Parties' views

- *HCA's views*

- 5.58 HCA told us that the central London market had continued to grow since the date of our Final Report, with further instances of entry, expansion and development opportunities. HCA suggested that these examples further illustrated the dynamism of the market and undermined the CMA's case for barriers to entry and expansion, particularly in regard to site availability and planning regulations. HCA provided a number of examples of recent and planned entry and expansion (ie since the date of the Final Report), including the following:

- (a) BMI London Independent opening a new ITU in December 2014, including six level 3 critical care beds.
- (b) BMI Blackheath's refurbishment works relating to, among other things, its ITU in autumn 2014.
- (c) The Bupa Cromwell opened a new paediatric walk-in centre in April 2014 as part of its redevelopment.
- (d) TLC is undertaking a major programme of refurbishment and improvements, including renovating the main hospital building.
- (e) Advanced Oncotherapy announced the development of a proton beam therapy centre for the treatment of cancer and has acquired a lease for an 8,000 sq ft building on Harley Street, which is due to be completed by the end of 2016. This project is a joint venture with Circle Health.
- (f) Nuada Medial Group, an outpatient and diagnostic provider has recently launched a new urology unit and entered into an arrangement with BMI

Weymouth Hospital to lease hospital space and therefore offer inpatient treatments. In addition, it has leased facilities with two operating theatres, a full imaging suite and 12 consulting rooms on Harley Street from Renaissance Healthcare. This facility will treat patients on a day-case basis.

- (g) Optegra is planning to open a new eye clinic near Harley Street next year.
- (h) Fortius Clinic is in the process of establishing a new 9,700 sq ft orthopaedic outpatient clinic in the City and a surgical centre of 12,500 sq ft with two theatres, 15 day beds and inpatient facilities for up to four patients on Bentinck Street.³¹²
- (i) Proton Partners International has announced plans to enter the London market in 2017 with a facility offering radiotherapy, chemotherapy and proton beam therapy.
- (j) The opening of a new ophthalmology clinic, the Harley Street Eye Clinic.
- (k) The planned entry of the Cleveland Clinic into the central London market via a 192,000 sq ft site at 33 Grosvenor Place.

5.59 HCA noted that Spire was planning to enter the central London market by 2018 (see paragraph 5.29). In addition, HCA highlighted the planned entry of VPS Healthcare on the site of the Ravenscourt Park Hospital in 2017. At the date of the Final Report, the Ravenscourt Park site was owned by C&C Alpha. HCA highlighted that VPS's current plans were to open a 150-bed hospital (190,000 sq ft), which would specialise in the treatment of cancer and conditions of the heart and brain as well as in other clinical fields. The intention was that the hospital would be the first private facility in the UK to offer proton beam therapy.

5.60 HCA also provided examples of recent and projected expansion of private patient facilities provided by the NHS, including the following:

- (a) Chelsea and Westminster NHS Foundation Trust augmented its private maternity wing in August 2014 with a luxury postnatal maternity suite, which will have 14 bedrooms and on-site ITU facilities.
- (b) The Royal Brompton and Harefield NHS Foundation Trust has announced that it will open a new outpatient facility in Wimpole Street to expand

³¹² HCA submission on CMA's findings on structural AECs in London (1 May 2015), paragraph 3.63, and HCA's letters to the CMA, 24 & 26 August 2015.

private patient activities and is seeking other off-site opportunities to add more private inpatient capacity.

- (c) Barts Health NHS Trust has invited tenders for the development and operation of a new private patient facility. HCA stated that this was a significant opportunity for a new entrant, that Barts already had the necessary land, buildings and planning consents and that this was likely to be completed in the next two to three years.
- (d) King's College has announced its intention to seek a strategic partner for a new private patient unit to provide a range of tertiary services, including liver surgery, bone marrow transplants and neurosciences.

5.61 Finally, HCA provided details of potential private and NHS hospital developments, including the following:

- (a) Barts Hospital has been granted planning permission for the construction of a new cancer centre facility of just under 6,000 sq ft (D1 use).
- (b) UCLH NHS Foundation Trust has been granted planning permission for the redevelopment of a former cinema and adjoining building to create a Proton Beam Therapy cancer treatment facility, in-patient haematology medical facilities and day surgery facilities. The total development will be approximately 375,000 sq ft.
- (c) Chelsea and Westminster hospital has plans to extend roof-level accommodation to create a 20-bed intensive care unit with additional ancillary accommodation.³¹³

5.62 HCA argued that these instances of entry and expansion were counter-examples to the Final Report's finding that it was 'unlikely that there would be substantial new entry into the central London market in the next two to three years and that entry after that period was uncertain'.

- *BUPA's views*

5.63 BUPA put forward the view that barriers to entry and expansion in central London remained high, with no substantive entry by new players observed since April 2014. However, it noted that HCA had expanded its existing portfolio through its agreement with Guy's and St Thomas', its lease on the

³¹³ HCA submission on CMA's findings on structural AECs in London (1 May 2015), paragraph 3.67.

Shard, an advanced screening/diagnostic clinic (in Devonshire Street) and an expansion of the Portland Hospital into an adjacent building.

- 5.64 BUPA indicated that [redacted] and [redacted] had discussed their plans to expand with BUPA but had not yet done so. Finally, BUPA stated that HCA was seeking to increase the barriers to entry for new players through seeking to impose contractual clauses that prevented insurers from redirecting patients to cheaper hospitals, via its acquisition of GPs' practices and via partnerships with clinicians (such as Robotic Radiosurgery LLP).
- 5.65 BUPA told us that it had not had any contact with VPS in relation to its potential entry into the central London market. BUPA highlighted that the location of the hospital, in Ravenscourt Park, meant that it was likely to be less attractive to corporate customers than other central London hospitals.

- *AXA's views*

- 5.66 AXA told us that, with the exception of HCA's continued growth, there had been no material entry or expansion of private hospital providers in central London. AXA noted that HCA had started to provide radiotherapy services in a new purpose-built centre in accommodation leased from Guy's and St Thomas' hospital (marketed as a 'sister site' to the London Bridge hospital under the name 'The London Radiotherapy Centre') and that its full-service oncology facility (forming part of Guy's and St Thomas' new 12-storey cancer centre) was due for completion next year. AXA PPP also noted the opening of HCA's diagnostic clinic on Devonshire Street. Finally, AXA PPP understood that the contract for a PPU at St George's hospital in Tooting had also been awarded to HCA.
- 5.67 AXA told us that it had not had any formal discussions with VPS regarding recognition of the Ravenscourt Park hospital. AXA expressed the view that the fact that it was a Middle-Eastern-backed company and was located relatively close to Heathrow Airport, suggested that the hospital would plan to attract international business. AXA also questioned whether there was a need for more than one or possibly two proton beam accelerators for the entire population of the UK, whether insured or NHS-funded, and noted that the NHS already had plans to build two proton beam accelerators (one at UCL and the other at the Christie hospital in Manchester). On this basis, it questioned the viability of investing further in such technology.

Our response

- 5.68 The evidence on recent and planned entry and expansion can be categorised into six groups:

- (a) The first group comprises upgrades, refurbishments or minor extensions to existing facilities, (for example, BMI, Bupa Cromwell, TLC, and Chelsea and Westminster projects), rather than the development of significant new capacity. As a result, we do not consider that this is material to the question of whether there are barriers to entry/expansion in central London.
- (b) The second group includes companies that are expanding through the purchase of healthcare facilities from other operators (for example, Nuada). This does not represent overall expansion in the industry but rather the change of ownership of private healthcare facilities.
- (c) The third group comprises NHS hospitals expanding their capacity to treat NHS patients (for example, Barts, UCLH, and Chelsea and Westminster expansions). This capacity is not used to compete with private hospitals and, therefore, is not material to the issue of barriers to entry or expansion into the private healthcare market.
- (d) The fourth group comprises examples where firms have opened (or have firm plans to open) incremental private healthcare capacity in central London. We considered these to be the relevant examples of entry/expansion in the market. However, we observed that these incremental facilities were very small relative to the market (a handful of inpatient beds or day-case only facilities) and highly specialised, for example Fortius Clinic, Advanced Oncotherapy, the Harley Street Eye Clinic and Optegra.³¹⁴ While, in theory, a large number of such clinics opening across a full range of specialties could, eventually, be expected to constrain HCA, we consider that the scale of entry/expansion observed is insufficient to have a material impact on competitive dynamics in the foreseeable future. In the case of Proton Partners International, we observed that while it proposed to enter on a larger scale (albeit focused on a single specialism) it has not yet identified a suitable site in central London.³¹⁵ As a result, we consider this potential entry to be uncertain both in terms of timing and as to whether it would take place given the

³¹⁴ In the case of Advanced Oncotherapy plc, we noted that the focus of the company was on the development of technology. As the company [website](#) states: 'Our sole focus is to develop technologies to maximise the destructive effect of radiation on tumours whilst minimising damage to healthy tissues. Our goal is to help healthcare providers and hospitals expand their repertoire of treatments to ensure clinicians and patients have choices. Advanced Oncotherapy's aim is to cost-effectively deliver the next generation of proton therapy which is clinically superior to the currently available alternative radiation therapies.' We considered that Proton Partners International should be included in this category given the specialist nature of the facilities.

³¹⁵ [Proton Partners International website](#).

difficulties that other operators have experienced in identifying suitable sites in central London.

- (e) The fifth group comprises new NHS PPUs, such as that currently planned at Barts. At around 7,215 sq metres, this facility will be similar in size to HCA's smallest hospital, the Portland. As a result, we consider that this represents 'mid-sized' entry. Barts Health told us, however, that it had not yet selected a preferred bidder for its PPU and that it expected to sign an agreement at the end of 2015 (or by March 2016 at the latest). Following this agreement, the buildings that would be used for the PPU would need to be redeveloped, with the PPU opening in mid to late 2017 (assuming the agreement was signed by the end of 2015 and no major delays were experienced in construction). Furthermore, Barts Health indicated that the facility would focus largely, although not exclusively, on cardiovascular treatments. We asked King's College Hospital NHS Foundation Trust about its plans to tender for a PPU. [REDACTED] As a result, it continued to manage its PPU in-house [REDACTED].
- (f) Finally, the sixth category of entry is that of a large full-service hospital (ie VPS in Ravenscourt Park and the Cleveland Clinic in Grosvenor Place). We contacted each of these potential entrants to understand their plans for the central London market. VPS told us that while it did have plans to enter the central London market, following its announcement of its plans to redevelop the Ravenscourt Park hospital, [REDACTED]. Therefore, at the time of writing, it is uncertain whether VPS will be able to enter the market. The Cleveland Clinic indicated that it was currently at too early a stage to discuss its plans in detail. However, we noted that the article detailing its purchase of 33 Grosvenor Place indicated that it was still considering how to use the site and had not yet sought permission from either the freeholder of the site or the local planning authorities to convert the building from office to hospital use.³¹⁶ As a result, we consider that this potential entry remains uncertain at the current time.

5.69 Our review of the evidence indicates that there has not been any large-scale entry into the private hospital market in central London in the last decade. There has been one example of significant expansion being completed – TLC's cancer centre – with King Edward VII's Hospital currently expanding its operations (40,000 sq ft addition). This is consistent with the existence of barriers to entry in the market. However, we consider that the entry of VPS and the Cleveland Clinic, if these were to take place, would be likely to significantly increase the level of competitive constraint on HCA given their

³¹⁶ [Article in PropertyWeek.com](#) (15 October 2015).

combined size.³¹⁷ At the current time, it is not clear that either of these potential entrants has secured a suitable site for development. Given the uncertainty over these projects and the likelihood that, from the point of securing a site, an entrant would require around two to three years to remodel/refurbish it for hospital use, we have provisionally concluded that there is unlikely to be entry on a sufficient scale to exert a material competitive constraint on HCA in the near future. However, we consider that over a longer time frame, for example the next five years, there may be large-scale entry into the central London market.

Provisional conclusions on barriers to entry and expansion

- 5.70 We have provisionally found that there are substantial barriers to entry and expansion in central London. Our review of the evidence indicates that the principal barriers to entry in central London arise as the result of a combination of high sunk costs and long lead times, with the latter factor exacerbated by the limited availability of suitable sites and planning constraints. We consider that these barriers have contributed to the lack of substantial entry into the market over the last ten years, and the limited examples of expansion, in spite of the attractiveness of the central London market to private hospital providers. Moreover, our provisional conclusion is that there is unlikely to be entry or expansion of a private hospital operator of sufficient scale to constrain HCA in the near future. However, as set out in paragraph 5.69, we consider that over a longer time frame, for example the next five years, there may be large-scale entry into the central London market.

³¹⁷ These sites would provide an additional 380,000 sq ft of hospital space in central London, which could accommodate around 300 beds.

6. Bargaining

- 6.1 In the Final Report, we set out the framework and principles underlying our analysis of bargaining and insured price outcomes and then assessed relevant evidence from internal documents and parties' submissions in order better to understand the factors the hospital operators and PMIs take into account when negotiating. Our evidence and analysis in relation to bargaining is set out in paragraphs 6.276 to 6.332 of the Final Report (supported by Appendix 6.11).
- 6.2 In the Final Report, we found that:
- (a) the competitive position of hospitals at the local level is an important factor that both PMIs and hospital operators take into consideration in their negotiations over insured prices;³¹⁸ and
 - (b) both PMIs and hospital operators have some degree of bargaining power, which depends on the strength of their outside options. This will vary from hospital operator to hospital operator and from insurer to insurer.³¹⁹
- 6.3 This section discusses parties' comments received during this remittal on our framework for analysing bargaining and our assessment of relevant evidence from internal documents and parties' submissions.

Bargaining economic framework

Our conclusions from the Final Report

- 6.4 In the Final Report, we explained that:
- (a) 'Insured prices', ie the prices charged by hospital operators to PMIs for treatment provided to insured patients, are an outcome of bilateral negotiations between hospital operators and PMIs. During these negotiations, discussions typically focus on the price of the overall bundle of a hospital operator's services (ie the associated revenue), with relatively little focus on the price of individual treatments. The prices of individual treatments are generally not set at the hospital level, but are the same across the hospital operator's portfolio of hospitals contracted with the PMI, thus reflecting some average price of each treatment across these hospitals.³²⁰

³¹⁸ Final Report, paragraph 6.330.

³¹⁹ Final Report, paragraph 6.331.

³²⁰ Final Report, paragraph 6.276.

(b) Neither side are ‘price-takers’ nor in a position to make ‘take-it-or-leave-it’ offers. The bargaining outcome depends on the ‘outside options’ of both parties, ie the best alternatives available to each party in the event that no agreement is reached. Typically, an agreement is reached if both parties receive some financial benefit above and beyond the value of their outside options. We refer to this financial benefit as a party’s share of the bargaining surplus.³²¹

6.5 We further explained that the availability of other hospitals to which the PMI can divert its customers in each local area in case of a full delisting is an important determinant of PMIs’ outside options. PMIs’ outside options will depend on the hospital operator’s average local concentration across its portfolio of hospitals. If average local concentration is higher, it will be more difficult for a PMI to find substitutable hospitals in local areas, which will weaken a PMI’s outside options. This gives rise to a positive relationship between average local concentration and insured prices, other things being equal.³²² We also stated that PMIs’ outside options will not only reflect local concentration, but are more generally related to their ability to divert policyholders under the terms of the policy away from the delisted hospital.³²³

Parties’ comments during the remittal on the bargaining economic framework

6.6 HCA raised the following new arguments during this remittal in relation to our application of the bargaining framework in the Final Report:³²⁴

- (a) HCA argued that we focused our analysis on the outside options of PMIs, despite acknowledging that the bargaining outcome would depend on both hospital operators’ and PMIs’ outside options.³²⁵
- (b) HCA argued that we did not recognise adequately the important role of how the surplus available was shared between parties, which was determined by the parties’ bargaining strength (or the ‘sharing rule’). If PMIs had a high degree of bargaining strength (ie the sharing rule was

³²¹ Final Report, paragraphs 6.279 & 6.280.

³²² Final Report, paragraphs 6.283 & 6.285.

³²³ Final Report, footnote 397 to paragraph 6.283.

³²⁴ HCA submission on 1 May 2015, paragraphs 5.10–5.19.

³²⁵ HCA submission on 1 May 2015, Section 5 summary, third bullet: ‘A correct application of economic theory implies that the CMA can only reach a view on any link between the PMI’s outside option (e.g. as driven by HCA concentration) and insured prices upon a review of all aspects influencing the bargaining strength of each party.’ HCA submission on 1 May 2015, paragraph 5.18: ‘It is thus essential to consider a hospital’s outside option in order to learn about both parties’ overall bargaining positions, as they affect the impact that a change in a PMI’s outside option will have on the bargaining outcome.’

skewed in their favour), then changes to PMIs' outside options might have a small effect on the bargaining outcome.^{326,327}

- (c) Moreover, empirical estimates in the relevant literature of the shares of bargaining surplus in a variety of industries and markets vary hugely. Therefore, HCA argued that we could not presume a particular sharing rule, and that seemingly extreme sharing rules (that gave hospital operators a very small share of the surplus) were not rare.
- (d) Given the above, HCA argued that we did not know how the bargaining surplus was shared between PMIs and hospitals, and therefore could not predict that an improvement in PMIs' outside options in central London would lead to a sufficiently large reduction in insured prices to justify the divestment remedy.³²⁸

Our response

6.7 In the Final Report, we stated that a hospital operator's outside options are determined by:³²⁹

- (a) the extent to which it is able to avoid the loss of the insurer's policyholders as patients; and
- (b) its ability to seek patients from other sources (such as overseas patients, self-pay patients or NHS work).

That is, to the extent that a delisting results in policyholders switching PMI in order to maintain their access to the delisted hospital, and to the extent that any business lost by the hospital operator can be replaced, this will strengthen the hospital operator's outside options.

6.8 We remain of the view that bargaining outcomes will depend on both hospital operators' and PMIs' outside options. In response to HCA's argument that we

³²⁶ HCA submission on 1 May 2015, paragraphs 5.16-5.17: '...a change in one party's (e.g. a PMI's) outside option may have a very small, even negligible, effect on the bargaining outcome. This effect depends on... the "sharing rule"... An investigation of the sharing rule was therefore required, to assess how a given surplus is likely to be shared between a hospital and a PMI in a given context.'

³²⁷ To give some economic intuition for this result, consider the extreme case in which PMIs have all the bargaining strength. This is equivalent to a case in which PMIs are able to make 'take-it-or-leave-it' offers to HCA, and HCA is forced to act as a 'price-taker'. In this case, the PMIs would offer HCA just enough so that HCA is indifferent between accepting the PMIs' offer or turning to its outside option. PMIs would capture the entire bargaining surplus. In such a situation, if there are small changes to HCA and PMIs' outside options, the offer that PMIs make to HCA (and hence the bargaining outcome) will vary with changes in HCA's outside options and not at all with changes in PMIs' outside options.

³²⁸ HCA submission on 1 May 2015, paragraph 5.2, first bullet: 'Even if lower local market concentration could be linked to stronger outside options for PMIs ... the CMA was not in a position to predict what impact this would have on the outcome of negotiations between PMIs and hospital operators, which could be negligible.'

³²⁹ Final Report, paragraph 6.284.

ignored hospital operators' outside options, we consider that we did previously give due consideration to hospital operators' outside options as well as PMIs' outside options in our competitive assessment:

- (a) Insofar as a hospital operator's outside options in negotiations with any particular PMI depend on the hospital operator's ability to avoid the loss of that PMI's policyholders in the event of a delisting, this is simply the counterpart to that PMI's outside options, which is the PMI's ability to steer patients towards alternative hospitals, and which we have discussed in the Final Report.³³⁰
- (b) To the extent that hospital operators' outside options depend on alternative sources of revenue, we did previously consider in the Final Report the extent to which hospital operators are able to replace any lost insured business. We originally concluded that they were most unlikely to be able to do so rapidly and would be severely impacted by a major delisting.³³¹

- 6.9 Turning to HCA's points on the sharing rule, in the Final Report, while we found that both parties to the negotiations have some degree of bargaining strength, based on our review of submissions and internal documentary evidence, we did not draw any precise conclusions on the extent of parties' relative bargaining strengths and the way that they share the surplus. Our analysis of the internal documents and parties' submissions relating to the conduct of national negotiations did not enable us to determine how their respective bargaining strength affects the bargaining outcome.³³²
- 6.10 We also consider that the wide range of estimated bargaining strengths that HCA cited from the academic literature reflects the difficulties and uncertainties around estimating bargaining strengths rather than the prevalence of extreme sharing rules.
- 6.11 Given that this remittal focuses on central London, we have considered more specifically HCA's and PMIs' outside options and bargaining strengths, on the basis of relevant evidence submitted during our original inquiry (which is summarised in Appendix 6.11 of the Final Report) and this remittal. We consider this evidence in the section below.

³³⁰ Final Report, Appendix 6.11, paragraphs 10–174.

³³¹ Final Report, paragraph 6.316.

³³² Final Report, paragraphs 6.331 & 6.332. Although we were not able to determine this, we did observe that, as a result of the 2011/12 Bupa-BMI delisting, both parties appear to have suffered substantial damage and we concluded that this suggested that both parties managed to extract a share of the bargaining surplus when an agreement was reached.

Qualitative assessment of bargaining strength and outside options

Parties' comments on our qualitative assessment of bargaining strength and outside options

- 6.12 During the remittal parties made various comments on our qualitative assessment and evidence on bargaining strength and outside options. We briefly discuss parties' general views and their detailed comments under the following headings, before we present our overall provisional conclusion:
- (a) Full delisting and PMIs' outside options (paragraphs 6.17 to 6.33).
 - (b) Restricted networks (paragraphs 6.34 to 6.44).
 - (c) Service-line tenders (paragraphs 6.45 to 6.56).
 - (d) Strategic recognition of new facilities (paragraphs 6.57 to 6.61).
 - (e) Open referrals and incentives to use NHS (paragraphs 6.62 to 6.70).
- 6.13 In addition to its arguments about our application of our bargaining economic framework, during this remittal HCA reiterated a number of points and arguments that it raised during the original inquiry, arguing that PMIs had (a) relatively high bargaining strength, and (b) better outside options than HCA.³³³ HCA argued that we ignored important evidence that it submitted during our original inquiry about the overall bargaining position of the PMIs, including their outside options, the strategies which they had successfully used in contract negotiations, and the degree to which they had been able to divert patients to alternative providers.³³⁴ HCA argued that evidence from the private healthcare market, which indicated that at least some PMIs had a strong bargaining position relative to hospital operators (ie the sharing rule was skewed in PMIs' favour), suggested that any improvement in PMIs' outside options in central London would not be likely to have a significant effect on bargaining outcomes. We respond to each of HCA's detailed points in the subsections below.
- 6.14 We note that during our hearing with HCA, HCA made remarks which in fact suggested that both sides of the negotiation have some bargaining strength:

³³³ HCA submission on 1 May 2015 Section 5 summary, 4th bullet: 'first, evidence suggests that the sharing rule is likely to be skewed in their favour in negotiations with HCA; and second, they have more valuable outside options than HCA, and they are successfully using a range of "directional" products to divert business away from HCA hospitals.'

³³⁴ HCA submission on 1 May 2015, paragraph 5.2, second bullet.

[X]. ... If we do not give their customers great customer service and give them fantastic healthcare and so on, then we do not have any leverage in that negotiation.... [X], the idea that one side has all the power I think completely misses the point. That is not the way it works.

- 6.15 AXA PPP stated that, in its view, there had been no significant changes that had materially affected the dynamic of the central London market since our Final Report. AXA PPP did not believe that its bargaining power had changed in the past two years.³³⁵
- 6.16 Bupa argued that its bargaining power over HCA was decreasing, relative to its position since the Final Report, because HCA had substantially increased its strength in central London, was continuing to grow its 'dominance in strategically important specialisms such as oncology', and maintained 'entrenched relationships with key consultants'.³³⁶ According to Bupa, large corporate customers continued to demand access to HCA given the location of its facilities. Therefore, in Bupa's view, it would be extremely costly and risky for an insurer to enter a contract dispute with HCA.³³⁷ Furthermore, Bupa argued that HCA appeared to be reducing its exposure to private insurer revenues, and Bupa considered that as a result HCA 'faces little threat from insurer buyer power.' Finally, Bupa stated that its use of open referrals, NHS Cash Benefits, and service line tenders had not increased since the Final Report and were ineffective in constraining HCA's 'dominance' in central London.

Full delisting and parties' outside options

- *Our conclusions in the Final Report*

- 6.17 We previously found that:
- (a) the competitive position of hospitals at the local level is an important factor that both PMIs and hospital operators take into consideration in their negotiations over insured prices;³³⁸
 - (b) in the event of a major delisting, hospital operators appear most unlikely to be able to replace any lost business rapidly and would be severely impacted by a major delisting.³³⁹ The potential loss of consultants, who

³³⁵ AXA PPP submission on 6 May 2015, Q7 p.8.

³³⁶ Bupa submission on 6 May 2015, paragraph 2.23.

³³⁷ Bupa submission on 6 May 2015, paragraph 2.23.

³³⁸ Final Report, paragraph 6.330.

³³⁹ Final Report, paragraph 6.316.

would normally wish to continue to be able to treat a major PMI's policyholders, a phenomenon also known as 'consultant drag', is also a major issue and a real risk;³⁴⁰ and

- (c) PMIs would also be severely impacted by full delisting. They would incur the costs of sending patients to alternative hospitals, would be likely to have to pay higher prices to the delisted hospital operator due to reduced discounts at the operator's remaining 'must-have' facilities, and could lose future sales of policies to insured patients due to reputational damage.³⁴¹

- *Parties' comments during the remittal*

- 6.18 HCA reiterated that, in the event of a full delisting, the scale of the financial damage to the parties was very different. It argued that HCA simply could not survive without recognition from Bupa and AXA PPP.³⁴² Relatedly, HCA objected to our statement in paragraph 11.155 of the Final Report, which suggested that de-recognition of an HCA hospital by one of the major insurers would not necessarily be fatal, due to the significant level of demand from both overseas and self-pay patients for private healthcare treatments in central London. [REDACTED]³⁴³
- 6.19 HCA pointed out that Bupa successfully used the threat of delisting to get lower prices from BMI and (more recently) Spire, without suffering adverse consequences. HCA stated that Bupa had improved its financial performance since its confrontation with BMI, and any alleged loss of market share had been minimal.³⁴⁴
- 6.20 Finally, HCA reiterated that there was sufficient spare inpatient capacity in central London for any of the largest PMIs to have a viable alternative to HCA's hospital facilities.³⁴⁵ In support of this, HCA's economic advisers, KPMG, submitted new analysis which set out that, [REDACTED]. We discuss HCA's arguments on spare capacity and its new analysis in more detail in paragraph 4.21.
- 6.21 In contrast to HCA's views, AXA PPP submitted that it was not an unavoidable contracting partner for HCA.³⁴⁶ Furthermore, in AXA PPP's view, HCA continued to own 'the vast proportion of "must have" hospitals in London to

³⁴⁰ Final Report, paragraph 6.313.

³⁴¹ Final Report, paragraph 6.316.

³⁴² HCA submission on 1 May 2015, paragraph 5.21.

³⁴³ HCA submission on 1 May 2015, paragraph 5.23. See also HCA observations of CMA summaries of hearings, 13 October 2015, paragraph 3.11.

³⁴⁴ HCA submission on 1 May 2015, paragraphs 5.22, 5.26 & 5.27.

³⁴⁵ HCA submission on 1 May 2015, paragraphs 5.60–5.64.

³⁴⁶ AXA PPP letter on 9 March 2015, p.3.

which its customers, in particular large corporate customers, continue to require access'.³⁴⁷

6.22 Bupa reiterated its previous arguments that the scale and scope of HCA made it a 'must have' hospital group in central London, and that [REDACTED].³⁴⁸

6.23 Bupa also reiterated that, in a contractual dispute with HCA, Bupa would be restricted from directing patients away from HCA by:

- (a) needing to maintain continuity of care for patients already mid-treatment;
- (b) the threat that customers (particularly corporate customers) would switch it Bupa could not make available what Bupa considered the majority of key private hospitals in central London; and
- (c) the regulatory risk that the FCA would be concerned about Bupa materially altering its insurance product to existing customers.

6.24 Furthermore, and in contrast to HCA's argument, Bupa argued that HCA appeared to be reducing its exposure to private insurer revenues. It cited new evidence from the latest LaingBuisson report³⁴⁹ which estimated that only around 55% of HCA's revenue was from privately insured patients, which meant that even the largest PMI, [REDACTED].³⁵⁰

- *Our response*

- *Role of local competitive conditions*

6.25 In our review of internal documents and submissions in the Final Report, we found that the competitive position of hospitals at the local level is an important factor that both PMIs and hospital operators take into consideration in their negotiations over insured prices.³⁵¹ No party has submitted any new evidence or argument indicating otherwise, so we provisionally readopt this finding as set out in paragraph 6.330 of the Final Report.

- *Hospital operators' outside options in the event of full delisting*

6.26 In the Final Report, we considered evidence that the risk of full delisting may act as a constraint during negotiations. We concluded that, in the event of a major delisting, hospital operators appear most unlikely to be able to replace

³⁴⁷ AXA PPP submission on 6 May 2015, Q6 p.7.

³⁴⁸ Bupa submission on 6 May 2015, paragraph 2.15.

³⁴⁹ LaingBuisson report (February 2015), *Private Acute Medical Care in Central London: Market Report*.

³⁵⁰ Bupa submission on 6 May 2015, paragraph 2.24.

³⁵¹ Final Report, paragraph 6.330.

any lost business rapidly and would be severely impacted by a major delisting.³⁵² The potential loss of consultants, who will normally wish to continue to be able to treat a major PMI's policyholders, a phenomenon also known as 'consultant drag', is also a major issue and a real risk.³⁵³

- 6.27 On central London and HCA in particular, we noted in the Final Report that HCA considers that AXA PPP and Bupa are [redacted]³⁵⁴ and that it would be greatly impacted by any loss of revenue from either large PMI.³⁵⁵ We note that this is still HCA's view.
- 6.28 Comparing the estimates that Bupa cites (around [redacted]% of HCA's revenue is from insured patients) with the data we collected and presented in the Final Report (where the share of HCA's revenue from insured patients was [redacted]%),³⁵⁶ while we agree with Bupa that HCA may have reduced its exposure to private insurer revenues since the Final Report, we do not consider that such a reduction is material. Therefore we conclude that there is not sufficient evidence to suggest that HCA would be able to replace lost insured revenues (from the major PMIs) from other sources.
- 6.29 Based on our assessment above we provisionally readopt our findings, in paragraph 6.316 of the Final Report, that hospital operators appear most unlikely to be able to replace any lost business rapidly and would be severely impacted by a major delisting, resulting in an immediate loss of revenue. The potential loss of consultants, who would normally wish to continue to be able to treat the PMI's policyholders, is also a major issue. We therefore provisionally conclude that HCA is likely to be severely impacted in the event of a full delisting by either Bupa or AXA PPP.
- *PMIs' outside options in the event of full delisting*
- 6.30 In the Final Report, we concluded that PMIs would also be severely impacted by full delisting. They would incur the costs of sending patients to alternative hospitals, would be likely to have to pay higher prices to the delisted hospital operator due to reduced discounts at the operator's remaining 'must-have' facilities, and could lose future sales of policies to insured patients due to reputational damage.³⁵⁷

³⁵² Final Report, paragraph 6.316.

³⁵³ Final Report, paragraph 6.313.

³⁵⁴ Final Report, Appendix 6.11, paragraph 72.

³⁵⁵ Final Report, Appendix 6.11, paragraphs 68 & 69.

³⁵⁶ Final Report, Table 3.3, and Appendix 6.11, Figure 6.

³⁵⁷ Final Report, paragraph 6.316.

- 6.31 On central London and HCA in particular, we noted, in Appendix 6.11 of the Final Report, the widespread views among PMIs and some hospital operators that HCA has a number of ‘must-have’ hospitals, to which PMIs would have to continue to send patients even in the event of a dispute,^{358,359} and that this was consistent with some PMIs’ internal documents and other estimates on the impact of delisting HCA and the proportion of patients which they would not be able to redirect to alternative hospitals.³⁶⁰ We also previously noted that HCA’s internal documents recognise the risk and difficulty for Bupa and AXA PPP to delist HCA’s hospitals.³⁶¹
- 6.32 We also noted in the Final Report AXA PPP’s view that ‘HCA hospitals are essential for its corporate customers in the South East meaning that its choice was binary – either AXA PPP has a credible London offer for its corporate customers, which included HCA, or it does not’.³⁶² [X] Bupa’s internal documents during its 2012/13 negotiations with HCA [X].³⁶³ AXA PPP argued that were it to exclude HCA from its network, it would lose a significant volume of customers to other PMIs. A similar view about the consequence for delisting HCA in London was expressed by most PMIs.³⁶⁴ We note that AXA PPP and Bupa’s views on these points remain unchanged.
- 6.33 We therefore provisionally readopt our finding in paragraph 6.316 of the Final Report that PMIs will also be severely impacted by full delisting, as they would incur costs of sending patients to alternative hospitals. They would be likely to have to pay higher prices to the delisted hospital operator due to reduced discounts. They could also lose future sales due to reputational damage.

Restricted networks

- *Our conclusions in the Final Report*

- 6.34 In the Final Report, we considered the evidence and views on PMIs’ use of restricted networks. We concluded that, even under such restrictive network policies, PMIs still need to be able to offer an acceptable choice of hospitals to ensure sufficient take-up by policyholders.³⁶⁵ Given the limited levels of take-up on restricted network policies at the time of the Final Report,³⁶⁶ and the

³⁵⁸ Final Report, paragraph 6.297 and Appendix 6.11, paragraph 12.

³⁵⁹ Final Report, Appendix 6.11, paragraph 11(b)-(c).

³⁶⁰ Final Report, Appendix 6.11, paragraphs 12(d), 32–35.

³⁶¹ Final Report, Appendix 6.11, paragraphs 117 & 118.

³⁶² Final Report, Appendix 6.11, paragraph 81.

³⁶³ Final Report, Appendix 6.11, paragraph 122.

³⁶⁴ Final Report, Appendix 6.11, paragraph 81.

³⁶⁵ Final Report, paragraph 6.325.

³⁶⁶ See Final Report, Appendix 6.11, paragraphs 146 & 169 – AXA PPP’s Corporate Pathways product had [X] subscribers (representing [X]% of its insured population), and AXA PPP argued that its corporate scheme had

fact that many corporate customers in particular require policies to provide broad coverage,³⁶⁷ we previously considered that such strategies did not materially improve the PMIs' outside options.³⁶⁸

- 6.35 On central London and HCA in particular, we previously noted that both AXA PPP and Bupa argued that HCA was in a position to impose contractual terms that [X].³⁶⁹ AXA PPP stated that it expected its low-cost restricted network products were very much at the margin and HCA still dominated the lion's share of insurer spend in London.³⁷⁰ Bupa thought that [X].³⁷¹
- 6.36 We also note that even if PMIs' restricted networks were to exclude HCA, an important segment of PMIs' customers, such as corporate clients, may insist on access to HCA. For instance, we previously noted that HCA internally discussed Aviva's 'Extended' and 'Key' hospital lists and noted that it had only ever been included in Aviva's 'Extended' list. HCA noted that [X].³⁷²
- 6.37 Finally, we also previously explained that we do not consider that the presence of restricted networks necessarily strengthens PMIs' bargaining power against HCA, as this depends on the strength of PMIs' outside options in a hypothetical negotiation with HCA for the 'unrestricted network'.³⁷³ We stated that PMIs' outside options are improved by the presence of restricted networks to the extent that there is enough demand for these networks (ie the PMI knows that it can divert a significant portion of its customer base away from HCA), but further noted that there is a core set of customers (eg corporate customers) in central London that would be unwilling to switch to a network that did not include HCA hospitals.³⁷⁴

- *Parties' comments during the remittal*

- 6.38 HCA reiterated that the very fact that PMIs were able to market and sell credible products with networks that excluded HCA hospitals showed that they were – necessarily – an alternative that PMIs had already turned to, in favour of including HCA hospitals in the network.³⁷⁵ HCA repeated its argument that it had been excluded from at least some network products of

had very little success in London because it did not include HCA. In 2013, [X] corporate accounts had come up for renewal, and only [X] had transferred on to Corporate Pathways. Similarly, see also the Final Report, Appendix 6.11, paragraph 208, on Aviva's directional policy. Aviva considered that it had had limited success, and noted that the amounts it could direct might only affect a single digit % of a hospital group's turnover.

³⁶⁷ See for example Final Report, Appendix 6.11, paragraphs 11(c), 118, 141 & 158.

³⁶⁸ Final Report, paragraph 6.325.

³⁶⁹ Final Report, Appendix 6.11, paragraphs 136, 137, 143 & 148.

³⁷⁰ Final Report, Appendix 6.11, paragraphs 136.

³⁷¹ Final Report, Appendix 6.11, paragraph 143.

³⁷² Final Report, Appendix 6.11, paragraph 174.

³⁷³ Final Report, paragraph 6.426.

³⁷⁴ Final Report, paragraph 6.426.

³⁷⁵ HCA submission on 1 May 2015, paragraph 5.30.

almost all PMIs.³⁷⁶ HCA further argued that it was not true that there had been limited take-up of restricted network products.³⁷⁷

6.39 AXA PPP reiterated that it could not sell a credible PMI offer to corporate customers that excluded over 60%³⁷⁸ of central London supply of cardiology and oncology (of which the latter was the main reason that customers sought PMI cover),³⁷⁹ ie one that excluded HCA.

6.40 Bupa noted that only a very small proportion of its policyholders were not eligible to access HCA's facilities, and that HCA was relatively unaffected as these restrictive network products were attractive primarily to customers who lived outside of London. Bupa further stated that [REDACTED].³⁸⁰

- *Our response*

6.41 To assess the overall significance of restricted network policies on the central London private healthcare market, as part of the remittal we asked AXA PPP and Bupa to submit data on the proportion of their policyholders that are on restricted network policies that do not provide access to HCA as at 2014. Based on this new evidence, we found that:

- (a) The share of AXA PPP and Bupa's policyholders in Greater London who do not have unrestricted access to HCA is small. Overall, [REDACTED]% of AXA PPP's customers in Greater London do not have access to HCA's hospitals, and an additional [REDACTED]% can access HCA's hospitals with [REDACTED]% coinsurance. Similarly, only [REDACTED]% of Bupa's customers within Greater London have no access to HCA's facilities.³⁸¹
- (b) Restricted network policies represent a very small share of AXA PPP and Bupa's spend in Greater London. Only [REDACTED]% of AXA PPP's total spend in Greater London is derived from policies which do not include access to HCA or which only provide access with co-insurance. Similarly, only

³⁷⁶ HCA submission on 1 May 2015, paragraph 5.28.

³⁷⁷ HCA submission on 1 May 2015, paragraphs 5.31–5.36.

³⁷⁸ As shown in Table 4.2, HCA's share of admissions in cardiology and oncology in central London in 2011 was [REDACTED]% and [REDACTED]% respectively.

³⁷⁹ AXA PPP letter on 9 March 2015 letter p.3 – AXA PPP cites evidence that we presented in paragraph 60 of Appendix 6.2 of our Final Report, which relates to HCA's Cancer Strategy document showing that 91% of people gave cancer as their main reason for taking out PMI.

³⁸⁰ Bupa submission 6 May 2015, paragraph 3.4(iii).

³⁸¹ We note that the two PMIs appear to have very different approaches to their use of restricted network policies, in terms of these policies' uptake among customer segments. Within Greater London, [REDACTED]% of AXA PPP's corporate customers do not have access to HCA, whereas all of Bupa's SME customers and corporate customers have access to most or all HCA's facilities. In contrast, [REDACTED]% of AXA PPP's individual customers in Greater London have 'Health on Line' policies which allow access to HCA hospitals with [REDACTED]% coinsurance, and [REDACTED]% of Bupa's personal customers in Greater London have no access to HCA hospitals.

around [X]% of Bupa's total spend in Greater London is spent through policies which do not include access to HCA.³⁸²

- 6.42 We are aware that any provisional conclusions we draw on the basis of data from Bupa and AXA PPP may not extend to all PMIs. We note, for instance, that HCA told us that [X]% of Aviva's customers do not have access to HCA hospitals. However, we also note that [X].^{383,384}
- 6.43 On the basis of the above, and given Bupa and AXA PPP's high combined share of the PMI market,³⁸⁵ and the fact that the vast majority of Bupa and AXA PPP's spend in Greater London is derived from policies which do not restrict access to HCA's facilities, we consider that restricted network policies that exclude HCA have had limited uptake among PMI customers, particularly within Greater London.
- 6.44 On the basis of the available evidence, we provisionally readopt our conclusion in paragraph 6.426 of the Final Report that the presence of restricted networks does not necessarily strengthen PMIs' bargaining strength (relative to a situation in which PMIs do not have restricted networks). This depends on whether there is enough demand for these networks. On the basis of the evidence, we provisionally conclude that PMIs' outside options against HCA are not significantly improved by the presence of restricted networks, as there has been limited uptake of such policies.

Service-line tenders

- *Our conclusions in the Final Report*

- 6.45 In the Final Report, we considered evidence and views on PMIs' specialist networks for particular procedures. Similar to restricted networks, we concluded that, even with specialist network policies, PMIs still need to be able to offer an acceptable choice of hospitals to ensure sufficient take-up by policyholders.³⁸⁶ Given the limited number of treatments where specialist networks had been established by the PMIs, we did not consider that such strategies materially improve the PMIs' outside options.³⁸⁷

³⁸² We also explored whether, within this small share of spend derived from policies that restrict access to HCA, HCA received a sizeable share of revenue from 'out-of-network' claims to its facilities. HCA received [X]% of AXA PPP's spend through these policies, and [X] of Bupa's spend in Greater London through these policies.

³⁸³ Final Report, Appendix 6.11, paragraph 174.

³⁸⁴ Final Report, Appendix 6.11, paragraph 171.

³⁸⁵ According to LaingBuisson's *Health Cover UK Market Report 2013*, Table 7.2 on p126, Bupa's share of PMI premium revenue in 2012 was 39.7% and AXA PPP's share of the same was estimated to be 25.7%.

³⁸⁶ Final Report, paragraph 6.325.

³⁸⁷ Final Report, paragraph 6.325.

- *Parties' comments in the remittal*

- 6.46 HCA submitted a new argument that we had underestimated the impact of service-line tenders,³⁸⁸ and stated that although they covered a relatively small number of procedures, they accounted for a significant volume of business and were growing in importance.³⁸⁹
- 6.47 In contrast, Bupa submitted further arguments that it could not use service line tenders to constrain HCA's dominance in central London effectively. [REDACTED]³⁹⁰
- 6.48 Bupa further explained that, [REDACTED].³⁹¹
- 6.49 Finally, Bupa stated that the use of service line tenders was relatively limited, and [REDACTED] of Bupa's UK claims spend had historically been subject to service line tenders. The treatment needed to be highly standardised across operators and relatively separable from other services (such that it could be provided and contracted separately).³⁹²
- 6.50 AXA stated that 'the proportion of claims subject to service line tenders, based on 2014 data, is insignificant and their effect has been overstated by HCA'. AXA argued that 'hospitals negotiate their tariff on a "basket of goods" approach across all services they provide. If insurers attempted to remove a significant service line from a provider, the provider would seek to increase prices for other items or seek compensation for the loss of revenue.'

- *Our response*

- 6.51 To assess the overall significance of service line tenders on the central London private healthcare market, as part of the remittal we asked AXA PPP and Bupa to submit data on the proportion of claims and spend that are subject to a service-line tender:
- (a) AXA PPP reported that its service line tenders (its Scanning network, Oral Surgery network, and Cataract Surgery network) represented a combined proportion of [REDACTED]% of its total spend in Greater London in 2014.

³⁸⁸ Service-line tenders are where PMIs have identified specific services that could be carved out of the main insurer/hospital contract and procured separately, often via a competitive tender. Policyholders are then required only to use providers that are part of the new service-line network.

³⁸⁹ HCA submission on 1 May 2015, paragraphs 5.46–5.49.

³⁹⁰ Bupa submission on 6 May 2015, paragraph 3.4(ii).

³⁹¹ Bupa submission on 6 May 2015, paragraphs 2.32–2.38.

³⁹² Bupa submission on 6 May 2015, paragraph 2.33.

- (b) Bupa reported that its service-line tenders³⁹³ represented a combined proportion of [X]% of its total spend in Greater London in 2014, and [X]% of its total spend in central London in 2014.

6.52 AXA PPP further explained that, of its three established service-line networks, only the Oral Surgery network might meaningfully restrict patients' choice of provider, and its spend on oral surgery was relatively small as private medical insurance policies typically only provided limited cover for dental procedures.

- (a) AXA PPP explained that its Scanning network extended access to scanning services (to include stand-alone outpatient diagnostic centres) and did not remove any hospitals from the network. AXA PPP's members still had access to all scanning facilities in the network, and AXA PPP stated that, in practice, it had not been able to refer members to its preferred (lower-cost) facilities through the pre-authorisation process and 'utilisation of facilities has not changed'. Furthermore, while AXA PPP did achieve savings from the retendering process, AXA PPP calculated that it achieved a total saving of £[X] in Greater London for MRI scans, comparing 2012 average prices with 2014 average prices, which was under [X]% of its 2014 spend in Greater London on MRI scans.

- (b) In AXA PPP's view, its Cataract Surgery network was much less successful than its Oral Surgery network, due to resistance from many surgeons and anaesthetists and some key providers. AXA PPP stated that, in reality, its Cataract Surgery subnetwork was almost fully inclusive of all providers.

6.53 On the other hand, Bupa noted that its MRI Network, Ophthalmology Network and outpatient CT network had been successful in reducing costs and achieving savings. For its outpatient CT network, Bupa noted that, within central London, [X].³⁹⁴

6.54 On the basis of this evidence, we consider that the extent to which service-line tenders might improve PMIs' outside options depends on the extent to which they successfully restrict patients to preferred providers. This in turn (along with the level of savings achieved via the service-line tender) is affected by the other factors determining bargaining outcomes. The experience of AXA PPP suggests that it is far from certain that service-line tenders can improve PMIs' outside options and achieve savings.

³⁹³ Bupa currently has six service-line tender networks: Out-patient MRI Network; Cataract/Ophthalmology Network; Outpatient CT Scan Network; Trans Aortic Valve Implantation (TAVI) Network; Bupa Accredited Physiotherapists; and Mental Health Therapist Network.

³⁹⁴ Bupa submission on 6 May 2015, paragraph 3.4(ii).

- 6.55 Bupa's experience indicates that service-line tenders can improve PMIs' outside options, although we further note that [redacted], as discussed in paragraph 6.47 above,³⁹⁵ is consistent with our overall view that both HCA and PMIs share a degree of bargaining strength.
- 6.56 On the basis of these considerations (paragraphs 6.51 to 6.55), we provisionally conclude that service line tenders can but do not necessarily improve the PMIs' outside options against HCA.

Strategic recognition of new facilities

- *Our conclusions in the Final Report*

- 6.57 We considered insurer recognition in some detail in paragraphs 6.108 to 6.122 of the Final Report, where we concluded that insurer recognition is not a barrier to entry or expansion. We concluded that the relative bargaining power of the parties in negotiations for recognition will depend on the parties' outside options (particularly on the local competitive conditions of the new facility).³⁹⁶
- 6.58 On central London and HCA in particular, we previously identified two instances where Bupa did not recognise HCA's new facilities or did so only in return for substantial discounts.³⁹⁷ We also previously noted that the most recent contract between HCA and Bupa (agreed in July 2013) contains a clause that [redacted].³⁹⁸

- *Parties' comments during the remittal*

- 6.59 Parties did not make extensive submissions on this point.
- 6.60 HCA repeated its argument that PMIs' power to withhold recognition of new hospital facilities was 'representative of PMI bargaining power generally', that PMIs used this power to secure significant discounts from list prices, and that failure to obtain recognition from a major PMI would make a new hospital unviable.³⁹⁹

³⁹⁵ Also, paragraph 223 in Appendix 6.11 of the Final Report.

³⁹⁶ Final Report, paragraphs 6.326–6.328.

³⁹⁷ Final Report, Appendix 6.11, paragraph 179(a)–(b).

³⁹⁸ Final Report, Appendix 6.11, paragraph 179(g).

³⁹⁹ HCA submission on 1 May 2015, paragraphs 5.50–5.55.

- *Our response*

- 6.61 We consider that, notwithstanding HCA's reiteration in paragraph 6.60, our views on this point remain valid and unchanged, and on the basis of these considerations (paragraphs 6.57 to 6.58), we provisionally conclude that PMIs are able to withhold recognition for new facilities, but this does not alter our conclusions on PMIs' outside options against HCA in central London.

Open referrals, guided referrals, and incentives to use NHS

- *Parties' views during the remittal*

- 6.62 HCA submitted a new argument that we had underestimated the rapid growth of open referral policies, and that open referral policies had gained ground since the Final Report.⁴⁰⁰ HCA referred to a Bupa article on 15 January 2014 stating that 'more than 8 out of 10 of [Bupa's] corporate clients have chosen Open referral'. HCA reiterated the point that PMIs' ability to influence patients' choice of healthcare provider was not limited to their policies which mandated open referrals.⁴⁰¹ For example, PMIs could encourage policy-holders to contact them before seeking treatment in order to recommend consultants and hospitals. (We refer to this broader range of PMI influence as 'guided' referrals.) HCA argued that the growth of these policies in and of itself improved PMIs' outside options, regardless of whether there was evidence that they were being used to divert patients away from HCA.
- 6.63 HCA also argued that Bupa offered cash incentives to its policyholders to use the NHS rather than claim under its policy for certain procedures, in particular cardiac and cancer treatments.⁴⁰²
- 6.64 AXA PPP submitted new evidence that while the number of open referrals had increased in recent years, the importance of HCA's facilities had not been materially impacted by the growth of open referrals, as:
- (a) the majority of specialists continued to be named by GPs when a referral was made, a process in which insurers had little to no influence;⁴⁰³ and
 - (b) open referrals had not resulted in a significant change to overall referral patterns, given that the majority of patients retained a choice of

⁴⁰⁰ HCA submission on 1 May 2015 paragraphs 5.37–5.45.

⁴⁰¹ HCA submission on 27 August 2015, paragraph 2.2.

⁴⁰² HCA submission on 1 May 2015, paragraph 5.56.

⁴⁰³ Our [survey of GPs during the original inquiry](#) found that, across the UK, an estimated 68.9% of referrals were to a named consultant, 21.5% of referrals were to a named hospital or PPU, and only 9.4% of referrals were open (Tables D1.01–D1.03).

specialist/facility,⁴⁰⁴ and HCA remained the largest provider even among open referral patients.^{405,406}

- 6.65 Bupa stated that the number of customers on open referral policies had not grown materially since the publication of the Final Report (uptake of open referral policies peaked in [REDACTED]).⁴⁰⁷ It further submitted that [REDACTED].⁴⁰⁸ Both Bupa and [REDACTED]. Bupa told us that it presented quarterly data on open referrals to HCA.
- 6.66 On NHS Cash Benefits, Bupa submitted that the effect on private provider revenues was very small. It accounted for [REDACTED] of Bupa's total claims spend in each year, related to claims where the patient had agreed to be treated as an NHS rather than private patient in return for a cash payment. In Bupa's view, therefore, its NHS Cash Benefits could not be said to lead to the NHS constraining HCA to any material degree.⁴⁰⁹

- *Our response*

- 6.67 To assess the overall significance of open referral policies and guided referrals on the central London private healthcare market, as part of the remittal we asked AXA PPP and Bupa to submit data on the proportion of their policyholders that are on open referral policies, as well as the proportion of their claims and spend in central London that either derives from open referral policies or where the patient was guided.
- 6.68 We found that, as at December 2014, [REDACTED]% of Bupa's policyholders and [REDACTED]% of AXA's policyholders across the UK are on open referral policies. For both insurers, less than [REDACTED]% ([REDACTED]% for Bupa, [REDACTED]% for AXA PPP) of their 2014 spend in Greater London was derived from open referral policies or from customers who have accepted their guidance. Furthermore, Bupa told us that [REDACTED]. It stated that this was consistent with the overall trend for the number of Bupa policyholders on open referral policies, which had not grown since [REDACTED].
- 6.69 To examine whether open and guided referrals are having a particular impact on HCA, we also examined the proportion of Bupa and AXA PPP's spend at

⁴⁰⁴ AXA PPP had only one product that 'requires' open referral, Healthcare Pathway, which was only available to corporate customers. According to AXA PPP, take up of Healthcare Pathway [REDACTED] UK PMI members as at 31 Dec 2014. The Healthcare Pathway product had [REDACTED] in the London market, where corporate customers required an insurer's list to include HCA.

⁴⁰⁵ AXA PPP submission on 6 May 2015, p2. According to AXA PPP, HCA received [REDACTED] out of [REDACTED] open referrals in 2014, a larger proportion than any other provider. The [REDACTED] open referrals represented [REDACTED]% of AXA PPP's [REDACTED] recorded referrals that resulted in hospital treatment in central London in 2014.

⁴⁰⁶ AXA PPP submission on 6 May 2015, Q1, p.2, and Q.6, p.7.

⁴⁰⁷ Bupa submission on 6 May 2015, paragraphs 2.26–2.28.

⁴⁰⁸ Bupa submission on 6 May 2015, paragraph 3.4(i).

⁴⁰⁹ Bupa submission on 6 May 2015, paragraphs 2.29–2.31.

HCA that is derived from open referral policies, and whether HCA's share of PMIs' open referral spend is significantly different from its share of PMIs' total spend. In 2014, open referral policies accounted for [X]% of Bupa's spend with HCA and [X]% of AXA PPP's spend with HCA. For Bupa's spend in 2014, HCA received a similar share of Bupa's open referral/guided spend and total spend in Greater London ([X] respectively). This is consistent with Bupa's argument that [X], HCA received ([X]%) of AXA PPP's total spend in London, but [X] ([X]%) of AXA PPP's open referral/guided spend. This suggests that AXA PPP is able, to some degree, to use open referral to move patients away from HCA.

- 6.70 On the basis of the new available evidence discussed in paragraphs 6.62-6.69 above, we provisionally conclude that PMIs are, in principle, able to use open referrals to direct patients away from HCA and this has potentially improved PMIs' outside options to some extent (relative to a situation in which PMIs are not able to use open referral policies). However, taking into account the overall limited uptake of open referral policies, and the fact that HCA still receives a sizeable proportion of open referrals, we consider that the impact of open referrals on PMIs' outside options is nevertheless relatively limited. Similarly, we do not consider that the use of cash incentives by Bupa materially improves its outside options against HCA.

Recent developments

- 6.71 We were recently informed by Aviva and VitalityHealth (formerly known as PruHealth), the third and fourth largest PMIs with shares of revenue of [X]% and [X]% respectively, that they are creating a new joint purchasing arrangement that will establish a joint venture (known as HPA) to negotiate with private hospital providers for the procurement of hospital services on their joint behalf.⁴¹⁰ We note that they are aiming to have contracts in place with effect from 1 January 2016.
- 6.72 HCA submitted that [X] and that '...HPA will use its stronger bargaining power to negotiate even more aggressive managed care strategies with hospital operators [X].
- 6.73 [X] this development is likely to change the relative balance of negotiations in favour of Aviva and VitalityHealth, by weakening HCA's outside options (relative to a situation in which HCA could negotiate independently with Aviva and VitalityHealth). However, we consider that it is likely that HCA would still retain some degree of bargaining strength, as HCA would still benefit from all

⁴¹⁰ [X], market shares for 2013 are from LaingBuisson 2014.

the features that make its hospitals ‘must-have’ in the view of both Bupa and AXA PPP. We think it is likely that HCA would still be ‘must-have’ for the new joint entity. Therefore, we consider that HCA is likely to still be able to extract a share of the bargaining surplus in negotiations with Aviva and VitalityHealth.

- 6.74 We agree with HCA that the new joint entity is likely to negotiate more managed care strategies (such as restricted networks, service-line tenders, open and guided referral policies). However, we consider that our conclusions on each of these aspects of PMI behaviour remains valid and unaffected by this development.

Provisional conclusions on qualitative assessment of bargaining strength and outside options

- 6.75 In the Final Report, we found that PMIs and hospital groups are dependent on each other, which suggested that both of these parties have some degree of bargaining power. However, we could not determine how parties’ bargaining strength affects the bargaining outcome.⁴¹¹
- 6.76 In the Final Report, we considered parties’ views specifically in relation to the relative bargaining power of the parties, and the extent of any countervailing buyer power of PMIs.⁴¹² We considered that both parties to the negotiations are extracting a share of the surplus and therefore the provider retains some market power in the negotiations.⁴¹³ Therefore, while PMIs have some bargaining or buyer power, PMIs do not have countervailing buyer power⁴¹⁴ which completely prevents the exercise of market power by hospital providers.
- 6.77 On the basis of the evidence and analysis in the Final Report, and the additional evidence and analysis in this remittal, taking all of the aspects above into account (paragraphs 6.33, 6.44, 6.56, 6.61 and 6.70) and assessing their aggregate impact, we do not agree with HCA that an extreme ‘sharing rule’, in which hospital operators receive a very small share of the bargaining surplus, is a plausible description of negotiations in the central London private healthcare market. In particular, we consider that the relatively low uptake of restricted network policies which exclude HCA and limited uptake of open referral policies, along with a sizeable proportion of open referrals still going to HCA’s hospitals, does not suggest that PMIs are able (or anywhere close to being able) to negotiate on a ‘take-it-or-leave-it’ basis

⁴¹¹ Final Report paragraph 6.331.

⁴¹² Final Report, paragraphs 6.303–6.309.

⁴¹³ Final Report, paragraph 6.319.

⁴¹⁴ In the Final Report, paragraph 6.281 and footnote 395 we defined (in accordance with CC3) ‘countervailing buyer power’ as buyer power which prevents the exercise of market power. We used the term ‘buyer power’ for bargaining power that falls short of countervailing buyer power.

with HCA. We also note the fact that HCA is able to negotiate clauses that [X] does not seem consistent with a situation in which HCA has little or no bargaining strength. Finally, we note HCA's stated view that both sides have some bargaining strength, and that 'the idea that one side has all the power ... completely misses the point.'

- 6.78 We provisionally readopt our conclusion from the Final Report that both parties have some degree of bargaining power and PMIs do not have countervailing buyer power which completely prevents the exercise of market power by hospital providers.

7. Quality and range

- 7.1 Competition in private healthcare provision is characterised by hospital operators positioning themselves in terms of quality, range and price.⁴¹⁵ In the Final Report we separately analysed quality and range in relation to central London, setting out HCA's views on competition in quality and range in London, differentiation of HCA compared with other London hospitals, differentiation of HCA compared with TLC, economic theory and empirical studies on the effect of competition on quality and PMIs' incentives in relation to quality. This evidence and analysis is set out in paragraphs 6.388 to 6.426 of the Final Report and we set out our conclusions on quality and range in paragraph 6.440. We also gave additional consideration to HCA's evidence and submissions on quality and range, as part of its argument related to loss of relevant customer benefits (RBCs) if our proposed remedies were adopted, in Appendix 11.1 of the Final Report.
- 7.2 We consider it appropriate (as we did in the Final Report) to maintain a clear distinction between quality and range:
- (a) Quality indicates how well a given treatment and the overall service are provided (also referred to as vertical product differentiation). Quality may refer to different aspects, including clinical expertise and outcomes, nursing care, waiting time, comfort and quality of accommodation.⁴¹⁶
 - (b) Range indicates which and how many treatments are provided (also referred to as horizontal product differentiation) and it encompasses the extent to which hospital operators provide more complex, and possibly more costly, treatments (ie high-acuity care).⁴¹⁷
- 7.3 In this section, we discuss parties' submissions and evidence on quality and range (or treatment complexity). On quality and range, we concluded in the Final Report that:⁴¹⁸
- (a) Both within and outside central London, there was no evidence of material quality differences between hospital operators, although we also noted

⁴¹⁵ HCA often referred in its submissions to 'innovation' as another dimension of non-price competition in the provision of healthcare. As we discussed in the Final Report, in this market 'innovation' mainly refers to the adoption of existing products, technologies, equipment, rather than the development of new ones. For this reason, we consider that non-price competition is adequately described in terms of quality and range.

⁴¹⁶ Final Report, paragraph 6.384.

⁴¹⁷ Treatment complexity, which is determined by a hospital operator's range of treatments, should not be conflated with patient complexity. Patient complexity refers to those features of patients that, for any given treatment, make them more difficult or costly to treat than an otherwise similar patient receiving the same treatment. For example, patients who are older, more obese, or have co-morbidities may be more difficult to treat. This is independent of whether they need a relatively simple or complex treatment. We do not discuss parties' submissions and evidence on patient complexity, which will be discussed in the section on the IPA.

⁴¹⁸ Final Report, paragraph 6.440.

that the lack of objectively comparable measures made quality difficult to assess.⁴¹⁹ In particular, in relation to central London, the evidence available did not lead us to conclude that HCA's quality was materially higher than that of close competitors in central London, including TLC.⁴²⁰

- (b) Notwithstanding the weak competitive constraints and barriers to entry and expansion, there was a degree of competition over both quality and range in many local areas, including central London.⁴²¹
- (c) The evidence indicated that overall, quality and range would not worsen with greater rivalry and we had reason to believe that they would improve in more competitive markets.⁴²²

7.4 We did not receive any additional evidence or submissions in this remittal that would give good cause to change our findings (in paragraphs 7.3(b) to 7.3(c) above) that there is a degree of competition in both quality and range in central London, and that quality and range will not worsen with greater rivalry. Therefore, we provisionally readopt both findings.

7.5 In the remainder of this section, we discuss:

- (a) Parties' views, submissions and any other evidence provided during this remittal on whether there are any material quality differences between hospital operators and in particular between HCA and TLC. This question is relevant for our assessment of competitive constraints (particularly in our assessment of the extent to which hospitals outside central London impose a competitive constraint on hospitals in central London), and for our IPA (insofar as differences in quality between HCA and TLC might explain any observed price difference).
- (b) HCA's argument that its broader range of complex treatments means that it has a higher cost base which might then be reflected in higher prices across its range of treatments.
- (c) HCA's argument that our finding that there is competition over quality and range is inconsistent with our finding that there is weak competition on price.

⁴¹⁹ Final Report, paragraph 6.440.

⁴²⁰ Final Report, paragraphs 6.412 & 6.418.

⁴²¹ Final Report, paragraph 6.440.

⁴²² Final Report, paragraph 6.440.

Parties' views on differences in quality between hospital operators

7.6 HCA made two points on differences in quality between hospitals in this remittal:

- (a) First, HCA suggested that quality differences might explain any price differences between HCA and TLC.⁴²³
- (b) Second, in relation to market definition and competitive constraints, HCA argued that 'any alleged "quality gap" between [outer] London and central London providers is becoming increasingly less significant', and that we had not carried out an assessment of quality in any case.⁴²⁴ HCA argued that we were wrong to conclude that central London hospitals were higher quality than those in outer London, as we had not conducted any analysis to establish this, and listed several high-quality hospitals in outer London.⁴²⁵

7.7 During this remittal, HCA also submitted that it had achieved JAG accreditation for its endoscopy units at the Wellington and the London Bridge Hospitals, whereas TLC is not JAG accredited.^{426,427}

7.8 AXA PPP stated that it was not aware of any changes to quality or range since the Final Report.⁴²⁸ In AXA PPP's view, there was no evidence to support the proposition that HCA's quality of care was any different from that of other providers in central London. AXA PPP agreed that there was a perception that HCA was a high-quality hospital, but it stressed that TLC was also perceived 'as being absolutely the equal' of HCA's hospitals in perceptions of quality. In addition, AXA PPP did not agree that HCA had better or more renowned consultants than TLC.⁴²⁹

7.9 AXA PPP cited evidence from the National Joint Registry on revision rates and 90-day mortality rates for hip and knee surgery, which showed that HCA's hospitals were within the expected range around the national average. AXA

⁴²³ HCA submission on 13 March 2015, paragraph 5.6.

⁴²⁴ HCA submission on 1 May 2015, paragraph 2.3.

⁴²⁵ HCA submission on 1 May 2015, paragraph 4.84.

⁴²⁶ According to HCA, 'JAG is the Joint Advisory Group on gastrointestinal endoscopy ... The JAG accreditation scheme measures and audits clinical standards in endoscopy ... It is widely regarded as the "gold standard" in endoscopy. HCA understands that the NHS tariff is *higher* for NHS JAG-accredited endoscopy facilities, acknowledging the higher quality outcomes for patients.' [38]

⁴²⁷ According to the list of JAG accredited units, London Bridge Hospital was assessed in November 2014 and the Wellington was assessed in March 2014. We note that this is after the period covered by the data in our IPA. TLC has not been assessed. The list of JAG-accredited units is available on its [website](#) (accessed on 30 October 2015), and, at the time of writing, the table was last updated on 6 October 2015.

⁴²⁸ AXA PPP submission on 6 May 2015, Q8 p.9.

⁴²⁹ [AXA PPP hearing summary](#).

PPP submitted that there was no evidence to suggest that HCA's performance on clinical quality was substantially better than the national average.

- 7.10 Bupa stated that there were currently no satisfactory public sources of clinical quality information with which to compare hospital operators across a broad range of treatments. According to Bupa's patient satisfaction surveys,⁴³⁰ [REDACTED].⁴³¹ [REDACTED].⁴³²
- 7.11 Bupa also provided comparisons of a number of quality metrics that it asks hospital operators to report which give an indication of safety and performance at their facilities, such as infection rates and readmission rates. On the limited set of metrics that may be compared,⁴³³ HCA does not deliver systematically better outcomes when compared to TLC.
- 7.12 TLC believed that the quality of care it provided 'is as good [as] or better' than HCA's, although it acknowledged that the statistical evidence was limited.

Our response

- 7.13 In the Final Report, we considered HCA's claim that its quality was higher than that of its competitors (Final Report, paragraphs 6.395 and 6.412, and Appendix 11.1, paragraphs 27 to 38), and TLC in particular (Final Report, paragraph 6.417). Overall, we considered that the evidence available to us did not lead us to conclude that HCA's quality was materially higher than that of close competitors in central London, including TLC,⁴³⁴ although we noted that there was a lack of objectively comparable quantitative data on quality indicators.
- 7.14 There is still a lack of objectively comparable measures of clinical quality across a broad range of treatments. HCA has supplied only limited additional evidence or comparable data on clinical quality to support its claim that it provides a higher quality of care. We have considered the limited evidence available from sources of publicly available comparable data, such as

⁴³⁰ According to Bupa, the survey was conducted by an independent survey company (MSB). It was a self-reported survey, sent to a random sample of around 6,200 patients each month within three months of a processed claim, covering around 300 hospitals across the UK. [REDACTED]

⁴³¹ Bupa submission on 6 May 2015, paragraphs 2.53–2.56; [REDACTED]

⁴³² Bupa submission on 6 May 2015, paragraph 2.57.

⁴³³ These metrics were: MRSA bacteraemia per 1,000 bed days; number of cases of *C. difficile* per 1,000 bed days; total number of orthopaedic surgical site infections; % cases DVT/PE inpatient in all inpatient admissions; % of deaths within 48 hours of inpatient anaesthetic episode; % unplanned returns to theatre as a proportion of visits to theatre; % unplanned transfers as a proportion of total discharges; % unplanned readmissions within 29 days as a proportion of total discharges; and number of adverse clinical incidents which result in moderate risk, high risk or death, per 1,000 bed days.

⁴³⁴ Final Report, paragraphs 6.412 & 6.418.

outcome data from the Society for Cardiothoracic Surgery⁴³⁵ (noting that TLC does not perform cardiac surgery, so this data does not address whether HCA is better quality than TLC) and the National Joint Registry.⁴³⁶ Neither of these sources suggest that clinical quality at HCA's hospitals (at least, for cardiothoracic surgery, hip replacements and knee replacements) is substantially better than expected.⁴³⁷ We note that this is consistent with Bupa's limited set of comparable clinical quality metrics. Similarly, [X] also does not suggest that HCA's quality of care is materially higher than other private hospital operators, including TLC.

- 7.15 Overall, the available evidence does not indicate that the relative quality of HCA and TLC have changed since the Final Report. Therefore, we provisionally readopt our finding that there is no evidence of material quality differences between HCA and TLC, noting that the lack of objectively comparable measures makes quality difficult to assess.

Parties' views on differences in range between hospital providers

- 7.16 HCA's economic advisers presented evidence, relying on definitions of treatment complexity commonly used in the healthcare sector, that its range of treatments was more complex than TLC's,⁴³⁸ which would also imply that it had a higher cost base. HCA's economic advisers further argued that higher costs were 'likely' to be apportioned across all of HCA's treatment prices.⁴³⁹ HCA argued that with long-term contracts and flat annual price increases, changes in the relative costs for treatments would mean that even if there was no cross-subsidisation at the time of negotiation, it was likely that some would be introduced over time.⁴⁴⁰
- 7.17 HCA also argued that it likely received more difficult patients due to the breadth of services that it offered (which included more complex treatments).⁴⁴¹ These patients were more costly to treat, which might explain any price differences between HCA and TLC. In other words, HCA suggested that

⁴³⁵ Society of Cardiothoracic Surgery in Great Britain and Northern Ireland, data for [The Harley Street Clinic](#), [London Bridge Hospital](#) and [The Wellington Hospital](#).

⁴³⁶ [National Joint Registry Surgeon and Hospital Profile](#), data for The Wellington Hospital, London Bridge Hospital, Princess Grace Hospital and TLC.

⁴³⁷ For cardiothoracic surgery, we considered risk-adjusted in-hospital survival rate for HCA's hospitals. The survival rates for The Harley Street Clinic, London Bridge Hospital, and The Wellington Hospital were all within the control limits, meaning that they are 'expected' survival rates, with any variation above or below the risk-adjusted national average due to chance. For hip and knee surgery, we considered risk-adjusted 90-day mortality ratios and risk-adjusted revision rates for HCA's hospitals and TLC. The 90-day mortality and revision ratios for The Wellington Hospital, London Bridge Hospital, Princess Grace Hospital and TLC were all within the expected range around the national average.

⁴³⁸ KPMG submission on the Analysis of Insured Prices, 1 May 2015, section 2.1.2.

⁴³⁹ *ibid*, paragraph 73.

⁴⁴⁰ *ibid*, paragraphs 72 & 73.

⁴⁴¹ HCA submission on 13 March 2015, paragraph 4.3, third bullet.

there was a link between its range (and complexity) of treatments and the complexity of its patients.

- 7.18 AXA PPP accepted that HCA had a greater range of treatments and did more complex treatments than most other private hospitals. However, with the exception of cardiac surgery, AXA PPP did not believe there were material differences between HCA and TLC with respect to range and therefore treatment complexity.

Our response

- 7.19 We acknowledged in the Final Report that HCA has a relatively strong focus on high-acuity care and that it has been the leader in introducing a range of treatments/diagnostic techniques.⁴⁴² However, we also noted that although there may be a degree of horizontal differentiation (ie differences in the range of treatments provided by hospital operators), this does not appear to be perceived by HCA as a significant differentiator between its hospitals and those of some of its competitors, in particular competitors in central London.⁴⁴³ Overall, we acknowledged that HCA offers a wider range of treatments than TLC, but we considered that TLC's offer is regarded by HCA as comprehensive. We also considered that the difference in product range between HCA and TLC is likely to be explained to some extent by the difference in the sizes of their hospital portfolios and that both HCA and TLC have expanded their range in recent years.⁴⁴⁴ Our views on these points are unchanged.
- 7.20 We do not accept HCA's argument that its broader range of high-complexity treatments means that it has a higher cost base which must then be reflected in higher prices across its range of treatments – both complex and less complex – regardless of the differing levels of competition that it may face across different treatments. If anything we would expect any services where its cost base is higher (due to its providing more complex treatments) to be reflected in the prices of those high-complexity treatments that only HCA provides rather than in those treatments where it competes directly with TLC. HCA's incentives are to offer higher prices for treatments where it faces less competition. We also consider that any cross-subsidisation is likely to be limited, and if there were significant cross-subsidisation across treatments, then we would expect HCA and PMIs to be aware of it and, if desired, to adjust treatment prices and bring them back in line with relative costs. We

⁴⁴² Final Report, paragraph 6.411.

⁴⁴³ Final Report, paragraphs 6.411 and 6.414–6.416.

⁴⁴⁴ Final Report, paragraphs 6.416.

have received no evidence, either in submissions or parties' internal documents, that there is a significant degree of cross-subsidisation. We further note that HCA's substantial and persistent profitability in excess of the cost of capital indicates that HCA's pricing is higher than a level which merely covers its cost base.

Parties' arguments on competition on quality and range

7.21 HCA criticised what it considered to be our inconsistent findings in the Final Report that there was a degree of competition over both quality and range in central London, but a lack of effective competition with respect to price, given that some competitive constraints applied to quality and range.⁴⁴⁵ It argued that investments were uncertain, and that successful investments would allow a hospital operator to differentiate itself and be first to market with a new service. This may enable that provider to charge higher prices to cover the cost (and risk) of investment and to reflect the higher quality of the new service, and/or to increase volumes by capturing market share from other competitors. Rivals may also invest to improve the competitiveness of their offer, which would reduce this effect.⁴⁴⁶ HCA argued that 'we should normally expect to see a lower level of quality and innovation in a monopolised market than would be the case in a competitive market.'⁴⁴⁷ It argued that competition on quality and innovation, and the fact that providers responded to each other's investments, was evidence that hospital operators were actively competing.⁴⁴⁸

Our response

7.22 As we noted in the Final Report, the existence of investments in quality and range is not inconsistent with a market being highly concentrated as, in general, firms with market power may also find it worthwhile to improve quality and expand range.⁴⁴⁹ We also responded to HCA's view that higher prices may result from successful investments in the Final Report, and noted that HCA does not appear to have invested more over recent years than its closest competitor, TLC, and HCA's profitability is significantly higher.⁴⁵⁰

7.23 We do not accept HCA's argument that our findings on competition on price and non-price factors in central London are inconsistent. We remain of the view that competition over quality and range is not inconsistent with a lack of

⁴⁴⁵ HCA submission on 1 May 2015, paragraph 4.8.

⁴⁴⁶ HCA submission on 1 May 2015, paragraph 4.9.

⁴⁴⁷ HCA submission on 1 May 2015, paragraph 4.10.

⁴⁴⁸ HCA submission on 1 May 2015, paragraph 4.11.

⁴⁴⁹ Final Report, paragraph 6.405.

⁴⁵⁰ Final Report, paragraph 6.409.

competition over price in the private healthcare market, particularly within the insured segment. This is because, for insured patients, decisions about (a) where to go for treatment and which treatments to receive, and (b) how much to pay for treatments at each hospital are divorced, and competitive conditions at each of these levels may diverge.

- 7.24 At the point of seeking treatment, insured patients (with advice from GPs and consultants) decide where to seek treatment and which treatments to receive. They are likely to be more sensitive to non-price factors like quality, range and location, and relatively less sensitive to the price of treatments. Individual patients and consultants may have a range of alternatives in central London, and so hospital operators in central London may have stronger incentives to improve their quality and range.
- 7.25 In contrast, insured prices are the result of negotiations between PMIs and hospital operators. In the case of patients who are insured via their employer, these individuals are even further removed from considerations on price, as it is their employer that pays for their private medical insurance. The range of alternatives available to PMIs in London, when negotiating prices and which hospitals to include in their network, is much narrower than those facing individual patients and consultants. For instance, HCA's hospitals are considered by Bupa and AXA PPP to be 'must have',⁴⁵¹ for reasons that we discuss in detail in Section 4 on Competitive Constraints and Section 6 on Bargaining, while any individual patient might have a range of alternatives to HCA's hospitals, depending on their individual circumstances, and choose on the basis of hospital quality and price (if they are self-pay). Therefore, while there is a degree of competition over both quality and range in central London, hospital operators may not face strong incentives to compete on price, particularly insured prices.
- 7.26 Finally, even accepting that there is a degree of competition over quality and range, this does not mean that we can ignore a lack of price competition. Given our previous finding that HCA had, during the period 2007 to 2012, been earning returns substantially and persistently in excess of the cost of capital,⁴⁵² we consider that there are some limitations in the competitive process overall.

⁴⁵¹ These views are not limited to Bupa and AXA PPP. In the Final Report, we noted the widespread views among PMIs and some hospital operators that HCA has a number of 'must-have' hospitals, to which PMIs would have to continue to send patients even in the event of a dispute. (Final Report, paragraph 6.297 and Appendix 6.11, paragraph 12.)

⁴⁵² Final Report, paragraph 6.474. In addition, in paragraph 6.409 of the Final Report, we noted that 'HCA does not appear to have invested over recent years more than its closest competitor, TLC' and that 'TLC has invested proportionately more than HCA over the period' between 2007 and 2011.

Provisional conclusions on quality and range

7.27 We have not received any new evidence or new arguments that would lead us to change our views on quality and range. Therefore, we provisionally readopt all of our findings on quality and range in paragraph 6.440 of the Final Report, in relation to central London:

- (a) In central London, there is no evidence of material quality differences between hospital operators (including between HCA and TLC), although we also note that the lack of objectively comparable measures makes quality difficult to assess.
- (b) Notwithstanding the weak competitive constraints and barriers to entry and expansion, there is a degree of competition over both quality and range in central London.
- (c) The evidence indicates that overall, quality and range will not worsen with greater rivalry and we have reason to believe that they will improve in more competitive markets.⁴⁵³

⁴⁵³ Final Report, paragraph 6.440.

8. Empirical analysis on insured prices (insured pricing analysis)

8.1 As set out in detail in Section 1 (paragraphs 1.10 to 1.16), the focus for the remittal was to review and reconsult on the IPA analysis, where we conceded that there had been errors in the code used.⁴⁵⁴ With this context in mind, on 11 June 2015 we published a working paper which set out the analysis and revised results of the IPA (the IPA Working Paper) and invited parties to submit responses by 24 July. During the same period we also held a data room where interested parties had access to the underlying raw data, cleaned data set and full details of the methodologies, analyses and codes used in the computer modelling of the IPA, as well as sensitivity and robustness checks related to the IPA. Written submissions on the IPA Working Paper were received from AXA PPP, Bupa and HCA, and non-confidential versions of these submissions were published on 6 August 2015. These parties also attended hearings, as did TLC, and subsequent submissions and responses to information requests have also been received from these four parties, as set out in the relevant paragraphs of this section.

8.2 This section is structured as follows:

- (a) The IPA methodology and high-level results from previous analyses (paragraphs 8.4 to 8.19).
- (b) Parties' views on the IPA Working Paper and our responses, with a particular focus on the issue of potential differences in patient complexity between HCA and TLC (paragraphs 8.20 to 8.119).
- (c) Updated IPA results (paragraphs 8.120 to 8.127).
- (d) Robustness checks and alternative empirical analysis (paragraphs 8.128 to 8.146).
- (e) Our provisional conclusions on the empirical analysis of insured prices in central London (paragraphs 8.147 to 8.150).

8.3 In each of the subsections dealing with substantive issues in relation to the IPA methodology and results (that is, those covered by paragraph 8.2, (b), above), we first outline the evidence and analysis set out in the IPA Working Paper, we then describe the relevant comments we received from parties in

⁴⁵⁴ As set out in more detail below, these two errors related to the statistical robustness of the results (the R-squared statistics of the underlying regressions and the statistical significance testing of the price differences) rather than to our estimates of the sizes of the relevant price differences.

response to the working paper and conclude with our provisional views on each issue.

Our IPA methodology and high-level results from previous analyses

Our analysis set out in the IPA Working Paper

- 8.4 Our approach to calculating any difference in the prices that HCA and TLC charge to PMIs is based on the same overall methodology we employed in the Final Report and in the IPA Working Paper.⁴⁵⁵ The IPA was presented in paragraphs 6.333 to 6.383 and Appendix 6.12 of the Final Report.
- 8.5 While in the Final Report the IPA was carried out for Great Britain as a whole, the focus of the remittal is on central London. We therefore have re-examined the IPA in relation to central London providers HCA and TLC only.
- 8.6 We first describe the basis for, and the steps involved in, the IPA.

Constructing price indices on a like-for-like basis

- 8.7 The aim of the IPA in relation to central London is to compare the prices charged by HCA and TLC to individual PMIs in each of the years 2007 to 2011, as well as to compare the prices paid to these hospital operators across all of the PMIs across all years.⁴⁵⁶ This is a complex task due to the differences between hospital operators in the treatments that they offer and the mix of patients that they treat (factors for which we sought to control).
- 8.8 Our methodology aimed to construct a measure of insured prices that would be comparable between hospital operators. To do this, we constructed a 'price index' based on a common basket of treatments offered by both hospital operators to each PMI.
- 8.9 The index summarised prices in a single aggregated number, to reflect the process of bargaining between PMIs and hospital operators, which does not take place at the level of the individual treatment but at an overall level covering all treatments.
- 8.10 We based our calculations on underlying invoice data which captured what we referred to as the 'episode price'. An episode is defined as a single patient visit to a given hospital for a given treatment and the corresponding episode price is defined as the total amount paid for hospital services excluding

⁴⁵⁵ [IPA Working Paper](#), paragraphs 30–40.

⁴⁵⁶ Note that we do not have the data for all years for some PMIs.

consultant fees. The prices are based on data obtained from Healthcode, an intermediary between hospital operators and PMIs, which we further prepared for the purposes of our analysis (a process referred to as ‘data cleaning’). The relevant data related to inpatient and day-case episodes, which accounted for 75% of revenue in 2011 covered in the data set. Because data relating to outpatients was not classified in a way which allowed it to be compared across operators, outpatient episodes are not included in the analysis.

8.11 In the Final Report, we set out different versions of the price index, two of which are relevant for the remittal as we set out in the IPA Working Paper. These are:⁴⁵⁷

(a) an ‘insurer-specific price index’ (the average insured price charged by a given hospital operator to a given PMI in a given year). This allows for comparisons between the prices charged by different hospital operators for a given PMI in a particular year; and

(b) an ‘average price index’ (the average insured price charged by each hospital operator on average across PMIs). This allows for comparisons between the prices charged by different hospital operators across PMIs.

8.12 In central London, we focused on comparing HCA and TLC, because we considered them to be the two closest competitors to each other based on their shares of admissions and capacity, overlap in terms of the range of services provided, and the views of relevant parties.⁴⁵⁸ Because HCA and TLC are almost exclusively based in central London, we noted that as far as they were concerned, insured prices and local prices were essentially the same thing.

8.13 When comparing prices between HCA and TLC, conducting a robust like-for-like comparison is a complex task because we need to take into account differences between the treatment mix (or treatment complexity) and patient mix (or patient complexity) between the two hospital operators. The different mix of treatments and services that different hospitals provide is likely to also include differences in the complexity of those treatments (which we deal with in Section 4 on quality and range) and could, for example, relate to the level of specialised staff and equipment, which could be associated with higher costs of provision. The complexity of patients, in the context of the IPA, refers to factors that may result in a patient being more expensive to treat than other patients being admitted for the same treatment (or CCSD),⁴⁵⁹ for example,

⁴⁵⁷ The self-pay price index is not dealt with in this working paper, which is focused on insured prices.

⁴⁵⁸ Final Report, paragraphs 6.204–6.218 and Appendix 6.10.

⁴⁵⁹ We use the terms ‘treatment’ and ‘CCSD’ interchangeably. CCSD stands for ‘Clinical Coding and Scheduling Development’ and is a system of classifying treatments and diagnostic procedures in the private healthcare

due to co-morbidities⁴⁶⁰ or the severity of the patient's illness which may mean the patient requires, for example, more theatre time, more (and/or more high-value) drugs, more pathology tests, more nursing time or monitoring.

- 8.14 In the IPA Working Paper, as well as the Final Report, we have included specific patient characteristics – age, gender and length of stay – in the construction of the price index as we consider that these are likely to capture the effects of any possible differences in patient complexity on the price difference between HCA and TLC.⁴⁶¹ The aim of including patient-specific demographic characteristics in the price index approach is to take into account the severity or complexity of the condition of a particular patient. For example, for a given treatment, a patient with a more severe or complex condition might have to stay in hospital longer. This affects the price of the treatment received regardless of which hospital the patient was treated at. If one provider treats more complex patients, who may stay longer, the observed episode price for a given treatment should be higher. However, we have already accounted for these higher costs required to treat more complex patients by including the length of stay explicitly in our analysis. A similar argument can be made in relation to age (as, for some treatments, older patients tend to have more co-morbidities and hence are more complex to treat)⁴⁶² and gender (for those treatments where gender affects costs).⁴⁶³
- 8.15 To calculate the insurer-specific price index for a hospital operator (eg HCA) for a given PMI in a given year (eg Bupa in 2010) we took the following steps:
- (a) We identified the 'common basket' of treatments for the hospital operators included in the comparison (in this case, HCA and TLC). The common basket includes treatments provided by both operators included in the price comparison for the given PMI in a given year. This step of the methodology controls for any differences in treatment mix between HCA and TLC.

sector. See the [CCSD website](#). We use this terminology in discussing more detailed points in relation to the IPA and HCA's advisers' analysis thereof, as this is the system of classifying treatments that is used in the Healthcode data set, on which our analysis is based.

⁴⁶⁰ Co-morbidities are other conditions that a patient has alongside the main diagnosis that they are being treated for, for example, high blood pressure, a heart condition, asthma or diabetes.

⁴⁶¹ In doing so we follow the recent academic literature. For example, Gowrisankaran, Nevo and Town (2015), 'Estimating the price impact of hospital mergers: an analysis of Inova's proposed acquisition of Prince William Hospital', *American Economic Review*, January, Vol 105, No 1.

⁴⁶² There are likely to be exceptions to this where we might expect a negative correlation between age and the cost of treating a patient. For example, for some paediatric procedures we might expect a younger patient to be more expensive to treat. Also, for some treatments age may not have a material impact on the costs involved in treating the patient.

⁴⁶³ We also take into account that the above mentioned patient demographics may have a different effect for different treatments.

- (b) For each treatment in the common basket, we regressed episode prices on patient characteristics (age, gender and length of stay) and a constant term using all episodes associated with the hospital operators for the given PMI in a given year.⁴⁶⁴
 - (c) For each treatment in the common basket, we used the regression estimates from step (b) to estimate the price charged by the hospital operator for the given PMI in a given year for treating a 'representative patient'. The representative patient is defined separately for each treatment as a patient with median characteristics (age, gender⁴⁶⁵ and length of stay) across all hospital operators included in the price comparison. In combination with step (b), this step of the methodology controls for any differences in patient mix or patient complexity.
 - (d) We then calculated the insurer-specific price index as a weighted average of the estimated prices for each treatment obtained in step (c). Each treatment receives a weight equal to the number of admissions for that treatment across all operators included in the price comparison (for example, HCA and TLC in central London).
- 8.16 Repeating the above steps for each hospital operator in the price comparison produces insurer-specific price index results for a PMI and year pair (for example, comparing the prices charged by HCA and TLC to Bupa in 2011). We then repeat this process for all PMIs and all years to produce the full set of results.
- 8.17 To calculate the average price index, we use the weighted average of the insurer-specific price index results described above. We weight each insurer-specific price index by the size of the common basket of treatments according to the number of admissions.

High-level results from the Final Report and the IPA Working Paper

- 8.18 Based on the above described methodology, Table 8.1 presents the overall price differences that were reported in the Final Report and in the IPA Working Paper, as these provide the relevant context for the parties' views that follow.

⁴⁶⁴ This regression technique allows us to control for price differences that can be systematically explained by differences in observable patient characteristics.

⁴⁶⁵ In relation to gender, the 'median' is defined by whichever gender is more common in the relevant sample of patients.

Table 8.1: Overall price differences between HCA and TLC

Minimum patient episode threshold	Final Report	IPA Working Paper
5 episode	[REDACTED]	[REDACTED]
30 episodes	Not reported	[REDACTED]

Source: Final Report, CMA analysis.

8.19 These results indicate that, based on the analysis presented in the Final Report, HCA was [REDACTED]% more expensive than TLC (based on a 5-episode threshold).⁴⁶⁶ The IPA Working Paper showed an overall price difference of between [REDACTED]% and [REDACTED]%, based on 5- and 30-episode thresholds, respectively,⁴⁶⁷ both of which were statistically significant at the 99% confidence level.

Parties' views on the IPA Working Paper

8.20 In the following sections we address the comments made by the parties in response to the IPA Working Paper and subsequent hearings and information requests.

8.21 Parties raised various views on the IPA Working Paper, with a particular focus on four main areas:

(a) First, patient complexity, where two related points were raised:

- HCA put forward the view that its patients tended to be more complex than TLC's for a number of reasons. Bupa, AXA PPP and TLC also put forward views and evidence on this issue; and
- HCA submitted an analysis conducted in the IPA Working Paper Disclosure Room Report (IPA WP DRR) that included extra variables in an attempt to more adequately control for these differences in patient complexity. Bupa, AXA PPP and TLC submitted views on whether HCA's approach was, in principle, a valid one.

(b) Second, HCA submitted that a small number of individual treatments accounted for a large proportion of the overall price difference, which, in HCA's view, called into question the robustness of the results, as well as the extrapolation of these results to HCA's pricing more generally.

⁴⁶⁶ Final Report, paragraph 6.346 and Appendix 6.12, Annex B, Table 2.

⁴⁶⁷ IPA Working Paper, Table 4, p27.

- (c) Third, in relation to the R-squared statistics, which is one of the areas affected by a coding error which led to the remittal, HCA put forward related points about the levels of these statistics and the implications of this for the robustness of our results.
- (d) Fourth, in relation to the statistical significance of the IPA results, which was the other area affected by a coding error which led to the remittal, HCA made a number of points in relation to our methodology.
- (e) In addition, we deal with three other issues that HCA has put to us:
 - (i) treatment mix and the representativeness of the 'common basket';
 - (ii) causal relationship between high concentration and HCA's higher prices; and
 - (iii) 'empirical errors' in the IPA.

8.22 In relation to each of these issues, we first outline the evidence and analysis set out in the IPA Working Paper, we then describe the relevant comments we received from parties in response to the working paper and conclude with our provisional views on each issue.

Patient complexity

8.23 In this section we discuss the views and evidence that has been put to us in relation to differences in patient complexity across hospitals and, in particular, the potential impact of any differences in patient complexity between HCA and TLC on the estimated price differences between these two providers. In our approach to the IPA, we accounted for patient complexity by including age, gender and length of stay in the regressions that we estimated for each treatment. In the Final Report, we stated that:

... for the majority of treatments included in our analysis, the regression analysis controls for the majority of the variation in episode prices, and we did not have evidence to suggest that any remaining differences between patients (eg due to clinical reasons) were materially different between HCA and TLC ...⁴⁶⁸

8.24 In its response to the IPA Working Paper, HCA's economic advisers (KPMG and a number of academic experts) stated that the price comparisons in the IPA were 'not conducted on a like-for-like basis'.⁴⁶⁹ In a previous submission,

⁴⁶⁸ Final Report, paragraph 6.366.

⁴⁶⁹ IPA WP DRR, paragraph 1.4.

referring to the analysis of insured prices in the Final Report, HCA's economic advisers also made this point, and argued that:

Differences in treatment mix were not properly taken into account. Furthermore, systematic differences in patient complexity were not appropriately controlled for, which are likely to influence the reliability of price indices. This means that observed differences in price are – at least partly – explained by higher costs of providing higher quality procedures, a greater scope of services overall, and lastly of treating patients with more complex medical needs, and thus are more expensive to treat. Observed differences in prices would then be due to legitimate differences in the nature and/or quality of services provided, and not necessarily to discretionary price setting behaviour.⁴⁷⁰

- 8.25 They pointed to the level of the R-squared statistics, which, in their opinion, were relatively low, given that we were attempting to predict prices. It argued further that this would suggest that not all (major) factors were included in the explanation of the price difference.⁴⁷¹ They then suggested using the number of pathology charges in an invoice as a way to 'more adequately control for'⁴⁷² differences in patient complexity. It showed that including the count of pathology charges as an additional variable in the treatment-level regressions in the IPA reduced the price difference between HCA and TLC. Similarly, this analysis also considered the number of pathology charges alongside [X], which gave similar results.
- 8.26 Given the comments put to us by HCA, we considered two questions related to patient complexity:
- (a) Are there plausible mechanisms through which more complex patients are disproportionately directed towards HCA rather than TLC?
 - (b) Is the number of pathology charges in the invoice data a good basis for comparing and controlling for differences in patient complexity between HCA and TLC?
- 8.27 We address each question in turn, providing details of HCA's arguments, other parties' responses and our view.

⁴⁷⁰ KPMG, 'A Submission on the Analysis of Insured Prices', 1 May 2015, paragraph 8.

⁴⁷¹ We discuss the issue of R-squared statistics further below.

⁴⁷² KPMG IPA WP DRR, paragraph 1.5.

(a) Mechanism for allocating complex patients

- 8.28 In the IPA WP DRR, HCA's economic advisers argued that, for the treatments included in the common basket, even once differences in age, gender and length of stay were taken into account, [§].⁴⁷³ In HCA's view, better accounting for these differences meant that the estimated price difference between the two providers reduced substantially and was no longer statistically significant based on the 5-episode threshold.⁴⁷⁴
- 8.29 In order to assess the strength of this argument in relation to patient complexity differences, we began by considering whether there were likely to exist any mechanisms that would systematically allocate more complex patients to HCA rather than to TLC and then assessing whether any such mechanisms that were identified would be sufficient to lead to a material difference in patient complexity between the two providers. We asked HCA and the other parties for evidence on the existence of such mechanisms.
- 8.30 The following paragraphs provide a summary of the views and evidence submitted by HCA, AXA PPP, Bupa and TLC on whether, and why, there may be differences in the complexity of patients treated by HCA and TLC. We then set out our assessment and provide our provisional view on this issue.
- *HCA*
- 8.31 HCA put forward a number of reasons why it considered that it attracted more complex patients than TLC. In essence, these were as follows:
- (a) HCA's wider range, in particular its focus on high-acuity and high-complexity services, meant that it could treat more complex patients.
 - (b) HCA's profile as a provider of complex, tertiary services meant that it attracted leading consultants who tended to provide complex treatments and attract complex patients.
 - (c) HCA marketed itself to GPs, which meant that they were more likely to refer their more complex patients to HCA.
 - (d) Patients were increasingly likely to choose their own facility and patients with more complex diagnoses were more likely to do their own research and then choose HCA due to its wide range of complex services and its reputation for providing complex services.

⁴⁷³ KPMG IPA WP DRR, paragraph 4.29.

⁴⁷⁴ KPMG IPA WP DRR, paragraph 4.39.

- 8.32 First, HCA pointed to its strategy of targeting the ‘more acute end of the acuity spectrum’ in its investment decisions and noted a number of examples of ‘new complex clinical services and state-of-the-art equipment’ that it had invested in, as well as pointing to its staffing levels. HCA argued that it provided more complex treatments than TLC and that, even within the common basket, its activity was more concentrated on higher-complexity treatments and offered a broader range of specialised procedures than TLC. Also, HCA made the point that it had a higher proportion of episodes involving multiple CCSDs than TLC. HCA referred to its previously submitted case study evidence which, in its view showed ‘how HCA’s treatment pathways facilitate the rapid diagnosis [and] treatment of more complex conditions’ and pointed to ‘HCA’s integrated care pathways, cutting-edge technology, multi-disciplinary teams, and higher levels of clinical staffing, which are specifically geared towards higher-complexity treatments’.
- 8.33 HCA gave the example of a patient being referred for a vascular problem by a GP. It argued that the GP or the cardiologist might prefer to investigate the patient at the Wellington Hospital rather than at TLC in case something went wrong, for example a cardiac catheterisation, as cardiac surgery could be performed at the Wellington (and not at TLC as it did not provide cardiac surgery). Another example related to haematological transplants which may be conducted on more complex patients (such as those with leukaemia, myeloma or a lymphoma) at HCA’s PPU at UCH due to the infrastructural support available at the NHS trust compared with the types of patients that TLC may treat. [✂]
- 8.34 Second, HCA stated that its ‘profile as a high-acuity, high-complexity provider with a wide range of tertiary treatments inevitably attracts leading consultants in more complex, specialised fields and, hence, patients with more complex conditions. Referral decisions by GPs and/or consultants are based and guided on [this] fact ...’.⁴⁷⁵ Where consultants ‘split’ their patient lists, they may treat a more complex patient or carry out a more complex procedure at HCA rather than at another hospital due to factors such as the availability of specialist diagnostic equipment, more extensive ITUs, 24-hour laboratory and so on. HCA gave a number of examples of where a more complex patient might be treated at HCA rather than TLC, such as a patient with a history of cardiac illness attending HCA for orthopaedic surgery due to the availability of ITU facilities that were ‘suitably equipped to provide potentially life-saving cardiac intervention’.

⁴⁷⁵ HCA submission, 18 September 2015, paragraph 1.19.

- 8.35 Third, in relation to GPs, HCA stated that while GPs ‘primarily [focus] on the choice of consultant ... the choice of hospital may also play a role in some cases.’ HCA pointed to its work building and maintaining relationships with GPs to ‘ensure that they have the requisite knowledge and information about HCA’s consultants ...’, which includes GP seminars, workshops and ‘master classes’, regular visits to GP practices, a one-stop service for GPs, and regular newsletters. According to HCA, ‘[t]his helps to ensure that patients with more complex, underlying conditions are referred to the appropriate specialist as soon as possible’, with ‘the GP’s knowledge and familiarity of consultants ... likely to be the key driver for making a referral and, in turn, the most likely reason why a greater proportion of complex patients are being referred to HCA’.
- 8.36 Fourth, HCA pointed out that patients were ‘increasingly asserting their own choice of consultant and facility’ and a patient who was aware that they needed complex care ‘may be more likely to choose a consultant based at HCA’ due to its broad and in-depth range of services (for example, cancer and cardiac care) and its ‘reputation in the market for offering complex care’.
- 8.37 Finally, HCA also pointed out that PMIs’ open referral policies ‘have tended to affect less complex procedures’. While not immediately obvious how relevant this point is, we consider one relevant implication of this point in our assessment in paragraph 8.52 below.
- *AXA PPP*
- 8.38 AXA PPP stated that ‘there is no evidence to support the proposition that the quality or the acuity of the patients that [HCA] see is any different from that of other providers.’ AXA PPP accepted that HCA had a wider range of treatments and did more complex treatments than most other private hospitals, but with the exception of cardiac surgery, it did not believe there were material differences between HCA and TLC with respect to range and treatment complexity. AXA PPP also agreed that there was a perception that HCA was a high-quality hospital, but it stressed that TLC was definitely perceived as being absolutely the equal of HCA’s hospitals.
- 8.39 AXA PPP provided evidence from the National Joint Registry on revision rates and 90-day mortality rates for hip and knee replacements, which showed that HCA’s hospitals were within the expected range around the national average in terms of these outcome measures. AXA PPP interpreted this as demonstrating that there was no evidence to suggest that HCA’s performance on clinical quality was substantially better than the national average and that, based on this data source, HCA’s hospitals treated patients who were likely to be less complex than average, based on age, obesity, risk of medical

problems before or after surgery, and diagnoses other than osteoarthritis. AXA PPP stated that it was not aware of any other publicly-available data on case-mix adjustments in different specialties and treatments, and that the available data did not support the hypothesis that HCA was providing services of superior (clinical) quality or that HCA's patients were more complex or difficult to treat.

- *Bupa*

- 8.40 In Bupa's view, there was no evidence that there were material differences in patient complexity between HCA and TLC. According to Bupa, [§]. Furthermore, Bupa was not aware of any differences that would result in more complex patients being treated at HCA rather than at TLC.

- *TLC*

- 8.41 In TLC's view, HCA did not treat more complex patients for the same CCSDs that HCA and TLC both provided. TLC stated that its consultants did not say to TLC that they had to take their most complex patients to HCA. TLC's view was that, if there was any tendency for more complex cases to go to one hospital or the other, it would be driven by consultants, but TLC's view was that, if there was any difference, it saw consultants bringing their more complex cases to it rather than the other way around.

- *HCA's further views in response to the PMIs' submissions*

- 8.42 For completeness, we also set out a number of additional points that HCA has put to us in response to the points that AXA PPP and Bupa have made.
- 8.43 HCA clarified that it was 'not challenging the "calibre" or quality of TLC's consultants', but 'simply making the point that there is a broader range of treatments and sub-specialisations, and a more extensive clinical infrastructure within HCA hospitals, and that HCA is more effectively geared to treating patients with more complex needs and comorbidities'.
- 8.44 Responding to AXA PPP's evidence in relation to the National Joint Registry, HCA pointed out that one measure of the severity of the patient's illness (the ASA score)⁴⁷⁶ pointed to HCA having more complex patients than TLC for the treatments covered in the National Joint Registry (knee and hip replacements), with HCA hospitals having average scores between 1.7 and 2,

⁴⁷⁶ HCA explained that the ASA was an assessment of the severity of the patient's illness done by the 'anaesthesiologist' prior to the start of the operation. [§]

compared with an average score of 1.6 at TLC. Additionally, the National Joint Registry data also indicates that HCA's patients on average are older than TLC's, and, in HCA's view, in the 'specific context of joint operations this is likely to indicate more complex patients'.

8.45 In relation to Bupa's evidence on the differences in average patient age at HCA and TLC, HCA stated that this was 'meaningless for a number of reasons', including:

- (a) Age had already been controlled for in the IPA.
- (b) Age 'is not itself an indication of complexity'. For example, for [X] older patients might well be routine while a younger patient 'is more likely to indicate symptomatic underlying condition, like [X].'
- (c) HCA's paediatric services meant that its average patient age was brought down relative to TLC's.

8.46 On whether Bupa guided its more complex patients towards HCA, HCA stated that its case was that 'Bupa is guiding patients **away** from HCA and its consultants through its open referrals policies ... [HCA's emphasis]'.

- *Our response*

8.47 We have considered the potential mechanisms that HCA has put forward and assessed the evidence that HCA has pointed to which may support its view in each case. We have also taken into account the views and evidence provided by HCA, AXA PPP, Bupa and TLC. We set out below our assessment of the likely extent to which there is any material difference in the complexity of patients treated by HCA and TLC which has not already been controlled for by the patient characteristics included in the IPA analysis.

8.48 First, in relation to its greater range, it is clear that HCA provides some services that TLC does not, in particular cardiology, which may lead it to attract patients with more co-morbidities for non-cardiology-related treatments. However, without any evidence on the share of HCA patients where this issue may be relevant, we cannot conclude on the extent to which this is leading to greater patient complexity at HCA to an extent that would invalidate our comparison of HCA and TLC prices across the range of treatments in the common basket.⁴⁷⁷

⁴⁷⁷ It seems reasonable to assume that if a substantial proportion of patients across many CCSDs have a heart condition (and this share is substantially higher than at TLC) then this may well lead to a substantial difference in costs. However, HCA has not given any indication of the materiality of this point. For example, if this issue arises

- 8.49 Second, much of HCA's evidence on consultants choosing HCA appears to relate to these consultants' ability to perform more complex procedures rather than providing strong evidence of a tendency to treat more complex patients within the same treatments that TLC also provides.⁴⁷⁸ The same applies to HCA's view on availability of types of equipment at its hospitals. As such, the extent to which this mechanism is likely to lead to greater patient complexity within 'common basket' treatments is far from clear. The evidence that HCA has provided in relation to this mechanism is limited.
- 8.50 Third, in relation to HCA's marketing and engagement work with GPs, we do not consider that this is a strong argument that it attracts more complex patients within the same treatments that TLC provides. HCA is not unique among private hospital providers in marketing itself to GPs⁴⁷⁹ and we consider that such marketing is likely to result in HCA gaining more GP referrals, and potentially more GP referrals for complex treatments, rather than necessarily leading to more complex referrals within the same treatments that TLC also provides. While the latter is not implausible, again, the evidence that HCA has provided on this mechanism is very limited.
- 8.51 Fourth, in relation to patients with more complex conditions actively researching and choosing HCA due to its reputation and range of tertiary services, HCA quotes the findings of the CC's patient survey which showed that most insured patients using London-based private providers conducted some online research before being treated (63% 'looked up relevant information online') and that many patients placed importance on the consultant's reputation (46%) and clinical expertise (43%). While this is relevant to the way in which patients choose where to be treated, it does not point towards substantial numbers of more complex patients choosing to be treated at HCA rather than TLC.
- 8.52 Finally, in relation to PMIs, HCA pointed out that its open referral policies often related to less complex treatments. This, in our view, is an argument about treatment complexity: HCA's range of treatments may become more skewed towards more complex treatments if PMIs are directing patients to other providers for less complex treatments. As such, this is not relevant to

in relation to a very small proportion of patients for some specific orthopaedic procedures (or if a similar share of patients with cardiac issues are treated at TLC anyway) then this is unlikely to lead to a significant problem in conducting a like-for-like comparison of HCA and TLC prices.

⁴⁷⁸ We note that a number of these quotes from consultants do indicate that HCA attracts more complex patients than many other private providers, although we also note that, in two instances, the fact that HCA provides cardiology services is the relevant point.

⁴⁷⁹ See, for example, Final Report, paragraph 8.2.

the complexity of patients within those treatments that it (and TLC) do provide to insured patients.

- 8.53 With regard to patient complexity (within those treatments included in the common basket), we have been provided with opposing views: on the one hand, HCA has put forward a number of reasons why it considers that it attracts more complex patients than TLC; on the other hand, AXA PPP, Bupa and TLC have all told us that HCA does not treat more complex patients within the same CCSDs. Overall, while we consider that some of the potential mechanisms put forward by HCA are plausible,⁴⁸⁰ the limited evidence that HCA submitted did not lead us to consider that these mechanisms would result in a systematic and material difference in the complexity of HCA and TLC patients within the same treatments. As such (and for the reasons set below), we cannot be confident of the extent to which the KPMG analysis is really capturing differences in patient complexity, as we discuss in more detail below.

(b) Controlling for patient complexity in the IPA

- 8.54 KPMG's analysis in the data room in the course of this remittal (IPA WP DRR) used additional information in the IPA data set in order to more appropriately attempt to control for any differences in the complexity of patients between HCA and TLC.⁴⁸¹ Specifically, based on the line-item data in the Healthcode invoice data, KPMG showed that [REDACTED],⁴⁸² which, according to KPMG, confirmed HCA's contention that it treated more complex patients.⁴⁸³
- 8.55 KPMG then used this information on the number of line-item charges in patients' invoices to construct additional variables.⁴⁸⁴ When including one of these – the number of pathology charges in an invoice – in the treatment-level regressions in the IPA, this led to much smaller price differences than those estimated by us using the IPA. In particular, when using the 5-episode threshold, KPMG estimated an overall price difference of [REDACTED]%.⁴⁸⁵ When using the 30-episode threshold, the estimated overall price difference was [REDACTED]%. KPMG interpreted this as evidence that, when patient complexity differences between HCA and TLC were adequately controlled for,⁴⁸⁶ there

⁴⁸⁰ For example, HCA's provision of cardiology services may well attract referrals of patients with cardiac conditions, who may be less likely to be referred to TLC even where the procedure in question is unrelated to cardiology.

⁴⁸¹ For the IPA WP DRR, KPMG modified the data set used by the CMA in order to use the count of a number of different categories charge units within the Healthcode invoice data. We discuss this data cleaning in more detail in the Appendix.

⁴⁸² IPA WP DRR, paragraph 4.21.

⁴⁸³ IPA WP DRR paragraph 4.22. In addition, [REDACTED].

⁴⁸⁴ IPA WP DRR, paragraph 4.38.

⁴⁸⁵ IPA WP DRR, Table 2, p34.

⁴⁸⁶ IPA WP DRR, paragraph 1.5.

was no statistically significant price difference between HCA and TLC, based on the 5-episode threshold.⁴⁸⁷

- 8.56 In the remainder of this section we discuss the arguments provided by HCA and the other parties in relation to the question of whether the number of pathology charges in an invoice is a reliable indicator of patient complexity. We then provide our own analysis of the data and our view on the issue.

- *HCA*

- 8.57 On the question of whether the number of pathology tests is a good proxy⁴⁸⁸ for patient complexity, HCA made a number of points:

(a) [REDACTED]

(b) HCA noted that the provision of pathology tests were either ‘clinician driven or are based on standard clinical protocols’ and that the number was not determined by the hospital operator.

(c) HCA also stated that other line items within the invoices ‘could be good proxies for patient complexity’, such as [REDACTED], [REDACTED] and [REDACTED], but that these might be more likely to occur in treatments that were less important in driving the overall price difference. For procedures other than the [REDACTED] dealt with in detail in the HCA submissions (as these were the [REDACTED] treatments which accounted for a large proportion of the estimated price difference between HCA and TLC), ‘the count of pathology charges may not be as a good an indicator’ of patient complexity. HCA pointed out that ‘[i]n order to determine whether pathology charges are a good indicator of patient complexity, an assessment made with clinical input would need to be carried out on a procedure by procedure basis’.

- *AXA PPP*

- 8.58 In response to KPMG’s approach summarised in paragraphs 8.54 and 8.55, above, AXA PPP submitted that the number of pathology line items in any given episode of care was not a straightforward indicator of patient complexity. AXA PPP pointed out that:

⁴⁸⁷ We will discuss statistical significance testing in more detail in the relevant section below and in Appendix F.

⁴⁸⁸ We use the term ‘proxy’ as a shorthand way of expressing the potential relationship between the number of line-item charges in invoices (especially the count of pathology charges) and underlying patient complexity. HCA’s submissions have used various forms of words, with the IPA WP DRR referring to the line-item data being used to ‘more adequately control’ for patient complexity (paragraph 1.5), ‘measures of complexity identifiable in the line-item data’ (paragraph 4.6) and stating that ‘pathology tests can be a key indicator of complexity’ (paragraph 4.30).

- (a) during the period covered by the IPA, consultants at different hospital groups might have been paid incentives to perform more ‘unnecessary’ tests;
- (b) although in theory consultants determined the quantity of pathology tests, hospitals might have different practices with respect to ordering tests (for instance, ward protocols that automatically ordered pathology tests as routine or on an ‘opt-out’ basis), so that particular hospital groups ordered more tests for reasons that were unrelated to patient complexity; and
- (c) billing practices across hospital groups might differ, so that the same profile or group of tests might be billed as one line item with one hospital operator and as several line items with another. AXA PPP reported that [REDACTED].

- *Bupa*

8.59 Bupa explained that different billing practices between HCA and TLC for day-case treatments⁴⁸⁹ means that a count of line items on the invoice would not be informative of patient complexity in relation to the [REDACTED] procedures that HCA has identified, all of which are day-case treatments. Bupa noted the differences in billing practices between HCA and TLC for day-case treatments: [REDACTED].

- *TLC*

8.60 TLC ‘refuted’ that the count of line items, such as pathology charges, was a good measure of patient complexity and suggested that this could be driven by billing practice rather than reflecting the care that was delivered.

- *HCA’s further views in response to the PMIs’ submissions*

8.61 For completeness, we also set out a number of additional points that HCA has put to us in response to the points that AXA PPP and Bupa have made on this issue.

8.62 In relation to what HCA called ‘the allegations made by both Bupa and AXA PPP concerning “over-treatment” in HCA hospitals’, HCA made a number of points:

⁴⁸⁹ For inpatient treatments, both HCA and TLC were contractually able to charge Bupa for elements of service on a line-by-line basis (with no partial packages).

- (a) First, it pointed out that Bupa and AXA PPP's views that HCA performed more pathology tests than TLC were consistent with KPMG's analysis of the IPA.⁴⁹⁰
- (b) Second, it reiterated that it was the consultant not the hospital that determined the number of [X] and that HCA did not 'induce' consultants to commission unnecessary [X].
- (c) Third, HCA pointed to three examples where Bupa or AXA PPP had questioned the amount of treatment that HCA was providing, pointing out in each case that these queries had been considered, for example, after independent expert determination, and resolved.
- (d) Finally, HCA pointed to a number of relevant parts of the CMA's findings in the Final Report:
 - (i) 'We would expect the ethical and regulatory constraints of consultant behaviour and, to the extent that it applies, peer or multi-disciplinary team review, to offset to a substantial extent any economic incentive for a consultant to offer advice on treatment that was otherwise than in the patient's best interests'.⁴⁹¹
 - (ii) '... the PMIs did have the means to (at least partly) counteract variation [in treatment levels] which was unwarranted'.⁴⁹²

- *Our response*

8.63 In this section we assess whether the invoice-level line items in the Healthcode data set are suitable for inclusion in the IPA regressions. We first outline the reasons why we do not consider that it is appropriate to do so. Notwithstanding our views on the appropriateness of using the line-item data in our analysis, we then investigate KPMG's claim that the count of pathology charges is a good proxy for patient complexity and present the results of this analysis.

8.64 In relation to using additional line items, our pricing analysis used episode prices, rather than line item data, as, in our view, these were unreliable for a number of reasons:

- (a) Due to differences in billing practices the line-item data does not necessarily provide a like-for-like comparison. For example, some treatments

⁴⁹⁰ HCA submission, 13 October 2015, paragraph 2.3.

⁴⁹¹ Final Report, paragraph 8.162.

⁴⁹² Final Report, paragraph 9.55.

are invoiced according to a 'package price' rather than based on the sum of individual items – services, tests, scans, etc – provided during the episode and listed in the invoice. As such, these package-price invoices would not provide any useful information on the services, tests, etc which a patient received during an episode of care.

- (b) We considered that patient age, gender and length of stay were much less likely to be subject to 'measurement error' than individual line items within invoices, for example it is far less likely that patient age would be recorded or reported differently at HCA compared with TLC, whereas specific items within an invoice may well be. The overall invoice totals (which we used in our analysis as the price for each episode) are validated by Healthcode, but the individual items within the invoices are not.
- (c) Due to the duplication of lines on an invoice, the total invoice sum (which is validated) is not equal to the sum of line items on the invoice. We clarified the existence of those duplicates with Healthcode, which stated that sometimes patients had more than one diagnosis recorded for the same treatment and so an extra line was added in the Healthcode data set to record this. As a result, for example, for a particular invoice, the theatre charges might be duplicated, thus overstating the amount that was actually charged for theatre time. In the overall data set, we found that about 50% of the episodes have a duplicated line item. Given the billing and measurement issues outlined in (a) and (b), above, we therefore judged that removing the duplicated line items would still not have produced a set of comparable and usable line-item variables to use in the IPA.

8.65 In addition to these reasons, further examination of the line-item data showed that the categorisation of individual line items involved a high level of aggregation, for example roughly half of all pathology charges were simply labelled as 'pathology' which is likely to include a variety of different tests, with different implications for patient complexity and providers' costs. Healthcode explained that it had taken the 'mapping of service item codes to Industry Standard Codes (ISC) in-house in 2012, as the ISC codes to which hospital providers mapped these were notoriously unreliable'. Healthcode's view was that hospital providers often mapped individual services and tests into very broad "bucket" codes, for example 50 different types of pathology tests were simply being recorded as "pathology".

8.66 In order to test KPMG's assertions on charge categories, we developed a methodology to clean the data set of these duplicated line items. We provide

further details on our approach in Appendix E. For the remainder of this section we base our discussion of our results on this cleaned data set.⁴⁹³

- 8.67 We also conducted an analysis of the charges that HCA and TLC include in their invoices for specific line items, where we examined the differences between HCA and TLC with respect to:
- (a) the composition of revenues across different categories of these line items; and
 - (b) the extent to which episodes were charged by using package prices that PMIs had agreed with HCA or TLC, rather being based on an invoice of individually listed and priced line items.
- 8.68 We looked at the revenue composition of the different categories of line items in the invoice data based on the prices that HCA and TLC charged for these.⁴⁹⁴ As shown in Table 8.2 below, for treatments in the common basket (columns 4 to 6), we found that a large proportion of line item charges are recorded against 'theatre', 'accommodation', 'pathology', and 'drugs and consumables'.
- 8.69 In addition, as also set out in Table 8.2, we found that a large share of the relevant revenue is charged through all-inclusive packages.⁴⁹⁵ When focusing on the IPA common basket only (columns 4 to 6), packages correspond to [%] of revenues, with the corresponding numbers for HCA and TLC being [%] and [%], respectively. Based on our review of PMI contracts, these all-inclusive packages involve hospital operators charging a single price for all of the individual charge categories (for example, charges for theatre use, bandages, drugs and diagnostic tests) that are used to treat a patient in the course of an episode.⁴⁹⁶ When charging for an all-inclusive package, a hospital operator is, generally, not expected to bill separately for items in the listed charge categories.⁴⁹⁷
- 8.70 HCA suggested that the number of pathology tests 'may be a good proxy for certain procedures, particularly [%]. This is in the important context of the IPA where [%] contribute a disproportionate amount of the estimated price difference' between HCA and TLC. We therefore provide the revenue shares

⁴⁹³ KPMG developed its own approach to removing the duplicated line items. These approaches are very similar and lead to very similar price difference estimates.

⁴⁹⁴ We analyse the share of revenues rather than the count of items, because we can readily compare revenues, based on fees invoiced to PMIs.

⁴⁹⁵ These are mostly charged to day-patients and include several or all aspects of the treatment (such as accommodation, theatre and pathology).

⁴⁹⁶ For example, the all-inclusive package may contain the charges for pathology tests regardless of how many pathology tests had been ordered by the consultant.

⁴⁹⁷ There are, however, contractually-specified exceptions, for example, in the case of high-value drugs.

for [X] of the largest [X] in the common basket in the columns (7 to 9) in Table 8.2. We note the following points:

- (a) For both HCA and TLC, a large share of their revenue is from packages (for both, over [X]%). Within the charge item of 'packages' we are not able to observe the different medical tests or services charged for, for example pathology tests or theatre time, and thus we are not able to observe the number of times that these services or tests have been performed. Therefore, even if these line items were good proxies for patient complexity, it is not possible to account for this patient complexity using the count of any of these line items, such as the number of pathology tests administered.
- (b) One question related to the high number of packages is whether patients, for whom no package is charged, are more complex compared with patients on a 'package deal'. It seems plausible to argue that patients on a non-package deal could be more complex because they require a non-standard treatment for a given CCSD. However, even within a package, patients may have different degrees of complexity and therefore may need, for example, more or fewer pathology tests. The main difference to the non-package patients is that the financial risk lies with the hospital operator instead of the insurer. Because we are not able to observe details of packages, using pathology count as a proxy for complexity might not be reliable.
- (c) While HCA uses more pathology charges compared with TLC, this might be explained by differences in billing practices, as noted by Bupa, AXA PPP and TLC. These billing differences may lead to HCA invoicing for more pathology tests even though it may not carry out more than TLC for a comparable patient. As such, the KPMG analysis may overstate the patient complexity differences between HCA and TLC, and so underestimate the price difference.

8.71 Below we provide the revenue share for all episodes in the data set in columns 1 to 3 of Table 8.2. The table shows that there are not very pronounced differences between the revenue shares for the two hospital providers, in particular with respect to pathology charges where these account for [X]% of HCA's revenue, while for TLC the equivalent figure is [X]%. Also, the table shows that the revenue share from packages is generally lower (on average [X]%) across all treatments than it is for the IPA common basket, while also being somewhat higher at TLC ([X]%) relative to HCA ([X]%). The figures in Table 8.2 suggest that, when taking into account all episodes in the data set, this line item data does not clearly point to HCA treating a substantially higher share of complex patients relative to TLC.

Table 8.2: Share of revenue in each charge category within invoice data of HCA and TLC

	%								
Revenue shares	All episodes			IPA basket			Episodes with CCSDs [X]		
	Total	HCA	TLC	Total	HCA	TLC	Total	HCA	TLC
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Theatre	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Accommodation	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Pathology	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Drugs and consumables	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Prosthesis	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Diagnostics (ex pathology)	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Packages	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Other	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Total	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]

Source: CMA analysis.

8.72 This evidence suggests that, on the one hand, the individual charge categories are of limited value for the insured pricing analysis, because of the prevalence of packages for which information on the incidence of individual line items is not available.

8.73 On the other hand, based on the same analysis, we acknowledge that it is not implausible that the charge categories, and in particular the number of pathology charges, could explain some of the price differences between HCA and TLC. It is, however, a separate question as to whether these charges, and in particular the number of pathology charges, are a good proxy for patient complexity. In particular:

(a) As pointed out by Bupa, a hospital provider's contract with an insurer generally specifies prices for some treatments. There exist differences between what HCA can bill compared with TLC. This introduces uncertainty as to the accurate measurement of the charge categories and therefore their reliability in explaining the differences in prices between HCA and TLC.

(b) We had concerns around the comparability of line items, in particular in relation to any differences in the way in which line items had been aggregated into different broader categories by different providers, such that the number of charges for particular categories of line items may not be comparable across providers. As set out above, Healthcode identified a particular issues, as our analysis of the data did too, in relation to how different types of pathology charges had been classified as simply 'pathology' which raises clear issues around the comparability of this variable across providers and treatments.

8.74 Based on the evidence provided above and our understanding of the contracts between the insurers and the hospital providers, we do not consider

that line items are likely to be a reliable proxy for the complexity of a patient. However, we cannot fully rule out that charge items could contain some information on the complexity of a patient.

- 8.75 With a view to assessing KPMG's analysis, we have assessed the effect of the pathology charge count on the estimated price differences. We present the results in more detail below (see Table 8.7). Based on our analysis, which follows the methodology set out in HCA's IPA WP DRR, including the pathology count in the IPA reduces the overall price difference between the HCA and TLC to [REDACTED]%, but, based on the above discussion, we do not think that this reduction in the price difference is fully explained by HCA treating more complex patients.

Small number of treatments account for much of the price difference

- 8.76 In this section we address the point, raised by KPMG in the IPA WP DRR, that a small number of individual treatments within the common basket account for a large proportion of the overall price difference. In assessing this point, we have requested additional views and evidence from the PMIs and also requested views on the related question of whether, as set out more generally in the preceding subsection, HCA is likely to treat more complex patients within these specific treatments compared with TLC. We first provide HCA's arguments, then set out the views of the PMIs in relation to this issue, and, finally, we present our provisional view on this issue.

Parties' responses to the IPA Working Paper

- HCA

- 8.77 [REDACTED]^{498,499}

- 8.78 The [REDACTED] CCSDs which KPMG identified as making the largest contributions to the overall price difference between HCA and TLC were:⁵⁰⁰ [REDACTED].

- 8.79 KPMG also pointed out that the [REDACTED] CCSDs that made the largest contribution to the overall weighted price difference, all of which were [REDACTED], accounted for [REDACTED]% of the overall weighted average price difference, but collectively accounted for only [REDACTED]% of HCA's total revenues. KPMG showed that excluding these treatments reduced the price difference to [REDACTED]% (for the 5-episode threshold) – a price difference which was not statistically

⁴⁹⁸ IPA WP DRR, paragraph 3.45.

⁴⁹⁹ IPA WP DRR, paragraph 5.8.

⁵⁰⁰ IPA WP DRR, paragraph 3.46.

significant.⁵⁰¹ The report stated that this was evidence that ‘the price difference identified in the IPA WP is not systematic across all CCSDs’.⁵⁰²

8.80 HCA’s submission on the reasons why these [REDACTED] specific CCSDs accounted for the majority of the price difference estimated by the IPA included an explanation of the factors that may be associated with patient complexity and the costs of treatment for these particular CCSDs. For some of these CCSDs, it also gave reasons why HCA was likely to treat more complex patients than TLC, as set out below.

8.81 [REDACTED], HCA listed various factors that could drive price differences (that are not necessarily correlated with the patient age, gender or length of stay), such as medication and consumables, pathology, the patient’s test pathway, whether the procedure was conducted on an elective or emergency basis, and the severity of the patient’s condition, and pointed out that the type of surgeon performing the procedure was likely to indicate whether the patient was more complex. [REDACTED]

8.82 The IPA WP DRR also put forward a number of reasons why, in HCA’s view, ‘there appeared to be significant differences in patient mix between HCA and TLC’ for the [REDACTED]^{503,504,505}

(a) Episodes at HCA were likely to have more pathology charges on an invoice than TLC.

(b) Episodes at HCA were more likely to have theatre charges on an invoice than TLC.

(c) HCA performed ‘far more’ of these procedures as part of a multiple-CCSD episode.

All of which, in HCA’s views, were indicative of HCA having a different patient mix for these [REDACTED] CCSDs.

(d) HCA gave two clinical reasons why it saw more complex patients for these [REDACTED] CCSDs:

(i) [REDACTED]

⁵⁰¹ IPA WP DRR, paragraph 3.48, first bullet, and Table 19.

⁵⁰² IPA WP DRR, paragraph A3.3, second bullet.

⁵⁰³ [REDACTED]

⁵⁰⁴ [REDACTED]

⁵⁰⁵ [REDACTED]

- (ii) Referrals from GPs were likely to be routine cases whereas referrals from consultants were more likely to be symptomatic patients requiring more tests. [X].

8.83 On the question of why HCA considered pathology charges to be a good proxy for patient complexity for these [X] procedures, it made a number of points:

- (a) The IPA WP DRR focused on pathology charges, as [X] accounted for a large proportion of the estimated price difference between HCA and TLC, and there was 'a clear clinical link between the number of pathology charge items and patient complexity for these treatments'.
- (b) 'Further discussions have corroborated that for these [X] procedures the number of pathology tests performed could be a proxy for more complex patients.' HCA also stated that the provision of pathology tests were either 'clinician driven or are based on standard clinical protocols' and that the number was not determined by the hospital operator.
- (c) Other line items 'could be good proxies for patient complexity', such as X-rays, CTs, MRIs), but that in the context of the common basket these charge items tended to occur in CCSDs that were less important in driving the overall weighted average price difference. For a number of procedures other than the [X] dealt with in detail in the HCA submissions, 'it is likely that the count of pathology charges may be an important indicator of patient complexity' whereas for other, 'the count of pathology charges may not be as a good an indicator' of patient complexity. HCA pointed out that '[i]n order to determine whether pathology charges are a good indicator of patient complexity, an assessment made with clinical input, would need to be carried out on a procedure by procedure basis'.

- *Bupa*

8.84 Bupa explained that different billing practices between HCA and TLC for day-case treatments⁵⁰⁶ meant that a count of line items on the invoice would not be informative of patient complexity. Bupa noted the differences in billing practices between HCA and TLC for day-case treatments. In particular, it noted that these differences could be significant, as many of the episodes and procedures in the IPA were day-case treatments. For example, Bupa reported

⁵⁰⁶ For inpatient treatments, both HCA and TLC were contractually able to charge Bupa for elements of service on a line-by-line basis (with no partial packages).

that over [%] of the treatments for [%] for Bupa's patients were in a day-case setting.

- 8.85 In Bupa's view 'it seems unlikely that differing patient complexity would materially change the costs of treatment for some of these [%] specific CCSD codes', as [%] tended to be delivered in 'day-case settings under mild sedatives (rather than general anaesthetic), and typically in under an hour. They both tend to have very low rates of complication or mortality'. If a patient was particularly complex, they might be given another treatment (and different CCSD code), for example if a patient was too frail or too complex for a [%]. 'Therefore, some of the most complex patients will already have been filtered out of the analysis'.

Our response

- 8.86 Our assessment is that there are a number of reasons why the fact that these [%] CCSDs account for a high share of the overall price difference does not undermine the robustness of our findings on the price difference between HCA and TLC:
- (a) The identified treatments are high-volume and display large price differences; it is not surprising that these sorts of treatments play an important role in determining our overall results.
 - (b) To the extent that PMIs contract across a range of treatments, rather than tendering for each treatment or service line separately, we would not necessarily expect to find that HCA is more expensive than TLC for each and every treatment; this is why we construct a series of price indices to compare HCA and TLC at the aggregate level in the first place.
 - (c) Our hypothesis is that HCA has more market power than TLC and uses this to charge higher prices across a range of treatments. Which particular treatments these higher prices are most pronounced in does not change the overall outcome of higher prices being charged by HCA.
 - (d) Notwithstanding the fact that [%] treatments account for a large share of the overall weighted price difference, it is also the case that HCA charges higher prices than TLC for most individual treatments in the common basket. As set out in Appendix G, HCA is more expensive than TLC for [%] of CCSDs in the common basket ([%] out of [%]), so the overall

positive price difference is not, in any sense, unrepresentative of the overall common basket.⁵⁰⁷

8.87 We compared the price differences based on these [X] CCSDs with those based on the remaining CCSDs for each insurer in each year. As summarised in Table 8.3 below, the overall results indicate that the price difference for these [X] CCSDs is much higher ([X]%) than for the remainder of the common basket ([X]%).⁵⁰⁸ Our analysis indicates that for almost all insurers and all years, these [X] CCSDs show substantially higher price differences than the remaining CCSDs, with these remaining CCSDs in many cases indicating that TLC is more expensive (for about [X] of all CCSDs in the common basket).⁵⁰⁹ For example, for [X] the [X]-CCSD analysis shows HCA as being between [X] and [X]% more expensive than TLC (across different years), while looking at the remaining CCSDs we estimate negative price differences (between [X] and [X]%) indicating that TLC is more expensive. However, we also note that for a number of insurers ([X]) the price differences even when these [X] CCSDs are excluded are still positive and in some cases substantial.⁵¹⁰ For example, looking at [X] in 2009, HCA is [X]% more expensive than TLC for these [X] CCSDs and [X]% more expensive for the remaining CCSDs.

Table 8.3: Price differences for the top [X] CCSDs and the remaining CCSDs

	%	
	[X] CCSDs	Remaining CCSDs
IPA methodology	[X]	[X]
KPMG addition of count of pathology charge	[X]	[X]

Source: CMA analysis.

8.88 These results indicate that, as KPMG's analysis suggested, these [X] CCSDs account for a large proportion of the overall price difference between HCA and TLC, and for many individual PMIs in specific years these [X] CCSDs are major determinants of the price difference between HCA and TLC. However, as set out in paragraph 8.86, above, we do not believe that this undermines the robustness of our IPA results.

⁵⁰⁷ Appendix G, Figure 1.

⁵⁰⁸ See Appendix G, where we set out in detail a number of robustness tests that we have conducted on KPMG's analysis.

⁵⁰⁹ Appendix G, Figure 1.

⁵¹⁰ We note again that, for some smaller insurers the size of the sample used to calculate these price differences is very small, which may mean that these price differences (taken in isolation) are less robust.

Other issues raised by parties

8.89 In this section we summarise other issues raised by the parties in response to our IPA Working Paper.

Treatment complexity and the representativeness of the ‘common basket’

8.90 As set out above, the IPA methodology controls for differences in treatment mix between HCA and TLC, as it focuses on a ‘common basket’ of treatments that both HCA and TLC provide.⁵¹¹ Due to this focus on those treatments that both HCA and TLC provide, the IPA does not include all of the episodes for these providers – only the ‘overlap’ – and so does not include all of the episodes covered by the Healthcode data set.

- *HCA’s view*

8.91 HCA’s economic advisers argued that the approach to controlling for treatment mix in the IPA was inadequate, because the common basket approach was not representative of either HCA’s or TLC’s businesses. In particular they noted that:

[A]nalysis conducted in the Data Room showed that the common basket, from a revenue perspective, is not representative of HCA’s or TLC’s businesses. For [X]% of HCA’s PMI-year pairs, the proportion of in-patient and day-case patient revenue associated with the common basket was less than [X]%. Similarly, for [X]% of TLC’s PMI-year pairs, the proportion of in-patient and day-case patient revenue associated with the common basket was less than [X]%.⁵¹²

8.92 Further, it stated that the:

extrapolation of estimated price differences based on a common basket approach was flawed as the common basket approach is not representative of either HCA’s or TLC’s businesses, and did not appropriately control for the differences in treatments that the hospital operators perform, which could lead to differences in costs and could be linked to differences in patient complexity.⁵¹³

Its analysis set out the proportion of statistically insignificant price differences by complexity of treatment (as defined in the Healthcode data) and showed

⁵¹¹ See paragraph 8.15.

⁵¹² KPMG (1 May 2015), ‘A Submission on the Analysis of Insured Prices’, paragraph 25.

⁵¹³ *ibid*, section 2.1.2.

that for more ‘complex’ treatments, where HCA tended to concentrate its activity, the IPA was less likely to find a statistically significant price difference than for less ‘complex’ treatments.⁵¹⁴ It concluded that:

... to the extent that the CMA considers it possible to extrapolate from the common basket to treatments outside it, it should take into account the possibility that treatments outside the common basket, being mostly high complexity treatments, might also be not significantly different from what the CMA considers a competitive price benchmark.⁵¹⁵

- *Our response*

8.93 In relation to the treatment mix we noted in the Final Report that sensitivity checks of our results suggest that ‘the conclusions of our price comparisons are robust to changes in the common basket of treatments’.⁵¹⁶ However, we acknowledged that for smaller insurers, the common basket typically contains relatively few treatments and thus the results may be less robust.⁵¹⁷

8.94 As set out in Appendix C,⁵¹⁸ our IPA analysis is based on a relatively small subset of the Healthcode data set for a number of reasons:

- (a) we are only comparing prices for day-case and inpatient treatments;⁵¹⁹
- (b) we are comparing the price of HCA and TLC and so can only conduct our analysis on treatments that both HCA and TLC provide – the ‘common basket’; and
- (c) the IPA analysis only covers those treatments where at least 5 episodes are observed per treatment per insurer per year per hospital operator, which reduces the coverage of the sample further.⁵²⁰

8.95 The IPA based on the 5-episode threshold covers episodes accounting for [X] % of HCA’s revenue in the final data set, while for TLC it accounts for [X] %. Looking at the IPA conducted using the 30-episode threshold, the data set is further reduced, as treatments with lower patient volumes are no longer

⁵¹⁴ *ibid*, Table 4.

⁵¹⁵ *ibid*, paragraph 34.

⁵¹⁶ Final Report, paragraph 6.360.

⁵¹⁷ *ibid*.

⁵¹⁸ Appendix C, paragraphs 9–15.

⁵¹⁹ Paragraph 6.339.

⁵²⁰ Our regression approach (see paragraphs 8.141–8.146 and Appendix G) covers a larger proportion of the Healthcode data, as it includes all treatments with at least two episodes.

included. The data set used in the 30-episode analysis accounts for [X]% of HCA's revenue in the final cleaned data set and [X]% of TLC's.

- 8.96 Based on the data for AXA PPP and Bupa, the IPA covers less than [X]% of the revenue accounted for by the Healthcode data for these insurers at both TLC and HCA, as set out in Appendix C, Table 2.
- 8.97 We do not consider that these relatively small shares of revenue invalidate our analysis, for a number of reasons.
- 8.98 First, in order to make a meaningful comparison between HCA and TLC prices we only compare those treatments that are provided by both operators. Given that the range of services that HCA and TLC provide is not identical, there are treatments which HCA provides that TLC does not and vice versa. Therefore, there are many treatments that HCA and TLC provide, and which generate insured revenue for them, which are not relevant to our analysis.
- 8.99 Second, looking again at the revenue coverage of our IPA, we consider that the most relevant measure of its coverage is to focus on the 'overlap' treatments that both HCA and TLC provide to insured patients. For HCA, the IPA (5-episode version) accounts for [X]% of the revenue generated by overlapping treatments in the final cleaned data set, while for TLC the equivalent figure is [X]%. As such, our analysis does cover a substantial proportion of those treatments for which a price comparison between HCA and TLC is meaningful.
- 8.100 We are comparing prices in those treatments where HCA and TLC overlap and, hence, actually or potentially compete for insured patient business. Comparing price differences for those treatments where HCA and TLC do not overlap would be meaningless. Furthermore, given that we consider TLC to be HCA's closest competitor, we would expect a comparison of prices for those treatments where they overlap to be, at least, representative of HCA's pricing more generally and to be a reasonable proxy for HCA's relative market power. If anything, such a comparison may underestimate HCA's market power, as HCA is likely to have the ability to exercise its market power to a greater extent when pricing those treatments where it does not face direct competition from TLC.
- 8.101 On treatment complexity and how prices for treatments outside the common basket may be closer to the 'competitive level', we would expect that HCA would have an incentive to charge higher prices for those treatments where it faces less competition, so we would not expect the common basket to lead us to overestimate the extent of HCA's market power when setting prices.

Causal relationship between HCA's market share and its prices

8.102 HCA submitted that the IPA findings in the Final Report did not demonstrate a causal relationship between local concentration, in particular HCA's high market share in central London, and local prices, in particular our finding that HCA charged higher prices than TLC. This subsection sets out, very briefly, what was said in the Final Report, HCA's arguments on this issue and refers to our response.

8.103 In the Final Report, we stated that:

We found consistent results in relation to HCA and TLC in central London that supported the conclusions that HCA faces weak competitive constraints from its rivals in central London, even from its closest competitor TLC (as reflected, for example, in their respective shares of supply). In particular, we found that HCA charges significantly higher prices to PMIs than TLC ...

... Notwithstanding the limitations of our empirical analysis ... we considered that, overall, for central London, the results of our empirical analysis all support our hypothesis that local substitutability plays a role in determining insured price outcomes

... ⁵²¹

- *HCA's views*

8.104 HCA's view was that the IPA: 'failed to establish any causal (as opposed to a merely correlative) relationship between allegedly higher prices and market concentration or adequately to consider alternative explanations for HCA's allegedly higher prices.'⁵²² HCA's expert witness, Professor Michael Waterson, argued that there were other 'plausible [explanations for one provider being more expensive than another, including the possibility that] on operator tackles more difficult patients' and HCA argued that

the CMA has failed to conduct any robust analysis to rule out the possibility that factors such as quality were joint determinants of both prices and market share, or that price differences may be caused by factors other than market concentration such as costs and, clinical factors, or the individual priorities and negotiating strategies of individual insurers.⁵²³

⁵²¹ Final report, paragraphs 6.380 & 6.381.

⁵²² HCA's Re-amended Notice of Application, 17 October 2014, paragraph 5 (a) (vii).

⁵²³ HCA's Re-amended Notice of Application, 17 October 2014, paragraph 126.

8.105 HCA drew attention to one figure from the Final Report, stating that:

... the CMA's empirical analysis provided it with a very limited number of data points from which to infer the relationship between market concentration and insured prices. The CMA relied on the average price indices for two operators (HCA and TLC) in 2011, thus using only two data points in total. With so few observations, the only methodology available for charting the relationship was a simple graphical analysis, by which the two observations are plotted on a chart in order to discern whether there is a visual correlation between the two variables of interest (average price index and a proxy for local share of supply). Such an analysis is extremely crude. It does not provide a reasonable basis for inferring a causal relationship at all; and in any event is a wholly inadequate basis for justifying an intrusive remedy such as divestiture. The crudity of the analysis is evident from Figure 7 of Appendix 6.12, which charts TLC's and HCA's respective average price indices against their shares of admissions (and, separately, capacity) in central London in 2011. No weight at all may reasonably be placed on the 'positive association' between market share and price observed by the CMA for only two operators in a single year.⁵²⁴

8.106 Finally, HCA's expert witness Professor Michael Waterson pointed out that the fact that the price differences calculated by the IPA for many insurer-years were not statistically significant is 'substantially at variance with the theory ...' that 'greater market share ... leads to ... higher prices'.

- *Our response*

8.107 As explained in paragraph 11.37, HCA mischaracterises our approach to linking high concentration, in particular HCA's high market share, and its pricing in central London. As set out in that section, we have considered alternative explanations for HCA's higher prices (both differences in quality of care and in the complexity of HCA and TLC patients) and have based our view on a range of evidence about the competitive constraints facing HCA and its bargaining strength with PMIs, rather than being based purely on market shares for HCA and TLC for one year, as HCA has suggested.

⁵²⁴ HCA's Re-amended Notice of Application, 17 October 2014, paragraph 122.

Empirical errors

8.108 KPMG also questioned whether the IPA took account of all relevant information and was free of empirical errors.⁵²⁵ In particular, it pointed out that:

- (a) some PMIs received rebates from HCA, so the invoiced amounts might not be reflective of HCA's revenues;
- (b) some PMIs 'shortfall' their patients, that is, they paid only part of the invoiced amount and the hospital operator might not receive the full amount invoiced; and
- (c) there were some negative and zero price predictions, as well as out-of-sample price predictions, in the IPA methodology.

- *Our response*

8.109 Our view with regard to the above points is:

- (a) As stated in the Final Report, rebates represent only a small portion of total fees paid. Furthermore, during the time period considered in the IPA, only a small subset of PMIs received a rebate, and no PMI received a rebate every single year.⁵²⁶
- (b) While we have not collected data on this issue, based on the evidence available to us in this investigation, 'shortfalling' appears to occur mainly in relation to the consultant fee rather than the hospital charges, so is of limited relevance in this context. Even if this were a material issue in relation to hospital charges, we would not expect this to affect our comparison of prices at HCA and TLC unless one of the providers were systematically more likely to issue invoices that led PMIs to shortfall their customers. No party has suggested that this is the case; a number of PMIs have suggested that HCA's prices are higher than TLCs, but not that HCA invoices are more likely to lead to 'shortfalling' of patients.
- (c) In relation to the 'irrational' price predictions, we have addressed those in detail in Appendix E. In summary, we have either amended the relevant code where the issue arose or have explained why some of these results are a feature of the methodology. In any case, these issues affected a

⁵²⁵ KPMG (1 May 2015), 'A Submission on the Analysis of Insured Prices', paragraphs 47–50.

⁵²⁶ Final Report, paragraph 6.369.

very small number of treatments – ten out of about 700 treatment-level regressions in the IPA.

R-squared

8.110 In this section we address the R-squared coding error.

8.111 As noted in paragraph 8.15, we have estimated a number of regressions that seek to explain the prices that PMIs paid to hospital operators for each treatment in terms of patient characteristics. The R-squared figure of a regression is a measure of how much of the variation in prices is explained by the explanatory variables in the regression model.

8.112 In the CAT DRR, HCA's economic advisers, KPMG, identified an error in the computer code we had used to calculate the R-squared figures. This coding error resulted in an overstatement of the R-squared figures that were reported in the Final Report.⁵²⁷

8.113 The implication of this error was that the variables included in the regression analysis explained a lower share of the variation in insured prices than we had reported in the Final Report. If the correct R-squared figures were so low that it appeared as if the regression model did nothing to explain the variation in prices then this could call into question these regressions and the 'representative patient' approach that we use to calculate the price indices and the resulting price differences between HCA and TLC.

8.114 We have corrected this error and we present our corrected R-squared statistics, alongside the R-squared figures as reported in the Final Report (column 1).⁵²⁸ Table 8.4 below presents R-squared statistics in terms of the proportion of regressions for which the R-squared is above the threshold specified in the first column. Our corrected R-squared statistics show that the large majority (69%) of treatment-level regressions have an adjusted R-squared statistic of over 50% and that 46% of regressions have an adjusted R-squared that is 80% or higher.

⁵²⁷ The Final Report stated that 'the adjusted R-squared varied... between 60 and 99% ... the large majority of regressions have an adjusted R-squared that is above 80%'. See Final Report, Appendix 6.12, paragraph 17 (b) and footnote 19.

⁵²⁸ Note that we report the adjusted R-squared figures. The adjusted R-squared takes a similar approach to the unadjusted R-squared but takes account of the number of explanatory variables in the model, so that adding extra explanatory variables does not automatically increase the adjusted R-squared. The adjusted R² is generally lower (or, at least, equal to) the unadjusted R-squared.

Table 8.4: Distribution of R-squared statistics for treatment-level regressions for the HCA and TLC price comparison

R-squared	%	
	<i>CMA adjusted R² referred to in the Final Report</i>	<i>Adjusted R- squared based on revised data set*</i>
	(1)	(2)
90% or above	89	27
80% or above	99	46
70% or above	100	54
60% or above	100	62
50% or above	100	69
40% or above	100	75
30% or above	100	81
20% or above	100	87
10% or above	100	92

Source: CMA analysis, KPMG CAT DRR (Table 9).

*R-squared results presented in this column incorporate the correction of the error in the calculation of adjusted R-squared, and corrections in data cleaning. Because of differences in data error corrections between KPMG and the CMA, as well as due to differences in adjusted and unadjusted R-squared statistics, our corrected results differ from KPMG's corrected results.

Note: Each row in the table shows the proportion of regressions for which the R-squared was at or above the threshold specified in the first column.

8.115 We accept that the R-squared figures reported in the Final Report were overstated, however, both KPMG's corrected (unadjusted) R-squared figures (75% of regressions with an R-squared above 50%) and our updated figures show that our explanatory variables explain the majority of the variation that we observe in episode prices. We note that there is no absolute benchmark value for the R-squared statistic that we can measure any of the above numbers against. However, the majority of our corrected R-squared values are comparable with, or higher than, those R-squared values typically considered, for example in econometric textbooks (for similar types of regression models to those that we have used),⁵²⁹ or observed in relevant peer-reviewed academic publications.⁵³⁰ Thus, while there was an error that resulted in our overstating the R-squared statistics in the Final Report, our corrected R-squared statistics still support the view that the patient characteristics included in the treatment-level regressions in the IPA explain the majority of the variation in episode prices.

8.116 In the IPA WP DRR, KPMG made a number of related points in relation to how well our treatment-level regressions within the IPA explain the variation in episode prices. The report points to the '[r]elatively low R-squared statistics'⁵³¹ and states that 'there is a substantial amount of variation in episode prices

⁵²⁹ As one popular postgraduate textbook describes, R-squared figures in the region of 50% could be considered relatively high in the context of cross-sectional data, while for cross sections of individual data (as we use here) an R-squared figure of 20% may be noteworthy. See Chapter 3.5.3 of Greene, W, *Econometric Analysis*, Seventh edition, Prentice Hall (2011).

⁵³⁰ Recent empirical work using comparable data and published in prestigious academic journals reports R-squared figures of between 7% and 25% (Fang, Keane and Silverman, 2008) and 41% (Gowrisankaran, Nevo and Town, 2015).

⁵³¹ IPA WP DRR, paragraph 3.10.

that is not explained by [age, gender and length of stay]’.⁵³² The report argues that in the context of predicting prices and relying on these results to ‘impose extremely intrusive remedies’, there is a ‘need for a higher R-squared statistic, among other requirements, to demonstrate the robustness of the econometric model’.⁵³³

8.117 In KPMG’s version of the IPA, where additional information from line-item data are included, the R-squared statistics reported are somewhat higher than in our analysis – 84% of regressions report an R-squared of 50% or more in the price-index approach, compared with 69% in our analysis.^{534,535}

8.118 On a related point, KPMG argued that analysing the average prediction error for each individual regression suggested that the estimated price differences could not be considered accurate.⁵³⁶ KPMG concluded from this analysis that the results ‘point to the scope for including additional explanatory variables in order to try to more accurately predict CCSD-level prices.’

8.119 As set out in Appendix D, a large proportion of the treatment-level regressions our explanatory variables were not statistically significant. This implied that, in some cases, our control variables did not explain much of the variation in the data. However, as set out in more detail in that appendix and taking into account our view of the R-squared statistics, above, our analysis does nevertheless explain a large share of the variation in the episode price data.

Updated results of the IPA

8.120 In this section we present the results from the IPA, including the statistical significance testing. Further details on our approach to the statistical significance testing is presented in Appendix F. When presenting the price differences, we provide an interpretation of the results as well as the results of the statistical significance testing. The results are based on a modified approach to cleaning the data set, which we set out in Appendix E.

Statistical significance testing

8.121 We conducted statistical significance testing for the price differences in the price indices to understand whether the price differences between HCA and TLC reflect a genuine price difference or whether the price differences are the

⁵³² IPA WP DRR, paragraph 3.13.

⁵³³ IPA WP DRR, paragraph 3.18–3.22.

⁵³⁴ IPA WP DRR, Table 26, Annex 5.

⁵³⁵ We have included the count of pathology charges into the IPA and got very similar results.

⁵³⁶ In the IPA WP DRR, KPMG suggested that ‘the CMA’s predicted price difference is smaller than [...] the average predicted error and for these regressions, especially, the CMA cannot be confident that its predicted price differences are meaningful.’

result of random variation or statistical ‘noise’ in the data.⁵³⁷ The code that we used in our original analysis contained an error, which KPMG identified in the CAT DRR.⁵³⁸ This error resulted in an overstatement of the statistical significance of the calculated price differences in the Final Report. Subsequently we have corrected this error and in this section we present the results for the corrected statistical significance testing, while Appendix F also sets out a number of other improvements we have made to the testing procedure.

Results

8.122 In Table 8.5, below, we present the insurer-year price difference between HCA and TLC for the 5- and 30-minimum-episode threshold. We place equal weight on both the 5- and 30-minimum-episode thresholds in our interpretation of the price difference. As set out in more detail in Appendix D, our reasoning is that:

- (a) First, the 5-episode threshold includes treatments with very low patient volumes, which has the disadvantage of not allowing us to be as confident as we could be that the treatment-level regressions in the IPA precisely identify the relationship between the patients’ characteristics and the episode prices.⁵³⁹ Increasing the minimum number of episodes per treatment increases our confidence that we are getting more precise estimates of the relationship between patient characteristics and prices.
- (b) Second, increasing the minimum number of episodes per treatment to 30 increases the precision and reliability of our statistical significance testing of any estimated price differences. The more observations that are available for a given treatment, the more information there is about the underlying true distribution of the episode prices for that treatment.

8.123 For the 5-episode threshold we are able to estimate 36 insurer-year price differences for HCA and TLC. For some of the insurer-year price indices we do not have data available. The results suggest that [~~8~~] of the 36 insurer-year price indices are positive, ie that HCA is charging a higher price than

⁵³⁷ To calculate the standard error we used a bootstrap approach, which we programmed in our statistical software, Stata.

⁵³⁸ The error in the bootstrap is technical in nature and we include a detailed discussion of this in Appendix F. In summary, the coding error resulted in our using the variation generated for one treatment for the calculation of the standard error of other treatments as well. We have corrected this error and present the corrected results below. In addition we made additional changes to the bootstrap, for example the calculation of the weights in the bootstrap. We discuss these changes in Appendix F.

⁵³⁹ Having larger sample sizes – in our case, analysing treatments with higher numbers of patients being treated – leads to better estimates. In technical terms, larger sample sizes improve the consistency of our estimates meaning that the larger the sample, the less risk that the estimates that are produced will be biased.

TLC.⁵⁴⁰ In particular, for the two largest insurers, AXA PPP and Bupa, the price difference is positive. [X] The overall price difference, using a 5-episode minimum threshold, is [X] %.

8.124 When using a 30-episode threshold, [X] out of the 36 insurer-year price differences cannot be calculated. This is because, for these smaller insurers, the patient volumes are too low and the relevant treatments do not meet the 30-episode threshold in any year. The results show that all [X] insurer-year price indices are positive. The individual insurer-year price differences are somewhat higher under a 30-episode threshold for some insurers, while for others the 30-episode results show lower price differences. The overall price difference is [X] % for the 30-episode threshold, compared with [X] % for the 5-episode threshold.

Table 8.5: Insurer-year price differences between HCA and TLC

		%	
		<i>Price difference for a 5-episode threshold</i>	<i>Price difference for a 30-episode threshold</i>
2007	AXA PPP	[X]	[X]
2008	AXA PPP	[X]	[X]
2009	AXA PPP	[X]	[X]
2010	AXA PPP	[X]	[X]
2011	AXA PPP	[X]	[X]
2011	Aviva	[X]	[X]
2007	Bupa	[X]	[X]
2008	Bupa	[X]	[X]
2009	Bupa	[X]	[X]
2010	Bupa	[X]	[X]
2011	Bupa	[X]	[X]
2007	Bupa Int'l	[X]	[X]
2008	Bupa Int'l	[X]	[X]
2009	Bupa Int'l	[X]	[X]
2010	Bupa Int'l	[X]	[X]
2011	Bupa Int'l	[X]	[X]
2007	Cigna	[X]	[X]
2008	Cigna	[X]	[X]
2009	Cigna	[X]	[X]
2010	Cigna	[X]	[X]
2011	Cigna	[X]	[X]
2010	Exeter	[X]	[X]
2008	PruHealth	[X]	[X]
2009	PruHealth	[X]	[X]
2010	PruHealth	[X]	[X]
2011	PruHealth	[X]	[X]
2007	SLH	[X]	[X]
2008	SLH	[X]	[X]
2009	SLH	[X]	[X]
2010	SLH	[X]	[X]
2011	SLH	[X]	[X]
2009	Simplyhealth	[X]	[X]
2010	Simplyhealth	[X]	[X]
2011	Simplyhealth	[X]	[X]
2010	WPA	[X]	[X]
2011	WPA	[X]	[X]
Overall		[X]	[X]

Source: CMA analysis from the IPA Working Paper.
Notes:

⁵⁴⁰ Note that a more detailed discussion of our statistical significance testing is presented in Appendix F.

1. This table presents statistical significance tests for the percentage price differences between HCA and TLC. Statistical significance is presented at the 99% level by ***, the 95% level by ** and the 90% level by *.
2. A positive number means that HCA is more expensive compared to TLC.
3. Price differences based on a 30-episode threshold cannot be calculated for some insurers in some years due to low patient volumes per treatment for some smaller insurers.

8.125 In terms of statistical significance, these price differences are statistically significant for [X] of the 36 insurer-year pairs (based on the 5-episode threshold) and for [X] of the 23 insurer-year pairs (based on the 30-episode threshold).

8.126 Looking at Table 8.6 below, where we averaged across insurers in each year, we see that, on average, increasing the threshold leads to increases in the price difference for later years but makes little or no difference in 2007, 2008 and 2011.

8.127 Overall, we find that both the price differences calculated using the 5- and 30-episode thresholds indicate that HCA charges higher prices than TLC in the region of [X]% to [X]% averaged across all five years of our data set. These price differences are statistically significant at the 99% confidence level.

Table 8.6: Overall average price differences between HCA and TLC, 2007 to 2011

	Updated results		Original results in Final Report
	Median patient 30-episodes	Median patient 5-episodes	Median patient 5-episodes
	(A)	(B)	(C)
2007	[X]	[X]	[X]
2008	[X]	[X]	[X]
2009	[X]	[X]	[X]
2010	[X]	[X]	[X]
2011	[X]	[X]	[X]
Overall	[X]	[X]	[X]

Source: CMA analysis.

Notes:

1. This table presents the percentage price differences between HCA and TLC, averaged over all insurers in a given year.
2. A positive number means that HCA is more expensive than TLC.

Robustness checks and alternative empirical analysis

8.128 In this subsection we present a brief summary of three sets of robustness checks:

- (a) robustness of our price-index approach, in particular with respect to the different assumptions that we make;
- (b) robustness checks that we have conducted on KPMG's analysis of the line-item data; and

- (c) an alternative empirical approach to estimating the price difference between HCA and TLC and HCA's views on it.

8.129 We provide a more detailed description of these robustness checks and the detailed results in Appendix G.

Alternative representative patients

8.130 As we have discussed in paragraph 8.15 above, we used the 'representative patient' for each treatment to calculate the price difference between the hospital operators. In particular we defined the representative patient to have the median characteristics of patients. We tested the robustness of this definition by using alternative definitions. We tested whether defining the representative patient as the 25th and 75th percentile affected our results. Below we discuss the results, which we report in detail in Appendix G.

8.131 For the 25th percentile representative patient, the overall price difference reduces from is [X] % compared with [X] % in our baseline, 5-episode IPA, based on the median representative patient. Looking at the insurer-year results, we see some differences between these price differences and those set out in Table 8.5, though we note that the changes in the price differences for [X] and [X] is small, with the exception of [X] in 2009.⁵⁴¹ Similarly, for the 75th percentile representative patient, the overall price difference is slightly different, but quite close to our baseline results, at [X] %. Again, the insurer-year results show some differences compared with those in Table 8.5, but the results for [X] and [X] are similar to the baseline results.

8.132 In addition we defined the representative patient as the median patient at HCA and the median patient at TLC respectively – rather than taking the median across patients at both providers as we do in the baseline IPA approach. This robustness check relates to a submission by HCA's academic experts, Professors Gaynor and Pakes, suggesting that [X].⁵⁴² The results suggest that this alternative definition of the representative patient has a very small impact on the price difference between HCA and TLC. Specifically, using an HCA and TLC median patient the annual price difference is [X] % and [X] %, respectively, for the 5-episode threshold. The results suggest that the allocation of patients does not have a material impact on our estimated price differences.

⁵⁴¹ Here the price difference increases from [X] % to [X] %.

⁵⁴² See 'A Submission on the CMA's Insured Price Analysis and the Drivers of Insured Prices in the UK Private Healthcare Industry', Annex 2, p15.

8.133 Having checked the robustness of our baseline results to different types of representative patients, overall our checks suggest that the results are robust with respect to alternative representative patients. While there is some variation in the price difference when using alternative representative patients (as expected), the variation is not substantial.⁵⁴³

Multiple CCSDs

8.134 In our analysis we focused on episodes that have single CCSD codes only. The reason was that episodes with multiple CCSD codes might not be comparable between hospital providers and we therefore excluded episodes with multiple CCSD codes from our analysis. Nevertheless, we have checked the sensitivity of our results to the inclusion of those episodes with multiple CCSD codes (see Appendix E for details).

8.135 The estimated overall price differences that we calculate when we include multiple-CCSD episodes are [X]% and [X]%, for the 5- and 30-episode thresholds respectively. For the insurer-year price differences, the estimated price differences are mostly in line with the results for single-CCSD episodes only. We observe some differences in the insurer-year price indices, for example, for AXA PPP in 2008 the price difference turns from [X]% to [X]%. We conclude that our overall estimated price differences between HCA and TLC are robust to the inclusion of multiple-CCSD episodes.

Alternative charge items

8.136 As well as considering the impact of including the number of pathology charges as an additional variable in our analysis, we have also analysed whether any other charge categories, such as theatre or X-ray charges, have an impact on the overall price difference. The results in Table 8.7 below suggest that the estimated price differences when different line-item charge categories are included in the IPA range from [X]% (for pathology charges) to [X]% (for prostheses), compared with the baseline, 5-episode price difference of [X]% that we estimated from the IPA (see Table 8.5, above). A similar picture emerges when using a 30-episode threshold (see Appendix G, Table 7). This suggests that the pathology count is the variable that has the biggest impact on the reduced price differences that HCA's economic advisers have calculated. However, as noted in paragraphs 8.63 to 8.75

⁵⁴³ We would expect some variation in the price difference as a result of the change in the representative patients. We observe changes between [X] percentage points in the annual price differences.

above, we do not consider that the pathology count is a reliable measure of patient complexity and therefore we do not place any weight on this analysis.

Table 8.7: IPA and alternative charge items ([X] episodes)

	<i>Pathology</i>	<i>CT</i>	<i>X-ray</i>	<i>MRI</i>	<i>ECG</i>	<i>Theatre</i>	<i>Nursing</i>	<i>Prosthesis</i>
2007	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
2008	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
2009	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
2010	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
2011	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Average	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]

Source: CMA analysis.

Outliers in terms of pathology charges

8.137 We also analysed whether a small number of episodes with unusually high numbers of pathology charges (or ‘outliers’) could be driving the KPMG results. We excluded those outliers from the data and calculated the price difference between HCA and TLC again.⁵⁴⁴ For example, for a specific CCSD code for [X] patients in 2011, we drop all pathology charge counts that are above 40. This resulted in one observation out of [X] being classified as an outlier – which had a pathology charge count of [X].

8.138 The exclusion of outliers increased the price difference by up to [X] percentage point for the 5-episode threshold, which is a slightly higher price differences than in the KPMG analysis: [X]% compared with [X]%. For the 30-episode threshold, the price difference increased by up to [X] percentage points: [X]% compared with [X]%.

8.139 In addition we looked at the R-squared distribution of the regressions underlying the IPA. We note that excluding the outliers (in terms of the count of pathology charges) decreases the average R-squared statistic across the treatment-level regressions, with the resulting R-squared distribution lying much closer to the distribution reported in Table 8.4.

8.140 Based on this analysis, while excluding outliers (in terms of pathology charges) does increase the price differences between HCA and TLC and reduce the average R-squared statistics, it does not appear that the IPA WP DRR results are being unduly driven by these outliers.

⁵⁴⁴ The rule we use to exclude an episode from the analysis is to do so if the pathology count is respectively above one, two or three times the standard deviation of the mean pathology count for a particular treatment. The preferred specifications drop two and three times the standard deviation, while we report dropping one standard deviation for completeness

The regression approach

- 8.141 As an additional robustness check on our analysis, we used a regression approach to test the robustness of the representative patient assumption and the statistical significance testing. This approach enabled us to obtain a simpler estimate of the price difference between HCA and TLC without making assumptions around, for example, the representative patient. One benefit of this approach was that, by not estimating the effect of age, gender and length of stay separately for each treatment, each provider, each insurer and each year, we could then include more treatments (those with smaller patient volumes) and so increase the coverage of our analysis. As a result of being able to include more treatments in our analysis, the number of observations for the regression approach is about 91,000 compared with around 68,000 for the 5-episode IPA. This addressed one of the criticisms of our IPA analysis, which was that it covered relatively few treatments and patient numbers.
- 8.142 The results of the regression approach, as set out in Table 10 of Appendix G, suggest that the estimated overall price difference between HCA and TLC is [X]%. This estimated price difference is in line with the price difference of [X]% to [X]% in the IPA.
- 8.143 HCA outlined a number of criticisms of the suitability of our econometric model and the extent to which our regression approach represented an effective robustness check of our IPA results. While a detailed discussion of the regression approach and HCA's views on it are set out in Appendix G, HCA's most important point was that the regression 'fails standard tests on the validity of the assumptions on which it is based' and so could not be used to estimate the price difference between HCA and TLC, nor as a robustness check on the IPA.⁵⁴⁵
- 8.144 In particular, HCA pointed to the fact that the regression approach was less flexible than the IPA in the sense that the IPA included, in the treatment-level regressions, separate coefficients on each of the three explanatory variable (age, gender and length of stay) for each treatment, insurer, hospital operator and year; a 'total of 3,526 unique coefficients on the three variables', compared with just one coefficient per variable – a total of three – in the (baseline) regression approach.⁵⁴⁶ As such, the CMA 'implicitly prevented the model in its regression approach from estimating different price effects for each explanatory variable ... depending on an episode's CCSD, insurer, year

⁵⁴⁵ IPA WP DRR, paragraph 3.29.

⁵⁴⁶ IPA WP DRR, paragraph 3.34.

or hospital operator'.⁵⁴⁷ KPMG performed a number of statistical tests all of which rejected this 'equal coefficients' restriction, leading KPMG to conclude that the regression approach 'should not be treated as a reliable robustness check to the price-index approach'.⁵⁴⁸

8.145 While we acknowledge HCA's argument, we note that we deliberately chose a different, less flexible, approach because we wanted to test some of the assumptions made in the IPA. In particular, we wanted to use a specification that would not rely on using a representative patient and, in addition, would allow us to use an alternative approach to statistical significance testing. Both can be achieved using the proposed regression approach. We therefore estimated the regression approach as a robustness check to the IPA. We take into account the above criticism by HCA and make the regression approach as flexible as possible without compromising the advantages of the regression approach. We provide a detailed description of the specification used in Appendix G.

8.146 We estimated the regression for each insurer-year pair (as set out in Table 11 of Appendix G). In particular we are interested in whether the inclusion of pathology charges reduces the price difference between HCA and TLC. The results suggest that controlling for pathology charges in addition to the original variables, the price difference reduces, as set out in Appendix G, Table 11. Similar to the IPA, we find that the inclusion of pathology counts has a small impact on the price difference for AXA, and reduces the price difference considerably for Bupa. Overall we conclude that the regression approach is consistent with the IPA results.

Provisional conclusions on insured prices

8.147 In the Final Report, our conclusion in relation to our empirical analysis of insured prices in central London was that:⁵⁴⁹

We found consistent results in relation to HCA and TLC in central London that supported the conclusions that HCA faces weak competitive constraints from its rivals in central London, even from its closest competitor TLC (as reflected, for example, in their respective shares of supply). In particular, we found that HCA charges significantly higher prices to PMIs than TLC. We found this to be the case on average across PMIs, and for the large majority of individual PMIs [X], for each year between 2007 and

⁵⁴⁷ IPA WP DRR, paragraph 3.34.

⁵⁴⁸ IPA WP DRR, paragraph 3.36.

⁵⁴⁹ Final Report, paragraphs 6.380 & 6.381.

2011 inclusive. Over this period, HCA charged prices to PMIs that were on average [X] per cent higher than TLC. In addition, in relation to the prices paid by PMIs relative to self-pay patients for HCA, we found that [X] paid prices that were similar to, and in a small number of cases up to [X] than, the prices paid by self-pay patients, [X] paid prices to HCA that are higher than the prices paid by self-pay patients on average in 2007 to 2011.

8.148 As set out in this section, our analysis of insured prices in central London focused on comparing prices that HCA and TLC charge to PMIs. In order to ensure that we have compared prices on a like-for-like basis, our analysis controlled for:

- (a) differences in the range of treatments that each provider offers by only comparing those that both HCA and TLC provide to PMIs' patients, that is, the 'common basket' of treatments; and
- (b) differences in the complexity of patients at HCA and TLC for these same set of treatments by controlling for length of stay, patient age and gender in our treatment-level regressions.

8.149 As set out above, our IPA methodology produced estimates of price differences between HCA and TLC for 36 insurer-year pairs (as presented in Tables 8.5 and 8.6) that showed that, for many insurers in many years, HCA charged higher prices than TLC. Looking at the overall average price difference across all insurers and all years also indicated that HCA's prices were higher than TLC's, by between [X] and [X]%, and that this difference was statistically significant.

8.150 However, as set out in paragraphs 8.31 to 8.37, 8.57, 8.61 and 8.62 above, HCA has put new submissions and evidence to us that our IPA does not fully account for differences in patient complexity between HCA and TLC. HCA has suggested that the number of pathology tests is an indicator of patient complexity for certain procedures, particularly [X], and that, introducing the number pathology tests as an additional variable in our analysis reduces the overall estimated price difference. However, we do not consider that the number of pathology tests is a reliable proxy for patient complexity. Moreover, although we consider that HCA's reasons why it attracts more complex patients than TLC are plausible, HCA has only provided limited evidence as to why this may be the case. Having assessed this new analysis and evidence on patient complexity, we cannot rule out the possibility that our IPA analysis may not fully account for differences in patient complexity between HCA and TLC, although, as set out in paragraphs 8.47 to 8.53, above, we do not

believe that differences in patient complexity are likely to be the major driver of the price differences that we observe.

9. Profitability

- 9.1 An indicator of the extent of competition in a market is the level of profits of the firms involved. In the Final Report we set out the evidence and analysis in relation to profitability in paragraphs 6.441 to 6.470 (supported by Appendices 6.13 and 6.14 on profitability and the cost of capital) and our conclusions were set out in paragraphs 6.471 to 6.477.
- 9.2 We found that, during the period of review, HCA had been earning returns that were substantially and persistently in excess of the cost of capital.⁵⁵⁰ HCA made an average annual return of [X]% between 2007 and 2011, compared with a weighted average cost of capital of between [X] and [X]%.
- 9.3 We assessed the profitability of HCA's UK operations as a whole, ie including insured, self-pay and international patients.

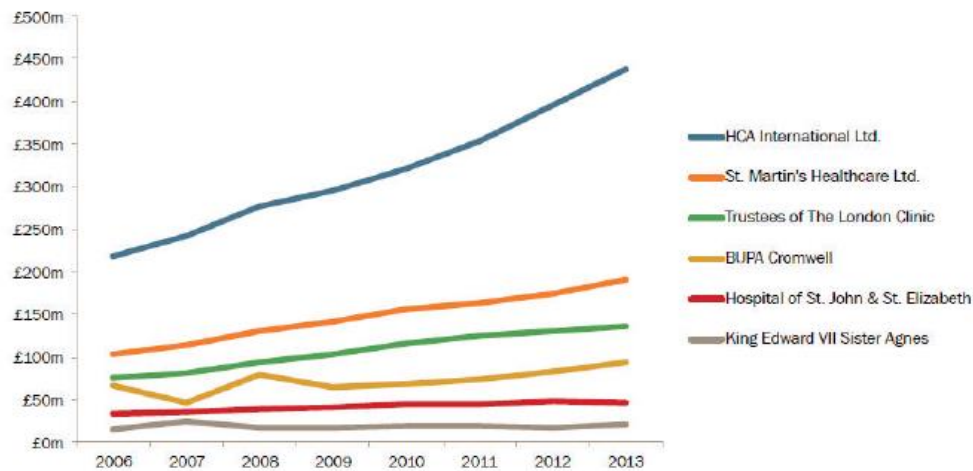
Parties' views on profitability

- 9.4 During the remittal, HCA maintained its position that it fundamentally disagreed with our profitability analysis but did not make any further submissions on that analysis.
- 9.5 BUPA expressed the view that HCA's prices remained substantially above cost, citing analysis by LaingBuisson showing that HCA was on a rapid growth trajectory with strong EBITDAR performance (see Figures 9.1 and 9.2).⁵⁵¹ It told us that it believed that HCA's profitability had increased significantly since the date of the Final Report and that the CMA should update its analysis to take these changes into account.

⁵⁵⁰ We also found that BMI and Spire had made excess returns over the relevant period, although most or all of these operators' activities were outside central London.

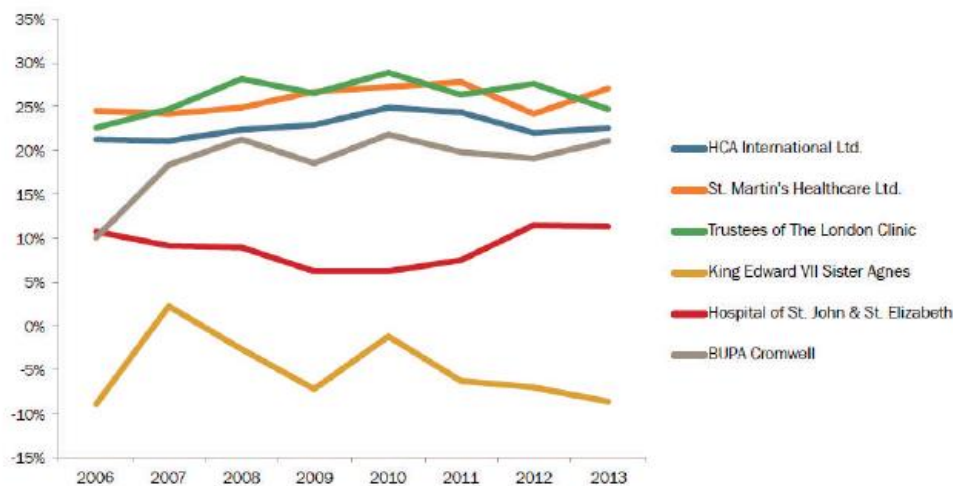
⁵⁵¹ [BUPA response to invitation to comment](#), May 2015.

Figure 9.1: Revenue growth by independent hospitals (central London)



Source: LaingBuisson, *Private Acute Medical Care in Central London: Market Report*, Figure 3.9.

Figure 9.2: EBITDAR as % of revenue



Source: LaingBuisson, *Private Acute Medical Care in Central London: Market Report*, Figure 3.11.

9.6 AXA PPP indicated that it was not aware of any material change in circumstances that was likely to have reduced HCA's profit levels.⁵⁵²

The CMA's provisional conclusions on profitability

9.7 The evidence provided to us by BUPA on HCA's financial performance suggests that HCA's profits and hence its profitability, as measured by its return on capital employed (ROCE), may have increased since the period of review of our original inquiry (2007 to 2011). We did not receive any submissions, from HCA or other parties, providing evidence or argumentation which challenged the robustness of the original profitability analysis, or

⁵⁵² AXA PPP letter to CMA, 9th March 2015.

suggested that HCA's profitability had declined since 2011. On this basis, we determined that it was not necessary to carry out additional analysis in order to understand whether HCA's profits had increased since 2011, since this would not have an impact on our original conclusions. Therefore, provisionally, we readopt our finding from the Final Report that HCA made profits that were substantially and persistently in excess of the cost of capital (Final Report, paragraph 6.474). This suggests that the price of private healthcare services may be high in relation to the costs incurred by HCA in providing those services, and thus higher than we would expect in a competitive market.

10. Self-pay patients analysis and AEC

- 10.1 In the Final Report, in Section 10 on our findings regarding an AEC, we identified:

... [t]wo structural features in the provision of privately-funded healthcare services by private hospital operators:⁵⁵³

- (a) high barriers to entry and expansion for private hospitals; and
- (b) weak competitive constraints exerted on private hospitals in many local markets including central London.

...

In combination, the features ... give rise to AECs in the markets for the provision of hospital services which lead to higher prices for inpatient and some day-case and outpatient hospital services to self-pay patients at private hospitals in local markets which are subject to weak competitive constraints across the UK, including in central London.⁵⁵⁴

- 10.2 These structural features were also identified as those that '... give rise to AECs in the markets for the provision of hospital services which lead to higher prices being charged by HCA to PMIs across the range of treatments for insured patients in central London.'⁵⁵⁵
- 10.3 On the basis of these AECs (the insured AEC decision and the self-pay AEC decision), the CMA decided in the Final Report to require HCA to divest itself of one or two of its hospitals in central London (the divestment decision).
- 10.4 The evidence supporting the features and AECs as they relate to central London was largely the same, as much of it related to competition both for insured and for self-pay patients. As set out in the Findings section of Section 6 of the Final Report, the evidence supporting these features included the following:
- (a) The Final Report stated that the 'set of private hospitals and PPUs located in central London should be regarded as a distinct geographic market', based on, inter alia, patient travel patterns, strong reputations of some private providers and PPUs for quality of care compared with providers

⁵⁵³ Final Report, paragraph 10.3.

⁵⁵⁴ Final Report, paragraph 10.5.

⁵⁵⁵ Final Report, paragraph 10.5.

elsewhere in the UK, and the views of insurers and some operators on which hospitals were considered close substitutes.⁵⁵⁶

- (b) Barriers to entry and expansion caused by high, sunk costs, long lead times and, in central London, a lack of suitable sites and difficulty obtaining planning permission.⁵⁵⁷
- (c) High levels of concentration and weak competitive constraints between private hospitals including PPUs in a number of areas, with HCA facing weak competitive constraints in central London, both from private providers and PPUs there and from those in Greater London, as well as facing ‘very limited’, if any, constraint from the NHS.⁵⁵⁸
- (d) An analysis of pricing for insured patients in central London found that ‘HCA charges significantly higher prices to PMIs than TLC’⁵⁵⁹ which ‘support[s] our hypothesis that local substitutability plays a role in determining insured price outcomes’. An analysis of pricing for self-pay patients across the UK found ‘a causal relationship between local concentration and self-pay prices for inpatient treatments’, with ‘private hospitals including PPUs, on average, charg[ing] higher self-pay prices for inpatient treatments in local areas where they face weaker competitive constraints’.⁵⁶⁰
- (e) An analysis of providers’ profitability found that HCA, BMI and Spire earned ‘returns substantially and persistently in excess of their cost of capital’.⁵⁶¹

10.5 As set out above, while there were a number of areas where the same evidence base was relied upon in coming to a view on competition for self-pay and insured patients, in relation to prices, separate analyses were conducted for insured patients (the insured pricing analysis or IPA) and for self-pay patients (the price-concentration analysis or PCA).

10.6 The CAT’s Order of 12 January 2015 quashed the central London insured AEC decision and the divestiture decision and remitted these decisions back to the CMA to reconsider. The self-pay AEC decision was not quashed, although the CAT stated in its Ruling on 23 December 2014 that:

⁵⁵⁶ Final Report, paragraph 5.59.

⁵⁵⁷ Final Report, paragraph 6.479.

⁵⁵⁸ Final Report, paragraphs 6.480 & 6.481.

⁵⁵⁹ Final Report, paragraph 6.380.

⁵⁶⁰ Final Report, paragraph 6.274.

⁵⁶¹ Final Report, paragraph 6.491.

... if ... anything emerges which ... does have an indirect knock-on effect on the reasoning in relation to the self-pay AEC decision, the CMA will need to give careful consideration to that question and the implications it may have for the overall reasoning in the Final Report.⁵⁶²

- 10.7 Given that the self-pay AEC decision has not been quashed, it is not being reconsidered as part of this remittal. However, the self-pay AEC decision (insofar as it relates to central London) remains a relevant issue in the remittal, as it formed part of the basis for the divestment decision which has been quashed and which the CMA is reconsidering as part of the remittal. As indicated by the CAT, we have therefore given careful consideration as to whether anything which has emerged during the remittal could materially affect the reasoning in support of the self-pay AEC decision.
- 10.8 In the course of this remittal, as we have examined new evidence and arguments put to us by the parties and reassessed our reasoning and findings in relation to the central London insured AEC, we have also considered whether our self-pay findings may be impacted. The impact on the self-pay AEC is not an issue on which any party has commented in the course of this remittal. Our 'Notice of launch of the remittal and invitation to comment' set out the quashed decisions – the central London insured AEC and the central London divestment – and asked for submissions 'on any relevant matters'.⁵⁶³ It did not explicitly mention, or request views on, the self-pay AEC decision.
- 10.9 We have identified four areas where evidence and arguments that we have considered in relation to the evidence supporting the insured patients central London AEC could have an impact on our self-pay patients central London AEC. These are:
- (a) the competitive constraint from day-case- and outpatient-only providers;
 - (b) the competitive constraint from PPUs;
 - (c) the competitive constraint from the NHS; and
 - (d) HCA's criticism of the methodology used in analysing insured prices as it applies to our results for self-pay prices and local concentration.
- 10.10 We deal with each of these issues in turn, setting out the issue in relation to our assessment of competition for private patients (as a whole) in central London, how each issue may have an impact on the self-pay findings, and our

⁵⁶² CAT judgment of 23 December 2014, paragraph 60.

⁵⁶³ Notice of launch of the remittal and invitation to comment, 25 February 2015, paragraph 1.

provisional conclusion on whether our overall self-pay AEC for central London could be impacted.

- 10.11 As set out in the competitive constraints section, we have provisionally concluded that our assessment of the competitive constraints from day-case- and outpatient-only providers, PPU and the NHS does not change our overall findings in relation to the weak competitive constraints facing HCA.⁵⁶⁴ In relation to the insured pricing analysis, as set out in the relevant section of this report, our provisional conclusion in relation to the results of that analysis is amended compared to our conclusion in the Final Report. Having assessed new arguments and evidence on patient complexity from HCA, we cannot rule out the possibility that our IPA analysis may not fully account for differences in patient complexity between HCA and TLC, although, as set out in paragraphs 8.148 to 8.150 of the Empirical analysis of insured prices section, we do not believe that differences in patient complexity are likely to be the major driver of the price differences that we observe.⁵⁶⁵

Day-case- and outpatient-only providers

Our findings in relation to the insured AEC for central London

- 10.12 As set out in Section 4 on competitive constraints, HCA has argued that we did not take into account competition from day-case- and outpatient-only providers.⁵⁶⁶ In coming to a provisional view on insured patients we considered shares of supply, internal documents and views of the parties. In relation to shares of supply, we have considered that taking account of non-inpatient providers' admissions is unlikely to materially affect the shares of total admissions in central London that we previously calculated. This is the case for both day-case-only clinics and outpatient-only clinics though the constraint from the former appears to be weaker, as these account for a very small share of claims and of spend in central London for both Bupa and AXA PPP.⁵⁶⁷ We have come to the same view in relation to shares of revenue in central London. In analysing HCA's internal documents we found very little evidence of HCA taking account of non-inpatient providers and, where these were mentioned, they mainly referred to providers of imaging and diagnostic services.⁵⁶⁸ Therefore, in relation to competition from non-inpatient providers, we provisionally conclude that, on the basis of this evidence, non-inpatient

⁵⁶⁴ Paragraph 4.97.

⁵⁶⁵ Empirical analysis of insured prices section, paragraphs 8.148–8.150.

⁵⁶⁶ Competitive assessment section, paragraphs 4.19, 4.20, 4.31 & 4.89.

⁵⁶⁷ Competitive assessment section, Table 4.5.

⁵⁶⁸ Competitive assessment section, paragraph 4.94.

facilities compete with HCA only on a narrow set of services, primarily imaging and diagnostic procedures, where HCA itself holds a strong position.⁵⁶⁹

Our assessment of the impact on the self-pay AEC for central London

10.13 Our findings in relation to insured patients were based, to some extent, on the proportion of PMIs' claims and spend with these non-inpatient providers in central London. In principle, the constraint on private hospitals for self-pay patients from non-inpatient providers may be stronger than in relation to insured patients for two reasons:

- (a) Non-inpatient providers may be more effective at attracting self-pay patients than insured patients, as self-pay patients are likely to be more responsive to pricing of treatments than insured patients.
- (b) As AXA PPP noted, as PMIs contract over the full range of inpatient, outpatient and day-case treatments, inpatient providers (all of which provide day-case and outpatient services too) hold an important means of leverage should a PMI attempt to divert a large amount of its day-case and outpatient spend away from those inpatient providers.⁵⁷⁰ However, in relation to self-pay patients, inpatient providers may still have an advantage for a number of treatments due to the patient journey and consultant practices (as AXA PPP also noted).⁵⁷¹ For example, most consultants perform a mix of inpatient, day-case and outpatient work, and prefer to work from a single private facility for a variety of reasons (such as to reduce travelling between facilities, running different practice management systems, and scheduling difficulties). It is much more convenient for surgeons to fit in day-case and outpatient work, regardless of its complexity, into the parts of their working week that they spend at a single inpatient facility. Even if an individual treatment or patient does not require inpatient back-up, consultants may still take patients to the facility where they undertake the majority of their work.

10.14 Having identified that non-inpatient providers could impose a stronger constraint for self-pay patients than for insured patients, we also note that the non-inpatient providers' share of PMIs' activity and revenues may not be reflective of these providers' share of activity and revenue among self-pay patients. However, on the basis of the evidence set out in paragraphs 4.93 to 4.96 of the Competitive assessment section, we consider that differences in these shares of supply would be unlikely to change our overall conclusions.

⁵⁶⁹ Competitive constraints section, paragraph 4.97.

⁵⁷⁰ Competitive constraints section, paragraph 4.91.

⁵⁷¹ Competitive constraints section, paragraph 4.90.

As we note above, HCA's business cases indicate that non-inpatient facilities are only likely to compete with HCA for a narrow set of services, primarily imaging diagnostic procedures.⁵⁷²

- 10.15 In relation to shares of supply, we provisionally conclude that, for self-pay patients, non-inpatient providers may well account for a higher share of activity and revenue than the PMI data would suggest is the case for insured patients. However, in relation to competition from non-inpatient providers, based on HCA's business cases, we provisionally conclude that the constraint from these providers on HCA, in relation to self-pay patients, is likely to be on a narrow set of services, primarily imaging and diagnostic procedures, where HCA holds a strong position, as we have concluded in our competitive constraints section.⁵⁷³

Private patient units

Our findings in relation to the insured patients AEC for central London

- 10.16 As set out in Section 4 on competitive constraints, HCA noted that our shares of supply calculations had excluded a number of PPUs in central London and, as a result, had overstated HCA's share of supply.⁵⁷⁴ Recalculating these shares we find that including the seven NHS trusts with PPUs in central London that we previously omitted lowers HCA's share of total revenues by six percentage points. Most of the difference in HCA's share is due to the inclusion of these seven NHS trusts rather than changes over time in the relative market position of the providers that we did include in our previous calculations. We note that HCA's share of total revenue is still high, at 50%.⁵⁷⁵
- 10.17 Overall, we have provisionally concluded that we remain of the view that central London is a highly-concentrated market, that HCA has high shares of supply relative to its competitors and that the overall pattern of shares of supply in central London remains unchanged since 2011.⁵⁷⁶ In reaching our decision on the competitive constraints from PPUs we also took into account evidence from internal documents⁵⁷⁷ and our surveys of patients and of consultants.⁵⁷⁸

⁵⁷² Competitive assessment section, paragraph 4.94.

⁵⁷³ Competitive assessment section, paragraph 4.97.

⁵⁷⁴ Competitive assessment section, paragraph 4.19.

⁵⁷⁵ Competitive assessment section, paragraph 4.29.

⁵⁷⁶ Competitive assessment section, paragraph 4.53.

⁵⁷⁷ Competitive assessment section, paragraphs 4.62–4.72.

⁵⁷⁸ Competitive assessment section, paragraphs 4.82 & 4.88.

- 10.18 As with the issue of non-inpatient providers, in principle, PPUs may be more attractive for self-pay patients than for insured patients, as self-pay patients are likely to be more responsive to the prices of treatments than insured patients. As such, self-pay patients may well be more willing to accept the (potentially) lower quality of patient experience at a PPU in return for a lower price, although we note that some PPUs derive a relatively small share of their private patient revenue from self-pay patients.⁵⁷⁹
- 10.19 However, as in the competitive constraints section, we consider that including the revenue and capacity of specialist PPUs (such as Royal Marsden, Great Ormond Street Hospital, Moorfields Eye Hospital and Royal National Orthopaedic Hospital) in our shares is likely to overstate the competitive constraint they place on HCA, given that they are only effective competitors for a limited subset of HCA's specialties.⁵⁸⁰ Furthermore, we note that, based on limited data, PPUs' shares of self-pay patient revenue in central London do not appear to indicate that they impose a stronger constraint on HCA for these patients than the overall shares of revenue and admissions would indicate. For example, based on our incomplete data set for central London private hospitals and PPUs, HCA's share of self-pay patient revenue in central London was [50–60]% in 2011 (compared with about [X%] based on total revenue), whereas Imperial College Healthcare NHS Trust had a share of [5–10]%. Some other NHS providers had somewhat lower shares, for example, Guy's and St Thomas' NHS Trust and King's College Hospital NHS Foundation Trust each accounted for less than [0–10]% of self-pay revenue in central London.⁵⁸¹ In addition, HCA's internal documents and our patient and consultant surveys suggest that PPUs place a weak competitive constraint on HCA.⁵⁸²
- 10.20 Overall, we provisionally conclude that for self-pay patients the constraints imposed by PPUs on HCA are in aggregate weak.

⁵⁷⁹ For example, in 2011, while Imperial College Healthcare NHS Trust derived over [X%] of its private patient revenue from self-pay patients, for Guy's and St Thomas' NHS Trust the equivalent share was [X%] and for King's College Hospital NHS Foundation Trust it was just [X%].

⁵⁸⁰ Competitive assessment section, paragraph 4.29.

⁵⁸¹ Again, we note that these shares are based on incomplete data, but they do indicate that PPUs' position relative to HCA is unlikely to be significantly stronger for self-pay than for overall private patient revenues.

⁵⁸² Competitive assessment section, paragraphs 4.62–4.72, 4.82 & 4.88.

Our findings in relation to the insured patients AEC for central London

10.21 As set out in Section 4 on competitive constraints, HCA has argued that our assessment of the constraints imposed on it by the NHS underestimated the strength of the constraint.⁵⁸³ Based on HCA business cases, we concluded that while HCA does take a general interest in the NHS as a public funder of healthcare services, this interest is usually not in terms of the NHS as a competitor to HCA, but in the context of seeking to create new demand for private hospital services. Overall, NHS services are not a close substitute for private patient services provided by HCA and the competitive constraints exerted by the NHS on HCA are limited.⁵⁸⁴

Our assessment of the impact on the self-pay patients AEC for central London

10.22 Again, to the extent that self-pay patients are likely to be more responsive to the price of treatments than insured patients, in principle, publicly-funded NHS care may well impose more of a constraint for self-pay patients than for insured patients. The decision of a self-pay patient on where to seek care will involve trading off the cost of paying for the treatment privately against the NHS option of free treatment which is likely to involve a longer wait, poorer customer service and patient experience, poorer patient amenities, less choice of consultant or even restrictions on what treatments are available. For some patients considering self-pay private care, an NHS provider may well be an attractive option. As we note in the competitive constraints section, the NHS provides a minimum on the value for money that private healthcare must deliver, and this minimum may be higher in central London than in other parts of the UK due to the presence of major research and teaching hospitals.⁵⁸⁵

10.23 However, as with our overall conclusions, the evidence from HCA's business cases points to relatively few instances where HCA considers the competitive threat from the NHS as a provider of publicly-funded healthcare services (as opposed to PPUs),⁵⁸⁶ suggesting that the threat of losing self-pay patients is not a strong constraint on HCA. Indeed, a number of cases refer to HCA developing services which the NHS either does not provide or which are being cut back or given reduced priority.^{587,588} This could well be indicative of HCA's

⁵⁸³ Competitive constraints section, paragraphs 4.102–4.106.

⁵⁸⁴ Competitive constraints section, paragraph 4.116.

⁵⁸⁵ Competitive constraints section, paragraph 4.115.

⁵⁸⁶ Competitive constraints section, paragraphs 4.109–4.113.

⁵⁸⁷ [REDACTED]

⁵⁸⁸ Competitive constraints section, paragraph 4.111.

ability to attract potential self-pay private patients away from the NHS rather than vice versa.

- 10.24 Overall, we provisionally conclude that the constraint imposed on HCA by publicly-funded NHS provision is also limited in relation to self-pay patients in central London, as we provisionally concluded in relation to insured patients.

Insured pricing analysis and price-concentration analysis methodologies

Our findings in relation to the insured AEC for central London

- 10.25 As set out in Section 8 on the Empirical analysis of insured prices, HCA has argued that our analysis of price differences between HCA and TLC for insured patients did not adequately control for patient complexity and that, once this is controlled for (using additional data from invoices), there is no statistically significant price difference between HCA and TLC.
- 10.26 We have explained in that section that we cannot rule out the possibility that our analysis does not adequately control for differences in patient complexity between HCA and TLC. As such, we have provisionally concluded that while HCA charges higher insured prices than TLC, we can no longer be sufficiently certain that we have adequately controlled for any differences in patient complexity. Having considered alternative explanations for HCA's higher prices, we provisionally concluded that weak competitive constraints on HCA are likely to be the most important factor, as set out in Section 11 on our provisional findings and AEC.

Our assessment of the impact on the self-pay AEC for central London

- 10.27 HCA's argument that the IPA does not adequately control for differences in patient complexity between hospitals could, in principle, apply to the PCA too.

The PCA and results

- 10.28 The analysis for self-pay prices covered five providers and used data from across Great Britain⁵⁸⁹ (including central London). This analysis aimed to estimate the relationship between local concentration and the price paid by self-pay patients for a number of inpatient treatments, using a regression approach to conduct a price-concentration analysis ('PCA').⁵⁹⁰ This analysis used invoice-level data provided by the five main private hospital operators –

⁵⁸⁹ We did not have self-pay patient pricing data for Northern Ireland private hospitals. Final Report, Appendix 6.9, Table 1.

⁵⁹⁰ Final Report, Appendix 6.9.

HCA, BMI, Nuffield, Ramsay and Spire – which was consolidated into a single data set. Then prices were analysed at the episode level, as in the IPA. The price-concentration relationship was estimated by modelling episode prices as a function of concentration in the local market,⁵⁹¹ while controlling for a number of patient-, hospital-, and location-specific variables. Many of these variables, in particular patient age, gender and length of stay, were the same variables as were used in the IPA.

- 10.29 In the Final Report we reported that the self-pay prices are on average lower by around 3 to 9% when an additional competitive fascia is present.⁵⁹² In concluding on self-pay prices, the Final Report stated that: '[t]he results of our PCA show that there is a causal relationship between local concentration and self-pay prices for inpatient treatments.'⁵⁹³
- 10.30 Alongside the features of the London market set out above, these PCA results were used in support of the central London self-pay AEC finding.
- 10.31 In relation to the IPA, HCA put forward the view that our analysis did not adequately control for differences in patient complexity and that, as it treated more complex patients, any higher prices that we observed at HCA compared to TLC were due to its higher patient complexity.

Patient complexity and the PCA results

- 10.32 We have considered two questions in assessing whether this criticism could apply to the PCA methodology and results:
- (a) Does our PCA adequately control for differences in patient complexity?
 - (b) Is there a plausible reason why we might expect our observed relationship between high prices and high local concentration to be affected by patient complexity?
- 10.33 In discussing complexity in this context, we again make a distinction between the complexity of the range of a hospital's treatments ('treatment

⁵⁹¹ These are LOCI and fascia count. As set out in Appendix 6.4 of the Final Report, LOCI (LOgit Competition Index) is a measure of competition that is based on the weighted average market shares of providers in a market, where the weighting is based on the hospital's market share of patients in different geographic 'sub-markets'. Fascia count is simply the number of different fascia – both private providers and PPUs within a hospital's catchment area, defined in terms of a fixed radius around the hospital.

⁵⁹² Final Report, paragraph 6.264.

⁵⁹³ Final Report, paragraph 6.274.

complexity')⁵⁹⁴ and the complexity of its patient within any given treatments ('patient complexity').⁵⁹⁵

10.34 On the first question, (paragraph 10.32 (a), above) we note that, while the PCA (like the IPA) uses patient age, gender and length of stay to control for differences in patient complexity, the PCA does include two additional variables which could also act as proxies for quality and/or patient complexity:⁵⁹⁶

(a) a measure of 'average direct cost' for each hospital;⁵⁹⁷ and

(b) a dummy to indicate whether a hospital has any CCL3 beds.⁵⁹⁸

10.35 As such, the PCA may be more effective at capturing any potential differences in patient complexity.

10.36 We also note that the coefficients on patient age, gender and length of stay are generally statistically significant in the PCA suggesting that these patient characteristics are controlling for factors which may drive differences in provider costs that may be passed through to self-pay prices and, so, are likely to be effectively controlling for differences in patient complexity. See, for example, the Final Report, Appendix 6.9, Tables 4 and 5, where gender and length of stay are statistically significant at the 95% confidence level or above, while age is statistically significant at the 90% level. Length of stay is of particular interest here, as (in contrast to our IPA results) the PCA is based on inpatient treatments only where length of stay is likely to be a good proxy for patient complexity whereas for day-case treatments it is not informative, as there is no overnight stay.

10.37 On the second question, there are three possible implications for our results if levels of patient complexity are correlated with differences in local

⁵⁹⁴ The complexity of the treatments and services that a hospital provides (which we deal with in relation to range) relates to the level of specialised staff, equipment and so on and is generally associated with higher costs of provision.

⁵⁹⁵ The complexity of patients, in the context of the IPA, refers to factors that may result in a patient being more expensive to treat than other patients being admitted for the same treatment, for example, due to co-morbidities or the severity of the patient's illness which may mean the patient requires more theatre time, more (and/or more expensive) drugs, more pathology tests, more nursing time or monitoring, etc.

⁵⁹⁶ Comparable line-item data from invoices are not available for the self-pay prices data set. As such we cannot replicate HCA's additional analysis of the IPA which sought to control for differences in patient complexity by adding the number of pathology charges to the analysis.

⁵⁹⁷ Final Report, Appendix 6.9, paragraph 37 (e). The PCA included the average direct cost of the hospital to account for 'differences in input or labour costs', but we consider that this could also account for differences in quality or patient complexity. This cost variable is not statistically significant in any model of the PCA reported.

⁵⁹⁸ Final Report, Appendix 6.9, paragraph 37 (f). This dummy indicates whether a hospital provides critical care level 3 beds to 'account for potential differences associated with hospitals providing this level of care (eg as a result of perceived or actual differences in quality or cost of services or case mix). This CCL3 dummy is positive and statistically significant at the 95% level – see Final Report, Appendix 6.9, Tables 4 and 5.

concentration in a way that is not captured by the patient characteristics or other variables in our PCA regressions:

- (a) The PCA results may overestimate the effect of high concentration in driving prices if high-complexity patients are likely to be treated in highly-concentrated areas.
- (b) The PCA results may underestimate the effect of high concentration in driving prices if high-complexity patients are likely to be treated in low-concentration areas.
- (c) If patient complexity and concentration are uncorrelated (or patient complexity is adequately controlled for within our regressions) then our PCA estimates are unbiased.

10.38 If our PCA were overestimating the relationship between local concentration and prices then this could have an impact on our findings in relation to competition for self-pay patients. For this to be likely, it requires a mechanism whereby highly-concentrated local markets display high prices and high patient complexity within the treatments that are being compared across hospitals. A possible, hypothetical mechanism may be as follows:

- (a) A high-quality hospital attracts high-complexity patients within the relevant treatments (that is, not just having a wider range of more complex treatments) from other local markets.
- (b) This leads to high concentration in that local market and also to higher prices at the leading hospital.
- (c) This leads to surrounding local markets having lower patient complexity for these treatments, as the more complex patients are attracted to the increasingly concentrated market.
- (d) The local market with the high-quality provider then has higher concentration, while the surrounding local markets display lower concentration, relative to the increasingly concentrated market,⁵⁹⁹ but have lower-complexity patients and, so, lower prices.

10.39 While we have not collected empirical evidence on this specific question, we consider that this mechanism is unlikely to be driving the positive price-concentration relationship that we have estimated, as none of the evidence

⁵⁹⁹ For the relationship between concentration and prices to hold requires that concentration in the lower-complexity markets is lower than in the higher-complexity markets. Whether it changes as a result of this mechanism is not important, as long as it is lower than in the higher-complexity, higher-concentration, higher-price markets.

that we have collected in the course of the market investigation or this remittal has pointed to a process whereby more complex patients travel outside their local market in such a way that drives high concentration (and high prices) in some local markets and results in low complexity, low concentration and low prices in others for specific treatments.⁶⁰⁰ In any case, our patient characteristics and CCL3 dummy variable are likely to adequately capture any differences in patient complexity between providers and local markets, although we note that the cost variable was not statistically significant in our PCA regressions.

Provisional conclusion in relation to the self-pay AEC for central London

- 10.40 Having considered three sources of potential competitive constraints on HCA that may impact on competition for self-pay patients to a greater extent than for insured patients (non-inpatient providers, PPU's and the NHS), we provisionally conclude that, in principle, these could provide a stronger constraint for self-pay patients than for insured patients. However, we consider that the competitive constraints that these are likely to impose on HCA are weak, for the reasons set out in paragraphs 10.14, 10.19 and 10.23, above.
- 10.41 In relation to the PCA, we do not consider that patient complexity within the relevant treatments across different local markets is likely to be systematically correlated with local concentration to an extent that would call into question our results. Even if we were to put less weight on the accuracy and robustness of the PCA, we would, in any case, provisionally conclude that the other evidence, such as barriers to entry, internal documents, market shares, and parties' views, indicates that local self-pay prices are likely to be driven by weak competition in some local markets including central London.

⁶⁰⁰ Again the distinction between more complex patients travelling in order to receive a treatment that is available locally and patients travelling further to access a more complex treatment is crucial here.

11. Our provisional findings and AEC

- 11.1 In the previous sections we set out our provisional views on the different building blocks of our analysis (market definition, competitive assessment, barriers to entry, bargaining) and considered market outcomes (quality and range, insured prices, profitability). We now draw together our conclusions from each of these in making our provisional findings on the market features of privately-funded healthcare services in central London and the AEC(s) that flow from these.
- 11.2 Both in this remittal and in the Final Report, we have assessed a large body of evidence received from a range of different parties, relevant market data gathered by ourselves and by others, and internal documents from parties.
- 11.3 As explained in paragraphs 1.19 to 1.20, as part of this remittal we have considered the evidence and/or arguments put to us by parties, in particular on whether anything has changed in the markets for privately-funded healthcare services in central London since our Final Report, in addition to any issues not previously raised by parties/addressed in the Final Report or where parties disagreed with our reasoning in the Final Report. We have taken into account both the analysis in the remittal alongside the prior evidence/analysis contained in the Final Report, in reaching our provisional findings as set out below.

Market definition

- 11.4 As set out in detail in Section 3, we have provisionally readopted our conclusions in relation to product and geographic market definition as set out in our Final Report (see paragraph 3.20). We continue to find:
- (a) distinct product markets in the provision of hospital services for individual specialties and, for each individual specialty, separate markets for inpatient, day-patient and outpatient services; and
 - (b) the area covering the private hospitals and PPUs in central London as a separate geographic market.
- 11.5 On the basis of these findings we took the following approach to our competitive assessment:
- (a) We have focused largely on hospitals and PPUs providing inpatient care, although we have also taken into account specialist and non-inpatient providers in central London, on a case-by-case basis (see further explanation in paragraph 3.19).

- (b) We have aggregated a set of 16 specialties where we considered it appropriate and looked at oncology separately where possible (see paragraph 3.20).
- (c) We have taken into account competitive constraints exerted from outside the markets by NHS hospitals on a case-by-case basis (see paragraph 3.20).
- (d) We have taken into account the relative strength of the competitive constraints exerted by private hospitals/PPUs both within central London and also considered constraints from outside central London (see paragraph 3.34).

Competition from other providers

- 11.6 We have found that private healthcare services in central London remain highly concentrated. As set out in Section 4, HCA continues to have high shares of supply relative to other hospital providers (50% share of total revenue and admissions) across many of the 16 specialities plus oncology, even when other specialist/non-inpatient providers are included. Its share is particularly high in some segments such as oncology and cardiology. We have found there has been little change in the pattern of overall shares since the Final Report.
- 11.7 We recognise that there has been some growth in PPU's in central London since the Final Report. However, this has been broadly in line with overall growth in private healthcare in central London and PPU's continue to have a small share of private admissions. HCA's internal documents showed that it does not view PPU's as a significant source of competitive constraint across all treatments. Therefore we consider that overall constraints imposed by PPU's in aggregate remain weak (see paragraph 4.98). Similarly, we find that the constraint from non-inpatient providers in aggregate is weak. Non-inpatient facilities have a very small share of Bupa and AXA PPP's inpatient and day-case admissions and a small share of their revenues. In particular, we note that the vast majority of day-case claims for insured patients took place at inpatient providers. Furthermore on the basis of the evidence we conclude that non-inpatient facilities compete with HCA only on a narrow set of services, primarily imaging and diagnostic procedures, where HCA itself holds a strong position (see paragraph 4.97).
- 11.8 Despite some changes in the market, in our view HCA continues to face weak competitive constraints, whether from other central London hospital providers/ PPU's or providers outside central London. We remain of the view that NHS services are not a close substitute for private patient services provided by

HCA (see paragraph 4.118). We also do not consider that competition from international providers constrains pricing to non-overseas patients due to HCA's ability to price discriminate, as evidenced by the fact that self-pay prices on its UK websites are 'For UK Residents Only' (see paragraph 4.143).

- 11.9 Although TLC remains HCA's closest competitor, it is much smaller in size (one hospital in comparison with HCA's seven hospitals and [one quarter] of HCA's revenues). We also note that PMIs themselves consider HCA to be 'must have' in particular for their large corporate clients (see paragraph 4.79).
- 11.10 Our provisional conclusions on competitive constraints are set out in paragraph 4.150.

Barriers to entry and expansion

- 11.11 Having found that there are weak competitive constraints on HCA, we then looked at the extent to which the threat of entry or expansion might provide a constraint, as set out in Section 5. In spite of the attractiveness of the growing privately-funded healthcare services market in central London, there has been no substantial entry or change in the structure of the market over the last ten years or more (and only limited incremental expansion/changes in ownership).
- 11.12 Our review of the evidence indicates that a combination of high sunk costs and long lead times remain the principal barriers to entry in central London, with the latter factor exacerbated by the limited availability of suitable sites and planning constraints, although we noted that the reorganisation of many NHS trusts' estates (if it goes ahead) has the potential to ease constraints on the availability of suitable sites in time (see paragraph 5.44). However, we do not consider that this is likely to take place in a sufficiently timely manner to facilitate the new entry of private hospital operators that could constrain HCA in the near future.
- 11.13 Since the Final Report we have become aware that there may be future large-scale entry by VPS and the Cleveland Clinic. If these take place, we recognise that this would be likely to significantly increase the level of competitive constraint on HCA. However, at the current time, it is not clear that either of these potential entrants has secured a suitable site for development and/or will be able to develop such a site (see paragraph 5.64 (f)) and there are uncertainties over the extent and time frame over which they would start to exert any competitive constraint on HCA. Given this, we have provisionally concluded that there is unlikely to be entry or expansion of sufficient scale to constrain HCA in the near future. However, we accept that over a longer time frame, for example the next five years, there may be large-scale entry into the central London market.

11.14 Nevertheless, the possibility of new entry in the long run does not change our view that there are substantial barriers to entry into this market, nor have we seen any evidence to suggest that the threat of such entry has placed any significant constraint on HCA (or will in the near future). Therefore we remain of the view that entry (or the threat of entry) is not acting as a significant competitive constraint on HCA. Our provisional conclusions on barriers to entry and expansion are set out in paragraph 5.70.

Bargaining between PMIs and HCA

11.15 We also sought to understand the relative bargaining power of both HCA and PMIs as set out in Section 6. Prices charged by hospital operators to PMIs typically focus on the price of the overall bundle of services/treatments and are the same across the provider's portfolio of hospitals.

11.16 We continue to find that that it is not possible to quantify each side's relative bargaining power. However, it is clear from the evidence we have seen that both parties are dependent on each other and have some power in the bargaining relationship, ie neither side are 'price-takers'. We do not agree with HCA that an extreme 'sharing rule', in which HCA receives a very small share of the bargaining surplus, is a plausible description of its negotiations with PMIs in the central London private healthcare services market. The evidence does not suggest that PMIs are able (or anywhere close to being able) to negotiate on a 'take-it-or-leave-it' basis with HCA (see paragraph 6.77).

11.17 We have also considered the extent to which PMIs can use/create alternative products or contracting strategies to increase their outside options (eg. restricted networks, service-line tenders, open referrals). We have found that, although there has been some growth in their use by PMIs, they have not materially improved PMIs' outside options vis-à-vis HCA (see paragraphs 6.34 to 6.74).

11.18 Therefore we remain of the view that, while PMIs have some bargaining (or buyer) power, PMIs do not have countervailing buyer power which is sufficient to offset the exercise of market power by HCA. Our provisional conclusions on bargaining are set out in paragraphs 6.75 to 6.78].

Market outcomes

11.19 Outcomes of the competitive process in a market can also provide evidence about how a market functions and the extent of competition. Evaluating these outcomes helps to determine whether there is an AEC and, if so, the extent to which customers may be harmed and the degree of customer detriment.

11.20 Competition in private healthcare is characterised in terms of quality (level of service provided), range (which and how many treatments are provided) and price.

Quality and range

11.21 We have considered the extent to which there are differences in quality and range between HCA and other operators (see Section 7).

11.22 On quality, we continue to find that there is no evidence of material quality differences between HCA and TLC, although we note that there is a lack of objectively comparable data (see paragraph 7.15).

11.23 Similarly, in relation to product range, while we recognise that HCA offers a wider range of treatments than TLC, we consider that both hospitals nonetheless offer a comprehensive set of treatments (see paragraph 7.19).

11.24 Notwithstanding the weak competitive constraints and barriers to entry and expansion, the evidence suggests that there is a degree of competition over both quality and range in central London (for example, competitive responses in particular by HCA and TLC in cancer care, see paragraph 6.406(a) of the Final Report). We note that this is not inconsistent with our findings of a lack of competition on price, particularly in the insured segment (see paragraphs 7.23 to 7.25). In addition, we continue to consider that quality and range will improve in more competitive markets. Our provisional conclusions on quality and range are set out in paragraphs 7.27.

Insured prices

11.25 We also assessed pricing outcomes in central London using the IPA, which specifically assesses whether there is a price difference between HCA and its closest competitor, TLC, by comparing prices that HCA and TLC charge to PMIs for the treatments in the common basket (set out in detail in Section 8).

11.26 As explained in paragraphs 8.112 to 8.113 and 8.121, there were some errors in the analysis presented in our Final Report which we have corrected (see our IPA Working Paper published on 11 June). We have also undertaken a significant amount of additional work during the remittal, in particular in response to detailed comments from parties on the IPA Working Paper.

11.27 We explained in the Final Report that this comparison of prices between HCA and TLC was a complex task because we needed to take into account any differences between the treatment mix and patient mix of the two providers (see paragraph 8.13).

- 11.28 In order to compare prices on a like-for-like basis, our analysis (as published in the IPA Working Paper and the Final Report) controlled for:
- (a) differences in the range of treatments that each provider offers by only comparing those that both HCA and TLC provide to PMIs' patients, that is, the 'common basket' of treatments; and
 - (b) differences in the complexity of patients at HCA and TLC for these same set of treatments by controlling for length of stay, patient age and gender in our treatment-level regressions.
- 11.29 The revised results of the IPA are set out in paragraphs 8.120 to 8.127. We have produced estimates of price differences between HCA and TLC for 36 insurer-year pairs that show that, for many insurers in many years, HCA charged higher prices than TLC. Looking at the overall average price difference across all insurers and all years also indicates that HCA's prices were higher than TLC's, by between [X]%, and that this difference was statistically significant.
- 11.30 HCA argued that the IPA still failed to achieve a like-for-like comparison, as it did not take into account the fact that HCA treated more complex patients than TLC (for the same treatments). In essence, HCA made two interrelated arguments. First, patient complexity was not effectively controlled for in the IPA. Secondly, when additional variables from the data set (in particular, the number of pathology charges) were included in the IPA, there was no longer a statistically significant price difference between HCA and TLC (see paragraphs 8.54 to 8.57).
- 11.31 As set out in paragraph 8.75, we found that including the pathology counts as an additional variable in our methodology reduced the price difference between HCA and TLC for most insurers. Looking at the overall average price difference across all insurers and all years showed that HCA's prices were higher than TLC's, by between [X]%. However, as explained in paragraphs 8.73 and 8.74, based on the evidence provided to us (in particular our understanding of differences in billing practices between insurers and hospital providers) we do not consider that the number of line items (such as pathology charges) are likely to be a reliable proxy for the complexity of a patient.
- 11.32 We also considered additional qualitative evidence on the issue of complexity differences between HCA and TLC. HCA's suggested reasons why it attracts more complex patients for the same treatment than TLC have some plausibility, although in our view the evidence is weak. With the exception of HCA, no other parties considered that it treated more complex patients than

TLC for the same treatments. However, we cannot rule out the possibility that any differences in patient complexity are not fully controlled for in the IPA (see paragraph 8.150).

- 11.33 As such we have provisionally concluded that HCA charges higher insured prices than TLC. However, we can no longer conclude on the size of this price difference, as we cannot be sufficiently certain that we have adequately controlled for any differences in patient complexity.

The IPA in context with our competitive assessment

- 11.34 In coming to a view on how this evidence relates to our overall assessment of competition in central London, we gave further consideration to the reasons behind such a price difference alongside the other evidence and analysis set out our provisional findings.
- 11.35 In relation to whether the price difference can be explained by any quality differences between HCA and TLC, as noted above (see paragraph 11.22), on the basis of available evidence we did not find any evidence of material quality differences between HCA and TLC. Therefore we do not consider that this is likely to explain the price difference. In relation to patient complexity, as we conclude above, although we cannot rule it out, overall the evidence on whether HCA attracts more complex patients is weak (see paragraphs 11.32 and 11.33). Therefore we consider that the price difference we find between HCA and TLC, is not likely to be fully explained by systematic differences in quality or complexity.
- 11.36 However, there is a substantial body of evidence and analysis indicating that HCA has a strong position in central London and faces weak competitive constraints (see our findings above). Our finding that there is a price difference between HCA and TLC is consistent with that evidence. Taking into account all of the evidence, we consider the weak competitive constraints we have identified are likely to be the most important factor in this price difference.
- 11.37 It was put to us by HCA that the IPA had failed to establish any causal relationship between allegedly higher prices and market concentration and that we had not adequately considered alternative explanations for HCA's allegedly higher prices. As set out above, we have considered alternative explanations for HCA's higher prices (both differences in quality of care and in the complexity of HCA and TLC patients) and we have concluded that weak competitive constraints are likely to be the most important factor in HCA's higher prices. This is based on a range of evidence about the competitive constraints facing HCA and its bargaining strength with PMIs, rather than

being based purely on market shares for HCA and TLC for one year, as HCA has suggested.

Profitability

11.38 A further indicator of the extent of competition and whether prices are above the competitive level is profitability (see Section 9). We previously found that HCA earned returns substantially and persistently in excess of the cost of capital, despite the data being used relating to a period where there was a severe recession. As noted in the Final Report, this suggests that the price of private healthcare services may be high in relation to the costs incurred by HCA in providing those services, and thus higher than we would expect in a competitive market.

11.39 We did not receive any submissions, from HCA or other parties, providing new evidence or arguments which either challenged the robustness of the original profitability analysis, or suggested that HCA's profitability had declined since 2011. On this basis, we determined that it was not necessary to carry out additional analysis in order to understand whether HCA's profits had increased since 2011, since this would not have an impact on our original conclusions. Therefore, we remain of the view that HCA made profits that were substantially and persistently in excess of the cost of capital and that this suggests that HCA is charging prices that are higher than would be expected in a competitive market. Our provisional conclusions are set out in paragraph 9.7.

Provisional findings on the AEC for insured patients in central London and customer detriment

11.40 Taken together, based on the evidence and findings set out in Sections 4 to 9, we provisionally conclude that there are two structural features in the markets for the provision of privately-funded healthcare services to insured patients in central London, which are in combination leading to an AEC:

- (a) high concentration, with HCA having a large market share; and
- (b) high barriers to entry and expansion, arising primarily from high sunk costs and long lead times, the latter being exacerbated by limited site availability and planning constraints.

11.41 In combination, these features result in weak competitive constraints on HCA in the provision of privately-funded healthcare services for insured patients in central London.

11.42 When considering the customer detriment arising from this AEC we have considered our findings on market outcomes. On quality and range we found that there is a degree of competition, although we expected that they will improve in more competitive markets. In relation to prices we found there was a price difference between HCA and TLC and that HCA had persistent and sustained excess profits, which taken together indicate that prices are above the competitive level that we would expect to find in a well-functioning market. This leads us to conclude that there is customer detriment arising from the AEC we have identified.

Self-pay AEC in central London

11.43 As explained in paragraph 1.21, the self-pay AEC decision has not been quashed by the CAT, however, we have considered whether any of the analysis undertaken during the remittal in relation to the insured AEC decision has a material effect on the reasoning in relation to the self-pay AEC decision.

11.44 Our provisional assessment on self-pay is set out in Section 10. We consider that three sources of potential competitive constraints on HCA (non-inpatient providers, PPUs and the NHS) may impact on competition for self-pay patients to a greater extent than for insured patients (non-inpatient providers, PPUs and the NHS), however we consider that the competitive constraints that these are likely to impose on HCA are weak (see paragraphs 10.40).

11.45 In relation to the PCA, we do not consider that patient complexity within the relevant treatments across different local markets is likely to be systematically correlated with local concentration to an extent that would call into question our results. Our provisional conclusions are set out in paragraphs 10.40 and 10.41.