Non-confidential version

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Response of Greg Harman to the OECD Report

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CRITICAL THINKING AT THE CRITICAL TIME™

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Glossary

Term	Definition
Authors	The authors of the OECD Report – the OECD and the WHO
CMA	The UK Competition and Markets Authority
Commission	The Competition Commission of South Africa
Commission's Profitability Paper	Working paper published by the Commission in September 2015 entitled "*Market Inquiry into the Private Healthcare Sector, Profitability Analysis Methodology*"
First Report	Expert report of Greg Harman entitled "*Assessment of Netcare Hospital Business' economic profitability*" dated 31 October 2014
Fourth Report	Expert report of Greg Harman entitled *"Assessment of the economic profitability of Netcare's Hospital Business under the Commission's published methodology*" dated 29 February 2016.
FTI Consulting	FTI Consulting LLP
GDP	Gross domestic product
Hospital Business	The divisions of Netcare that constitute its private hospital business including: hospital operating companies, property companies, emergency services, pharmacy, and radiotherapy divisions
Ms Guerin-Calvert	Senior Managing Director in FTI Consulting and President of the Center for Healthcare Economics and Policy
Netcare	Netcare Limited
Nortons	Nortons Incorporated attorneys acting for Netcare Limited

OECD	Organisation for Economic Co-operation and Development
OECD FAQ	A frequently asked questions document submitted to the Commission in conjunction with the OECD Report
OECD Presentation	The findings of the OECD Report presented to the Commission on 17 February 2016
OECD Report	A report published by the OECD and the WHO dated 20 October 2015 entitled "*International Comparison of South African Private Hospitals Price Levels*"
PPP	Purchasing power parity
ROCE	Return on Capital Employed
Second Report	Expert report of Greg Harman entitled "*Response to submissions made to the Commission relating to the profitability of private hospitals in South Africa*" dated 2 April 2015
The Authors	The OECD and WHO
Third Report	Expert report of Greg Harman entitled "*Response to the Commission's proposed methodology to assess the profitability of private hospitals in South Africa*" dated 2 November 2015
TIRR	Truncated internal rate of return
WACC	Weighted average cost of capital
WHO	World Health Organisation

1. Introduction

Expert's background

1.1 I am the same Greg Harman who has been previously instructed by Nortons Incorporated ("**Nortons**"), attorneys acting for Netcare Limited ("**Netcare**"), to prepare four reports that have been provided to the Competition Commission of South Africa (the "**Commission**").[1] My relevant experience is summarised in paragraphs 1.1 to 1.5 of my First Report and a detailed summary of my experience is provided at Appendix 1 to my First Report.

Background

1.2 On 20 October 2015 the Organisation for Economic Co-operation and Development (the "**OECD**") and the World Health Organisation (the "**WHO**") published a paper entitled "*International Comparison of South African Private Hospitals Price Levels*" (the "**OECD Report**"). In the OECD Report, the OECD and WHO (the "**Authors**") wish to compare the private hospital market in South Africa to a group of other countries. There are two main pieces of analysis set out in the OECD Report:[2]

(1) a comparison of private hospital price levels in South Africa with OECD countries to examine whether there is any correlation between these price levels and a country's wealth. The OECD Report notes that this comparison provides a measure of 'affordability';[3] and

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1 I refer to these reports as my First Report, Second Report, Third Report and Fourth Report, respectively. I also use short form notation for cross references to my reports as appropriate. For example GH1: 1.5 refers to the fifth paragraph in section 1 of my First Report.

2 OECD Report: 11.

3 See for example, OECD Report: Annex 3. This was also noted in the presentation give to the Commission on 17 February (the "**OECD Presentation**"). OECD Presentation: slide 5.

(2) an evaluation of cost drivers of hospital prices such as admissions, length of stay and the components of cost.[4]

1.3 In summary, the Authors concluded, *inter alia*, that private hospital prices in South Africa are high and increasing and that some form of price regulation may be appropriate. On 17 February 2016, the Commission was presented with the findings of the OECD Report.

1.4 **[Confidential]**.[5] In addition to this analysis, I have reviewed submissions made by the Commission and third parties and discussed these in my First, Second and Third Reports. In this report, I set out my views on the OECD Report. None of these submissions cause me to reconsider my conclusion above.

My instructions

1.5 I have been instructed by Nortons to review the OECD Report and provide my views on the conclusions reached by the Authors that fall within my expertise. Broadly speaking this relates to point (1) of paragraph 1.2 above, the comparison between hospital prices and gross domestic product ("**GDP**").[6] Specifically, I have been asked to consider:

(1) the methodology used by the Authors to conclude that prices are 'high' and to consider what further analysis would be required for such a conclusion to be drawn;

(2) whether the authors should have considered further information before concluding that that some form of price control regulation may be necessary; and

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4 It is important to note that although the OECD Report states that it evaluates the cost drivers of hospital prices, it only examines some possible drivers of cost and acknowledges others that it has not considered in detail (such as the cost of medical consumables), but does not actually consider the underlying costs of any of these drivers.

5 **[Confidential]**. My Second and Third Reports provided responses to reports by third parties and the Commission, respectively. I also considered the Genesis Report in my First Report.

6 GDP is a measure of the aggregate value of all finished goods and services produced and provided in a country in a particular time period.

(3) [**Confidential**]

1.6 I have been instructed to provide my views alongside Margaret Guerin-Calvert ("**Ms Guerin-Calvert**"), also a Senior Managing Director in FTI Consulting and the President of the Center for Healthcare Economics and Policy. Ms Guerin-Calvert's report will also consider some of the issues set out in point (1) of paragraph 1.2 above. Specifically, Ms Guerin-Calvert will consider the econometric analysis performed by the Authors, the data issues associated with the comparisons and the potential biases of the data used and the analysis performed. Additionally, Ms Guerin-Calvert will also consider the various issues related to point (2), the evaluation of cost drivers of hospital prices such as admissions, length of stay and the components of cost. Consequently, this report should be read in conjunction with Ms Guerin-Calvert's report.

Sources of information

1.7 I set out a full list of the sources of the additional information that I have used in Appendix 1. I attach exhibits to this report in the form "Ex GH5-[x]".

Restrictions

1.8 This report must not be construed as expressing opinions on matters of law, which are outside my expertise. I am instructed to act as an expert witness on economic and financial issues and not a witness of fact. This report has been prepared solely for the benefit of Netcare for the purpose described in this introduction. In all other respects, this report is confidential. It should not be used by any other party for any purpose, reproduced or circulated, in whole or in part, by any party without my prior written consent.

1.9 FTI Consulting and I accept no liability or duty of care to any person other than Netcare for the content of the report and disclaim all responsibility for the consequences of any person other than Netcare, acting or refraining to act in reliance on the report, or for any decisions made or not made which are based upon the report.

1.10 It should not necessarily be construed that I agree with any particular part of the OECD Report, which I have not commented on. The views expressed in this report should be considered together with those included in the expert report of Ms Guerin-Calvert. I understand that Nortons have requested the underlying data used in the OECD Report, however, the Authors have declined to disclose this to either Nortons or the Commission. Therefore, neither I, nor the Commission, are able to fully consider the OECD Report and its associated analysis for error, completeness, or its sensitivity to alternative reasonable input data. As it is not possible for the Commission or me to fully

test the OECD Report's analysis, and notwithstanding the comments I make in this report, I consider that less weight should be placed on the OECD Report's conclusions.

Preparation of my report

1.11 I have prepared this report, assisted by FTI Consulting staff working under my direction and review. Specifically, I have been assisted by Navin Waghe and Dr Timothy Gardiner.[7] However, the opinions expressed in this report are my own. My views should not be regarded as representative of any other person within FTI Consulting. This report is based on information made available to me at the time of writing of the report. Except where indicated, the information presented in this report has not been subject to independent audit or verification by FTI Consulting or me. I reserve the right to reconsider the conclusions in this report should further information be made available to me in the future. However, I accept no responsibility for updating the report or informing any recipient of the report of any such new information.

Structure of this report and summary of my conclusions

1.12 In **Section 2**, I consider the methodological basis of the OECD's comparative price calculations from an economic perspective. The OECD Report does not make an assessment of economic costs and focusses instead on what it terms 'affordability'. For the purposes of assessing whether prices are high in a competition inquiry, one would expect prices to be reflective of the costs that are incurred to provide the good or service. Therefore, the appropriate way to determine whether a price of a good or service is high or excessive is to compare the price to the total economic cost of providing that good or service.[8] It is only when prices across a market significantly and persistently exceed total economic cost that one can make a finding of excessive prices. As the OECD Report does not make any such assessment **I find that the analysis contained within the OECD Report does not support a conclusion that private hospital prices in South Africa are high** from an economic or competition

[7] Mr Waghe and Dr Gardiner are both part of the Economic and Financial Consulting practice of FTI Consulting. Mr Waghe is a Managing Director and has significant experience assisting in regulatory and market investigations including providing expert evidence in front of regulatory and competition panels in the UK. Mr Waghe is also a Fellow of the Institute of Chartered Accountants in England and Wales. Dr Gardiner is a Senior Director and also has significant experience assisting in regulatory and market investigations. He is also a member of the Institute of Chartered Accountants in England and Wales.

[8] GH1: 3.3 et seq.

perspective. [**Confidential**].[9]

1.13 In **Section 3**, I consider the Authors' conclusion that price regulation is required in response to these 'high' prices. Specifically, I consider the conclusions of the Competition and Markets Authority (the "**CMA**") in the UK private healthcare market inquiry with respect to price control regulation in the private hospital market. In the UK, the CMA raised a number of concerns regarding the implication of price control regulation in the UK. **The CMA concluded that it would be difficult to implement price regulation and that it would be unlikely to be an effective remedy**. The OECD Report and the Commission do not appear to have considered any of these concerns.

1.14 [**Confidential**].

9 [**Confidential**]

10 [**Confidential**]

2. The OECD Report's comparative price calculations

Introduction

2.1 The OECD Report contains a comparison of private healthcare prices and GDP in South Africa to public and private healthcare prices and GDP in a number of OECD countries.[11] From this comparison the Authors conclude that private hospital prices in South Africa are 'high'.[12]

2.2 The OECD Report is an assessment of affordability (i.e. whether price levels are affordable to a broad base of the population), the Authors stating that they have:[13]

> *"looked at affordability from a price level perspective by comparing hospitals and GDP price levels across countries"*

2.3 The Authors do not provide any context to the report. For example there is no explanation as to how the report relates to the healthcare market inquiry or the rationale for its production. Nor do they state what relevance an affordability study has for the purposes of a competition inquiry.[14] It is important that a high level assessment of affordability is not confused with the more appropriate detailed economic assessments that should be considered as part of a competition inquiry.

2.4 Economic theory as well as regulatory and legal precedent states that to determine whether prices (and profits) are high one must compare prices to economic costs. Any observed differences should then be compared to an appropriate benchmark and then consideration given as to whether the excess of price over cost (if any) is sufficiently large to warrant further investigation. The OECD Report does not do this. The affordability assessment performed by the Authors is therefore irrelevant from a competition economics perspective.

2.5 Notwithstanding the relevance of this analysis to this investigation, when performing such analysis, care needs to be taken to ensure that the financial data used is robust and fit for purpose otherwise inappropriate conclusions may be drawn. Ms Guerin-

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11 OECD Report: 2, Sections 7 and 8.

12 OECD Report: 5.

13 OECD Report: Annex 3.

14 OECD Report: Annex 3, OECD Presentation: Slide 5, and also a 'frequently asked questions' document also submitted to the Commission (the "**OECD FAQ**"), paragraph 6.

Calvert discusses in her report that there are a number of data and methodological issues with the OECD Report's affordability analysis. For example, Ms Guerin-Calvert notes that the comparison of private hospital prices in South Africa with data from public and private providers may lead to biases in their analysis. I further understand that Netcare has also made several submissions to the Commission in relation to the affordability of private hospital care in South Africa, as well in its presentation to the Commission.

2.6 In this section I:

(1) describe the affordability analysis performed by the OECD;

(2) summarise the economic theory on how prices and profits should be considered from a competition perspective; and

(3) set out relevant precedent from South Africa and elsewhere on the assessment of prices from a competition perspective.

The analysis performed by the OECD

2.7 The OECD Report states that it "*aims to conduct a comparison of price levels for private hospital services in South Africa with hospital services in the public and private sector in a selection of OECD countries*".[15] It is important to note that in performing this comparison, the OECD Report appears to be concerned with whether the prices charged are 'affordable' to a broad section of the population rather than assessing whether prices are high or excessive from the perspective of a competition inquiry. That is, the assessment is a relative comparison, without considering the specific costs incurred in the provision of private healthcare or whether these are comparable between South Africa and the other countries.

2.8 The Authors further note that their assessment is not specific to healthcare prices, but instead the relative proportion of these prices compared to aggregate prices in the economy. The Authors state that one of the objectives of the study is to:[16]

> *"Estimate affordability of hospital services in comparison with general goods and services"*

2.9 For their affordability study the Authors perform four sets of analysis:[17]

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15 OECD Report: 2.

16 OECD Presentation: Slide 5.

17 OECD Report: Section 7 and 8.

(1) a comparison of South African private hospital prices to public and private hospital prices in two sets of OECD countries. The first set being a group of 20 OECD countries (the OECD countries for which the Authors had sufficient data),[18] and a second group consisting of the seven lower income OECD countries included in the group of 20 countries.[19] For these analyses, the Authors generated a relative price scale where 100 equals the average price across the comparison set. The price level for South Africa was then compared to the average in each set. The Authors note that South Africa's private hospital prices ranged from 94 to 108, when compared to the OECD's 20 country set. That is, they were approximately the same as the average of the OECD's 20 country set. The Authors noted that private hospital prices in South Africa, when compared to the OECD's seven country set, were almost double the average of the lower income for that dataset (they ranged from 189 to 195);[20]

(2) a comparison of South African GDP price levels and GDP per capita on a purchasing power parity basis ("**PPP**") to the averages of each of the two sets of OECD countries.[21] From this analysis the Authors note that GDP price levels and GDP PPP per capita are much lower (approximately 40% to 70% lower, respectively) in South Africa than the averages in both sets of comparators;[22]

(3) a simple regression to determine whether there is a correlation between GDP PPP per capita and comparative private hospital prices. (No regression was performed comparing GDP price levels to hospital price levels.) The Authors concluded that there is a strong correlation between GDP PPP per capita and hospital price levels; and

(4) a comparison of the difference of both private hospital price levels and GDP price levels from the OECD 20 country set averages. In this analysis the Authors rank each country by its comparative GDP price level and show the difference between the comparative hospital price level and the average of the set. The Authors concluded that South Africa, despite having average prices, is the only

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18 OECD Report: 44.

19 OECD Report: 46.

20 OECD Report: 45 and 46.

21 GDP measures the total value of goods and services produced and provided within an economy. 'Per capita' is an expression of GDP per person, therefore this takes into account differences in the size of a country for comparative purposes. GDP measured on a PPP basis is GDP converted to a common currency (in this case USD) and adjusted to take account of the different purchasing power of each currency. GDP price levels are the ratios of GDP PPP to exchange rates.

22 OECD Report: 45 and 46.

lower income country that shows a comparative hospital price level substantially higher than the GDP price level.[23]

2.10 Below I discuss (1), (2) and (4) above. As discussed in Section 1, Ms Guerin-Calvert considers the Authors' regression analysis (i.e. (3)) in greater detail.

2.11 The table below sets out the comparison of relative prices and relative GDP price levels calculated by the Authors (100 equals the average for that sample). The OECD Report implies that one would expect to see comparative private hospital prices at a similar level to GDP price levels.[24]

Table 2-1: OECD Report relative prices and relative GDP price levels

	2011	2012	2013
OECD 20 country comparator set			
Comparative price level	108	103	94
GDP (price levels)	62	62	53
OECD 7 country comparator set			
Comparative price level	195	189	192
GDP (price levels)	85	86	74

Sources: OECD Report Table 8 and Table 9.
Note: South African private hospital price levels as estimated by the OECD declined by 10% from 103 to 94 between 2012 and 2013 and comparative GDP price levels also declined significantly. I note that Dr Van Gent, a member of the Health Market Inquiry Panel, requested an explanation from the Authors for such volatility, as this would not be expected in such an exercise.[25] The Authors were unable to provide an adequate explanation to Dr Van Gent for this decline in relative prices.

2.12 From their analysis the Authors conclude that:[26]

> *"Hospital price levels in South Africa have exceeded general price levels to a greater extent compared to other countries in this study reporting similar levels of GDP per capita. This indicates that hospital services are less affordable compared with the other countries in this study."*

23 OECD Report: 47 and 49.

24 OECD Report: 47.

25 Transcript from 17 February 2016 hearing, page 183 et seq.

26 OECD Report: 50.

2.13 Furthermore, they state that some form of price control regulation therefore appears justified.[27] The implicit conclusion drawn by the Authors of the OECD Report is that private hospital prices are excessive (or as they say 'high') and that price regulation would lead to lower prices.

2.14 Ms Guerin-Calvert discusses in detail a significant number of issues with the comparisons performed by the Authors, including that data is not comparable between South Africa and the other countries, that they are not like-for-like private sector to private sector comparisons, and that such comparisons are inappropriate between countries where there are large income disparities. Ms Guerin-Calvert further notes that a previous OECD working paper stated that some of the comparators used had large hospital deficits indicating that prices established by the government or payer are substantially below costs of delivering service, and that there is missing data that inappropriately understates prices in a number of countries. This will act to bias the OECD Report's analysis and conclusions.

2.15 Notwithstanding these data issues, I discuss below the economic theory of why such an affordability study has limited relevance to a competition inquiry. I then also set out the regulatory and legal precedent in South Africa and elsewhere that is relevant to how prices should be considered in a competition setting.

The OECD Report's analysis of prices is flawed because it does not consider the costs of private hospital provision

2.16 As I explain in my First Report, and as appears to have been accepted by the Commission in its published profitability methodology (the "**Commission's Profitability Paper**"), it is necessary to assess whether prices and hence profitability are excessive by reference to the total economic costs of providing that good or service. Then, in comparison to a relevant benchmark, one must consider whether the excess of price over economic cost, if any, is sufficient to justify a competition concern.[28] In this subsection, I first explain why prices are usually reflective of their costs to provide the good or service and then explain why certain costs may vary in South Africa as compared to other OECD countries, which may bias the OECD Report's conclusions.

Price should be a function of economic costs

2.17 Economic theory tells us that the price of a good or service will be related to the economic costs (i.e. the operating and capital costs) of providing that good or service

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27 OECD Report: 5.

28 GH1: 3.3. to 3.7. Commission's Profitability Paper: 2.1.1. Note that the Commission states that the appropriate measures of profitability are the ROCE and TIRR methods and that these are to be calculated on an economic cost basis, not an accounting cost basis.

(although there are reasons unrelated to competition concerns why a firm can generate returns above economic cost, for example through innovation or increased efficiency).[29] Put simply, the price of a good or service should be reflective of the costs of provision plus a suitable return to the providers of capital and this is recognised by competition and regulatory authorities.

2.18 In a competitive market, the higher the costs involved in providing a good or service, the higher the price will be and vice versa. If a firm cannot cover its economic costs, then it will cease to provide that good or service and eventually exit the market. Therefore, from a purely logical position, it is clear that one has to consider the total underlying costs of provision of private healthcare to make any assessment on whether the price is relatively high, or not.

2.19 I note that the Authors do acknowledge that costs should be considered stating:[30]

> *"…analysis of hospital cost is required to fully understand the underlying drivers of such price increases."*

2.20 The OECD Report does not, however, make any assessment of economic costs either on a comparative level or in absolute terms. That is, the Authors do not consider whether costs are relatively or absolutely higher in South Africa as compared to the comparator countries. Instead the implicit assumption made by the Authors is that costs of private healthcare provision should be directly proportional to GDP.[31] The Authors do not provide any evidence or analysis to support this assumption. GDP is a measure of the aggregate value of all finished goods and services in an economy, and therefore such an assumption is very high level and is unlikely to hold for many goods or services across all markets. A correlation between a sample of countries' GDP and private healthcare prices is at best an indicator of where further investigation may be required before any conclusion should be reached.

Reasons why costs and hence prices may vary between jurisdictions

2.21 There are many reasons why costs for similar services, such as private hospital care, might vary between different jurisdictions. These reasons may include:

(1) differences in the input prices of consumables (e.g. medical and surgical consumables);

(2) energy;

(3) labour costs;

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29 GH4: 3.84.

30 OECD Report: 69.

31 OECD Report: 47.

(4) taxation;

(5) subsidy by the state (either directly or through running of deficits);

(6) the relative size and bargaining power between the public and private providers where the state may procure services from the private sector etc.; and

(7) the structure of the market and specific issues within that market, e.g. the burden of disease, the age of the population or the costs of intermediate goods such as drugs or surgical consumables.[32]

2.22 Without considering each of these potential differences, it is not possible to make any comparative assessment on prices and whether such prices could be regulated at a lower level.

2.23 Consequently, there is no reason why the economic costs of providing a good or service should be the same between different jurisdictions, either on an absolute basis or on a relative basis proportional to the GDP of the country where the good or service is sold. One would therefore expect that prices and relative prices may also differ significantly between jurisdictions.

2.24 The Authors do appear to acknowledge that there is likely to be a difference between the underlying costs between providers in different countries, but do not consider the magnitude of these or whether there is a significant difference. By way of example, the OECD FAQ states that in relation to medical consumables the prices of imported supplies could affect prices:[33]

> *"Pharmaceuticals and medical devices are important components of hospital prices – in addition to operational costs, human resources (i.e., nurses, support and administrative staff), specialist fees, and hospital capital and profits. Therefore, the prices of imported medical commodities could explain part of the price but not all of it."*

2.25 In their evidence to the Commission, Netcare noted that medical consumables are often significantly more expensive in South Africa than in other markets that it operates such as the UK and that this may explain at least part of any price differential observed

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32 I note that the OECD Report does appear to acknowledge that there are important differences between the structure of the South African private health care system and private health care in other OECD countries. For example, the OECD appears to note that in South Africa, individuals who utilise the private health care system generally make exclusive use of the system, while, as the OECD acknowledges, in many European countries individuals only use private healthcare for top-up or specialist services. See OECD Report: 12.

33 OECD FAQ: Section 7.

by the OECD.[34] Netcare presented the difference in price for ten commonly used drugs between the UK and South Africa. Of these:[35]

(1) two drugs were slightly more expensive (2% to 26%) in the UK than South Africa;

(2) the remaining eight ranged from 7% to almost 2000% more expensive in South Africa; and

(3) of these eight, five were significantly greater than 100% more expensive in South Africa than the UK.

2.26 All else being equal having more expensive medical consumables will lead to higher comparative prices. If Netcare were able to procure such consumables at a price that was comparable to that in the UK, it would be likely to have lower comparative prices. This is not explored in the OECD Report. **[Confidential]**.[36] Without considering how such material costs affect prices the OECD's conclusions are, at best, premature and speculative.

Precedent on the assessment of economic costs in competition inquiries

2.27 As set out in paragraph 8.29 of my First Report and paragraph 3.88 of my Fourth Report there is significant regulatory and legal precedent in South Africa and in the EU for comparing prices to economic costs in the context of competition inquiries. Specifically in South Africa, the Competition Appeal Court stated in *Mittal Steel South Africa vs Harmony Gold Mining Company* that the definition of an excessive price requires four key enquires to be made:[37]

(1) the determination of the actual price of the good or service in question and which is alleged to be excessive;

(2) the determination of the 'economic value' (i.e. the economic cost) of the good or service expressed in monetary terms, as an amount of money;

(3) if the actual price is higher than the economic value of the good or service, is the difference unreasonable or, to put it in another way, is there 'no reasonable

34 Netcare Presentation: slides 36, 85 and 86.

35 Netcare Presentation: slide 86.

36 **[Confidential]**.

37 Ex GH4-41: *Competition Appeal Court of South Africa, Mittal Steel South Africa Ltd vs Harmony Gold Mining Company*, paragraph 32.

relation' between the actual price and the economic value of the good or service; and

(4) is the charging of the excessive price to the detriment of the consumers?

2.28 Additionally, these criteria were further explored in the case between *Sasol Chemical Industries vs the Competition Commission*. In this case, the Competition Appeal Court determined that:[38]

> *"A price which is significantly less than 20% of the figure employed to determine economic value falls short of justifying judicial interference in this complex area."*

2.29 That is, the Competition Appeal Court determined that a price must be *at least* 20% above economic costs before interference by the court may be justified. Put another way, it is not possible to determine whether a price is excessive unless one has considered the economic cost of providing the good or service and then also considered whether the difference between price and economic cost is significantly greater than an appropriate benchmark. In this case whether prices are greater than 20% above economic costs.

2.30 This South African precedent is consistent with that applied by competition authorities elsewhere. For example, in the EU, in the *United Brands* case, the European Court stated that simply comparing prices was an insufficient basis to conclude that the higher price was 'excessive'. The European Court noted that the European Commission considered that:[39]

> *"Having found that the prices charged to ripeners of the other Member States were considerably higher, sometimes by as much as 100%, than the prices charged to customers in Ireland* [the European Commission] *concluded that UBC was making a very substantial profit."*

2.31 However, notwithstanding this observation, the European Court did not agree that the European Commission had provided sufficient evidence to warrant a finding of excessive pricing.[40] Instead a detailed analysis of costs would be required before any judgement of excessive prices could be reached and that one had to ask:[41]

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38 Ex GH4-6: *Sasol Chemical Industries vs the Competition Commission, paragraph 175.*

39 Ex GH5-1: Case 27/76 United Brands v European Commission [1978] ECR, paragraph 260.

40 Ex GH5-1: Case 27/76 United Brands v European Commission [1978] ECR, paragraph 268.

41 Ex GH5-1: Case 27/76 United Brands v European Commission [1978] ECR, paragraph 252. The European Commission found the price charged by a monopolist excessive where it had "*no sufficient or reasonable relationship to real costs or to the real value of the service provided*", paragraphs 261 to 268.

> *"whether the difference between the costs actually incurred and the price actually charged is excessive, and, if the answer to this question is in the affirmative, whether a price has been imposed which is either unfair in itself or when compared to other competing products".*

2.32 Consequently, relevant precedent indicates that to determine whether a price is high in competition proceedings, one must compare prices to economic costs and then to consider whether the excess of prices above economic costs (if any) is greater than what one would expect to see in a competitive market.

Conclusion

2.33 I understand from Ms Guerin-Calvert that the comparative price analysis set out in the OECD Report is simplistic and has not taken into account many of the differences between the South African private healthcare market and the OECD Report's comparators. Additionally, I understand from Ms Guerin-Calvert that the data used is not comparable and hence any conclusions drawn from this analysis are likely to be biased, incorrect and misleading.

2.34 Notwithstanding these issues, from a competition and economic perspective, it is not possible to conclude that prices are high based on the analysis set out in the OECD Report. It is widely understood by both regulators and national courts and tribunals, including in South Africa, that a comparison of prices to economic costs is necessary to determine whether prices are high and then consider whether any observed difference (if any) is excessive. Simply looking at comparative price levels between different jurisdictions is insufficient. Moreover, such a comparison does not take into account market and geographical differences and whether there are structural differences in their cost bases that might explain differences in prices.

2.35 [**Confidential**].[42] [**Confidential**].

42 [**Confidential**].

3. The CMA's views on price regulation in private hospitals

Introduction

3.1 The OECD Report concludes that because prices are high in comparison to South Africa's GDP per capita, that private hospital prices should be regulated and that "*policies to control price increases*" are needed.[43] Notwithstanding, the conceptual issues with this analysis, in my experience and with reference to precedent I consider that it would be inappropriate to suggest such a remedy based on the existence of 'high' prices alone.

3.2 For instance, in the UK private healthcare investigation the CMA considered price regulation and had regard for a number of factors, including whether the remedy would be practicable, effective and feasible. The Authors do not appear to have considered such issues and present no discussion or analysis to support their view. I consider that, at a minimum, the Commission should have regard for the issues considered by the CMA in the UK. I summarise these in this section.

The UK private healthcare market inquiry

3.3 In recent years the CMA has considered the level of competition in the UK private hospital market. As part of its inquiry the CMA ruled out any possibility of introducing price regulation in the UK for private hospitals where competitive concerns were found. Although there are differences between the UK and South African markets, the reasons given are still informative as to why such regulation may not be appropriate in South Africa. The CMA noted that:[44]

(1) it would be very difficult and costly to set up price control regulation in the UK market whether in the form of a reference tariff or by comparison to charges levied by similar hospitals. I would expect that similar difficulties would be encountered in the South African market;

(2) it may be vulnerable to circumvention, in that hospitals subject to such a cap would be incentivised to reduce the quality of the service they provide. Reducing

43 OECD Report: 5.

44 Ex-GH5-3: 38 onwards

prices and the inability to remove costs is likely to have a quality of service impact;[45]

(3) it may discourage innovation and the introduction of new and better treatments and procedures. Again this would lead to lower quality over time. In addition, the potential filtering through of ideas and techniques from the private sector to the public sector would also be affected;

(4) it would discourage new entry. From a competition perspective, one would want to encourage entry into the market, not discourage it; and

(5) a price control regime would require the provision of some form of adjudication in the event of disputes and would be likely to have unintended consequences and perverse incentives.[46] I note that for example, in the UK, incentives were misaligned in the regulation of Railtrack, the monopoly owner of track, signalling, tunnels, bridges, level crossings and most stations in Britain between 1994 and 2002. This led to insufficient investment in British rail infrastructure, which may have contributed to a number of railway accidents. Ultimately Railtrack was put into administration.

3.4 Additionally, the CMA considered whether a "light-touch" regime could be implemented, whereby prices would be decreased by a set percentage in each year.[47] The CMA considered this would be easier to set up than a full price control regime, however, it would not alleviate the other market distortions set out above and could, at best, only work for a very short period of time before generating significant competitive distortions.

Conclusions

3.5 In the UK, the CMA did not consider that price regulation would be effective at increasing competition. Instead, they found that regulatory intervention would be difficult and costly to implement, as well as lead to perverse consequences reducing innovation and discouraging entry. Similar issues would be likely to arise in South Africa.

45 I explore the ability to remove costs further in Section 4 below.

46 Ex-GH5-4: 83.

47 Ex-GH5-3: 42.

4. Financial impact of restricting revenues to a 'comparative OECD price level' on the South African private hospital market

Introduction

4.1 In my experience, a key issue for regulators and market authorities when considering appropriate regulatory frameworks is the consideration of the financial viability of incumbent operators. Introducing regulation that could threaten the financial sustainability of firms operating within a sector will not act to increase competition if such regulation causes many operators to become financially distressed and exit the market (leading to negative externalities on consumers). Therefore, in considering the implementation of price regulation I would expect that robust financial viability analysis would have been performed. Such analysis does not appear to have been considered or performed by the Authors in the OECD Report.

4.2 Consequently, and notwithstanding the conceptual and methodological errors in the OECD Report discussed above and in Ms Guerin-Calvert's Report, I have been instructed to consider the financial impact on the private hospital market in South Africa of the OECD Report's conclusions. Given the time available to produce this report and the complexities involved in performing this analysis I have been asked to assess the impact at a high level.[48]

4.3 The OECD Report suggests that private hospital prices should be set at a level such that they are broadly proportional to GDP. Under this view, a richer country should charge proportionately higher prices than a poorer country for the provision of the same service, regardless of the underlying economic costs incurred. I discussed in Section 2 why this is inappropriate and how the underlying costs may also differ significantly.

4.4 [**Confidential**]

[48] Specifically, given the significant cost, time and data constraints associated with a full financial sustainability assessment of the private hospital market in South Africa. I have not performed certain types of analysis such as: time and motion studies to determine the fixity of each of Netcare's costs; efficiency benchmarking analysis to determine whether costs are efficient and whether they could be reduced to maintain profitability in the event of price regulation; and detailed econometric analysis to determine how demand changes with changes in prices.

[**Confidential**].

Adjusting Netcare's revenues to a comparative OECD average

4.5 As noted in Section 2, the OECD Report sets out a number of different comparative analyses between price and GDP. These include:

(1) comparisons of hospital prices;

(2) comparisons of each country's GDP price levels and GDP PPP per capita; and

(3) a regression analysis to consider the correlation between GDP on a PPP basis and private hospital relative price levels.[49]

4.6 The OECD Report's regression analysis comparing GDP PPP per capita to relative hospital prices would imply that a country with a GDP per capita of less than USD 15,000 (such as South Africa, which Table 8 of the OECD Report indicates has a GDP PPP per capita of approximately USD 13,000), should have a negative or zero comparative price level. A zero or negative price level is clearly nonsensical and indicates significant problems with the OECD Report's assumptions and analysis. [**Confidential**].

4.7 Economic theory tells us that all else being equal, a decrease in price will typically lead to an increase in demand and vice versa. Therefore, if private hospital prices were lowered then one would expect there to be an increase in the number of users of these services (i.e. an increase in 'volume') and if prices were increased, there would be fewer users of private hospitals (a decrease in volume). The relative effect on demand of a price change is typically referred to as the elasticity of demand.

[49] OECD Report: Figure 5. The fourth piece of analysis set out in paragraph 2.9 above is effectively a combination of parts of the analysis performed in (1) and (2).

4.8 Different goods and services are affected by changes in prices and demand in different ways and the effect of any change is usually driven by a large number of variables. Consequently, a decrease in price will not necessarily lead to a commensurate offsetting increase in volumes. Determining the price elasticity of demand of private hospitals would involve significant amounts of analysis, which given the limited amount of time available to me to produce this report, I am unable to perform. The impact of price changes on demand also has to be considered in the context of whether there is sufficient available capacity to absorb any increased demand. In addition, the overall nature of the market needs to be considered (i.e. private hospitals account for only a portion of total medical scheme contributions, so one would also need to consider the effect of demand on medical scheme uptake as a whole, rather than just private hospitals in isolation).

4.9 Given that I have not estimated the price elasticity of demand, I present my calculations below assuming constant volumes.[50] [**Confidential**].

Table 4-1: Calculation of the 'adjustment factor' to apply to Netcare's revenues

	2011	2012	2013	Average
Comparative price level	108	103	94	102
GDP price level	62	62	53	59
Adjustment factor	**57%**	**60%**	**56%**	**58%**

Sources: OECD Report: Table 8. Note: adjustment factors using GDP per capita on a PPP basis would be approximately 30%.

4.10 [**Confidential**].

50 Assuming constant volumes is likely to overstate any impact because, as discussed above, the price reduction is likely to have an impact on volume levels.

Table 4-2: [Confidential]

4.11 **[Confidential]**.[51]

Netcare's cost categories

4.12 I have also considered how Netcare's costs might be affected by a reduction in prices. Costs can typically be considered variable or fixed. Variable costs are those that will change with changes in volumes (e.g. a 10% increase in volume leads to a 10% increase in a particular cost). Fixed costs do not vary with changes in volume in the short term.

4.13 It is important to note that costs do not vary directly with prices, however if price changes affect volumes then it is likely there will be an effect on variable costs. For example, if reduced prices resulted in increased volumes, then that would lead to additional variable costs being incurred. These incremental costs would mitigate the effect on profits of the additional revenue generated through additional volumes. The degree to which costs will change as volumes change is dependent on the variability of the relevant cost base.

4.14 **[Confidential]**.

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51 **[Confidential]**

[**Confidential**]

[**Confidential**]

4.15 [**Confidential**].[52]

Figure 4-1: [Confidential]

(1) [**Confidential**]

(2) [**Confidential**]

(3) [**Confidential**]

52 [**Confidential**].

[**Confidential**].[53]

4.16 [**Confidential**]

[**Confidential**]

4.17 [**Confidential**]

4.18 [**Confidential**]

(1) [**Confidential**]

(2) [**Confidential**]

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53 [**Confidential**]

54 [**Confidential**]

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56 [**Confidential**]

[**Confidential**].[57] [**Confidential**] .[58] [Confidential].

4.19 [**Confidential**]

4.20 [**Confidential**]

Table 4-4: [Confidential]

4.21 [**Confidential**]

[57] [**Confidential**]

[58] [**Confidential**]

Table 4-5: [Confidential]

4.22 **[Confidential]** [59]

4.23 **[Confidential]**

4.24 **[Confidential]**

[59] **[Confidential]**

[**Confidential**].[60] [**Confidential**].

4.25 [Confidential].[61] [Confidential].[62]

4.26 [**Confidential**]

[**Confidential**].[63]

Conclusions

4.27 [**Confidential**]

[60] [**Confidential**]

[61] [**Confidential**]

[62] [**Confidential**]

[63] [**Confidential**]

[**Confidential**].

4.28 [**Confidential**].

4.29 [**Confidential**].[64] [**Confidential**].

64 [**Confidential**]

Appendix 1
Sources of information

Sources of information

Exhibit	Description
Ex GH5-1	Case 27/76 United Brands v European Commission [1978] ECR
Ex GH5-2	My calculations
Ex GH5-3	CMA, Private Healthcare Remittal – Notice of Possible Remedies, November 2015
Ex GH5-4	CMA, Notice of possible remedies under Rule 11 of the Competition Commission Rules of Procedure